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Communication from the Commission to the Council

EUREKA AND THE EUROPEAN TECHNOLOGY COMMUNITY

Com 664

The European Council, meeting in Milan in June 1985, decided to establish a Technology Community and also endorsed the activity which became Eureka.

The purpose of this document is to describe the relations, complementary features, interactions and cooperation arrangements between Eureka and the european technological Community.

I. BACKGROUND

1 The commitment to the European Technology Community is enshrined in the Single European Act which amends the Treaties.

The Single Act stipulates that the Community shall adopt a multiannual framework programme setting out all its activities in the field of research and development, to be implemented through specific and complementary programmes developed within each activity.

The draft framework programme for 1987-91 which the Commission has proposed to the Council contains eight lines of activity corresponding to the main priority areas of interest to the Community.

Eureka itself was created at the European Technology Conference held in Paris on 17 July 1985. So far 19 European countries and the Commission of the European Communities are participating in the Eureka initiative. The 19 countries include the 12 Community Member States, 6 EFTA countries and Turkey.

The objective of Eureka, decided in Paris and defined at the Hanover Conference on 5-6 November 1985, is to improve the productivity and competitiveness of Europe's industries and national economies on the world market through closer cooperation among enterprises and research institutes in the field of advanced technologies, the mastery and exploitation of which are essential to Europe's future.

2. The declaration of principles adopted at Hanover on 5-6 November 1985 stipulates that Eureka projects are not intended as a substitute for existing European technological cooperation of the kind under way in the Community framework ; their purpose is rather to extend or supplement it.

The declaration also states that :

- The establishment of a large homogeneous, dynamic and outward-looking European economic area is essential to the success of Eureka,

- Completion of the internal market of the European Communities and the implementation of the Luxembourg declaration between the European Communities and the EFTA countries will therefore benefit Eureka.

  In particular this means that Eureka should lead to an acceleration of ongoing efforts to :

  - elaborate joint industrial standards,

  - remove existing technical obstacles to trade, inter alia by the mutual recognition of inspection procedures and certificates,

  - open up the system of public procurement.

- The European Communities and the governments of the countries participating in Eureka will examine the possibility of additional supportive measures for Eureka.

3) Since the Paris Conference the shape and content of Eureka have been clarified.

At the Hanover and London conferences, 72 cooperation proposals were adopted as Eureka projects. To implement these projects, which cover a wide range of advanced technologies, some 3,2 billion ECU will be needed over a period covering from two to 10 years: an average of 609 million ECU a year. Eureka now has cyclical institutional arrangements (rotating presidency, high-level group and ministerial conference) and a permanent body, the Eureka secretariat in Brussels, a non-profit body under Belgian law.

The Commission signed, as did the other Eureka participants, the declaration of principles at Hannover as well as the memorandum of understanding at London (June 1986) concerning the Eureka Secretariat.

II. SIMILARITIES AND DIFFERENCES BETWEEN EUREKA AND THE EUROPEAN TECHNOLOGY COMMUNITY.

4. Although Eureka and the European Technology Community pursue similar objectives, cover similar areas of technology and to some extent use the same methods to achieve these objectives, they differ in a number of specific features.

a) The objectives are convergent : to make Europe, its research scientists and its manufacturers better able to master and develop the advanced technologies needed to ensure the present and future competitiveness of Europe as a whole.

Although in general the Community programmes cover a wider field of investigation than Eureka, the Community research and technological development programmes and Eureka tend to converge on the key technologies that have to be mastered, developed and disseminated : manufacturing technologies, computing, communications, materials, biotechnology, advanced forms of transport. At present the first three categories account for more than 60 % of the total resources to be put up for Eureka.

For its part, the Community's draft framework programme of research and technological development activities which the Commission sent to the Council on 5 August 1986 plans to allocate 60 % of the appropriations to activities designed to improve industrial competitiveness.

b) In the same way there are also similarities in the means used to attain these objectives : the aim is to promote cross-frontier cooperation between industry and the scientific community by implementing joint projects bringing together partners from different European states, both inside and outside the Community. The Commission's proposal that EFTA countries should be allowed to take part in the implementation of certain Community programmes reflects the common desire to extend technological cooperation to the whole of Europe.

This was the reason for the launching of COST cooperation and the framework agreements that have been concluded since 1971 between the Community and non-Community countries in Europe in order to coordinate research and technological development activities that are complementary or could provide a basis for regulatory harmonization throughout Europe.

While the COST framework shares common points with Eureka, it should be noted that like the framework programme of Community RDT activities, it concerns essentially pre-competitive research. In addition, it can be noted that :

- the origin of COST proposals is governments, and not companies as is the case of most Eureka proposals,
- COST agreements are open to all cost countries, while the firms participating in Eureka have the possibility of limiting cooperation to partners of their choice,
- COST actions involve essentially national laboratories and research institutes and Eureka projects principally involve firms,
- the dimension of COST actions is sometimes modest by comparison with Eureka projects which can call on substantial financial resources from business.

5. Eureka and the European Technological Community do, however, exhibit differences and specific features of their own which should be considered objectively in establishing procedures for strong and effective cooperation.

(a) The technology Community represents part of an institutional framework defined by the Treaties and involving the Council and the European Parliament, especially as regards budgetary aspects.

Eureka is operative at intergovernmental level and the financing of projects is entirely a matter for the participants, on a case-by-case basis.

(b) Although the technological areas covered are in many cases similar or closely related, the nature of the research and technological development work implemented in the framework of the Eureka projects and Community programmes is not the same. The Community is essentially involved in long lead time research and precompetitive or pre-standardization research and technological development (1). These areas of research are generally upstream of industrial development for the market place. In accordance with the Hanover declaration of principles, Eureka is mainly concerned with developing products, processes and services having a market potential.

(c) The financing arrangements for projects reflect the difference in nature between the research and technological development projects carried out in the Community framework and the Eureka projects.

In the case of Community research and technological development, the high technical and financial risks and uncertainties about the eventual practical applications of the results and how long it will take to convert scientific and technical breakthoughs into products for the market place, justify the use of public funds (Community budget) to pay a relatively high proportion (generally 50 %) of the cost of the research.

Since the Eureka projects are closer to the market and involve less risk and uncertainty, it seems reasonable that their financing should involve a lower proportion of public money. However, to judge from the review document drawn up by the Swedish president on contacts with industry (Eureka 125 of 17 October 1986), it appears that the financing arrangements vary greatly from one country or project to another, so that it is difficult to determine the respective volume and breakdown of subsidies and repayable advances from governments, of loans on ordinary or special terms and of the participants' own funds.

(1) Pre-standardization or pre-normative research means research intended to provide the scientific and technical basis needed for the preparation of standards and technical specifications.

(d) Eureka and the Community use two quite different procedures.

In the Community, shared-cost R&D projects have to fit into a strategic programme that is generally identified and defined in close liaison with the scientific and industrial circles concerned. Calls for proposals (or calls for an expression of interest) are published in the Official Journal of the European Communities and are open to any interested partners in all the Member States. Criteria of scientific, technical and economic relevance govern a strict selection procedure for proposals, designed to identify the best projects, ensure that the proposals are in line with the objectives of the programme and verify that the different projects are consistent, so that optimum use is made of the resources, especially public funds earmarked for these activities.

In Eureka, projects come directly from companies without reference to a strategic programme, an objective or a framework defined in advance, apart from the very broad reference made to the field of high technology. The direct agreement reached on a project by a number of firms is then presented to the Eureka Member States, which check that it is in keeping with Eureka's general principles and with the conditions for eligibility.

(e) Particular and specific principles govern the management of Eureka projects and of Community programmes.

For Eureka, those carrying out each project have themselves to decide on the management procedures. The monitoring and evaluation of the research are done by the companies themselves.

In Community programmes, the management of projects is also left entirely to the persons carrying them out. However, the Commission has general responsibility for programme management and Parliament and all the Member States are kept regularly informed of progress. The Member States are therefore involved in the choice of the programme and, where appropriate, in the definition of annual work plans.

The Member States are consulted, via the Council, on the selection of projects so as to ensure consistency and coordination with national efforts. They are regularly informed of the progress of the projects undertaken, which are subject to periodical monitoring and evaluation arrangements incorporated directly in the management procedures for projects and programmes. The Commission also has responsibility for the dissemination and follow-through of research results.

(f) As regards the type of participant, Eureka is primarily an instrument for cooperation between European industrialists at the stage of developments close to the market place. It is hardly surprising that more than 80 % of the participants in these selected projects come from industry and that the proportion of universities and public sector research centres is relatively low.

University participation is significantly stronger in Community programmes and projects. Because of their nature (precompetitive research and technological development), objectives and procedures (see (d) and (e) above), Community programmes and projects facilitate associations between companies, especially small firms, universities and public sector research centres in different regions of the Community, helping them to cooperate so as to break down the barriers between university and industrial research, basic and applied research.

Universities and public sector research centres account for some 40 to 50 % of the participants in programmes such as BRITE or ESPRIT (in the latter case universities are involved in 80 % of the projects). The aim of breaking down barriers in research and technological development is well illustrated by the ESPRIT projects. On average an ESPRIT contract brings together five different partners : two large companies, one small firm and two universities or public sector research centres. Small firms also account for more than 40 % of the industrial partners involved in industry-oriented Community programmes.

(g) With regard to the economic and legal environment needed to ensure that the research and technological development effort is efficient and economically successful, a distinction should be drawn between :

- the Community approach, which is in keeping with the general and permanent framework laid down by the Treaty (achievement of the Treaty objectives, implementation of policies on the internal market, trade relations, competition, etc..) and with the aim of completing the Community market. This approach calls for collective decisions (regulations and directives) adopted in a Community framework and applying to all the Member States and economic operators on Community territory, especially with regard to the completion of the internal market, standardization and relations with non-Member countries, in particular EFTA countries (see Luxembourg declaration) ;

- Eureka which, while benefiting from the above-mentioned Community work in accordance with the very terms of the Hanover Declaration of Principles (see 2 above), operates on a case-by-case basis, identifying "additional measures" project-by-project as and when projects are put forward and referred to the Eureka bodies.

6. The specific features mentioned above and the similarity or convergence of the objectives, approaches and technological fields between Eureka and Community research and technological development therefore have two sides to them :

a) Complementary features and synergic effects of which full advantage must be taken by profiting from :

- the different types of research and technological development work conducted within each framework. This should facilitate the establishment of proper interfaces and an efficient and consistent continuum, ranging from upstream precompetitive research to research and technological development close to the marketplace ;

- the types of participants in the projects : this should make it possible to establish a better overall interaction between the various circles involved in research and technological development, with the Community programmes playing a special role in alerting industry to the need to make use of the contributions and prospects offered by academic research and establish a closer dialogue and cooperation with universities and public-sector research centres ;

- the diversity of the approaches followed : the consultations and strategic thinking in the preparation and implementation of Community programmes help to create a wealth of information and networks of expertise, of potential assistance to industry in identifying technological development objectives close to the market that can be carried out or continued under the Eureka programme ; while in the same way the implementation of certain Eureka projects may lead to or call for upstream or precompetitive research, which is thereby stimulated.

b) Risks of duplication and possible problems of coexistence that have to be kept to a minimum ; these mau stem from in particular :

- the demarcation between pre-competitive RTD and RTD close to the market. In certain cases Eureka have as their objective to carry out pre-competitive research. The fuzzy distinction between the two areas can lead to overlaps. In fact, a number of RTD projects in the Eureka framework and close to the market involve ro require the execution of a prior or concomitant phase of RTD of a pre-competitive or pre-normative character;
- the existence of distinct procedures concerning the creation of groupings of partners from industry and universities (general recourse to calls for tenders open to all economic and scientific actors in the Member States in the case of the Community - "spontaneous organisation" in the case of Eureka);
- that Community actions to construct an economic and legal order should neither be affected nor slowed by Eureka initiatives, particularly in the case of the internal market.

III. THE COMPLEMENTARY FEATURES BETWEEN EUREKA AND THE COMMUNITY MUST BE USED TO THE BEST ADVANTAGE.

7. Cooperation must therefore be established between Eureka and the Community so as to match up the complementary features, derive maximum benefit from synergy and solve any problems that may arise from the existence in Europe of separate frameworks for the pursuit of similar objectives in the field of technological and industrial cooperation.

The implementation of this arrangement vis-à-vis Eureka involves an analysis of the various projects.

8. This approach project by project, destined to define the concrete solutions applicable in each specific case, will be applied, as indicated above, respecting the general principles governing the Community and its actions, i.e. the respect of :
   - the rules of the Treaty derived Community law and the competence of the Community institutions (Commission, Council, Parliament),
   - commitments arrived at by common agreement, particularly concerning the establishment of the internal market and the implementation of the Technological Community,
   - specific procedures set up concerning research and technological development (Council and Parliament participation in the choice of programmes, evaluation and follow-up procedures).

9. The case-by-case examination of Eureka projects and Community research and technological development activities shows that the relations between them may be put into four categories.

   Category 1

   There are no obvious links between a Eureka project and a Community activity. In this case obviously no special measures have to be considered.

   Category 2

   There are potential connections between a Eureka project and a Community research and technological development project, insofar as the projects in question are being conducted in the same field but without any overlapping of the work or any direct relation between the projects. In such cases it could be useful for participants to exchange information about their work. The Commission could encourage such contacts.

   Category 3

   A Eureka project is directly linked to or derived from a Community activity (upstream/downstream links or allied technical fields). In this case it is necessary to see whether the Eureka project is consistent with the strategy devised in the Community framework or whether differences or distorsions are likely to occur. In such cases, a clear and dynamic working interface between the two projects must be defined.

Category 4

There is a complete or partial overlap between a Eureka project and a Community activity that is planned or underway. Here it is necessary to define, with the aid of the industrial actions concerned, measures to be taken to reduce the risk of duplication and ensure the best possible interaction.

10. The situations must be examined and appropriate arrangements, which may range from an exchange of information to more elaborate forms of consultation and cooperation, must be set up at an early stage in the project planning so as to avoid situations that would be harmful to all those involved.

The Commission, which is responsible for the proper implementation of Community research and technological development activities, ensures that in cases 2, 3 and 4 above information is exchanged and interfaces are established between partners in Community projects and those involved in a Eureka project.

The Commission has undertaken to approach all the participants in an existing or planned Eureka project so as to organize the necessary contacts and cooperation. This function will be greatly facilitated by the assistance and cooperation given it by the Member States and the companies concerned.

11. The Commission has examined the Eureka projects and proposals to date in the light of the above-mentioned categories (see annex).

A preliminary exercise on the 72 projects already adopted indicates that :

- 9 projects are in category 1
- 22 projects are in category 2
- 33 projects are in category 3
- 8 projects are in category 4.

For the last two categories the Commission has already expressed its wish to either derive synergy from complementary features and avoid pointless duplication.

12. Bearing in mind the principles outlined in section 9 above and the various types of relations between Eureka projects and Community activities, the Community contribution may be linked:

- directly in the content of the projects, whether it be pre-standardization research or technological aspects ;

- or in the definition and implementation of suitable measures concerning the legal, economic and standards environment, etc.

IV. COOPERATION ARRANGEMENTS BETWEEN EUREKA AND THE COMMUNITY.

A. Community participation in the measures concerning the internal market.

13. In the framework, of the establishment of the internal market by 1992, the Community can provide support for the definition and harmonized implementation of common standards resulting from work in Eureka or essential to the technical and commercial success of a Eureka project. As the Community has stated on many occasions, the identification of additional measures during examination of Eureka projects offers the possibility and have the advantage of :

- extending the scope of Community standardization to the whole of Europe ;

- avoiding inconsistencies in standardization or risks of de facto standardization as these are harmful to users, incompatible with the rules of competition and liable both to create non-tariff barriers to trade and, in the case of telecommunications and information technology, to prevent the necessary compatibility between equipment and networks.
  The Commission therefore considers that Community participation in establishing the necessary standardization environment will comply with existing priorities adopted by the Community, and with existing principles, rules and procedures that are already well established and operate to the satisfaction of the Member States and commercial companies, and even several EFTA countries that are directly associated in some of the Community standardization work, for example through CEN, CENELEC or CEPT.

The Commission is prepared, however, to organise at any time discussions to avoid misunderstandings concerning the implementation of these principles and procedures.

14. The Commission recently clarified and updated its R&D policy as far as the rules of competition and monitoring of government aid are concerned.

Since the Eureka projects are more target-oriented and closer to the marketplace, special attention will of course have to be paid by their promotors to compliance with the rules of competition, from which they cannot be exempted.

Of all the members of Eureka, the Commission is the only authority responsible for ensuring that the distortions of competition do not affect trade between Member States ; it has at its disposal for this purpose the rules of the Treaties and the secondary legislation which define the scope of its action. However, the very principle of Eureka is to promote the development of projects, if necessary, through aid schemes or agreements between companies, but without being able to give consideration to problems of distortion of competition. Already several Member States have made arrangements to help the development of Eureka projects either by specific arrangements or though general support schemes for industry.

In order to demonstrate its open attitude towards Eureka as well as its realistic approach to competition.

On 17 June 1986 the Commission organised a seminar with the industrial partners concerned on the links between the Community's competition policy and the international scientific and technical cooperation agreements and State aid for research and technological development.

In this context the Commission noted the important role played by competition in stimulating technological innovation and modernizing industry. The dialogue with companies initiated here should be continued and participants in Eureka projects should be encouraged to discuss with the Commission any specific problems they perceive in the implementation of their agreements.

As for State aid, the Commission will continue its policy of constructive application of the Treaty rules, as recently clarified in the Community measures concerning State aid for research and development.

15. Some Eureka projects may call for supporting legal measures needed for the implementation and success of cross-frontier technological cooperation projects. The Community is primarily concerned by such measures since the powers given it by the Treaty include the elimination of distortions of competition resulting from differing laws and the removal of barriers to the free movement of goods, people and capital.

The Community is thus working to adopt common rules (which could possibly go beyond the Community framework) on the marketing of products of which it has itself undertaken harmonization. Also to be taken into consideration are the Community achievements on the protection of intellectual and industrial property, promotion of innovation and harmonization of company and tax law, in particular to facilitate international cooperation between companies.

In the light of the measures required by a project, the Community should undertake the in-house work on the harmonization of laws before envisaging any extension through negotiations with Eureka member countries.

Obviously, this extension will be facilitated by a reciprocal flow of information ensuring a maximum of convergence.

B. Community contribution with regard to financing, information networks and the general scientific and technical environment.

16. The Community can offer a general framework to facilitate the financing of research and technological development work by appropriate resources.

The Commission has taken the initiative of setting up a trade association, the EVCA, bringing together the main parties involved in putting up venture capital in Europe, so as to obtain their support in carrying out investment projects. Although it is wider than the Eureka framework, this association could be approached for the financing of Eureka projects.

In addition, the Commission is currently examining, in the framework of its policy of development of financial engineering, means of mobilising new private financial instruments. This involves particularly the EUROTECH mechanism (creation of investment companies - EUROTECH CAPITAL - operating by taking a stake in companies, and whose funds will originate in the private sector; setting-up of a guarantee mechanism - EUROTECH INSUR - which benefits from a Community contribution).

It hopes that this will make it easier to bring private capital into the financing of these projects by improving the view financiers have of the risk inherent in these projects through a partial guarantee system (defrayed in part from the general budget of the European Communities after the Council's agreement).

17. The Community also has expertise in the field of information networks and databases and banks.

The Community can provide support both for questions of technical interfaces and standardization and with regard to consultations between PTTs, hosts, information providers and users which are necessary for the setting-up and proper functioning of these systems.

18. The Community is working to establish a European scientific and technical area by encouraging the training and mobility of research scientists and the setting-up of scientific and technological cooperation networks and by endeavouring to optimize the use of large-scale equipment.

19. The Commission has also offered to make available to the Eureka Secretariat a data base service on Eureka using the system developed by the Commission for Community or international research and technological development programmes.
It has seconded an official to the Eureka Secretariat and has committed itself to contribute 1/6th of its operating costs. These elements are important to ensure coherence between Eureka and Community actions.

C. Community participation in Eureka projects.

20. Wherever Community interests so justify, the Community may need to seek and organize, case by case, interaction and cooperation on the actual content of Eureka projects. The links and relations to be established between the Community and the work of Eureka may differ in form, procedure and intensity depending on the level of complementarity mentioned earlier (see section 11 on the four categories) :

- reciprocal information between participants in Eureka projects and in Community projects (category 2) ;

- organization of work interfaces (category 3) ;
- Community participation in or organization of industrial fora to allow industry to express its research and technology requirements in areas of common interest, to make a review of the work undertaken and where appropriate to help identify the objectives and content of new cross-frontier cooperation projects to be conducted in a given framework ;

- adjustment or adaptation of the content and technical objectives of the Community programmes so as to ensure the required cooperation and complementarity (strengthening or widening of certain areas of pre-competitive or pre-standardization research and technological development needed for Eureka projects that are in the interests of the Community).

The Community may also participate directly in Eureka projects wherever its contribution fits into a framework compatible with the projects and strategy defined at Community level. Such participation may, depending on circumstances, be organised in the Community framework or in the Eureka framework.

Similarly, certain Community research and technological development projects might be followed up, at the product development stage, by Eureka projects.

21. The Community could thus participate :

- in organising consultations between the partners in certain Eureka projects and other parties concerned (producers and users of new technologies),

- in feasibility studies prior to a project likely to interest or affect a wider circle than the participants in the project,

- in implementing certain phases (in particular the definition phase) of a Eureka project at the initiative either of industry or of the Community,

- in carrying out pre-standardization research and technological development work forming part of a Eureka project.

22. The Community participation will depending on circumstances, include a financial contribution appropriate to the type and scale of the work under consideration. This Community financial contribution will be :

(a) Within existing programmes. The Community rules generally involve a call for proposals procedure and in some cases reference to work plans in the context of which the research and technological development work will be carried out.

As far as the procedures of calling for offers or proposals are concerned, there is nothing to prevent a consortium (which may consist of all or some of the participants in a Eureka project) selected by these procedures from carrying out or contributing to (with the agreement of the Eureka participants) a clearly defined part of the work on a given project in accordance with the technical content of the Community programme.

In addition, decisions on Community projects could more systematically contain (as do several of them already) a provision stating that exceptionally the call for proposals procedure would not be used, after consulting the Member States.

Exceptionally, it might be decided by the Council, on a proposal from the Commission which would obtain all the necessary scientific and technical advice, that the call for proposal procedure would not be made. This possibility already exists in certain programme decisions.

As far as the annual work plans for certain Community programmes are concerned, the Commission, in agreement with the Council, should be able to adapt their content and their objectives. This would make it possible to include in the work plans all or part of the fields or technical objectives covered by one or more Eureka projects that are in the interests of the Community.

(b) Outside the existing programmes.

The approach adopted in the framework programme for Community research and technological development activities consists of defining the scientific and technical objectives and the broad lines of the planned activities.

The framework programme therefore exhibits a degree of flexibility in its implementation through specific programmes that are defined at a later date but remain in keeping with the broad lines and balances approved by the Council.

Consequently, with the agreement of the Council, it is open to the Community, where appropriate and at the right time, to cooperate in one or more Eureka projects covering fields that have not yet been included in Community programmes.
In addition, it would also be advisable to make provision for increasing other specific budget lines, especially for standardization work, so as to allow rapid action should it prove necessary to participate in Eureka projects that do not directly fit into specific Community programmes.

Finally, in the framework of the development of its financial engineering policy, the Commission will endeavourr to implement new forms of financing allowing private funding to be mobilised.

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Summary and Conclusions

The European Council decided at Milan in June 1985 to implement a European Technology Community, while at the same time supporting EUREKA.

Having supported the EUREKA initiative from its inception, the Commission wishes, by means of this document, to indicate to industry and researchers the respective place of actions carried out by the Community in the framework of its RDT policy, and EUREKA projects. This communication also presents the procedures through which the Commission intends to support EUREKA projects, which in the same way as Community intervention, make a contribution both to the technological base and to the industrial competitivity of Europe.

The Community RDT activities are situated further upstream from the market than EUREKA projects, which aim to re-inforce the cooperation between European firms to develop new products, processes and services.

The Community programmes are principally aimed at basic research (fusion), pre-competitive and pre-normative research (ESPRIT, BRITE, RACE, new materials, raw materials), and lastly at "brain synergy" (Researchers' Europe).

This is why, in practice, the support of the Commission to EUREKA will be in the framework of institutional mechanisms, Community objectives and policies, and particularly the implementation of the internal market in 1992, and will take the following forms (certain of these procedures have been implemented already):

PARTICIPATION IN EUREKA PROJECTS

- execution of EUREKA projects or of certain phases of projects, in particular those having a pre-normative character. The participation of the Commission in these EUREKA projects will be guided by their compatibility with the procedures for Community intervention in RDT, as defined in the Framework Programme 1987-1991. This participation will benefit from a budgetary support to be decided project by project following the procedures for Community intervention;

- contribution of Community financial instruments and proposals of the Commission in terms of financial engineering in the financing of EUREKA projects;

ENVIRONMENT AND PROMOTION OF TECHNOLOGICAL AND INDUSTRIAL COOPERATION IN EUROPE

- organisation of industrial fora aimed at identifying the objectives and content of new actions in technological and industrial cooperation to be carried out in the Community framework or that of EUREKA;

- organisation of the concertation between the participants in certain EUREKA projects and the other actors concerned (producers and users of new technologies) (e.g. High Definition Television);

- definition and the harmonised implementation of common standards deriving from the work of EUREKA or indispensable for the technical and commercial success of a project carried out in this framework;

- constructive application to EUREKA projects, as to other projects in technological and industrial development in Europe, of the rules of the Treaty concerning competition or the incorporation into the Community framework of state aids to research and development;

CONTRIBUTION TO THE EUREKA SECRETARIAT

- secondment of a Commission official to the Secretariat;

- financial contribution to the budget of the Secretariat;

- making available to EUREKA knowledge and experience in the fields of transnational databases and information networks.

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ANNEXES

Annex 1. Links between Eureka projects adopted at 30 June 1986 and Community programmes or activities

Annex 2. List of Eureka projects approved at 30 June 1986
(field, duration and expected cost)

Annex 3. Projects put forward for approval at the Stockholm Ministerial Conference (17 December 1986)

Annex 4. Statistical analysis of the 72 projects approved at 30 June 1986

The indications given in this annex are those available at 19.11.1986. They are subject to change to the extent that the information given by the participants is generally subject to modification and adjustment.

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LINKS BETWEEN EUREKA PROJECTS ADOPTED AT 30 JUNE 1986 AND COMMUNITY PROGRAMMES OR ACTIVITIES

PROJECT #	TITLE	CATEGORY	LINKS WITH COMMUNITY PROGRAMMES
1	EDUCATIONAL COMPUTING PROJECT	3	ESPRIT II DELTA
2	COMPACT VECTORIAL MINI COMPUTER	2	ESPRIT AIP
3	PHOTOTRONICS PROPOSAL	3	ENERGY ENERGY-DEMO ESPRIT(833)
4	ADAPTIVE GARMENT MANUFACTURING UNIT (UPAC)	3	BRITE(1362, 1247, 1264, 1078) ESPRIT (CIM)
5	MEMBRANES FOR ULTRA MICROFILTRATION	3	BRITE(1566)
6	EUROLASER	3	BRITE(1092, 1206)
7	EUROTRAC	4	ENVI(611)
8	COSINE	4	ESPRIT(dom. IES) STIMULATION
9	CLINICAL DIAGNOSIS OF GONORRHOEA		Not Available
10	FLEXIBLE MANUFACTURING ALL OPTRONICS	3	ESPRIT(688, 955,118,278, 384,418,977) BRITE(1206+)
12	WIDEBAND TELECOMMUNICATIONS SYSTEM DEVELOPMENT	3	RACE
13	CARMAT 2000	3	EURAM BRITE(1084, 1523)
	AUTOMATISED FLEXIBLE MANUFACTURING FOR ELECTRONIC EQUIPMENT PRODUCTION	3	ESPRIT(118, 278,293,688, 955,418+) BRITE(1504,1381
15	EUROPEAN CENTER FOR NEW IMAGE SYNTHESIS TECHNOLOGIES	3	CCR(ISPRA) ESPRIT (OS, AIP)
16	AUTOMATIC DESIGN OF APPLICATION SPECIFIC INTEGRATED CIRCUITS WITH DIRECT WRITING ON SILICON WAFER	2	ESPRIT(554, 887).
17	MICROLITHIC MICROWAVE INTEGRATED CIRCUITS FOUNDRY (AsGa MMIC'S)	2	ESPRIT(943, 971,1128,255) RACE
18	ADVANCED MOBILE ROBOT	2	ESPRIT(9 118 179,278,534, 623,1136)
19	EXPERT SYSTEM FOR SECURITY CONTROL	4	CCR(ISPRA) ESPRIT(932, 809, 504).
20	EUREKA ADVANCED SOFTWARE TECHNOLOGY	3	ESPRIT(32, 951, 282)
21	PARADI	3	ESPRIT(118, 278,293,688, 955+) BRITE(1025,1381,+)
22	AUTOMATIC INTEGRATED SYSTEM FOR NEUTRONOGRAPHY	3	ESPRIT(dom.C IM) BRITE(do m.4)
23	DESTRUCTION AND DETECTION OF CHEMICALS BY LASER BEAM	3	CCR(ISPRA) ENVIRONMENT BRITE
24	GTO THYRISTORS	2	ESPRIT(dom. MEL)
25	CHROME TANNING SALT SUBSTITUTE	2	BIOTECH BRITE
26	GALENO 2000	3	MED ESPRIT(dom.AIP)
27	VEHICLE NOISE IDENTIFICATION	3	ENVIRONMENT
28	ADVANCED PROJECT FOR EUROPEAN INFORMATION EXCHANGE	3	ESPRIT(688, 955)
29	DEVELOPMENT OF NEW MATERIALS FOR CAR ENGINES	3	EURAM BRITE(dom.6,4) ENERG(dom ECO) COST(503-506
	PAN (N5)	3	BRITE(dom.6)
33	UTILISATION OF CERAMICS IN GAS TURBINE	3	EURAM BRITE(1346,1253) COST(501) CCR(PETTEN)
34	MODULAR IMAGE PROCESSOR	2	ESPRIT (dom. OS, AIP)
37	DEVELOPMENT, APPLICATION OF TECHNOLOGIES FOR THE EXPLORATION OF ECOLOGICAL RELATIONS IN THE SEAS OF EUROPE.	4	ENVIRONMENT CCR(ISPRA)
38	DEVELOPMENT OF AN ALL DRY SINGLE-LAYER PHOTOLITOGRAPHY TECHNOLOGY AND SUB-MICRON DEVICES	2	ESPRIT(574) MR-12-ELT
39	GAS PROPORTIONAL SCINTILLATION COUNTER	2	ESPRIT
40	PROSPECTS FOR CONSTRUCTION TECHNIQUES		Not Available
41	PROTEIN DESIGN	4	BIOTECH
42	LIGHT MATERIALS FOR TRANSPORT SYSTEMS	3	BRITE(dom.2, 3, 6) EURAM COST(506)
43	EUREKA SOFTWARE FACTORY	3	ESPRIT(951, 282, 20) ESPRIT II
45	PROGRAMME FOR A EUROPEAN TRAFFIC SYSTEM WITH HIGHEST EFFICIENCY AND UNPRECEDENTED SAFETY	4	RACE DRIVE COST(30,30b)
47	DEVELOPMENT OF A NEW EFFICIENT FIBRE REINFORCED CERAMICS FOR UTILIZATION IN DIESEL ENGINES FOR COMMERCIAL VEHICLES	3	BRITE(1348,dom. 1,6 1253) ERAM CCR(P ETTEN) ENRG
48	UNIVERSAL MODULAR COLOUR DISPLAY SYSTEM FOR PROCESS CONTROL	2	ESPRIT(946) ESPRIT II
50	SUB 0.1 MICRON ION PROJECTION.	3	ESPRIT(1007, 554)

LINKS BETWEEN EUREKA PROJECTS ADOPTED AT 30 JUNE 1986 AND COMMUNITY PROGRAMMES OR ACTIVITIES

PRO-JECT #	T I T L E	CA-TE-GO-RY	LINKS WITH COMMUNITY	# PROGRAMMES
51	INTEGRATED WORK PLACE FOR OPERATING ROOM & INTENSIVE CARE UNITS AS PART OF A HOSPITAL AUTOMATION SYSTEM.	2	ESPRIT(dom. AIP) MED	
53	EAU CLAIRE SYSTEM	2	ENVIRONMENT	
54	TRANSPOLIS, CONCEPT FOR CENTRES OF TRADE AND TRANSPORT	3	ESPRIT(dom. EIS) COST(31 0,306,30,30b)	
55	SYSTEM FOR THE ACQUISITION, TRANSMISSION, PROCESSING & PRESENTATION OF INFORMATION TO IMPROVE THE SAFETY OF THE DRIVER.	3	DRIVE COST(30,30b)	
56	PROLOG TOOLS FOR BUILDING EXPERT SYSTEMS	4	ESPRIT(951, 973,363,107, 1106,967,393 ,415)	
57	SUNFLOWER SEEDS	2	BIOTECH	
58	EUROPOLIS	3	DRIVE COST(30,30b, 306,310,11t)	
59	PHARMACOLOGICAL & CLINICAL DEVELOPMENT OF OXIDIPINE, A CALCIUM ANTAGONIST, AND STUDIES OF RELATED STRUCTURES	1		
60	INTEGRATED SENSORS FOR LARGE SCALE APPLICATIONS	2	ESPRIT(dom. CIM)	
61	MOSES	2	ESPRIT(dom. AIP)	
63	CROP MANAGEMENT EXPERT SYSTEMS	2	ESPRIT(dom. AIP) BIOTECH AGRI	
64	DEVELOPMENT OF COMPUTERISED ENGINEERING UNITS	3	BRITE(dom.5, 9) ESPRIT(do m.CIM,AIP)	
68	INDUSTRIAL LOCAL AREA NETWORK FOR REALTIME PROCESS & MACHINE CONTROL	3	BRITE(dom.5) ESPRIT(955, 818)	
69	FAST PROTOTYPING SERVICE FOR SILICON APPLICATION-SPECIFIC IC'S ASICs	2	ESPRIT(802, 888,854,16)	
79	BD 11	3	CCR(ISPRA) ESPRIT	
82	ADA REALISTIC SOFTWARE WORKSHOP FOR REAL TIME APPLICATIONS	2	ESPRIT(dom. ST)	
86	ELECTRON BEAM WELDING	3	BRITE(dom.3)	
90	HIGH PERFORMANCE SIGNAL PROCESSING FOR LABORATORY ENVIRONMENTS	2	ESPRIT(dom. CIM,AIP)	
93	APPLICATION OF ROBOTICS TO THE CONSTRUCTION INDUSTRY	2	ESPRIT(dom. CIM)	
94	POLYVALENT MEASURING SYSTEM FOR HAZARDOUS GASES	3	CCR(ISPRA)	
95	COMPATIBLE HIGH DEFINITION TELEVISION SYSTEM (HDTV)	4	RACE	
96	SUPRA CONDUCTOR COILS	Not Available		
97	NEW DESIGNS AND TECHNOLOGIES FOR HIGH POWER SEMI-CONDUCTOR DEVICES	2	ENERGE-DEMO	
99	FISHING VESSEL FOR YEAR 1990	1	ESPRIT(dom. CIM,OS)	
101	MALARIA VACCINE	2	BIOTECH	
104	MASS PRODUCTION FROM ANIMAL CELLS CULTURE BY A CONTINUOUS PROCESS	4	BIOTECH	
107	PRODUCTION OF PRECURSOR FOR HIGH PERFORMANCE CERAMIC MATERIALS BY WET CHEMISTRY.	3	EURAM CCR(PE TTEN) BRITE (8) COST(503)	
109	ABSORPTION HEAT PUMP PROJECT	4	ENERG-DEMO ENERG(dom. E CO)	
110	MOBILE ROBOT FOR REMOTE SURVEILLANCE	2	ESPRIT(dom. CIM)	
111	ADVANCED POWER GENERATION SYSTEM	2	BRITE ENERG-DEMO	

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LIST OF EUREKA PROJECTS APPROVED AT 30 JUNE 1986 (field, duration and expected cost)

PRO-JECT #	F U L L T I T L E	DURA-TION in months	COST(1) KEcus for completion of projects	COST/ YEAR(1) in MEcus
** **EUROBIO**				
9	CLINICAL DIAGNOSIS OF GONORRHOEA	24	2600	1.30
26	GALENO 2000	60	60000	12.00
41	PROTEIN DESIGN	60	16000	3.20
51	INTEGRATED WORK PLACE FOR OPERATING ROOM & INTENSIVE CARE UNITS AS PART OF A HOSPITAL AUTOMATION SYSTEM.	60	13000	2.60
57	SUNFLOWER SEEDS	120	4000	0.40
59	PHARMACOLOGICAL & CLINICAL DEVELOPMENT OF OXIDIPINE, A CALCIUM ANTAGONIST, AND STUDIES OF RELATED STRUCTURES	96	6000	0.75
101	MALARIA VACCINE	48	11000	2.75
104	MASS PRODUCTION FROM ANIMAL CELLS CULTURE BY A CONTINUOUS PROCESS	36	25500	8.50
	sub-total	504	138100	31.50
** **EUROBOT**				
4	ADAPTIVE GARMENT MANUFACTURING UNIT (UPAC)	48	23000	5.75
10	FLEXIBLE MANUFACTURING ALL OPTRONICS	60	83000	16.60
14	AUTOMATISED FLEXIBLE MANUFACTURING FOR ELECTRONIC EQUIPMENT PRODUCTION	60	30000	6.00
18	ADVANCED MOBILE ROBOT	72	100000	16.66
19	EXPERT SYSTEM FOR SECURITY CONTROL (2)	48	30000	7.50
21	PARADI	72	30000	5.00
22	AUTOMATIC INTEGRATED SYSTEM FOR NEUTRONOGRAPHY	48	15000	3.75
30	PAN (N5)	24	2000	1.00
60	INTEGRATED SENSORS FOR LARGE SCALE APPLICATIONS	60	27000	5.40
64	DEVELOPMENT OF COMPUTERISED ENGINEERING UNITS	36	17000	5.67
68	INDUSTRIAL LOCAL AREA NETWORK FOR REALTIME PROCESS & MACHINE CONTROL	60	25600	5.12
69	FAST PROTOTYPING SERVICE FOR SILICON APPLICATION-SPECIFIC IC'S ASICs	60	30000	6.00
86	ELECTRON BEAM WELDING	48	2400	0.60
93	APPLICATION OF ROBOTICS TO THE CONSTRUCTION INDUSTRY -HERCULE GEO	60	22000	4.40
99	FISHING VESSEL FOR YEAR 1990	60	56000	11.20
110	MOBILE ROBOT FOR REMOTE SURVEILLANCE	54	33300	7.40
	sub-total	870	526300	108.05
** **EUROCOM**				
8	COSINE (*)	12	1950	1.95
12	WIDEBAND TELECOMMUNICATIONS SYSTEM DEVELOPMENT	60	160000	32.00
28	ADVANCED PROJECT FOR EUROPEAN INFORMATION EXCHANGE	60	30000	6.00
54	TRANSPOLIS, CONCEPT FOR CENTRES OF TRADE AND TRANSPORT	36	66000	22.00
61	MOSES	36	75000	25.00
95	COMPATIBLE HIGH DEFINITION TELEVISION SYSTEM (HDTV)	48	180000	45.00
	sub-total	252	512950	131.95
** **EUROEDUCA**				
1	EDUCATIONAL COMPUTING PROJECT	36	32000	10.67

(1) The total given is for the full completion of the project (including the definition phase and for infrastructure, the infrastructure cost)

(*) The asterisk shows the financial information provided represents only the cost of the definition phase of the project

(2) Can also be referred ni EUROENV

PRO-JECT #	F U L L T I T L E	DURA-TION in months	COST(1) in KEcus for completion of projects	COST/ YEAR(1) in MEcus
	sub-total	36	32000	10.67
**	**EUROENERGY**			
109	ABSORPTION HEAT PUMP PROJECT	60	10000	2.00
111	ADVANCED POWER GENERATION SYSTEM	84	47000	6.71
	sub-total	144	57000	8.71
**	**EUROENV**			
5	MEMBRANES FOR ULTRA MICROFILTRATION	72	34900	5.82
7	EUROTRAC	120	68000	6.80
23	DESTRUCTION AND DETECTION OF CHEMICALS BY LASER BEAM.	60	9000	1.80
27	VEHICLE NOISE IDENTIFICATION	48	1600	0.40
37	DEVELOPMENT, APPLICATION OF TECHNOLOGIES FOR THE EXPLORATION OF ECOLOGICAL RELATIONS IN THE SEAS OF EUROPE.	108	164000	18.22
53	EAU CLAIRE SYSTEM (*)	12	400	0.40
94	POLYVALENT MEASURING SYSTEM FOR HAZARDOUS GASES	48	2800	0.70
	sub-total	468	280700	34.14
**	**EUROLASER**			
6	EUROLASER	120	83000	8.30
	sub-total	120	83000	8.30
**	**EUROMAT**			
13	CAR STRUCTURE USING NEW MATERIALS CARMAT 2000	48	60000	15.00
25	CHROME TANNING SALT SUBSTITUTE	36	2500	0.83
29	DEVELOPMENT OF NEW MATERIALS FOR CAR ENGINES	60	15000	3.00
33	UTILISATION OF CERAMICS IN GAS TURBINE	60	16000	3.20
40	PROSPECTS FOR CONSTRUCTION TECHNIQUES	60	9200	1.84
42	LIGHT MATERIALS FOR TRANSPORT SYSTEMS	48	15000	3.75
47	DEVELOPMENT OF A NEW EFFICIENT FIBRE REINFORCED CERAMICS FOR UTILIZATION IN DIESEL ENGINES FOR COMMERCIAL VEHICLES	60	14000	2.80
96	SUPRA CONDUCTOR COILS	36	8000	2.67
107	PRODUCTION OF PRECURSOR FOR HIGH PERFORMANCE CERAMIC MATERIALS BY WET CHEMISTRY.	36	2000	0.66
	sub-total	444	141700	33.75
**	**EUROMATIC**			
2	COMPACT VECTORIAL MINI COMPUTER	60	50000	10.00
3	PHOTOTRONICS PROPOSAL	84	50000	7.14
15	EUROPEAN CENTER FOR NEW IMAGE SYNTHESIS TECHNOLOGIES	60	8500	1.70
16	AUTOMATIC DESIGN OF APPLICATION SPECIFIC INTEGRATED CIRCUITS WITH DIRECT WRITING ON SILICON WAFER	36	94000	31.33
17	MICROLITHIC MICROWAVE INTEGRATED CIRCUITS FOUNDRY (AsGa MMIC'S)	36	60000	20.00
20	EUREKA ADVANCED SOFTWARE TECHNOLOGY	72	141000	23.50
24	GTO THYRISTORS	24	20000	10.00

(1) The total given is for the full completion of the project (including the definition phase and for infrastructure, the infrastructure cost)

(*) The asterisk shows the financial information provided represents only the cost of the definition phase of the project

PRO-JECT #	F U L L T I T L E	DURA-TION in months	COST(1) in KEcus for completion of projects	COST/ YEAR(1) in MEcus
34	MODULAR IMAGE PROCESSOR	48	7000	1.75
38	DEVELOPMENT OF AN ALL DRY SINGLE-LAYER PHOTOLITOGRAPHY TECHNOLOGY AND SUB-MICRON DEVICES	36	4000	1.33
39	GAS PROPORTIONAL SCINTILLATION COUNTER	48	4000	1.00
43	EUREKA SOFTWARE FACTORY	96	327000	40.88
48	UNIVERSAL MODULAR COLOUR DISPLAY SYSTEM FOR PROCESS CONTROL	36	1000	0.33
50	SUB 0.1 MICRON ION PROJECTION.	48	5000	1.25
56	PROLOG TOOLS FOR BUILDING EXPERT SYSTEMS	36	2300	0.77
63	CROP MANAGEMENT EXPERT SYSTEMS	36	1200	0.40
79	BD 11	60	20000	4.00
82	ADA REALISTIC SOFTWARE WORKSHOP FOR REAL TIME APPLICATIONS	24	4300	2.15
90	HIGH PERFORMANCE SIGNAL PROCESSING FOR LABORATORY ENVIRONMENTS	24	400	0.20
97	NEW DESIGNS AND TECHNOLOGIES FOR HIGH POWER SEMI-CONDUCTOR DEVICES	24	5000	2.50
	sub-total	888	804700	160.23
**	**EUROTRANS**			
45	PROGRAMME FOR A EUROPEAN TRAFFIC SYSTEM WITH HIGHEST EFFICIENCY AND UNPRECEDENTED SAFETY	96	400000	50.00
55	SYSTEM FOR THE ACQUISITION, TRANSMISSION, PROCESSING & PRESENTATION OF INFORMATION TO IMPROVE THE SAFETY OF THE DRIVER.	48	52000	13.00
58	EUROPOLIS	84	128000	18.29
	sub-total	228	580000	81.29
	TOTAL	3954	3156450	608.59

(1) The total given is for the full completion of the project (including the definition phase and for infrastructure, the infrastructure cost)

(*) The asterisk shows the financial information provided represents only the cost of the definition phase of the project

ANNEX 3

PROJECTS PUT FORWARD FOR APPROVAL AT THE STOCKHOLM MINISTERIAL CONFERENCE (17 DECEMBER 1986)

PROJECT #	FULL TITLE	DURATION in months	COST(1) in KEcus for completion of projects	COST/YEAR(1) in MEcus
11	AUTOMATED, FLEXIBLE MANUFACTURING LINE FOR ICs	60	22000	4.40
32	COMPACT NON-POLLUTING 300 MW POWER STATION	60	208000	41.60
52	DISPOSAL SENSORS AS AN INTEGRAL PART OF FUTURE PATIENT MONITORING SYSTEM	60	4000	0.80
72	FAMOS	120	478000	47.80
78	DEVELOPMENT OF RHIZOBACTERIA PRODUCTS FOR GROWTH PROMOTION,FUNGAL DISEASE CONTROL IN CORN, SUNFLOWER BEET, SOYBEAN WHEAT	48	2700	0.68
81	MULTILINGUAL INFORMATION SYSTEM	60	53000	10.60
83	TWENTY FIVE KWATTS LASER CELL PROJECT	48	7000	1.75
84	INTEGRATED HOME SYSTEMS	24	21600	10.80
85	FIABEX	24	64000	32.00
87	NEW DRILLING SYSTEM	48	26000	6.50
88	OPTICAL DISK STORAGE SYSTEMS	24	45000	22.50
89	ACHIPOSE	42	274000	78.29
100	PRODUCTION OF ARTIFICIAL SEEDS	60	3300	0.66
102	MULTI-MEGBIT NON VOLATILE MEMORIES	60	416200	83.20
105	DEVELOPMENT OF IMPROVED SYSTEM FOR STEREOPHONIC SOUND REPRODUCTION	60	8000	1.60
106	EUROPEAN HORIZONTALLY INTEGRATED PRODUCTION ENGINEERING MANAGEMENT SYSTEM.	72	89900	14.98
112	AEROSPACE INTELLIGENT MANAGEMENT AND DEVELOPMENT TOOL FOR EMBEDDED SYSTEM	60	64000	12.80
113	PROPOSAL FOR THE DEVELOPMENT OF AN INDUSTRIAL CARBON MONOXIDE LASER	12	500	0.50
115	DEFINITION STUDY REGARDING THE PRACTICAL USEABILITY OF GREATER THAN 1 KW AVERAGE POWER FROM A SOLID STATE LASER	12	0	0.00
124	INTELLIGENT AUTOMATED INSPECTION AND ANALYSIS OF INTEGRATED CIRCUITS	48	13100	3.27
127	JOINT EUROPEAN SUBMICRON SILICON	9	4000	5.33
128	MULTIVARIABLE ON-LINE BILINGUAL DICTIONARY KIT	36	3500	3.15
129	SUPER SUBSEA	60	10500	2.10
130	COMPUTER AIDED MANUFACTURING FOR CONTRUCTIONL STEELWORK INCLUDING EXPERT SYSTEMS	48	0	0.00
132	OPTICAL TRANSMISSION AT GB/S RATES	30	17600	7.04
133	IQ INTELLIGENT QUATTRO	48	2100	0.53
134	AIT TOURIST INFORMATION SYSTEM (ATIS)	48	10000	2.50
135	IMPROFEED	72	10500	1.75
136	INK JET PRINTING	36	13200	4.40
138	COATINGS FOR ADVANCED TECHNOLOGY	48	300	1.18
139	DEVELOPMENTOF METHODS FOR THE PREDICTION OF MATERIALS PROPERTIES OF INJECTION MOLDED THERMOPLASTIC PRODUCT	60	1700	0.32
140	EUROPEAN PROJECT OF CONSERVATION & RESTORATION	120	0	0.00
143	AUTOMATIC CUT TOOL FOR LEATHER INDUSTRIES	60	10800	2.16
144	EUROPEAN ROAD TRANSPORT INFORMATION SERVICES	36	2200	0.73
145	ELECTRONIC PUBLISHING OF CARTOGRAPHIC AND GEOGRAPHIC DATABASES TELE ATLAS	36	4200	1.40
147	EUROPEAN ELABORATION OF A TECHNICAL STANDARD FOR A TERRESTRIAL DIGITAL AUDIO BROADCASTING SYSTEM	48	38300	9.60
149	ADVANCED FINITE ELEMENT SOFTWARE FOR THE DESIGN OF STRUCTURAL FLUID FLOW & MICOELECTRONIC SYSTEM.	0	0	0.00
150	THERAPY ADVISER FOR ONCOLOGY	0	12000	0.00
151	HIGH QUALITY SPEECH CODCECS AT MEDIUM TO LOW BIT RATES	36	4000	1.33
152	INTEGRATED PRODUCTION SYSTEM FOR METALLIC PARTS	60	30000	6.00
153	OPEN AND SECURE INFORMATION SYSTEMS	0	92000	0.00
154	FACTORY OF THE FUTURE	48	17000	4.25
155	COOPERATIVE RESEARCH IN LASER APPLICATIONS	36	7500	2.50
156	INTEGRAL TREATMENT AND DISPOSAL OF WASTE WATER AND SEWAGE SLUDGE	60	11500	2.30

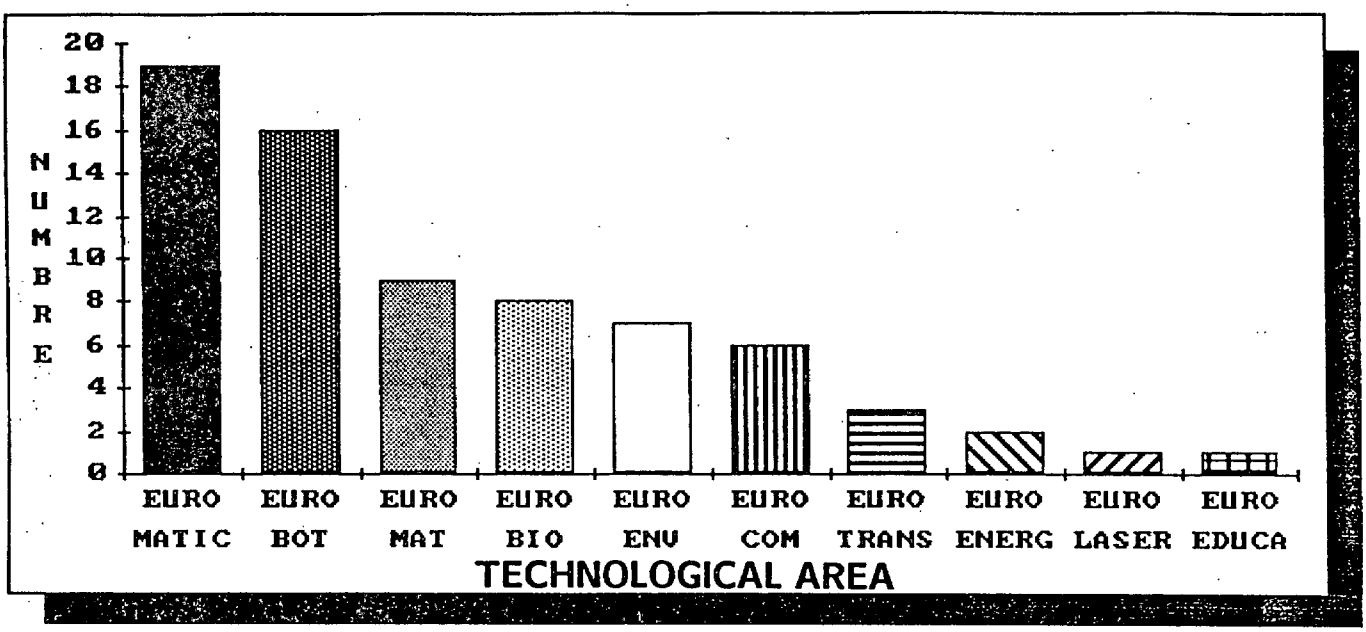
(1) The total given is for the full completion of the project (including the definition phase and for infrastructure, the infrastructure cost)

PROJECT #	F U L L T I T L E	DURATION in months	COST(1) in KEcus for completion of projects	COST/YEAR(1) in MEcus
157	EUROPEAN COMMON LISP	18	4300	2.86
158	PRE-CARACTERISATION CELLS USED TO DESIGN HIGH POWER MOS INTEGRATED CIRCUITS	24	1300	0.65
160	INORGANIC MEMBRANE USED IN SEVERANCE PROCESS OF BIOLOGICAL PRODUCTS COMING FROM FERMENTATION AND FOR PHARMACEUTICAL USE.	60	14700	3.00
161	ZEOL SYSTEM	24	10000	5.00
162	PROCESS INDUSTRY APPLICATIONS OF ELECTRON BEAM TREATMENT, DEVELOPMENT OF ELECTRON BEAM TECHNOLOGY	36	3300	1.28
163	EUROPEAN VISION SYSTEM ECONOMIC	0	0	0.00
164	MICROENCAPSULATION	12	500	0.50
165	HIGH SPEED COMPUTER SUPPORT FOR TRANSLATION	24	1400	0.60
	TOTAL	2235	138700	447.19

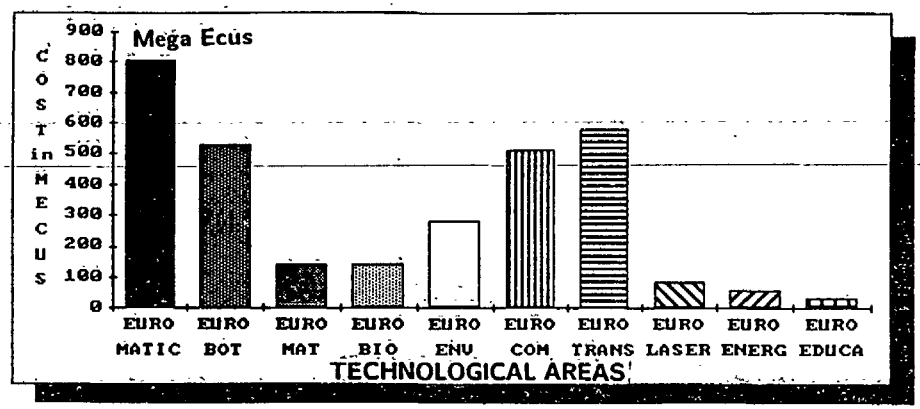
(1) The total given is for the full completion of the project (including the definition phase and for infrastructure, the infrastructure cost)

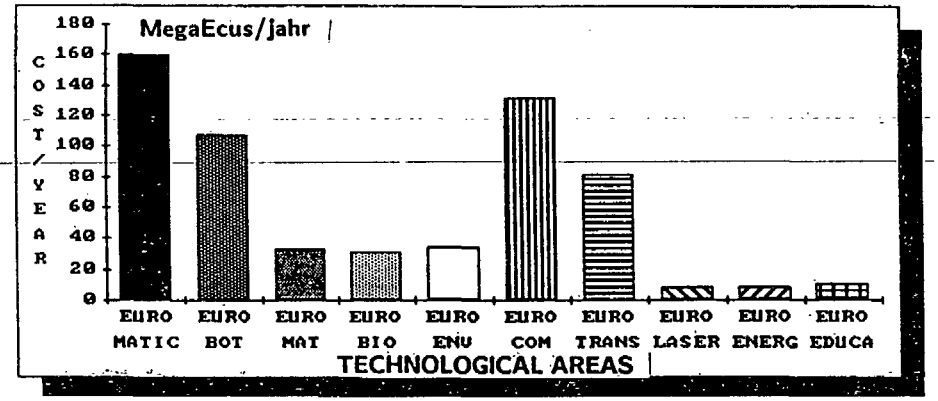
ANNEX 4

STATISTICAL ANALYSIS OF THE 72 EUREKA PROJECTS APPROVED ON JUNE 1986

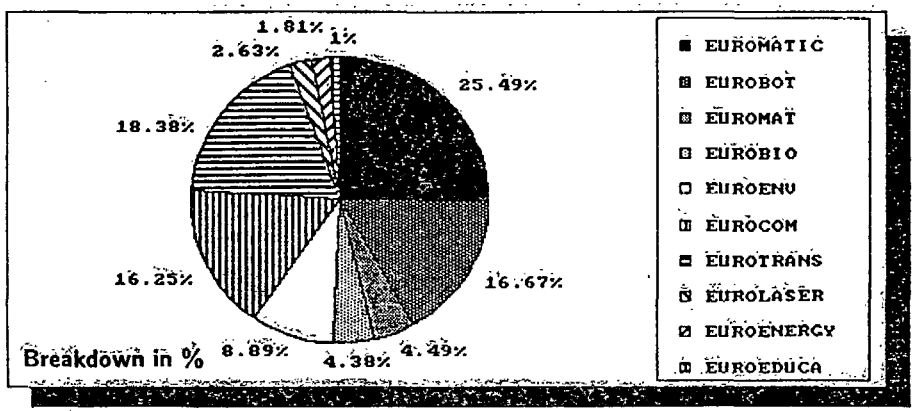


NUMBER OF PROJECTS IN EACH TECHNOLOGICAL AREA

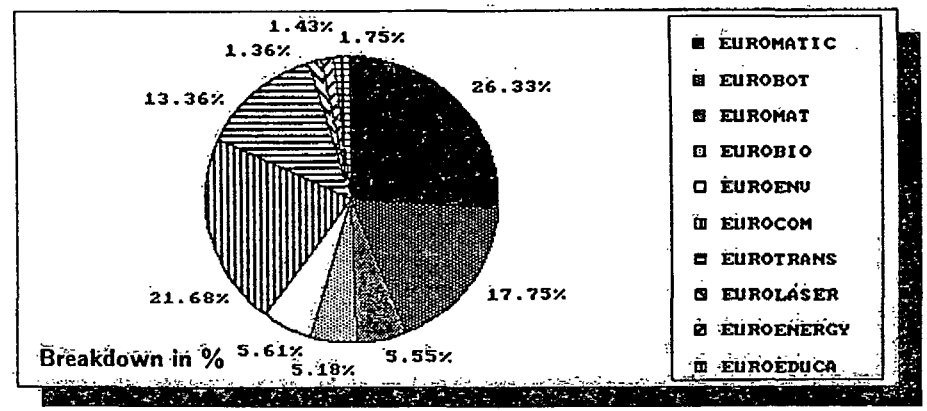




TOTAL COST OF PROJECTS BY TECHNOLOGICAL AREA



TOTAL ANNUAL COSTS OF PROJECTS BY TECHNOLOGICAL AREA



The total given is for the full completion of the project (including the definition phase and for infrastructure, the infrastructure cost)