

**COMMISSION OF THE EUROPEAN COMMUNITIES**

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COMMUNICATION FROM THE COMMISSION  
TO THE EUROPEAN COUNCIL  
ON THE STRENGTHENING  
OF TECHNICAL COOPERATION IN EUROPE

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Milan, 28/29 June 1985

## TOWARDS A EUROPEAN TECHNOLOGY COMMUNITY

### I. THE CHALLENGE

1. To strengthen the Community's technological base
2. The European response
  - (a) The Community dimension
  - (b) Mutual support between national and Community efforts

### II. ACTION BY THE EUROPEAN TECHNOLOGY COMMUNITY

1. Immediate launching of major talent- and resource-mobilizing projects
2. Forms of cooperation
3. Definition of Community projects
4. Mobilization of financial resources
5. Autonomy, decentralization and responsibility
6. Back-up measures

### III. A POLITICAL COMMITMENT BY THE EUROPEAN COUNCIL

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ANNEX: Suggested themes

TOWARDS A EUROPEAN TECHNOLOGY COMMUNITY

I. THE CHALLENGE

1. To strengthen the Community's technological base

Technological progress has an essential role to play in our societies by reason of its impact on economic growth and job creation, social and cultural progress, the environment and security. It is increasingly becoming an indispensable strategic factor, one which (as the Commission stressed in its communication to the Brussels meeting of the European Council in March 1985) the Community must turn to account if it is to regain its competitiveness, so laying the foundation for stronger and more stable growth, and ensure greater economic convergence by increasing the innovative capacity of all the Member States.

The Community therefore must urgently take matters in hand in order to reverse a trend whose consequences are now all too clear: lost market shares, less job creation, increased technological dependence and brain drain. A collective effort by Europeans to harness the new technologies to good purpose is a natural sequel to the venture launched by the Schuman Declaration, which called for the pooling of the material bases of the European nations' industrial might.

The Commission is accordingly convinced that Europe's response to the technological challenge must be to set up a European Technology Community.

## 2. The European response

To be effective and credible, the response must meet two requirements:

- (i) it must exploit the Community dimension to the utmost;
- (ii) it must foster the most fruitful interactions possible of national and Community efforts.

### (a) The Community dimension

The Community dimension offers the following advantages:

- (i) It guarantees that demand for the products and services supplied by the European projects will develop dynamically through the opening up of the corresponding public contracts and the adoption of international standards to prevent the walling-off of markets and the restriction of competition. There is therefore a close link between the Commission's proposals for (a) completing the continent-wide market and (b) creating a European Technology Community.
- (ii) The Community will ensure that the technology effort is closely tied in with common policies, in particular trade policy and competition policy.
- (iii) Through cooperation and exchanges, it will increase the potential of purely national programmes and reduce the wastage arising from unnecessary duplication.

- (iv) It will give more scope to the universities, to individual research workers and to specialized SMEs (sometimes overlooked in strictly intergovernmental schemes of cooperation owing to the complexity of industrial groupings and institutional structures).
  
- (v) Finally, the Community's R&D instruments are immediately available and can be adapted to the needs of different projects in view of their urgency. Some current programmes (ESPRIT, BRITE and the definition phase of RACE) can provide a framework for projects which fall within their general field such as information technologies, broad-band networks and new materials.

Against the advantages of the Community dimension, some might argue that the Community's decision-making and management processes are complicated and cumbersome. But the aim must be to exploit all the possibilities opened up by the Treaties - and if necessary adapt their provisions - in order to guarantee that not only are the interests of all parties taken into account but also the need for prompt decision-making, flexible and decentralized management and appropriate financing arrangements.

(b) Mutual support between national and Community efforts

Bridges must be built between programmes at different levels - national, intergovernmental and Community - that contribute to common scientific and technical aims so that they are integrated into a

truly Community technological strategy. Projects must be mutually enriching whatever their organizational context:

- Community programmes proper
- purely national programmes
- pooling by some States, including non-Community countries, of national projects which may receive additional support from the Community
- synergetic effects of national and Community programmes working towards the same goals.

It would therefore be inappropriate to confine the Community's contribution to the portion of public R&D expenditure which it finances from its own resources, even if that portion is to be substantially increased.

## II. ACTION BY THE EUROPEAN TECHNOLOGY COMMUNITY

### 1. Immediate launching of major talent- and resource-mobilizing projects

These projects must:

- (i) involve substantial technical progress and be of major economic and social benefit in order to arouse business interest and attract broad public support;
- (ii) be sufficiently concrete to generate industrial innovations fitting in with the market strategies of community firms or with social or educational goals.

(iii) use and exploit the technological advances already available in Europe;

(iv) attract the best brains to work on interdisciplinary themes.

A number of themes selected on the basis of these criteria are listed in the annex.

They suggest projects covering several types of activities which support and complement each other, for example:

- strategic projects with specific objectives such as big computers or the high-speed train;
- advanced research in the field of generic technologies, which are essential to the implementation of all major projects, such as superconducting materials and 64-megabit chips;
- big scientific or technological facilities such as the digital windtunnel or the synchrotron for studying condensed matter.

## 2. Forms of cooperation

In order to implement ambitious programmes the Community framework programme must be extended and used to find forms of cooperation which:

- (i) draw together for each project all those (governments, firms and research centres) wishing to participate on the basis of a clear perception of the costs and benefits of their cooperation;

- (ii) lead to the establishment of industrial consortia and the organization of intergovernmental cooperation in such a way as to harness the best available skills;
- (iii) rely on a European network of research establishments and universities in regular touch with each other and able to act as centres for generating research and technology and disseminating the results;
- (iv) allow participation by non-Community partners.

3. Definition of Community projects

For the definition of Community initiative projects the Commission would need to be assisted by:

- a high-level group of senior government officials to identify strategic options and themes;
- and, for each theme, groups of experts from industry and research to plan the projects in detail, with their targets, costs and time scale.

The Community could also be associated with initiatives by several Member States which are directed at specific projects.

#### 4. Mobilization of financial resources

Financing the projects would be a matter for Member States, firms, research institutes and the Community. As regards the Community, the European Council at its last four meetings laid down the policy lines and budget principles to enable the Community to provide substantial financial assistance for the execution of projects of Community interest without increasing own resources beyond the limits it had already set.

Compliance with these guidelines will open up the prospect of substantial growth in budget resources allocated to Community R&D.

If the scale on which finance is needed in order to stay on competitive terms with other countries is obvious then so is the need for optimum resource allocation; hence the need to take account of:

- financial contributions from Member States (under the new decision on own resources);
- other financing procedures and instruments (borrowing/lending, EIB, etc.).

#### 5. Autonomy, decentralization and responsibility

Each project or group of projects must be run by as small a team as possible within organizations having the necessary degree of independence and management efficiency and committed to achieving specified targets fast enough for advantage to be taken of the scientific and industrial lead.

Structures like the joint undertaking or Community agency could be developed to meet this decentralized management requirement.

#### 6. Back-up measures

The Community's response to the technological challenge and the quantum leap which it implies means that measures to establish a genuine "research workers' Europe" must be substantially stepped up.

In view of the constraints which limit the effectiveness of the European R&D system, the Commission intends to step up its action in pursuit of the following objectives:

- (i) better use of human resources, especially by expanding cooperation between industry and the universities;
- (ii) encouragement of innovative firms, especially SMEs;
- (iii) dissemination of knowledge and development of a free market in information;
- (iv) strengthening of Community law on intellectual property.

### III. A POLITICAL COMMITMENT BY THE EUROPEAN COUNCIL

The European Technology Community could be brought into being through a variety of institutional arrangements; these are considered in a separate document.

All such arrangements, however, would be founded on a solemn political commitment by the Member States to endow the new Community with the powers and the resources to take action in its field. It is this solemn commitment which the Commission calls on the European Council to proclaim in Milan.

Its first step should be to instruct the Commission to launch at once the procedure for defining priority projects with the target of obtaining approval of some projects by the end of the year.

ANNEXSuggested themes

1. Information technologies and their main applications e.g. computer-aided manufacturing, artificial intelligence and the supercomputer
2. Biotechnologies, in particular genetic and biomolecular engineering and their applications to health and agro-industry
3. New (e.g. superconducting and ceramic) materials
4. Lasers and optics
5. Big science facilities such as particle/radiation sources and advanced windtunnels
6. Broadband telecommunications
7. New-generation means of transport
8. Use of space
9. Conquest of the marine environment and deep drilling operations
10. Education and training technologies