COUNCIL DECISION

of 12 March 1985

concerning a multiannual research and development programme of the European Economic Community in the fields of basic technological research and the applications of new technologies (Brite) (1985 to 1988)

(85/196/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 (1),

Having regard to the opinion of the European Parliament (2),

Having regard to the opinion of the Economic and Social Committee (3),

Whereas Article 2 of the Treaty assigns to the Community the task of *inter alia* promoting throughout the Community a harmonious development of economic activities, a continuous and balanced expansion and an accelerated raising of the standard of living;

Whereas research into the applications of new technologies contributes to the attainment of these objectives;

Whereas promotion of European industrial competitiveness is one of the major goals of the framework programme;

Whereas a grouping of indirect and concerted actions in the field of basic technology would contribute towards this objective;

Whereas the research action programme on industrial technologies includes a number of research progammes of value to European industry but does not yet include a programme of multisectoral, multidisciplinary basic technological research;

Whereas, in order to secure the full economic advantages of the common market, it is necessary to encourage the application of new technologies more widely throughout the Community; whereas it is likewise necessary to bring together technologies from a variety of manufacturing origins for the benefit of specific industrial sectors; whereas it is necessary to encourage the applications of new technologies in a way which will especially benefit small and medium-sized enterprises;

(1) OJ No C 230, 27. 8. 1983, p. 3.
(2) OJ No C 342, 19. 12. 1983, p. 161.
(3) OJ No C 358, 31. 12. 1983, p. 1.

Whereas the research action programme on industrial technologies includes a number of research programmes of value to European industry but does not yet include a programme bringing together technologies from a number of different origins for the benefit of specific industrial sectors;

Whereas this programme meets the absolute need for the constitution or consolidation of a specifically European industrial potential in the technologies concerned, and whereas its beneficiaries must therefore be the undertakings, universities and research centres in the Community which are in the best position to attain these objectives;

Whereas it is necessary to involve small and medium-sized enterprises (SMEs) to the maximum extent possible in the development of industrial technologies;

Whereas the Treaty does not provide the specific powers necessary for the adoption of this Decision;

Whereas the Scientific and Technical Research Committee (CREST) has expressed its opinion,

HAS DECIDED AS FOLLOWS:

Article 1

1. A multiannual programme of research and development of the European Economic Community in the fields of basic technological research and the applications of new technologies (Brite), as described in the Annex, is hereby adopted for a period of four years as from 1 January 1985.

2. The programme shall include work carried out as contract research and as concerted action.

Participants may be industrial organizations, research institutes and universities established in the Community.

Normally, research institutes and universities should participate in a group together with an industrial organization and projects should be carried out by participants from more than one Member State.

As a general rule, the Community contribution will not exceed 50 %, the remainder to be provided by the industrial participants.

The concerted actions consist of the coordination at Community level of research activities which already form an integral part of existing research programmes in the Member States and, where applicable, of the Community.

Article 2

The funds estimated as necessary for the execution of the programme (1985 to 1988) amount to 125 million ECU (including expenditure on a staff of 25), of which 20 % is estimated as necessary for the execution of subprogramme II contained in the Annex.

Article 3

During the second year the programme shall be reviewed. The result of this review shall be communicated to the Council and the European Parliament. This review may lead to the submission by the Commission of a proposal for a revision of the programme in accordance with the appropriate procedures.

Article 4

The Commission shall be responsible for the execution of the programme with regard to the contract research and shall be responsible for the coordination with regard to concerted actions.

It shall decide, in the framework of the programme, on the detailed implementation, particularly concerning the breakdown of the work between contract research and concerted actions, and the launching of concerted actions.

Article 5

The Commission will be assisted in its function of programme management by the Management and Coordination Advisory Committee (CGC) (Industrial technology) created by Decision 84/338/Euratom, ECSC, EEC [1].

Article 6

With regard to concerted actions and in accordance with a procedure to be laid down by the Commission, after consulting the CGC, the participating Member States and the Community shall exchange all appropriate information to which they have access and which they are free to disclose concerning R&D activities covered by this Decision whether or not planned or carried out under their authority.

Any information shall be treated as confidential if so requested by the Member State which provides it.

Done at Brussels, 12 March 1985.

For the Council

The President

F. M. PANDOLFI

---

[1] OJ No L 177, 4. 7. 1984, p. 25.

ANNEX

BASIC TECHNOLOGICAL RESEARCH AND THE APPLICATION OF NEW TECHNOLOGIES (BRITE) PROGRAMME (1985 to 1988)

The objectives of the programme are as follows:

I. Precompetitive basic technological R&D in:

1. *Reliability, wear and deterioration*

   Including in particular:

   (a) methods for initial service life and residual life prediction and the assessment of defects in materials, components and assemblies;

   (b) the tribological, wear and erosion properties of materials, components and assemblies in adverse conditions, including those resulting from particularly high stresses;

   (c) fracture mechanics, including unstable fracture, fatigue, creep and corrosion effects, with a view to improving the mechanical behaviour and the predictable life of materials, components and assemblies;

   (d) mechanisms of corrosion and corrosion protection in aggressive environmental conditions including biological action;

   (e) surface treatment and protective coating technology to modify the physical and mechanical properties of materials, components and assemblies, including scaling-up of processes already available on a laboratory scale, surface properties and phenomena at interfaces.

2. *Laser technology and its application and other new methods of metal shaping and forming*

   Including in particular:

   (a) high-power lasers for materials processing, including the interaction of laser beams with materials and safety and work procedures involved in the industrial use of lasers;

   (b) near-net-shape manufacturing technology, in particular powder metallurgy.

3. *Joining techniques*

   Including in particular:

   (a) new and improved welding techniques, including electron beam, diffusion and friction welding and low-cost automated welding, including sensors and adaptive control systems;

   (b) new or improved adhesive, soldering and brazing techniques and their adaptation for use in mass production. Joining of new and dissimilar materials.

4. *New testing methods including non-destructive testing, on-line testing and computer-aided testing*

   Including in particular:

   (a) testing techniques for the measurement, detection and presentation of defects, stresses and deterioration processes, including corrosion, wear, fracture and crack-initiating processes, and biologically induced damage, methods for use under service stresses and their simulation;

   (b) computer applications to testing techniques and systems, particularly with a view to use in manufacturing processes.

5. *CAD/CAM and mathematical models*

   Including in particular:

   (a) CAD/CAM techniques for industrial processes exploiting work on architectures and algorithms carried out elsewhere including ESPRIT and related to specific manufacturing

processes and including low-cost techniques suitable for small and medium-sized enterprises (SMEs);

(b) mathematical modelling of production processes and phenomena including modelling related to flexible manufacturing systems suitable for SMEs.

6. *New materials, in particular polymers, composites and other new materials with special properties*

Including in particular:

(a) polymers and composites with special and improved physical and mechanical properties and stability for wider use in engineering, medical and agricultural applications;

(b) new production and conversion techniques for polymers and composites;

(c) new materials with special electrical, magnetic and opto-electronic properties.

7. *Membrane science and technology and problems in electrochemistry*

Including in particular:

(a) separation by membrane processes of both gaseous and liquid mixtures including reverse osmosis, ultrafiltration, microfiltration, dialysis and pervaporation;

(b) new membrane materials including ceramic materials;

(c) electrolysis technology, in particular fused salt electrolysis, irreversible phenomena of anodic systems and the use of membrane technology in electrolysis systems.

8. *Catalysis and particle technology*

Including in particular:

(a) zeolites as catalysts in organic chemicals synthesis, including their production, characterization and shaping and application in shape-selective catalysis;

(b) homogeneous catalysis, in particular for oxidation reactions of potential industrial interest;

(c) catalytic purification of industrial effluents, including SO_2 and NO_x disposal;

(d) particle technology, in particular problems related to the manufacture of particles, particle contamination and equipment design.

II. Precompetitive technological R & D, including pilot and demonstration projects, in new production technologies suitable for products made from flexible materials:

The following are the three main research areas included in the programme:

— The automated handling of flexible materials and articles made from them. This may include research into:

(a) the automated feeding and evacuation of automatic sewing machines, from various delivery systems, with one or more pieces of fabric or subassemblies by robotic devices, in two or three dimensions, with the aid of sensors, grippers, etc.;

(b) the automated transport of fabric pieces, subassemblies and finished articles from one work station to another, including adaptive control of the production plan. Transport may be done by mechanical systems or by remote controlled or programmable trolleys;

(c) the development of sequential automated sewing units.

— Automated joining of flexible materials and their assembly into finished products. This may include research into:

(a) the extension of existing automatic sewing technologies, with particular reference to three-dimensional sewing and the multiple operation of machines by one operator;

(b) movable sewing heads either on conventional type machines or as a flexible lightweight sewing head;

(c) new stitch technology, with particular reference to the possibility of sewing from one side of the work piece only;

(d) alternative joining techniques to sewing;

(e) technologies to increase the flexibility of automatic sewing machines, for example by interchangeable tools;

(f) microelectronic control techniques (and software) might be required for extending automated sewing techniques, especially in three dimensions.

— The integration of the above technologies together with others leading to flexible sequential automated manufacture, with particular emphasis on the need to accommodate multiproduct manufacture and frequent model changes. This may include research into:

(a) elements necessary to construct a fully automated system other than those already covered above. Some of these could involve quality control, fabric control, cutting and finishing operations. More than one possible eventual solution can be envisaged and it is important not only that the work carried out fits into one or other of the possible solutions, but that each possible solution is effectively researched;

(b) the automatic creation of models in three dimensions and the resulting two-dimensional pattern, including modifications to the model;

(c) the development of knitting technology as an alternative to the cutting and sewing of fabric;

(d) the automatic marking and identification of individual parts, and the interpretation of the operations to be carried out on them.