

COMMISSION OF THE EUROPEAN COMMUNITIES

COM(92) 309 final

Brussels, 15 July 1992

PROPOSAL FOR A COUNCIL DECISION CONCERNING SUPPLEMENTARY FINANCING OF THE THIRD FRAMEWORK PROGRAMME OF COMMUNITY ACTIVITIES IN THE FIELD OF RESEARCH AND TECHNOLOGICAL DEVELOPMENT (1990 TO 1994)

(presented by the Commission)

EXPLANATORY MEMORANDUM

Introduction

1. The next two years 1993 and 1994 are critical for Community research and technological development. They are the last two years of the Third Framework Programme for Community activities in the field of research and technological development (1990 to 1994); but 1994 will at the same time be the first year of the Fourth Framework Programme. There is a problem of keeping both in phase as the procedures for deciding the fourth are notably more ponderous. There are also important financial aspects. The current financial perspectives expire at the end of this year. The new perspectives have still to be settled. It is in the interest of the Community to avoid any deceleration and delay in its research and technological development activity.
2. The Third Framework Programme introduced the principle of "rolling" framework programmes which have resulted in some major benefits. With respect to the Second Framework Programme, continuity has been ensured, financial planning could be stabilised, priorities have been reoriented in the light of current research experience and of evolving needs. In this approach, the financing under the Third Framework Programme was designed to decrease in 1993-1994 in order to be taken up by the Fourth Framework Programme.

At the time of the adoption of the Third Framework Programme, it was agreed that "as regards the implementation of the Framework programme in 1993 and 1994 provision should be made for the amount deemed necessary and the continuity of research activities should be ensured" (antepenultimate preambular paragraph of Council Decision 90/221/Euratom EEC of 23 April 1990). This scenario according to which a Fourth Framework Programme (1993-1997) would have overlapped smoothly with the Third Framework Programme can at best now only be realised to a very limited extent. Taking into account the financial provisions of the Third Framework Programme for the period 1993-1994 and the timescales within which a Fourth Framework Programme can realistically be expected to be implemented, a considerable drop in annual research and technological development expenditure can be identified which would have negative consequences.

3. The Commission has examined and assessed progress in carrying out the Third Framework Programme and made an evaluation of all the specific programmes implemented under the Second Framework Programme (SEC (92)675 of 22 April 1992). It has presented its position in the communication of 9 April 1992 entitled "Research after Maastricht : an assessment, a strategy" (SEC(92)682). In part C of Chapter IV ("Linking decisions for 1993-1994") the Commission has suggested a solution based on a supplementary financing of the Third Framework Programme. The Commission has added that "to be practically applicable, an operation of this type must not imply modifications of the specific programmes, but must be limited to an increase of the total financial allocation, accompanied by a redistribution of the complementary resources between the specific programmes". The Council of Research Ministers, having discussed this matter, in its conclusions at its meeting on 29 April 1992 "invited the Commission to present to the Council as soon as possible its proposals concerning the Fourth Framework Programme and, if necessary in order to avoid a gap of financial resources, the Third Framework Programme, taking into account the evaluation of the Second Framework Programme, the need to ensure continuity of research activities and in the light of the discussions in the Council". The European Parliament has on many occasions stressed the need for adequate financing of Community research and technological development activities.

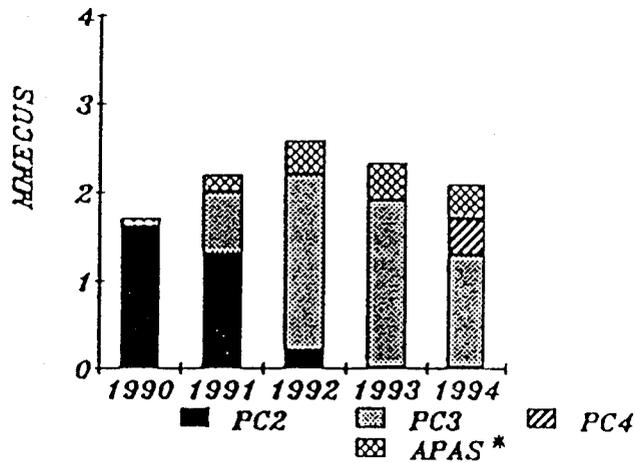
The amounts the Commission has determined for the supplementary financing required are well covered by the financial perspectives 1993-1997 which are currently under discussion. As was the case for the years 1993 and 1994 when the Third Framework Programme was adopted, a decision can be taken for supplementary financing for these same two years in advance of a final agreement on the financial perspectives.

The Current situation

4. The commitment credits for the Third Framework Programme are as follows:

	1991	1992	1993	1994	TOTAL
MECU	296.402	2 203.173	1 952.200	1 247.800	5 699.575

The profile of R&D commitment credits for research and technological development for 1993 and 1994, under optimistic assumptions regarding the adoption and start of implementation of the Fourth Framework Programme in 1994, is shown in the diagram below.



* See paragraph 11

5. The diagram shows a clear discontinuity, with a trough in 1993 and, most markedly, in 1994 which is likely to cause disruption in the Community's research and technological development effort. Action is needed to restore a natural budgetary rhythm which is essential for two reasons : to ensure continuity, and to ensure a natural evolution within the existing programmes. The Commission has presented, in an Annex to its communication of 9 April 1992 mentioned above, the facts concerning the implementation of the Third Framework Programme and, in particular, has described the situation of each specific programme.

6. A decline in Community research and technological development expenditure would have, as its inevitable result, the disbanding of cooperating teams and the loss of the added value that is generated by building on earlier research in a timely manner. In addition, a sudden change in this established level of Community research activity, even if it would be only in 1993 - 1994 and be followed by a new start in 1995, would impose a burden on national budgets for research and technological development, both public and private.

A financial complement, not a revision

7. For the supplementary financing of the Third Framework Programme, recourse must be had to a procedure never used until now. In the old, as well as the new version, the Treaty foresees "the Framework Programme may be adapted or supplemented as the situation changes" (paragraph 2 of Article 130 i). To be practical, such an operation must be realised in the framework of close interinstitutional concertation. In this context, the possibility to increase the resources of different specific programmes in a modular, rather than a linear, manner could also be discussed. The state of implementation, the assessments made, and consideration of points raised by other Community institutions lead to some readjustment, expressed simply by the breakdown of the amounts deemed necessary between the activities, while respecting fully the objectives, technical content and procedures decided under the Third Framework Programme.

8. Supplementary funding required for the completion of the Third Framework Programme must be guided by strict compliance with the principle of subsidiarity and by clear selection criteria. Increased funding may be justified only in this context. The guiding principles set out by the Commission in its communication entitled "Research after Maastricht : an assessment, a strategy" (SEC (92) 682) are of paramount importance. In particular, the need arises to concentrate resources on generic technologies of wide applicability to many users across the Community, upon which, in fact, the competitiveness of the whole European system depends. In this light important opportunities may arise from increased co-operation with Eureka, while naturally preserving the specific nature of each scheme. As was the case for the Third Framework Programme, the proposal for supplementary financing will also contribute to the strengthening of economic and social cohesion in the Community.

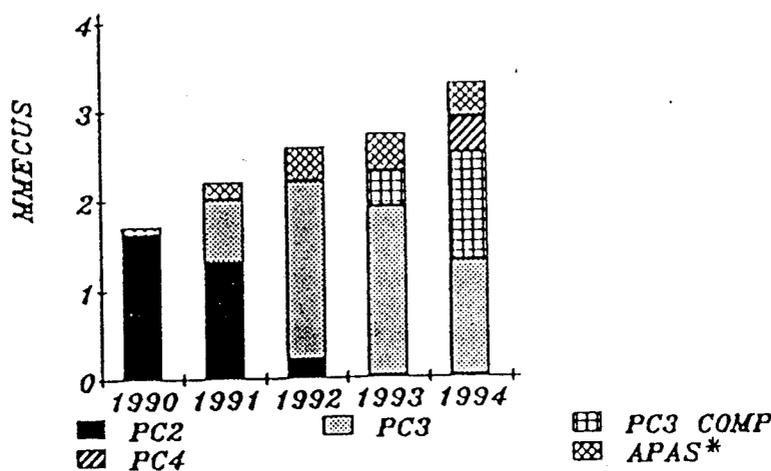
9. A careful screening of the situation for each of the six actions decided under the Third Framework Programme is, however, indispensable to determine the requirements objectively. Some areas will require bridging finance until the Fourth Framework Programme starts to be implemented. Other areas will only require support until they reach their foreseen conclusion. All actions must fall strictly

within the scope of the Decision on the Third Framework Programme.

10. It must be recalled that the Commission, at the time of the adoption of the Third Framework Programme, stated that a further sum of 2 billion ECUs would be necessary and that this amount should be added to the amount of 5.7 billion ECUs adopted by the Council. In particular, this supplementary financing would meet the further needs of the years 1993 and 1994.

11. A realistic assessment of the situation now leads the Commission to the view that this sum of 2 billion ECUs should include an important part of the "promotion, support and monitoring activities" ("actions de promotion, d'accompagnement et de suivi" - APAS) to be implemented in 1994. This inclusion would be in accordance with the provisions of the Treaty on European Union concerning the inclusion of all RTD activities in the Framework Programme and it is therefore the Commission's intention to integrate the APAS in the Fourth Framework Programme as from the start of its implementation.

12. Through this solution a further net sum of 1.6 billion ECUs should be added to the Third Framework Programme activities. Of this amount, 0.4 billion ECUs are in the provisional draft budget for 1993 and 1.2 billion ECUs will be in the budget for 1994.



* See paragraph 11

The situation for each of the actions

Information and communications technologies

13. The budget profile in terms of commitment credits for the specific programme **information technology** shows a decline already in 1993 and a sharp drop of credits in 1994. The first call for proposals was closed on 14 October 1991. 45 % of the proposals received were judged of high quality by external evaluators but it was only possible to retain about half of these (318). The corresponding contracts will be launched in 1992. These will amount to a budgetary commitment of 40% of the total available resources.

In order to avoid a financial gap and to ensure continuity as well as needed evolution, a financial complement is required in 1993 and 1994. Moreover, the financial complement will be necessary to increase emphasis on certain topics, such as software, semiconductors and high performance computing. In this context, as recommended by recent programme evaluations, the work will be focused on a smaller number of demand side needs and will at the same time contribute to related technology transfer and training throughout the Community.

The demand for research within this sector has been increasing both in quantity and quality. The electronics and information technology industries are continuously increasing their share of the industrialized countries' GDP. This share is predicted to grow from 6% in 1991 to about 8% by the year 2000. The pressure of research demand within the Community has been evident not only in the level of participation during the various calls for proposals, but also in the number of "bottom-up" proposals presented by industrial groupings which normally address generic technologies with long-term impact on international competitiveness.

In the Third Framework Programme the Community already committed its support to a major effort in microelectronics. New technology generations are now forecast every two and a half years. The Community cannot, at this moment of time, afford

to reduce its efforts. On the contrary, efforts need to be intensified and concentrated on application-specific integrated circuits based on CMOS-technology.

The central theme of information processing systems is the launch of a first phase including parallel architectures and software of the high performance computing and networking initiative. A continuing and timely support for the development and application of this technology is particularly urgent in view of the major US initiative, that is one of the key elements of a new national policy for fostering industrial and economic growth and will involve a major financial and organisational support from US public agencies (\$ 803 million in 1993), as well as a strong participation of both IT and telecommunication enterprises. In software a major effort is required in developing software platforms for heterogeneous systems and disseminating software methods and tools and providing training in their use.

The work on multimedia technology will require reinforcement. In peripherals, the work will concentrate on liquid crystal displays. For this technology the prerequisites set out in the Third Framework Programme, have been fulfilled, namely the industrial commitment to both concentration of R & D efforts and manufacturing.

14. The first call for proposals for the specific programme on **communication technologies** was closed on 14 September 1991. Among the proposals received, 50 % were judged of high quality by the evaluators. Only 95 of these could be retained for funding, amounting to a budgetary commitment of 63% of the total available resources.

The consolidation of the fragmented telecommunications system of the Community is needed, both to ensure that the single market operates effectively and in the context of the internationalisation of economic activities. Common functional specification and key technologies, particularly in optical communications, are being developed in EC R & D, in close collaboration between industry, operators,

services providers and users.

In the current situation, there is the danger of premature termination of successful R & D efforts in these areas. For this reason, it is considered appropriate to propose a limited supplementary funding which should ensure the continuity of on-going activities.

15. The programme **telematics systems of general interest** has succeeded in attracting the participation of leading-edge users in the development of advanced telematics services responding to socio-economic priorities, specifically in Public Administration, Health Care (including people with special needs), Transport, Education & Training, Rural Areas, Libraries and Linguistics. A call for proposals in the first five areas was issued 10 days after adoption of the programme by the Council in June 1991. 50 % of the proposals received were considered of high quality by the external evaluators, of which only half (144) have been able to be retained. Another 150 proposals were considered of high quality by the external evaluators but could not be retained for funding. Overall, the budgetary commitment of these projects amounts to 73% of the total available resources.

The results of the work so far and the independent evaluations make a clear case for a reinforcement of work in most of these areas. Due to the innovative character of the involvement of users in technological R & D, the initial funding was conservative and clearly insufficient to draw the full benefit from this programme. Budgetary constraints have limited the original scope of most pilot application projects to feasibility studies, and they address a more limited number of technical objectives than originally intended.

The Telematics Programme is at the cross-roads of technology development, the realisation of the four freedoms of movement in the single market, and the economic and social integration of Europe. Their integrated and sharply focused character, combined with a representative participation of the respective sector actors, has been recognised in the evaluation as appropriate also for the future

Community R & D in this domain.

Priority for supplementary funding will be given as follows: R & D on telematics systems for administrations, based on ISDN and the adaptation of Intelligence in Networks to provide a common service infrastructure for distributed administrative activities; R & D on telematics systems for air traffic control, as well as other traffic control systems in the field of transport.

Industrial and materials technologies

16. Two calls for proposals under the industrial and materials technologies programme are scheduled. The first one closed in April 1992. The second call is envisaged in October 1992 with a closing date in February 1993. The proportion of excellent proposals has been maintained (1 out of 2 submitted) but at the same time their rate of acceptance has fallen from 25% in 1989 to 14% in 1992 under the 1992 budget. Proposals selected for funding under the 1992 budget number 150 for a Community contribution of 240 MECUs. However, ensuring that all the very highest rated proposals from this first call can be covered will also require some 75% (130 MECUs) of the proposed 1993 budget. With final calls under the programme planned for early 1993, the danger is already apparent that the funds of 210 MECUs then available for research contracts in 1993 and 1994, excluding action through the Joint Research Centre (JRC), will be insufficient to meet the demand from high quality proposals and the success rate will fall further. Most seriously, the momentum of progress will be interrupted as the gap between calls may double to 3 years or even more. This would be detrimental to the future of common industrial research activities as their development can only be maintained if there is continuous and significant cooperation between Community industries. The proposals submitted for funding under this programme concern a broad spectrum of technologies essential for Community industries. The priority areas are selected on the basis of the competitive advantage that research can bring to

Community industries and in relation to the completion of the Internal Market.

In this approach, it is necessary to support in particular projects which develop technologies encouraging, on the one hand, the improvement of manufacturing techniques and, on the other, product improvement (or even substitution), in particular engineered composites, taking into account notably the environmental imperative. That is how research concerning advanced materials and their application, together with technologies derived from electronics, can confer a major advantage on the infrastructure-related industries (such as transport) and on the consumer goods sector. Moreover, projects in priority areas, such as in support of the development of clean and safe means of transport, should increasingly provide a focus to bring these technologies together. This would include weight reduction and recycling, improved vehicle design and manufacturing. Critical process technologies such as laser processing, sensors and micromanufacturing must increasingly be covered. The aim must be to foster an approach to manufacturing which emphasises human and environmental aspects, efficiency in the use of materials, labour and energy, and speeds time to market. Therefore the stress is on activities in the field of generic technologies of wide application across industrial sectors, in particular those confronted by strong international competition.

17. The call for proposals under **measurement and testing** will take place shortly. About 32 MECUs is available for prenormative research under the programme in 1993 and 1994, excluding work through the JRC. The programme provides key support in preparing and implementing Directives under the Single Market, and in the development of the appropriate standardized testing methods. Prenormative research is a priority for the Community. It is an integral part of specific programmes such as, for example, those in the fields of information and communication technologies, of industrial technologies or the environment. But, in the light of the fact that implementation of the programme is just starting, no supplementary funding is required.

Environment

18. In the field of **environmental research**, calls for proposals commenced in July 1991 and were made most recently in May this year. The second call closes at the end of 1992. The rate at which top-rated proposals can be met is unsatisfactory: in the area of climate change, around 70% of proposals have been top rated (good to excellent) , but in the specific area of natural climate change, only 12% of these could be selected (though the proportions were higher in the specific areas of anthropogenic change and the impacts of climate change). The rate of acceptance of good proposals with respect to technologies for environmental protection fell to 37%. In the area of global environment change, project length has had to be reduced by a third on average and funds reduced by a further one fifth. Looking to the future, the funds available for research projects in 1993 and 1994 of 113.4 MECUs, excluding work by the Joint Research Centre, will prove wholly inadequate. The growing requirement for research on complex, transnational environmental issues is reflected in the Community's programme of policy and action in relation to the environment and sustainable development (COM(92)23). The urgency of the questions of global climate change following the Earth Summit in Rio de Janeiro, of the environmental impact of the Common Agriculture Policy (CAP) and of the environmental challenges in the countries of Central and Eastern Europe, together with the need to enhance Europe's competitive position especially in comparison with the massive efforts in the United States, requires Community research to be strengthened. This would include cooperation with industry, in line with the conclusions of the joint Energy and Environment meeting of the Council of Ministers on 13 December 1991. Community research actions, including for example in the agriculture and energy fields, already make an important contribution to meeting these goals. Commenting on the Commission's evaluation report, Member States' representatives have endorsed the high scientific quality of the Community's environmental research and its success in achieving its objectives.

Specific issues to be addressed include global climate change with all their environmental, societal and economic implications. A strong focus should be on the study, management and protection of natural resources, such as forests, soils and water; the impacts of climate change and changes in atmospheric chemistry; biodiversity; the problems created by changing demographic patterns, such as urbanization and migration, especially with respect to sustainable development; regional problems of increasing gravity, such as desertification; and the impacts of natural hazards. A particular emphasis would need to be placed on the development of advanced equipment and methodologies, such as earth observation from space, ground support and tools for verification and for use in environmental forecasting and monitoring systems, especially at the regional scale where impacts on agricultural and water resources are important.

19. Under the **marine science and technology** programme, calls for proposals were made in June and October 1991. However, only 37 % of the good and excellent proposals could be funded. The resources which remain available for research projects in 1993 and 1994 amounting to just under 57.5 MECUs, should make it possible to sustain Community participation in and synergies with international programmes and to continue the studies that have been undertaken.

Life sciences and technologies

20. The specific programme concerning **biotechnology** was adopted in March 1992. The deadline for the first call for proposals launched in May 1992 has been set for 23 July 1992. The available funds for commitment in 1993 and 1994 are 110.51 MECUs. This amount is not sufficient to ensure continuity in certain key activities, namely in the areas of detection of Genetically Modified Organisms (GMOs) in soil, of molecular biology of the control of plant pathogens, of protein engineering and of bioinformatics. For protein engineering and bioinformatics activities, the continuity of the work is at risk and the Community may irretrievably lose ground with respect to its competitors in the field of larger sequence and structure databases (DNA, proteins, carbohydrates) at a time when there is, through

Community support, an international commitment (in particular within the framework of the EC-US Task Force on Biotechnology Research). Moreover, the initiation of activities in the area of technological priority of molecular biology of crop plants would be incomplete without an expansion to areas not yet included because of a lack of funding. They include pest and disease resistance, adaptation to stress, screening technology for breeding and microbial inoculants.

A recent assessment by the programme committee endorsed the positive conclusions on the Community's biotechnology research which the Commission had reached in its evaluation (SEC (92) 675), unanimously pointing out its high quality, while commenting on the low success rate for applicants. The Committee emphasised the need to address the scientific interface with common questions such as regulation, patenting and public perception which set the context for academic and industrial research on biotechnology and SME's participation. The bias should be, above all, to enhance industrial competitiveness. Moreover, although European activities on standards setting in biotechnology started only very recently, prenormative research, for example with respect to the detection of GMOs, should respond more to the needs of regulation.

21. The first call for proposals for the specific programme on **agricultural and agro-industrial research** was closed at the end of January 1992. Research on food and agriculture has been heavily over-subscribed. As compared with the previous programme, ECLAIR, under the Second Framework Programme, the proportion of top-rated proposals has gone up from 35 % to 44% but it has been possible to fund fewer of them (a decline from 54 % to 30 %). A second call is foreseen for July 1992 with a deadline fixed for the end of October this year. Of the 329.67 MECU for the programme, 130.3 MECU will be committed for the first call, with a further 6 MECU for training, grants, etc. Following the second call, the remaining funds of about 193 MECU should be committed following the evaluation and selection expected in February 1993. Given the fact that a large number of very good proposals had to be rejected following the first call and that strong interest has been expressed for areas insufficiently taken into account in the field

of non-food, socioeconomic research and activities addressing environmental constraints and opportunities, supplementary financing is urgently required for 1993 and 1994. The CAP reform as well as the Common Fishery Policy need to be strongly supported by research and technological development activities aiming at opening industrial markets for agricultural and fishery products, improving efficiency and quality of production, managing change in rural areas and using agricultural land, fisheries and aquaculture resources in a way compatible with the environment. As the Commission evaluation (SEC (92) 675) noted, the agricultural and agro-industrial sector is of great socio-economic importance for the Community and the goal of Community research is to provide the science and technology necessary for the maintenance and creation of competitive bio-based food and non-food industries. Moreover, there are benefits notably for SMEs and for regional development.

22. The specific programme on **biomedical and health research** launched a first call for proposals in October 1991; the deadline was set for end of January 1992. The selection process is to be finalised soon and a second call has been notified in advance from October 1992 - January 1993. The available funds for 1993 and 1994 (84.17 MECUs) should enable the Community to be able to respond to the very high level of interest, especially in the areas of cancer and AIDS research protocols and the support of multicentre clinical activities. Furthermore, the Community is contributing fully to the major international scientific challenge of analyzing the Human Genome. It is estimated that the current financial resources are sufficient.

23. Concerning the specific programme "**Science and technology for development**", the programme committee has recently endorsed the conclusion of an external evaluation as to its cost-effectiveness and the significant benefit of Community cooperation in addressing scientific problems faced by developing countries. A first call for proposals was closed at the end of 1991 and two more calls are foreseen in 1992 and 1993. Just under 15 % of the funds were committed in 1991 with a further 40 % in 1992. Available funds for 1993 and 1994 amount to 46.7 MECUs

which need to cover the substantial increase in the proposals originating directly from scientists in developing countries. This would put pressure on the programme which will have to concentrate further its activities in the expectation of the implementation of the Fourth Framework Programme. However, in the light of other possibilities for action in the field of scientific cooperation with developing countries in the context of APAS (roughly 45 MECUs per year), it is estimated that continuity of Community action can be ensured.

Energy

24. The specific programme **Non-nuclear Energies** was adopted on 9 September 1991 with an amount deemed necessary of ECU 155.43 million. A call for proposals was launched in September 1991. Contracts representing 90 % of the programme budget will be placed by the end of 1992. In the sector of renewable energies, it has only been possible to fund 30 % of the best proposals. As there has been no improvement in this situation, potential applicants are being discouraged. A number of points in the work programme in the field of renewable energy sources were not fully covered in the call for proposals, since originally a second call for proposals was envisaged. However, the funding for this specific programme being now depleted, no further call for proposals can be made. For 1993-1994, only ECU 18.1 million is still available.

The Council of Ministers concluded in relation to the "Community strategy to limit carbon dioxide emissions and to improve energy efficiency" that specific measures at Community level will include strengthening of R&D effort. The European Parliament has also repeatedly called for an increase of the research and technological development effort. The programme committee has in its reaction to the Commission's evaluation of the Second Framework Programme generally indicated its support for an increase in funding.

Additional funding is required to ensure continuity, to cover the fields which are currently inadequately covered, and for the overall strengthening of the programme as called for by Council and Parliament. Within such action the Commission will concentrate new financial resources on reinforcing RTD directed towards the stimulation of the development and the integration into networks of renewable energies, through focusing its support on energy sources which are economically promising, such as for instance solar thermochemical conversion installations.

25. The specific programme **Nuclear Fission Safety** was adopted on 28 November 1991 with an amount deemed necessary of ECU 35.64 million. A call for proposals was launched in December 1991. Dosimetry, biological effects and risk evaluation in the field of radiation protection could not be covered sufficiently. In general, it is only possible to fund between one third and one half of the best proposals for cost-shared actions which are received. Commitment of 90 % of the credits for the radiation protection programme is foreseen shortly and for 100 % of the credits for reactor safety before long. For 1993-1994, ECU 10.9 million is still available, excluding JRC.

Supplementary financing is necessary to launch cost-shared actions on reactor safety, in particular on severe accidents, in order to respond to Community needs and in the light of the important commitments made with respect to Central and Eastern European countries. Additional funding is also necessary to ensure continuity of work on radiation protection and radioactive waste, for work on decommissioning of nuclear installations, which has arrived at a demonstration phase, and to carry out tests under realistic conditions of telemanipulation machines.

26. The evaluation of the **Thermonuclear Fusion** activities under the Second Framework Programme concluded that the objectives have been successfully reached and that the Community is in good position to play an outstanding role in the quadripartite ITER collaboration which is about to start. Concerning the specific programme (1990-1994) adopted in December 1991, current budgetary provisions (which allow for commitments of 300.6 MECU for 1993 and 1994), without a complement, are far short of what would be required to implement the programme of work implied by the Technical Annex to the Fusion Programme

Decision. This implies that the Commission would be obliged to tighten considerably the austerity measures that have already been introduced particularly in the Associations. These measures are detrimental to the cohesion of the close network made by all fusion laboratories within the Community, and to the continuity required in the long-term effort on fusion.

In addition to the recommendations of the Fusion Programme Evaluation Board, broadly accepted by the Member States, on the continuation of the overall expenditure of the programme at the level of about 450 MECU a year in 1990 values, of which almost half is supported by the Community budget, and on the expansion in the role of industry, it has to be noted that the Council and the Commission have committed themselves to make the necessary financial provisions to continue present practice in the Community financing of Field 4 "Support Programme" in 1993 and 1994. Given the above evidence, there is a need for supplementary finance to enable Europe to remain in the forefront of the world's fusion research as illustrated by the recent achievement of Megawatt fusion power in the JET Tritium experiment and to maintain its current leading position with respect to its ITER partners in the context of the crucial competition over the siting of the ITER device.

Human Capital and Mobility

27. The specific programme concerning **Human Capital and Mobility** was adopted in March 1992. The first call for proposals has been published in June 1992 and the deadlines set cover the period from July to the end of 1992 depending on the areas concerned. For other areas, there is an open call with two annual selection rounds. The response has been very great. It is clear that the programme is expected to make an important contribution to Community research objectives. Its contribution to cohesion should especially be noted. The funding available for commitments in 1993 and 1994 amounts to 373.39 MECUs (excluding JRC actions). No supplementary financing is suggested for the years 1993 - 1994 in the light of the fact that the programme is just starting to be implemented, but the Commission will assess the needs in the light of experience.

Conclusions

28. The above analysis of the detailed situation with regard to the Community's existing research and technological development activities under the Third Framework Programme demonstrates clearly that the needs and opportunities for reinforcement are substantial. The overall level of reinforcement must remain within the limits set at paragraph 12. Thus choices have to be made. It would be possible simply to increase the funding in each area pro rata. However, in the Commission's opinion this would not respond adequately to the new challenges and changed circumstances. The Commission's judgement of the essential requirements are reflected in the proposed allocation of supplementary financing which is shown in the following table.

I. ENABLING TECHNOLOGIES	
1. Information and communications technologies	625
- Information technologies	430
- Communications technologies	77
- Development of telematics systems of general interest	118
2. Industrial and materials technologies	281
- Industrial and materials technologies	281
- Measurement and testing	0
II. MANAGEMENT OF NATURAL RESOURCES	
3. Environment	136
- Environment	136
- Marine sciences and technologies	0
4. Life sciences and technologies	148
- Biotechnology	55
- Agricultural and agro-industrial research	93
- Biomedical and health research	0
- Life sciences and technologies for developing countries	0
5. Energy	410
- Non-nuclear energies	180
- Nuclear fission safety	60
- Controlled nuclear fusion	170
III. MANAGEMENT OF INTELLECTUAL RESOURCES	
6. Human capital and mobility	0
- Human capital and mobility	0
TOTAL	1600

Proposal for a Council Decision concerning supplementary financing of the third framework programme of Community activities in the field of research and technological development (1990 to 1994)

(92/C 225/05)

COM(92) 309 final

(Submitted by the Commission on 28 July 1992)

THE COUNCIL OF THE EUROPEAN COMMUNITIES,

Having regard to the Treaty establishing the European Economic Community, and in particular Article 130Q (1) thereof,

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

Having regard to the proposal from the Commission,

Having regard to the opinion of the European Parliament,

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

Whereas Article 1 (3) of Council Decision 90/221/Euratom, EEC of 23 April 1990 concerning the third framework programme of Community activities in the field of research and technological development (1990 to 1994) ⁽¹⁾ states that the total amount deemed necessary shall be ECU 5 700 million, of which ECU 2 500 million are deemed to be necessary during 1990, 1991 and 1992 and ECU 3 200 million during 1993 and 1994;

Whereas, pursuant to Article 5 of Decision 90/221/Euratom, EEC, the Commission has examined and assessed progress in carrying out the third framework programme and has also made an evaluation of all the specific programmes implemented pursuant to Decision 87/516/Euratom, EEC, the findings of which it has communicated to the Council, together with its comments;

Whereas in the light of the above assessment, the scientific and technical objectives, their respective priorities and the main lines of the activities laid down by the third framework programme for the period 1990 to 1994 maintain their validity;

Whereas supplementary financing of Community research and technological development activities under the third framework programme is necessary to ensure their continuity and natural evolution; whereas these actions ensure cooperation and synergy between

research actors as well as the diffusion of the results of their joint efforts throughout the Community and contribute furthermore to the implementation of the single market, the improvement of the international competitiveness of European industry and the reinforcement of economic and social cohesion;

Whereas following the principle of subsidiarity makes it possible to identify themes and projects which can be better realized at the level of the Community by virtue of their scale or their effects; whereas, therefore, priority account will be taken of cases where subsidiarity is intrinsic to the activities themselves, notably activities linked to large research actions of an international dimension ('big science'), activities on priority generic technologies, activities designed to organize the single market, prenormative research activities, activities benefiting the European scientific community;

Whereas the Commission commits itself to provide the other Community institutions with all detailed information concerning the use of the supplementary funds;

Whereas a systematic examination of each of the six activities covered by the third framework programme has enabled the identification and breakdown of supplementary resources needed to ensure the carrying out of research efforts, without further waiting for the procedures leading to the adoption of the fourth framework programme to be concluded;

Whereas, pursuant to Article 130i (2) of the EEC Treaty, the framework programme may be supplemented, as the situation changes;

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

Whereas the Scientific and Technical Committee referred to in Article 7 of the EAEC Treaty has been consulted by the Commission and has delivered its opinion,

⁽¹⁾ OJ No L 117, 8. 5. 1990, p. 28.

DECIDES:

field of research and technological development (1990 to 1994) is amended as follows:

Sole Article

Council Decision 90/221/Euratom, EEC concerning the framework programme for Community activities in the

— in Article 1 (3) '5 700' is replaced by '7 300' and '3 200' is replaced by '4 800',

— annex I is replaced by the Annex to this Decision.

ANNEX

BREAKDOWN OF THE AMOUNTS DEEMED NECESSARY TO IMPLEMENT THE VARIOUS ACTIVITIES ENVISAGED

	<i>(in million ecus)</i>		
	1990 to 1992	1993 to 1994	Total
I. ENABLING TECHNOLOGIES			
1. Information and communications technologies	974	1 872	2 846
— Information technologies			1 782
— Communications technologies			566
— Development of telematics systems of general interest			498
2. Industrial and materials technologies	390	779	1 169
— Industrial and materials technologies			1 029
— Measurement and testing			140
II. MANAGEMENT OF NATURAL RESOURCES			
3. Environment	227	427	654
— Environment			550
— Marine sciences and technologies			104
4. Life sciences and technologies	325	564	889
— Biotechnology			219
— Agricultural and agro-industrial research (*)			426
— Biomedical and health research			133
— Life sciences and technologies for developing countries			111
5. Energy	357	867	1 224
— Non-nuclear energies			337
— Nuclear fission safety			259
— Controlled nuclear fusion			628
III. MANAGEMENT OF INTELLECTUAL RESOURCES			
6. Human capital and mobility	227	291	518
— Human capital and mobility			518
TOTAL	2 500	4 800	7 300 (*) (*)

(*) Including fisheries.

(*) Including ECU 73 million for the centralized action of dissemination and exploitation provided for in Article 4, drawn proportionally from each activity.

(*) Including ECU 180 million for 1990 to 1992 and ECU 370 million for 1993 to 1994 for the Joint Research Centre.

FINANCIAL STATEMENT

1. Pursuant to article 130 i (1) of the Treaty, the proposal for the supplement of the framework programme 1990-94 fixes the new amount deemed necessary as well as the breakdown of this amount between the various activities envisaged. The breakdown of decision 90/221/Euratom,EEC, the supplement and the totals is as follows (amounts expressed in millions of ECUs).

	Decision 90/221/ Euratom,EEC	Supplement	Total
I. ENABLING TECHNOLOGIES			
1. Information and communications technologies	2221	625	2846
-Information technologies	1352	430	1782
-Communications technologies	489	77	566
-Development of telematics systems of general interest	380	118	488
2. Industrial and materials technologies	888	281	1169
-Industrial and materials technologies	748	281	1029
-Measurement and testing	140	0	140
II. MANAGEMENT OF NATURAL RESOURCES			
3. Environment	518	136	654
-Environment	414	136	550
-Marine sciences and technologies	104	0	104
4. Life sciences and technologies	741	148	889
-Biotechnology	164	55	219
-Agricultural and agro-industrial research	333	93	426
-Biomedical and health research	133	0	133
-Life sciences and technologies for developing countries	111	0	111
5. Energy	814	410	1224
-Non-nuclear energies	157	180	337
-Nuclear fission safety	199	60	259
-Controlled nuclear fusion	458	170	628
III. MANAGEMENT OF INTELLECTUAL RESOURCES			
6. Human capital and mobility	518	0	518
-Human capital and mobility	518	0	518
TOTAL	5700	1600	7300

This amount deemed necessary equals the sum of the amounts allocated for the execution of programmes decided upon for the implementation of the framework programme.

2. The amounts which are to be set out on a yearly basis in the budget will be determined by the budgetary authority through the annual budgetary procedures on the basis of the allocations for the programmes and the expenditure foreseen as well as in compliance with the budgetary discipline.

An indicative schedule for commitments to be set out in successive budgets under the heading of the third framework programme for the years 1993 and 1994 is given in the following table.

Indicative schedule for item 3 of the "Delors II package"

(amounts in millions of ECUs)

	1993	1994	TOTAL
RTD (1992 prices)	2 730	3 040	
RTD (current prices)	2 847	3 266	

- Framework Programme 1987-91	16	3	
- Framework Programme 1990-94	1 952	1 248	
- Supplement FP 1990-94	400	1 200	1 600
- Accompanying Actions (APAS)	427	(2)	
- 4th Framework Programme	-	(2)	

Total RTD	2 795 ⁽¹⁾	2 451 ⁽²⁾	

(1) Preliminary draft budget 1993

- (2) The figures presented here exclude the estimated amounts for APAS and the 4th Framework Programme because:
- the amount deemed necessary for the 4th Framework Programme will be determined only after the Commission's proposal (currently in preparation)
 - in accordance with the provisions of the Treaty on European Union, the APAS will be implemented within the 4th Framework Programme from the start of its implementation. The date of the adoption, in accordance with the co-decision procedure, of the 4th Framework Programme cannot be determined today. In any case, promotion, support and monitoring activities will have to be carried out in a continuous manner throughout 1994.

3. The annual amounts shall cover scientific, technical and demonstration activities as well as personnel costs and administrative, scientific and technical expenses directly linked to the execution of the programmes.
4. The financial and budgetary execution of the programmes will take place in accordance with the provisions of the Financial Regulation, in particular the Title dealing with research and investment appropriations.

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