COUNCIL DECISION

of 21 December 1982

on a preparatory phase for a Community research and development programme in the field of information technologies

(82/878/EEC)

THE COUNCIL OF THE EUROPEAN COMMUNITIES,

Having regard to the Treaty establishing the European Economic Community, and in particular Article 235 thereof,

Having regard to the proposal from the Commission,

Having regard to the opinion of the European Parliament [1],

Having regard to the opinion of the Economic and Social Committee [2],

Whereas, by its resolution of 14 January 1974 [3], the Council invited the Commission to define projects of interest to the Community in the field of science and technology ;

Whereas the need to develop scientific and technical research at Community level was stated by the Council on 9 November 1981 and the Heads of State or Government on 26 and 27 November 1981 ;

Whereas the overall Community strategy results from the creation and implementation of a general framework programme of common scientific and technical activities ; whereas amongst the basic options proposed by the Commission for the framework programme the 'promotion of industrial competitiveness' calls for special support measures ; whereas the development of the new information technologies is a special objective, especially as they must back up and enhance the efficiency of the Community's research and innovation capability, which are essential factors for European industrial competitiveness ;

Whereas it is necessary to make an urgent start on a preparatory phase in order to prepare a full-scale programme of research and development in information technologies ;

Whereas, since the specific powers of action required to adopt this Decision have not been provided for in the Treaty, it is necessary to invoke Article 235 thereof,

HAS DECIDED AS FOLLOWS :

Article 1

A Community research and development activity in the field of information technologies is hereby adopted for a maximum period of one year commencing not earlier than 1 January 1983.

This activity will be a preparatory phase for a Community research and development programme in this field.

Article 2

The activity is designed essentially to verify the approach to the establishment, in the field of information technologies, of precompetitive research and development cooperation at Community level concerted with national programmes.

The activity will take account of requirements regarding the development of standards to serve the interests of European industry in this field.

The activity will consist of 16 pilot projects as defined in the Annex hereto. The projects will be executed by means of shared cost contracts, normally on the basis of a minimum contribution of 50 % from contractors with the remainder being contributed by the Community. In some exceptional cases, it may be necessary to fall below the minimum contribution of 50 % from contractors but, in all cases, a substantial contribution from contractors will be required.

Article 3

The activity will be open, on an equal footing and under appropriate conditions, to participation by all undertakings, including small and medium-sized undertakings, universities and other bodies in all the Member States which are carrying out research and development activities in information technologies in the Community and which are interested in taking part. Each contract should have at least one industrial participant.

[1] Opinion delivered on 17 December 1982 (not yet published in the Official Journal).
[2] Opinion delivered on 25 November 1982 (not yet published in the Official Journal).
[3] OJ No C 7, 29. 1. 1974, p. 6.

Article 4

The Community funds estimated as necessary for the execution of the activity should be 11·5 million ECU.

Article 5

The Commission will institute an evaluation, by experts, of the experience obtained during the activity with special reference to the establishment of precompetitive research and development cooperation at Community level concerted with national programmes and will forward a report thereon to the Council at the end of the activity.

Done at Brussels, 21 December 1982.

For the Council

The President

O. MØLLER

ANNEX

The pilot projects include within the given areas the following specific research and development projects :

I. ADVANCED MICROELECTRONICS

— **Advanced interconnect for very large scale integration (VLSI)**

The development of a multi-layer metal interconnection technology that will enable one micron minimum feature size components to be interconnected at high density within the chip.

— **High level computer aided design for interactive layout and design**

The development of new high level computer aided design tools needed to solve the layout and connectivity problems inherent in VLSI circuit technology.

II. SOFTWARE TECHNOLOGY

— **Portable common tool environment**

A research and development project to investigate the problems of providing a common base for software development toolsets to be used to foster European cooperative research and development in software technology. The work should lead to a software tool environment and the definition of interfaces and standards.

— **Formal specification and systematic programme development**

A research and development project to identify a systematic approach to software development based on formal specifications and transformations of representations and to develop a coherent toolset supporting each phase of the software life cycle.

— **Software production and maintenance management systems (SPMMS)**

A research and development project to define and implement a complete consistent and efficient information management system for all the activities in the life cycle of software. Emphasis is on the organizational aspects of software development, on the product characteristics of software, and on the mutual dependencies between business and technical decisions.

III. ADVANCED INFORMATION PROCESSING

— **Advanced algorithms and architecture for signal processing**

To develop algorithmic structures, languages for expressing them and experimental prototypes for signal processing leading to a technology for the man machine interfaces that will be an essential part of future information systems and will enable input and output information to be spoken and visual.

— **Knowledge information management system**

A research and development project leading to the definition and construction of experimental prototypes of a first generation knowledge based system. These will serve as vehicles for the development of advanced knowledge processing technologies.

— **Interactive query system**

A research and development project concerning query language, inference techniques and query optimization leading to the technology needed for interactive query systems that will be significantly easier to use by non-dp experts.

IV. OFFICE AUTOMATION

— **Functional analysis of office requirements**

A methodical investigation leading to the classification of office activities by high level function. The classification will enable the functional specifications of new systems to be formulated and the technologies needed to implement the chosen functions to be developed.

— **Multi-media user interface at the office workstation**

A research and development project leading to the development of the technologies needed to handle in an integrated way multi-media communications and documents, carrying simultaneously text, picture and voice. Work is to include ergonomic considerations of new terminals that will be needed.

— **Local wideband communication system**

A research and development project to define and take to experimental prototype stage a local area wideband communications system embracing speech data, text, graphics and video, that can also form the basis for a European standard.

— **Office filing and retrieval of unstructured information**

A project defining office filing systems permitting (partially content addressable) retrieval of mixed mode information. This is expected to lead to the establishment of requirements and functional capabilities suitable for standardization proposals.

V. COMPUTER INTEGRATED MANUFACTURING (CIM)

— **Design rules for computer integrated manufacturing systems**

A methodical investigation into the design rules required for system integration of different sub-systems of computer integrated manufacturing systems. The investigation is to include a detailed study of manufacturing system design for the automated factory covering such topics as operating rules, production control, productivity and economic factors.

— **Integrated micro-electronic sub-systems for plant automation**

A development project to design, develop, test and prove experimental prototypes of a single chip integrated three axis continuous path interpolator, a single chip integrated axis controller and a single chip integrated servo interface. The work is to be done for application to machine tool and robot control systems.

— **Process and production control based on real-time imaging systems and as a tool for cooperative research and development**

A research and development programme to define target applications involving $2\frac{1}{2}$ and 3D imaging, utilizing visual, tactile and thermal sensing and to implement the hardware and software development of an experimental prototype with which to demonstrate and study, complex, real-time, image driven, pattern directed control applications in actual or simulated production environments.

VI. INFORMATION EXCHANGE SYSTEM

A system for exchange of information and to link computing facilities to allow distributed software development.