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TELECOMMUNICATIONS

(Communication from the Commission to the Council)

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1. In its study on the information technologies, the Commission pinpointed telecommunications as one of the strengths of European industry, a fact which is borne out by Europe's share of world production in this field, which is disproportionate to the importance of the Community market in general.

A more thorough analysis of the sector indicates, however, that unless national and Community policies undergo a change of direction, there will be cause for concern. On the other hand, it shows that there is considerable potential for growth if the necessary decisions are adopted in time and at the appropriate level.

2. These concerns spring from a number of observations :
 - (1) in the first place, the volume of Community exports is undoubtedly high; nevertheless, they involve an increasing proportion of traditional types of equipment, frequently supplied on markets which were saturated several years ago;
 - (2) in the second place, the European telecommunications industry runs the risk of being in a weak position when it comes to tackling the technical changes characteristic of the information technologies, which are occurring on an ever larger scale and at an ever increasing rate : whereas such changes can be regarded as an asset by Europe's competitors, for European industry itself they are becoming a handicap.

In fact, the enormous input, in terms of investment and R&D, needed to cope with this situation, calls for economies on the scale of the American and Japanese markets, which are impossible, however, given the compartmentalized nature of the European market, divided as it is into separate national entities.

- (3) lastly, at user level, i.e. at that of the terminals and services in what will be the most dynamic segment of the market over the coming decade, the potential for growth remains largely untapped as a result both of the uncertainties as to future networks and the constraints of national regulations, and of the excessive costs engendered by the inherent compartmentalization, which have the effect of curbing a growth in demand.

3. Against these weaknesses - the common denominator of which is the inadequacy, even the lack of cooperation between the various countries, at both industry and state level - can be set the truly considerable growth prospects : the world market in telecommunications equipment will increase at a rate of 8.1% in volume over the decade 1980-90, from USD 44 000 million to USD 95 000 million. The Community market, characterized essentially by an increase in quality rather than quantity, will experience a slower growth rate, from USD 8 000 million to USD 14 000 million, i.e. 5.% per year, unless something is done to alter the current course of events.

The Commission takes the view that a stimulus can be provided and that the existing situation can serve as a springboard for a new impetus for European industry and for the telecommunications services.

4. Traditionally, the telecommunications sector has been dominated by decisions taken at government level : network configuration and performance, regulations governing access, obligatory standards, costs of services to the user - all that has largely been decided by the state, which is, moreover, the biggest customer of the telecommunications industry as such.

Most of the States have thus attempted to reconcile within a national framework :

- the development - in terms of both volume and technology - of the national industry, the supplier favoured by the posts and telecommunications authorities;
- user requirements;
- the financial constraints of the posts and telecommunications authorities (policies governing investments and tariff-fixing).

Since, when all is said and done, any telecommunications network is international, if not to say, universal, in character, national regulations and standards must be coordinated and harmonized at international level : two bodies are concerned with these aspects, on an advisory basis and without any legislative power - the European Conference of Postal and Telecommunications Administrations (CEPT) and the International Telegraph and Telephone Consultative Committee (CCITT). In addition, the development of the new telecommunications networks has involved increased international cooperation, either in the form of bi- or multilateral agreements, or within wider specialized frameworks (e.g. in the case of satellites with Eutelsat).

The Community has kept in the background of these developments. It has on the one hand, exercised its general competence⁽¹⁾ with regard to telecommunications in the same way it would have done in relation to any other sector without reference to any precise political orientation; on the other hand, its attempts to intervene on a pragmatic, specific basis, for instance in the case of opening up the public telecommunications markets, have fallen short of the mark for the same reason : they lacked a consistent sense of direction, a suitable framework and provision for gradual development over a period of time.

(1) This competence primarily relates to :

- a common commercial policy: registrations concerned with the application of the GATT code in the public procurement of telecommunications equipment, agreement on standards and on technical barriers to interchange (TBT agreement), and the international commercial aspects of services
- a policy on competition: including public expenditure on R & D, cooperation between companies and unfair practice between state-owned and private companies.
- a policy for internal markets: problems of standardization and free trade;
- the development of the Community market for informatics: access to all data banks of EURONET/DIANE and its future extensions, particularly APOLLO;
- the specific needs of institutions
 - the Inter-Institutional Information System (INSIS);
 - statistical control of customs and agricultural transactions (CADDIA)
- more recent initiative: co-financing of pre-competitive R & D (ESPRIT) and financing of a telecommunications infrastructure (NIC-FEDER).

5. The efforts made with regard to harmonization at international level have indeed led gradually to a very high degree of reliability and compatibility throughout the telephone system, without any intervention by the Community. However, when it comes to ensuring thorough compatibility of far more complex and varied services and equipment, a more systematic, more effective approach is required.

A. The telecommunications sector is faced with a range of technical changes occurring in combination and at a growing rate :

- digitization which is replacing the analog signal of the telephone by the encoded language of the computer, thereby facilitating the introduction of new computerized telecommunications services, whilst at the same time creating new requirements from the point of view of standardization.
- optical fibres and communications satellites offer far greater transmission capacities.

Digitization and new means of transmission radically affect the economic and technical data involved in long-distance transmission and should make it possible to introduce new services dependent on the availability of wide transmission bands at low cost.

- microelectronics which allows production in miniature and reduces costs, whilst calling for fundamental changes in industrial processes, at both design and production level.

B. This technical progress opens the way for new services and equipment :

- remote printing of texts (teletex)
- exchange of files between computers
- interrogation of databases (videotex)
- electronic payments
- remote surveillance of buildings
- assistance for the isolated
- digital television (high definition in the interactive mode)
- teleconferencing
- radio-telephony
- satellite-link aerials

6. This technical progress in telecommunications and the new services and equipment which it makes possible have certain common characteristics :

(1°) They require much investment and R & D expenditure. Consequently, their implementation in economic terms, that is to say what brings about prices which are attractive for the user, requires them to be produced in large series. These are made possible by a vast market and by increased cooperation between companies.

One example we can cite is the development of a new family of time division switches: their development cost varies between \$700 million and \$1 300 million according to the manufacturer. Knowing that to provide a reasonable return on development costs of \$ 1 000 million, sales of \$ 14 000 million are necessary, one wonders how such a return could be obtained on a telephone switch of this sort given that the British market is worth \$ 7 200 million, the French market \$ 10 900 million and the German market \$ 11 700 million (Forecasts for the current decade)? The lack of size of the national markets remains a fundamental handicap especially when the whole of the national market is always reserved for a "national champion", which prevents the posts and telecommunications authorities from having the advantages of competition for their supplies.

(2°) They require medium-term programming: the period which separates the decision to develop new equipment and its appearance on the market at a reasonable price and with a reasonable degree of reliability is extremely long. These periods are extended even further by the complexity of current harmonization procedures.

It has been calculated that approximately 60 months are required to develop equipment based on new specifications in Europe while a similar process requires only 24 months in North America.

(3°) They are of no economic value unless they can be installed in international networks which are sufficiently extensive and uniform to allow them to be used to the maximum; there is a risk today that telecommunications in Europe will be made up for some time to come of a heterogeneous assembly of incomplete and incompatible networks for different services which will remain circumscribed about national or regional sectors. If the interfaces are not available as soon as the new services are launched, the changes necessary later on will be both laborious and costly.

7. The requirements of dimension, time and international compatibility of the new networks and the new services in themselves require a Community approach.

To these can be added four types of grounds :

a) From being European, the competition is becoming more and more international, including that on the European market itself.

This is being stirred up by :

- the battle of the giants which is being fought between ATT and IBM on a "deregulated" American market and which will be continued on non-American markets and including Europe;

- the penetration due to its progress in microelectronics which will be afforded to the Japanese industry which, on the initiative of the Japanese posts and telecommunications authorities, will be installing full-scale networks and services which are still at the stage of laboratory tests in Europe.

Only the mobilization of our resources and in particular in R & D and better cooperation between companies - combined with increased competition between groups - can enable the European industry to face up to outside competition in a properly internationally competitive state;

b) Telecommunications today have a economic, social, cultural and naturally strategic importance which mark them out for a large-scale European initiative.

They represent a typical example of a sector for new impetus to productive investment to such an extent that a proper economic cost/benefit calculation should be carried out for them to the exclusion of the posts and telecommunications authority's operating accounts; what must be taken into account with regard to investments by the posts and telecommunications authorities and the R & D expenditure of companies is all the indirect economic fall-out which will accompany a major programme of development in telecommunications in Europe: jobs, industrial innovation, improvements of the productivity of services, the creation of highly productive small and medium enterprises, etc.

- c) In addition to the economic factor, telecommunications represent a stake in society for Europe. From the moment that telecommunications have a critical role in the overall performance of our economy - it should be remembered that with a value added equivalent of hardly 1% of the Community GNP, they have a direct effect on 55% of the total value added and 62% of employment - telecommunications will condition the whole of our future: it is our way of life and our social organization, even our culture, which are involved. The Community must therefore establish a design for Europe in a sector which is truly of vital interest for it.
- d) By virtue of its specific responsibilities towards the developing countries and, particularly, to its partners in the Lomé Convention, the Commission should also consider all aspects of how these countries can draw upon a European initiative in Telecommunications. By making available to them the most recent technological developments which are particularly adapted to their needs (user dispersion, distance, robustness of equipment and simplified operation), they would be able to economize at the intermediate stages of progress in telecommunications through the experience already gained by the member states.

Telecommunications is therefore indispensable as a tool for the developing countries and opens up new channels by which the considerable effort in R & D and the investment made by Community industry can be redeemed.

8. To establish the importance and the necessity of the European dimension is one thing. To turn it to proper account is another. Telecommunications has not been a sector in which the role of government and of regulations has been critical so far, and the actions of industry itself would suffice; with a few additional Community initiatives here and there; for the unity and fluidity of the European market to be achieved progressively, as has been the case for so many other sectors since 1958.

But the problem is precisely that it is up to the 10 Member States, through their posts and telecommunications authorities, to determine in very direct fashion what should be on offer in the field of telecommunications : what networks and what services ? In what quantity ? At what cost ? How soon ?

If the Community were to limit itself this time to intervening in a pragmatic and ad hoc way, there would be strong fears that it would be completely ineffectual as has been the case in the past.

The Community must first fix an objective which must take full account of the European dimension. This must include :

- stimulating the production of telecommunications equipment and telecommunications services in Europe so as to create the conditions for Community industry to maintain its strong position on the European market and preserve its place as the leading world exporter.
- making available to the users the most advanced telecommunications equipment and services and the conditions which ensure their international competitiveness.

The recourse to the European dimension, which is recognized as a condition of success, implies a gradual transfer of powers and means to the Community. Such a transfer in no way implies any modification to the statute or responsibilities of the national PTT's. Neither does it affect the way in which each member state organizes the transfer of financial resources between PTT and governmental budgets. ⁽¹⁾

(1) This latter aspect is linked to the more general problem of financing the networks and telecommunications services which is not considered in the present document.

A Community political and legal framework, which is clear and precise, thus becomes indispensable.

The Community must be able to indicate the target for joint action, to select the objectives, to decide the ways and means, to fix the procedures and deadlines in a framework which will guarantee a capacity to decide.

Telecommunications, which constitute a basis for information technologies and, through the latter, support an entire European economy based on services, are no less essential for the future of Europe than coal and steel were at the beginning of the fifties.

Without the salutary discipline of a suitable legal framework, the necessary progress will not be realized within the tight schedules imposed by technology and international competition.

A legal framework does not imply, however, additional constraints and bureaucracy; on the contrary, it will quickly become apparent that the gradual transfer of power and resources to the Community, if brought about as the Commission envisages, will be counter-balanced by a reduction in regulations and, moreover, a more rational utilization of the public resources allocated to this sector.

Being aware of the complex nature of the subject, the Commission does not expect the European Council to be able to draw up final guidelines at this stage; on the other hand, it requests it clearly to acknowledge the need for a European approach to telecommunications and to approve the objective proposal earlier. The Commission would like to set up a panel of senior officials, appointed by Chefs of State and government leaders; who would be able to commit their governments, to be chaired by the Commission, with the task of studying the problem according to terms of reference and schedule below.

1. An initial set of questions relate to specific activities to be conducted :

- a) How can the following most strategic technological options in the telecommunications field be decided at Community level :
- network configuration and performance;
 - end-to-end compatibility of networks;
 - the range of services offered;
 - their cost;
 - general pricing principles.
- b) How can European industry be enabled to cooperate at the pre-competitive R & D stage, as the electronics industry is doing under the ESPRIT programme, and how can it be lead to mutual reflection on trends in the sector and the problems posed by international competition ?
- c) How can we ensure that the post and telecommunications administrations be given a free choice of suppliers and the enlarged markets for the latter ?
- d) How can we prevent the stimulus given to the industry from being impeded by over-regulation, and how can terminals and services be given free access to the network ?
- This would mainly imply: :
- enabling industrialists freely to connect a wide range of terminals and local systems to these networks;
 - carrying out the standardization that is strictly necessary in order to make this free access effective and economic;
 - ensuring that the equipment to be connected to the network is approved under strict conditions as regards objectivity, deadline and cost.
- e) How can space telecommunications policy be made the subject of reflection at Community level aimed at :
- exploiting what Europe has achieved in terms of space systems;
 - making optimum use, through the adoption of joint standards, of space telecommunications systems;
 - identifying ways of anabling the industry concerned more effectively to take up the challenge of world competition;
 - facilitating a joint position within the competent international organizations that gives due regard to the Community's interests.

2. The second area of thought to be assigned to the panel of senior officials relates to the setting-up of a European telecommunications body.

Since the Commission does not itself possess the necessary skills for bringing these tasks to a satisfactory conclusion, a specialized Community body could provide a suitable structure for :

- taking Community decisions;
- negotiating in international organizations on the basis of a joint position;
- facilitating cooperation within the Community and even with neighbouring countries.

Consequently, for the powers conferred on the Community to be exercised with the necessary expertise, efficiency and speed and so that the search for a consensus does not prevent questions from being settled when required, it would be appropriate to consider setting up, in accordance with the rules of the Treaty, a specialized Community body placed under the authority of the Commission, to which the Council would delegate the necessary powers. The operating expenses for such a body would be allocated to the general budget and its responsibilities would increase as the European telecommunications policy is developed.

3. The panel of senior officials would be instructed to submit an initial policy report by December 1983 and its final conclusions by March 1984.

9. The Commission will for its part continue, with the aid of consultants and in close cooperation with the industry, users and trade unions, to study the European telecommunications problem and will thus fuel the discussions of the high-level think tank.

10. Lastly, the Commission will ensure that the Community's present powers are exercised in the light of the objective assigned by the European Council to the Community's action in the telecommunications sector.