

**COMMISSION OF THE EUROPEAN COMMUNITIES**

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**STRENGTHENING THE TECHNOLOGICAL BASE  
AND COMPETITIVENESS OF COMMUNITY INDUSTRY**

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(Communication from the Commission to the  
European Council, 29 and 30 March 1985)

19 March 1985

COMMUNICATION TO THE EUROPEAN COUNCIL

Strengthening the technological base and competitiveness of  
Community industry

The efforts made by the Member States to restore basic macro-economic balances have helped to improve the growth rate of the Community's economy, which has also been stimulated by the vigorous recovery in the USA.

Even so, economic growth in the Community remains lower than in the United States and in Japan. One of the most striking reasons for this poor performance is the way in which Community industry as a whole has fallen behind those two countries in most high-technology industries. Although it is not fair to speak of an overall loss of competitiveness or technological gap, there are worrying trends in several branches with a high technological intensity.

In information technology, the Community's trade gap and technological dependence is steadily worsening.

In telecommunications, up to now one of the Community's strong points, there is a serious risk that the technological developments and the installation of the infrastructure needed for the high-capacity networks of the turn of the century will not be put in hand in time or in a sufficiently coordinated fashion.

In biotechnology, on which in the long run the future of our fine chemicals, agriculture and food industries will all depend, the inadequacy of the current basic research effort may well leave us very vulnerable in the future, and this will be difficult to remedy.

In new materials (resins, ceramics and special metals) the most important developments are taking place in the United States and Japan.

Our loss of ground in these advanced technologies is likely to delay their use in traditional industries, with the risk of losing markets and destroying jobs. Also, if the European economies fall back on the widespread use of imported equipment they are likely to handicap their own new-technology industries.

(1) It is obvious that no Member State can face up to the challenge of the new technologies on its own: the cost of developing them is too high. What is more, through the effect of standards, technical regulations, aid to industry and public procurement, national policies in support of technology tend to perpetuate the national character of industrial structures and the fragmentation of the common market. Within the narrow

confines of national markets it is impossible for large companies to achieve economies of scale and smaller ones to specialize in specific market slots.

(2) It is unwise to embark without due caution on cooperation with US or Japanese multinationals. Excessive technological dependence could leave us in a critical position should limits be placed on the transfer of technology from the USA. When such transfers are inevitable, they must allow European firms to make up lost ground.

In the Commission's view, two main approaches can be adopted to strengthen the technological base and competitiveness of Community industry:

- firstly, improvement of the environment in which companies operate so as to encourage their industrial innovation capacity and commercial enterprise;
- secondly, better utilization of the Community dimension by states and above all by companies so as to enable firms to develop in a competitive, unified and open market.

On the basis of this diagnosis, the Commission proposes that the European Council select six main objectives:

1. Achieving complete unification of the internal market

The Commission has already expressed its determination to abolish internal frontiers within the Community in 1992 in the interests of the citizens and companies of Europe. This complete unification of the market will be carried out in stages, following a precise timetable. This programme calls for rapid progress - especially for the benefit of the high-technology industries - in the following areas:

- (a) European standardization with a world outlook is essential to put Europeans and their rivals in the outside world on an equal footing and to give users a sufficient degree of security to encourage them to invest in high technology equipment and services: Community rules on industrial property must create a framework guaranteeing investment in information technology and biotechnology and preventing abuse of dominant positions.
- (b) Public contracts account for a major (and often the most innovating) proportion of demand in these sectors. It is therefore essential to open up access to them. Some types of public contracts are particularly well suited to the formation of consortia on a European scale provided

that effective competition between them is guaranteed. There must be specific procedures giving small and medium firms access to them under equivalent conditions.

- (c) Services must also benefit from the unification of the common market, especially when the supply of services contributes to industrial expansion and facilitates industrial operations on a European scale.
- (d) Of the proposals designed to create an infrastructure for Community-wide cooperation, the one on the European Economic Interest Grouping is ready for a rapid Council decision while the proposal on the European company remains the central feature of the Community legal order. Tax measures along similar lines are being examined by the Council and their adoption should not be further delayed.
- (e) National forms of aid to industry are a crushing burden on government finance, constrained as it is by growing budget difficulties. An eye must be kept on both the volume of and the rules for granting such aid to ensure that it serves first and foremost to strengthen European competitiveness and does not merely help to perpetuate existing national structures or to distort competition within the Community. The Community will therefore step up its surveillance of such aid.

For its part, the European Council should express its determination to start gradually cutting back state aid to industry so as to save an increasing proportion of resources for the development of technological projects which could not otherwise be carried out in the Community.

## 2. Adapting the Community's external commercial policy to its objectives in the way of new technologies

The unification of the internal market must be accompanied by an external commercial policy designed to strengthen the competitiveness of European industry: the Community must create the conditions that will gradually put its industry in a position to fight international competition on its own market on equal terms and to gain effective access to its rivals' markets, because the Community has a vital interest in keeping world markets open. If these measures are not taken, European companies may well be unable to maintain their market shares in innovating sectors where consumption is growing fast and our companies have excellent prospects of improving their financial position.

## 3. Strengthening and making better use of the Community's scientific and technological potential

Although the Community's scientific base is comparable to that of the USA and Japan it is less efficient and is growing less rapidly. The enormous expansion in the Pentagon's R&D programmes - around USD 40 000 million are

entered in the 1985-86 budget - will help to increase the American superiority. Community research is handicapped by its national isolation, duplication of effort and inadequate thresholds of efficiency.

The Commission requests the European Council to develop and make better use of the Community's scientific and technological potential.

At past meetings the European Council supported the launching of a Community framework programme for research. This programme now needs to be reviewed, adapted and strengthened for the period 1986-89. The efforts being made and still needed to rationalize the budget and keep Community spending under control should allow an increase of from 3% today to 6% in 1989 in the share of own resources earmarked for research. The European Council should support this approach.

For its part the Commission will make proposals in the months ahead to introduce a maximum of flexibility into the Community's plans to encourage research. Increased research spending at Community level does not rule out closer cooperation between Member States interested in certain projects in which others do not wish to participate; the Community must be able to support such ventures, especially as the current prospects for technology indicate that its decentralized use can be envisaged.

#### 4. Making better use of human resources

With its shortage of energy and raw material resources, the Community is obliged to make the best possible use of its human potential, which is its best comparative advantage. Consequently young people and adults at all levels of skills must be better educated and trained, and their training must be continuously adapted to the changing qualifications required to keep up with developments in jobs and techniques.

(a) The Member States must take steps to raise the level of training of its research scientists and improve the efficiency of their work through a community action designed to develop European cooperation, mobility between countries and the links between industry and universities. The plan to stimulate scientific and technical cooperation and exchanges 1985-88 meets these objectives. To strengthen the Community's technological base it is necessary to adapt school systems and further training for adults along similar lines.

(b) A programme designed to promote cooperation between universities and industry so as to improve in both numerical and qualitative terms the training of personnel qualified in the use of new technologies is now being prepared in the Community. The emphasis will be on the need to increase the

mobility of students by facilitating study periods or training in firms in a different Community country.

Recognition as a "Community centre of excellence" for establishments giving additional training or conducting very advanced research in specialized areas would help towards the increased mobility of students and research scientists within the Community. The European Council should express its support for these types of activity which will promote the European identity in the eyes of the economic and social decision-makers of the future in the Community.

5. Promoting innovation, including database networks, and establishing the information market

Putting innovations into application is one of the weak points of European industry. The transition from the laboratory to the factory and from the factory to the market must be encouraged by greater flexibility and transparency of production structures and more effective rewards for good management performances. The Community can contribute to this.

- (a) Innovating firms need a tax policy encouraging risk taking. The Commission intends to propose objectives to be adopted jointly in various areas (company formation, tax arrangements applicable to venture capital, innovation financing (NCI)).
- (b) The dissemination of knowledge is vital to the use of government-financed research results and the stimulation of innovation. The Community must play its part. The dissemination of these results should be improved so that companies throughout the Community can benefit from them. The practices adopted for development of the Esprit programme should be extended to other sectors.
- (c) In the Community information should be a sector producing value added and creating jobs but its great innovation potential will not be exploited to the same extent as in the United States and Japan unless the Community market is unified: there should be complete freedom for the establishment of data bases and the transmission of data across frontiers.

6. Achieving a breakthrough in telecommunications

High-capacity networks will be to the industry and services of tomorrow what the waterways, railways and motorways have been or are to the industry of today. In particular they will be a source of new services (creating jobs), will improve the overall productivity of our economies and will allow better decentralization of production activities over the whole of the Community territory.

Telecommunications can be to the Community what defence and space are to the United States and consumer electronics is to Japan. The Community has here a significant strategic base. It must act rapidly to bring this base up to a level of technological and industrial capacity that will secure its place on the world market.

Success here presupposes a number of coherent and complementary measures concerning the market (policy of common standards), the stimulation of demand (pilot projects such as videocommunications) and the industrial technology needed to establish the future advanced communications networks and services.

Suitable financing is also required for the infrastructure investment that will not show a return for some time and is the nature of a public asset.

The RACE programme will be the first stage in the implementation in the Community of future-generation telecommunications services.