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REINFORCING COOPERATION BETWEEN EUREKA AND THE EUROPEAN COMMUNITY

(Communication from the Commission)

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1. Technological cooperation is a powerful factor in European integration.

   The success of our programmes such as ESPRIT, BRITE and RACE, the progress within the Eureka framework and in the European Space Agency, each demonstrates that the pooling of resources, efforts and talents as well as the sharing of risks, offers Europe a unique chance of making up lost ground and establishing a leading role in most of the new high technology sectors.

   With that end in view the Single European Act provides for different types of European cooperation - the Framework Programme itself, coordination of national policies, joint ventures and agencies, supplementary programmes and participations.

THE ORIGINS OF EUREKA

2. EUREKA was launched in 1985 as a new framework for fostering transnational cooperation in Europe on high technology R&D.

   Its essential features were a concentration on R&D closer to the market-place than Community programmes ; wider geographical coverage than the Community (all the EFTA countries and Turkey are members in addition to the Twelve) ; and a different institutional framework in which the initiative for projects came essentially from enterprises and research institutes.

   Governments concentrated on helping to provide the right policy framework in which such projects could flourish, without seeking to define priorities for research aimed at improving Europe's competitive position.

THE COMMISSION'S ROLE

3. From the outset the Commission has regarded Eureka as complementary to the Community programmes in R&D.

   But with the aim of speeding up the improvement in Europe's competitive position - notably in the context of competition between Europe, Japan and the USA - the Commission believes that this complementarity should henceforth be strengthened.

   It sees this as an important means of encouraging research close to the market and of associating non-Community European countries in Europe's cooperative efforts.

4. In its Communication to the Council of November 1986 [1] the Commission outlined the first set of measures which it proposed to take in order to encourage synergy between Community programmes and Eureka projects, both on a case-by-case basis (though its involvement in specific projects) and in the wider context of the Community's responsibilities for fostering an economic and business environment favourable to the success of transnational R&D ventures in Europe.

5. The annex sets out what has been achieved so far on the basis of the approach adopted in COM(86) 664 final. It demonstrates that the Commission is already involved directly in a number of important Eureka projects.

THE STRENGTHENING OF COOPERATION BETWEEN EUREKA AND THE COMMUNITY THAT IS REQUIRED.

6. But the time is now ripe to go further.

Since the launch of Eureka and the Commission's first policy position in November 1986, several factors have altered the environment in which the Commission's guidelines were established :

(a) Eureka projects often cover fields in which the Community is already playing an important role.

On the one hand, Eureka projects have been more heavily concentrated in the pre-competitive field that was foreseen in 1985.

This is particularly clear in the case of the large infrastructure projects (EUROTRAC and EUROMAR in the field of the environment, COSINE in that of information networks) which require public participation and a governmental framework.

This has also led to a larger call on public finance as well as severe difficulties in attracting private finance.

On the other hand, some of the larger Eureka projects or groups of projects - such as PROMETHEUS (transport), EUROLASER, FAMOR (robotics) - are directed at research areas where it is particularly important to define the respective roles of the different actors if the risk of overlap is to be avoided.

(b) The Community has adopted the Framework Programme.

The Council has already adopted specific programmes of which the estimated cost is equivalent to about 45% of the amount deemed necessary for the application of the Framework Programme ; and other proposals covering more than a further 30% are already before the Council. These programmes aim principally to encourage cooperation in the pre-competitive or basic research fields. The future orientation of certain Eureka project, notably those in their definition phases, is less clearly defined.

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[1] COM(86) 664 Final, 20 Nov. 1986.

The strengthening of ties between Eureka and the Community would help to establish a strategic vision linking pre-competitive actions with those close to the market.

(c) Europe needs to ensure rapid progress in sectors of crucial importance for the future, such as micro-electronics, aeronautics, supraconductivity, biotechnology and the environment. In some of these areas Eureka projects are in preparation. One example of strategic importance in the field of micro-electronics is JESSI.

(d) EFTA countries are now more closely associated with the Community's R&D efforts as a result of bilateral agreements giving them access of various kinds to Community programmes, alongside their long-standing cooperation with the Community through the COST mechanism.

The Commission considers that closer international cooperation in R&D, already mentioned in Article 130 N of the Treaty, is an important element in external policy.

7. All these factors point to the conclusion that it would now be right to clarify the Community's objectives vis-à-vis Eureka and to reinforce the instruments applied in pursuit of them.

The memorandum from the Presidency of the Council which was circulated to Member States in April 1988 sets out the arguments.

8. Against that background the Commission considers that the Community should contribute more to the success of Eureka by measures in five fields :

- practical steps to improve the links and to reduce the possible overlap with Community programmes ;
- financial participation in Eureka projects or project phases that are upstream of development for the market ;
- recourse to the possibilities offered by Articles 130 L and 130 M (supplementary programmes and participation) ;
- measures to attract private capital to Eureka projects or project phases that are close to the market ;
- measures to improve the economic and business environment.

(a) reinforcing the links and reducing the overlaps : establishing solid complementarity between Eureka and Community programmes in order to ensure continuity

9. The Commission intends to ensure greater complementarity and continuity by :

- redoubling its existing efforts to ensure that potential Eureka participants are fully aware of the opportunities offered by Community R&D programmes (through ad hoc workshops, active involvement in Eureka's own information efforts etc) ;

- working directly with the national officials concerned to identify at the earliest possible stages possible links with the Community programmes and ways in which the most effective synergy can be developed ;

- ensuring, through its participation in the steering committees of the larger Eureka projects that work programmes and procedures can be developed that minimise the overlap with Community programmes.

10. All these actions will only be effective as long as the Commission receives timely and adequate information on projects. Without this it will not be in a position to make its contribution under the most satisfactory conditions.

(b) Helping to finance pre-competitive Eureka projects

There are several posibilities for the Commission.

11. The Commission envisages direct participation by the Joint Research Centre in consortia presenting Eureka proposals, in those areas where it has the requisite skills and expertise.

In line with its new focus on research that is more oriented towards the needs of industry, the JRC intends already to carry out four research projects in support of the Eureka environmental project EUROTRAC. Negotiations are also at an advanced stage for participation in a Eureka project on industrial safety. The Centre will be looking for all further opportunities to participate in these fields, as well as in the field of non-nuclear energy.

12. The Community's research programmes in specific fields are open to submissions for financial support from participants in Eureka projects in the areas concerned.

Funding, normally on a shared cost basis, will be available for projects of a pre-competitive, pre-normative or non-competitive nature that are successful through the normal transparent selection procedures applying to the programmes concerned.

Within the existing restricted financial ceiling, however, the Commission is unable to participate financially in more then 15-20% of the proposals made to it. Moreover, the percentage is falling, with the Commission having to reject an increasing number of good proposals.

13. The scope for financing Eureka projects in this way is therefore not large. The real solution is to increase the budget available for the Community programmes.

The extra efforts in R&D that will be required will be specified in the revision of the Framework Programme, in line moreover with the decision of the European Council of 11 and 12 February 1988 taken in the framework of the financial outlook for the period 1988-1992 (Chapter F, Page 28).

This revision will be the right occasion for considering the replies to the challenges cited in paragraph 6c above. The Commission is ready to present a first outline of its ideas on this subject to the Council in the autumn.

(c) recourse to the possibilities offered by Articles 130 L and 130 M (supplementary programmes and participations).

14. Supplementary programmes and participations were foreseen in the Single European Act as a means of enlarging the array of types of Community intervention, and of ensuring the necessary flexibility according to the actions envisaged .

The advantages for the Community are essentially :

- the scope for carrying out actions which do not necessarily interest all Member States but which nevertheless are in line with the main objectives of Community action ;

- the possibility of launching such actions going beyond those that could be financed form the Community's own resources and of mobilizing national financial resources beyond those foreseen in the Framework Programme.

These forms of cooperation are particularly interesting in the context of the Commission's efforts to encourage better coordination of national policies. They could also be used to support national actions in Eureka projects, notably in strategic areas such as micro-electronics, in particular the JESSI project.

15. Recourse to complementary programmes for Eureka projects that are of interest for the Community and which require a special commitment by certain Member States, does not inevitably mean financial support.

The Community's contribution could take the form of project management or technical assistance.

Clearly the Commission could also intervene directly by means of the budget of the Framework Programme, provided that the projects concerned were linked to the objectives of the Framework Programme.

16. In its first outline of the revision of the Framework Programme the Commission intends also to examine in detail the possible modes of intervention, in particular the possibilities offered by Articles 130 L and 130 M. It will also examine the various loan possibilities.

(d) Mobilizing private finance

17. The Commission has transmitted to the Council and to the Parliament a Communication outlining a series of measures to facilitate the financing of transnational technological cooperation in Europe.

18. Several possibilities are envisaged :

- the promotion of the investment fund EUROTECH CAPITAL, which would take shares in high-risk long-term, high-technology projects, could be a key element for the private sector.

  The Commission envisages an initial financial contribution from the Community.

- risk insurance for advanced technology projects, developed in close collaboration with Eureka.

  This would be a mechanism to be put in place by the private insurance sector. But the Commission is ready to make a financial contribution to the launching of a pilot project which would allow the promoters of advanced technology projects to benefit - over 5 years - from reduced insurance premia related to protection against certain risks.

  The financing of the pilot project will be accompanied by an information campaign by the Commission directed at all the interested parties (promoters, financiers, insurers, agents) and a programme of cooperation between the Commission services and the insurance companies to help risk evaluation.

- as already indicated in its Communication, the Commission also intends to contribute to better information on the financing needs of high technology projects.

(e) Improving the economic and business environment

19. Further progress towards completion of the Community's Internal Market Programme will help to improve the environment in which Eureka and other advanced technology projects can thrive. Moreover, the Commission insists on the need to improve the legal, fiscal and regulatory framework covering transnational cooperation between companies.

Measures of particular importance in this context involve the prevention of new technical obstacles to trade ; and the opening-up of national public procurement to general advertising, competitive tendering and non-discriminatory selection from tenders received.

The same is true of the Commission's constructive approach in the application to high-technology projects of the Community's state aid rules ; and a number of measures intended to develop a more rational system of intellectual and industrial property rights throughout the Community.

The Commission will also continue to work closely with the EFTA countries in the discussions concerning joint measures on technical standards, intellectual and industrial property rights, state aids and public procurement which are already under way.

These will be helpful in the context of Eureka projects involving participants from the Community and EFTA countries.

CONCLUSIONS

20. The actions outlined above are important new initiatives in promoting synergy between the Community and Eureka, in reducing the risks of overlap, and in developing continuity between pre-competitive actions and those close to the market. They bear witness to the importance of the Community role.

The further success of the Eureka venture will not however depend solely on the role which the Community can play. It would be unreasonable to suppose that the Community budget could shoulder the financial burdens for projects that require major public financial support, given the limited resources available under the Framework Programme.

But the Commission is confident that the measures proposed will make a major contribution to the pursuit of the goal of improving European competitiveness which the Community shares with Eureka.

The Council is therefore invited to endorse the actions proposed in this Communication.

ANNEX

EUREKA AND COMMUNITY RESEARCH AND DEVELOPMENT: PROGRESS TO DATE

1. Introduction

1.1 The Communication itself outlines the new actions proposed by the Commission to reinforce cooperation over the coming years. This more detailed annex reviews cooperation to date, in the light of the guidelines set out in the Commission's earlier Communication COM(86)664 final of 20 November 1986. It

- recalls the essential features of the earlier Communication (paras 2.1 - 2.3);
- outlines how EUREKA has evolved in the meantime (paras 3.1 - 3.8); and
- summarises the actions taken by the Commission as a follow-up to COM(86)664 (paras 4.1 - 4.7).

1.2 Appendix I provides summary information on some of the larger EUREKA projects.
Appendix II summarises the involvement of the Commission in specific EUREKA projects.
Appendix III and IV show the evolution of EUREKA projects since 1985.

2. The Current Guidelines

2.1 The Commission's earlier Communication drew attention to the similarities between EUREKA and the Community's own programmes as regards their main areas of research and their ultimate objectives (to help Europe master and develop advanced technologies essential to its future competitiveness). It also highlighted the main differences as regards:

- geographical coverage. EUREKA embraces all the EFTA countries and Turkey, as well as all the Member States of the European Community and the Commission . (However, special arrangements have subsequently been negotiated with 5 EFTA countries which provide for

specific forms of cooperation with the Community programmes).

- **the institutional framework.** Community R&D programmes from part of a strategic whole (the Framework Programme) prepared with advice from experts from industry and research institutions and agreed by the Council of Ministers. Financial support from the Community budget is available under specific Community procedures, mostly on a shared-cost basis, with projects from all the Community countries competing for funding.

  The initiative for EUREKA projects, on the other hand, comes from the industrial and other partners concerned. Granting of EUREKA status is the exclusive responsibility of the Governments of the countries where the participants are situated, once certain common criteria have been met. The projects are subsequently announced officially at regular meetings of the EUREKA Ministerial Conference. But there is, quite deliberately, no strategic framework, and no central EUREKA budget for project finance. Participants compete for public finance, where required, from their own national authorities.

- **the nature of the R&D work.** The Community programmes are concentrated essentially on R&D upstream of industrial or commercial application for the market-place. The aim behind EUREKA, on the other hand, was to stimulate projects that would lead directly to the development of products, processes and services with a market potential. It was also accepted, however, that EUREKA could embrace advanced technology projects aimed at the creation of the technical prerequisites for a modern infrastructure and at the solution of transboundary problems.

2.2 The Communication went on to outline ways in which the complementary features of the two frameworks for cooperation could be developed to mutual advantage through actions by the Commission:

- by establishing appropriate case-by-case cooperation arrangements for individual projects linked to Community programmes (notably, through technical assistance; by facilitating information exchanges and contacts between project participants; and by adjusting the technical objectives or content of planned Community programmes so as to take account of the wider needs of specific EUREKA projects);

- by Commission support for the definition and harmonized implementation of common norms and standards which would facilitate the marketing of products resulting from EUREKA projects;

- through progress in the establishment of the Community's Internal Market which would create the right economic and business environment;

- by the Commission's examination of possible ways of facilitating access to private sector finance, and by making available Commission expertise in the field of information networks.

- by applying the Treaty of Rome's rules on state aids in a constructive manner to R&D projects, recognising the need to encourage the growth of successful new products and services as well as the need to avoid trade distortion and unfair competition in Europe.

2.3 The Communication also envisaged the possibility in certain particularly suitable cases, of some financial participation by the Community in those EUREKA projects (or phases of such projects), notably those of a pre-normative character*, which were submitted through the normal procedures for Community finance.

* Pre-normative research provides the scientific and technical basis for the preparation of standards and technical specifications.

3. How EUREKA has evolved

(i) the project portfolio

3.1 There are now 214* announced EUREKA projects, with an estimated cost of over 3.8 milliard ECU**. Well over 800 organisations are involved in these projects, around two-thirds of them industrial and with a good representation in terms of SMEs (enterprises with less than 500 employees account for 50% of the industrial partners).

3.2 The projects are heavily concentrated in the fields of information technology, robotics and biotechnology, although the latest set of projects announced in Copenhagen show some shift away from information technology (see appendices III and IV).

3.3 Few projects have an expected duration of 2 years or less, and every second project is expected to last more than 4 years. Many of the projects, notably the larger ones, are still in definition phases, and it will be some time before results are available.

3.4 Half of all projects are expected to cost less than 10 MECU, and in contrast to earlier tendencies there appears to be an increasing trend towards smaller, lower-cost projects. There are, however, a number of projects in the fields of communications, information technology, environment and transport that are expected to cost upwards of 50 MECU. Many of these are expected to take 5 - 6 years or more to complete. A number of these projects are composed of a series of sub-projects and have become known within EUREKA as "umbrella projects". Appendix I lists some of these larger projects, with their estimated total costs and expected duration.

* Including 54 projects (with an estimated cost for their definition phases of 360 MECU) announced at the EUREKA Ministerial Conference in Copenhagen on 16 June 1988.

** This figure may underestimate total costs over the life-time of all the projects, since the data include only the costs of the definition phases for some projects.

3.5 Only limited information is available to the Commission about the financing of EUREKA projects. The latest information suggests, however, that on average some 35% of total funding is expected to be secured from public sector sources. But in the case of certain projects, notably those in the environmental field which are of a "non-competitive" nature and which do not aim to produce commercial goods and services, the share of public funding can be as high as 100%. Officials from the Member Countries of EUREKA, with the support of the Commission, are actively examining how to encourage the flow of private capital from the banking system and venture capital companies. The results to date appear to have been modest, largely because of the nature of the EUREKA portfolio as it has developed. According to a recent analysis by the European Bankers Round Table, only 13% of 190 projects analysed appear likely to qualify for private financing in the forseeable future: 52% may conceivably result in a commercially viable product; and 35% by their nature could not qualify for private finance. Here too, however, the situation may evolve as the EUREKA portfolio changes over time towards smaller and more product-oriented projects.

(ii) the framework of cooperation

3.6 EUREKA aims as far as possible to create a "light" and flexible mechanism for intergovernmental cooperation, with a small Secretariat and a network of "National Project Coordinators" facilitating the exchange of information on projects and the identification at an early stage, of supportive actions requiring some form of involvement by Governments. Apart from their work on project development, officials responsible for EUREKA in the member countries have also been engaged, for example, in the examination of issues such as how to encourage private sector project financing; how to promote the interests of small and medium-sized enterprises in EUREKA; and norms and standards. The arrangements, in which the Commission is participating actively, are evolving in the light of experience and developments in other international fora.

3.7 Particular efforts are under way at present to ensure enhanced coordination between the participating Governments so as to facilitate the emergence of new projects. One important issue that has been identified within EUREKA is the need to ensure that the existence of different national systems and procedures for public financial support does not inhibit EUREKA projects (at present a project may be delayed until the public financing issues are resolved in all the Member Countries concerned).

3.8 The new Austrian Presidency of EUREKA plans to focus

particular attention during the coming year on measures to help project development and monitoring; on improving the general framework conditions for market-oriented international technological cooperation (including further progress in the field of norms and standards); and on better coordination of the various EUREKA projects in the transport field (including the links with the Community DRIVE programme). In each of these areas close liason with the Commission will be important.

4. Actions by the Commission

4.1 Around half the announced EUREKA projects have links with the Community's R&D programmes, either deriving from Community projects, covering different stages of R&D on the same subject, or having some degree of overlap. Some involve the same industrial or other partners as Community projects*. This degree of linkage is high. As foreshadowed in COM(86)664 final, the Commission has therefore taken a wide range of actions in relation to specific EUREKA projects to reduce overlap and thus to contribute to the best possible use of scarce European research resources. A summary of Commission actions and involvement in some EUREKA projects is at Appendix II. These actions are discussed below, together with more general actions to improve the environment for the success of EUREKA projects.

4.2 **Actions to facilitate the emergence of EUREKA projects, building on the experience of Community programmes.** The Commission has made specific efforts to make available to potential and present EUREKA participants information about the results of Community programmes and their planned future development. For example, joint workshops have been organised with partners from Community and EUREKA projects on BRITE subjects (eg lasers), on HDTV and on COSINE**. The Commission has improved access to information on Community projects through the IES and EUROABSTRACT data bases. It has also taken steps to ensure that participants in good projects that are submitted to Community programmes but which cannot be adopted because they are too close to the market-place, are made aware of the opportunities offered by EUREKA.

* Examples include EU005 - Membranes for micro-filtration which derives from BRITE 1566; EU20 EUREKA advanced software technology and EU43 EUREKA Software Factory, which derive in part from and build on the results of an ESPRIT project (PCTE); EU109-PACA (absorption heat pumps), which continues work initiated under the Community's non-nuclear energy programme.

** A summary description of the projects cited, together with an explanation of the acronyms used, is given in Appendix II

4.3 **Technical contributions** to the definition phases of EUREKA projects that are downstream of Community projects. An example here is the adoption in the EUREKA Software Factory project of software interface standards developed under the ESPRIT programme.

4.4 **Help in the definition and organisation of the larger EUREKA projects which are linked to Community programmes**, such as EUROTRAC, EUROMAR, COSINE, HDTV, PROMETHEUS. The Commission is represented on the Scientific Steering Committee and on the International Executive Committee of EUROTRAC; it attends meetings of the Board of EUROMAR; it is the leading partner and provides the Secretariat for COSINE. It is actively involved with the Steering Committee of PROMETHEUS and with participants in other EUREKA projects in the transport field, in the definition of priorities for research and an appropriate interface with the Comunity's DRIVE programme.

In the case of HDTV the Commission is active on a number of fronts to ensure the right environment for the success of the project by

- encouraging consistency in the ongoing work on standardisation within Europe;
- ensuring, in liaison with industry and the Member States most directly concerned, the defence of European interests vis-à-vis third countries and in the international standards bodies;
- providing a framework (the HDTV Forum) bringing together all the economic interests in the project (radio, TV, cinema companies etc).

4.5 **Direct or indirect financial participation** in some EUREKA projects, viz:

- COSINE. The Commission is currently meeting 20% (0.3 MECU) of the cost of the definition phase;
- EUROTRAC. The Commission has accepted two sub-projects (LACTOZ and HALIPP) for funding of 2 MECU over 4 years, following the successful application made by the project participants to the Community's environmental programme. In addition the JRC intends to carry out 4 of its projects within the EUROTRAC framework, at an estimated cost of some 7 MECU.

- FORMENTOR (expert system for dealing with major plant failures and security control). The question of direct JRC participation is currently under negotiation with the project participants.

- EUROCARE. 8 R&D contracts under the Community's programme on the effect of air pollution on historic buildings are linked closely to EUROCARE and represent a substantial indirect contribution.

- PROMETHEUS. The work programme is being developed in close liaison with the Community's DRIVE programme, which is to have a budget of 60 MECU for its pilot phase. The Community is making a substantial indirect financial contribution to PROMETHEUS, by financing the research on the infrastructure required for the operation of the "intelligent car";

- HDTV. Three RACE projects*, costing together 16 MECU over 3 years, are an important complement to the work on HDTV.

- The Community is contributing to the achievement of the objectives of EU16 (ES2) through the participation of this EUREKA venture in ESPRIT activities. Important ESPRIT activities notably in the field of CAD, IC manufacturing equipments and automation are furthermore directly relevant to the current objectives of EU127 (JESSI). For this latter, moreover, consultations are in hand with the companies and the countries concerned to investigate ways of ensuring a fuller synergy of effort through a direct participation of the Community in the JESSI programme of work.

4.6 **"Supportive Measures".** Aside from involvement in specific EUREKA projects on a case-by-case basis, the Commission is playing a key role in the field of so-called "supportive measures"(cf para 2.2 above):

- by developing mechanisms to encourage a flow of private sector finance to high technology projects (including notably EUROTECH CAPITAL). Recent Commission work in the field of risk insurance is an important complement to initiatives already under discussion and led by France within EUREKA. The Commission now proposes to finance the launching of a pilot insurance scheme.

* HIVITS 1+2 - picture encoding and transmission
DVT - digital video-images.

- in the field of **norms and standards** the Commission has offered its services to EUREKA participants in the development and transmission of mandates on new technical standards to the European technical standards bodies (CEN and CENELEC). It systematically analyses EUREKA projects in order to identify when action may be required and has taken appropriate contacts with the participants involved. Thus far there are a small number of projects for which a specific need for European standards has been identified (eg. EUROTRAC, IHS, PROMETHEUS, ESF, HDTV and FAMOS). In most of these cases the Commission is in the process of obtaining the detailed information required to establish mandates. Only in relation to the IHS (Integrated Home Systems) project has the Commission already been able to forward the necessary mandate. The Commission initiated a special workshop for EUREKA participants on standardisation which was held by CEN/CENELEC (the technical standards bodies)in Brussels in March 1988.

- in the field of competition policy the Commission has demonstrated its constructive attitude towards state aids for R&D projects in the application of the corresponding Treaty provisions to specific cases notified to it. In a number of cases it has granted exemptions under Article 92.3c and in one case (HDTV) an exemption under Article 92.3b on the basis of the projects common European interest.

4.7 **Financial and material support.** The European Commission provides 13.7% of the budget of the EUREKA Secretariat and has seconded one of its own staff members to the Secretariat. It also contributed to the Secretariat's equipment in the early phases and set up the EUREKA project data base, which is now managed by the Secretariat.

APPENDIX I

LARGE - SCALE EUREKA PROJECTS

Illustrative Examples (not exhaustive) are:

EUREKA N°	SUBJECT	EXPECTED COST (MECUs)	DURATION
EU 7	EUROTRAC: experiment on trans port & transformation of trace elements in the troposphere	68	72
EU 16	Automatic design & production of custom chips	94	36
EU 37	EUROMAR: modern technologies for ecological exploration in European seas	164	108
EU 43	ESF: EUREKA Software Factory	327	96
EU 58	EUROPOLIS: Intelligent control of urban & inter urban traffic	128	84
EU 95	HDTV: compatible high definition TV	180	48
EU 102	EPROM: multi-megbit non-volatile memories	404	60

There are also two "umbrella" projects, which are composed of a number of related sub-projects with separate EUREKA status- FAMOS (flexible automated assembly) and EUROLASER (application of laser technology) - each of which could cost in total upwards of 200 MECUs over the next 5 years. The main stage of the EUREKA project COSINE, currently in its definition phase, is also expected to cost up to 200 MECU.

APPENDIX II

COMMISSION INVOLVEMENT IN MAJOR EUREKA PROJECTS LINKED TO COMMUNITY PROGRAMMES.

Subject	Current Status	Possible future development
1. ENVIRONMENT EUROTRAC: European experiment on transport and transformation of environmentally relevant trace constituents in the troposphere over Europe.	Commission funding 2 sub-projects (2MECU) through Community environment programme. Commission represented on Steering Committees. Coordinated work with related actions such as COST 611.	JRC proposes to carry out 4 projects within EUROTRAC framework (7 MECU over 4 years).
EUROMAR: development and application of modern technologies for the exploration of ecological relations and cause and effect chains in the seas of Europe.	Commission is a member of the EUROMAR Board, with a view to ensuring coordination with planned Community programme on marine science & technology.	EC programme expected to deal with the more pre-competitive stages of work.
EUROCARE: European project on Conservation & Restoration.	Commission participates in EUROCARE Board meetings. The Commission Newsletter on Cultural Heritage is used free of charge by EUROCARE for diffusion of information. 8 R&D contracts under the Community programme on environmental protection are closely linked to EUROCARE.	Further coordination of work with the Community programme on the environment (effect of air pollution on historic buildings and monuments).

2.TRANSPORT

PROMETHEUS: programme for a European Traffic System with highest efficiency and unprecedented safety. Together with DEMETER: digital electronic mapping of Europe, CARMINAT:driver information system.	DRIVE work programme established as complementary to PROMETHEUS. Commission takes part in the PROMETHEUS Steering Committee.	Implementation of the DRIVE programme (60 MECU over 30 months).
EUROPOLIS:intelligent control system to aid urban & inter-urban traffic.		

3.INFORMATION TECHNOLOGY

COSINE: cooperation on open systems networking in Europe .	Commission is lead project coordinator. Assures Secretariat, provides 20% of funding of definition phase (0.3 MECU).	Further Commission involvement possible via the Framework Programme.
EAST: EUREKA advanced software technology - development of software engineering facilities. ESF: EUREKA Software Factory.	Commission closely involved in the work to date which relies heavily on the result of an ESPRIT project.	(Commission examining a joint proposal from ESF/EAST consortia presented to ESPRIT II).
JESSI: joint European Submicron Silicon	Commission has participated in meetings with the partners concerned so as to ensure synergy with ESPRIT projects on micro-electronics.	Commission examining scope for improved synergy.

4.COMMUNICATIONS

HDTV: compatible high definition TV.	Commission actively involved in support of this project through promotion of consistent work on standards in-	Continuation of existing initiatives. Participation in the production of

	side Europe; diplomatic action vis-à-vis third countries; contacts with international standards authorities. Indirect financial contribution through 3 RACE projects (16 MECU over 3 years).	a high definition video clip (0.5 MECU). Possible financial participation in SYNTH. TV project.

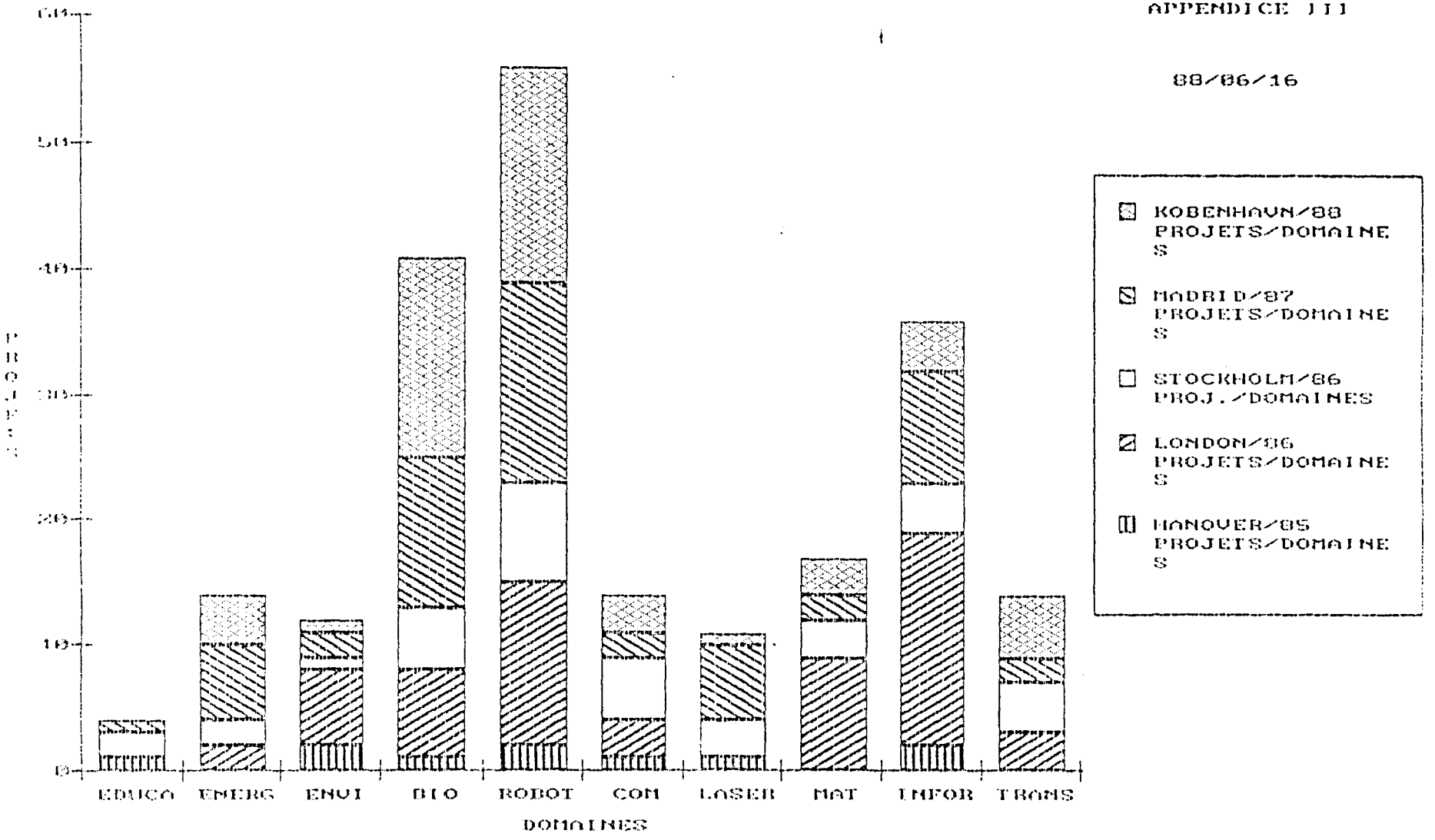
5. FLEXIBLE MANUFACTURING

FAMOS: Development of automated flexible assembly systems for an automated factory of the future.	Representatives of Commission (BRITE & ESPRIT) have attended meetings of the steering committee of FAMOS. FAMOS participants have taken part in Commission workshops organised through BRITE.	Further coordination of work with BRITE & ESPRIT.

PROJETS EUREKA ANNONCES A CHAQUE CONFERENCE MINISTERIELLE
(CUMULES)

APPENDICE III

88/06/16



PROJETS EUREKA ANNONCES A CHAQUE CONFERENCE MINISTERIELLE

APPENDICE 10

88/06/16