TOWARDS TRANS-EUROPEAN NETWORKS

FOR A COMMUNITY ACTION PROGRAMME

Communication from the Commission to the Council and the European Parliament
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INTRODUCTION

The internal market programme, which is proceeding smoothly on the basis of the guidelines set out in the Commission's White Paper of June 1985 and the provisions of the Single Act, will generate all the economic and social effects it aims at if the free movement of goods, services, capital and persons in an area without internal frontiers is backed up by genuinely trans-European networks (physical infrastructures, services and legal arrangements).

This need is particularly strong in four areas: transport, telecommunications, energy and vocational training. The preparatory work carried out in conjunction with the Member States throughout 1990 has broadly confirmed just how acute the problem posed by inadequate trans-European networks is. It has been enough merely to consult the economic interests involved, as was done in October last, to dispel the slightest doubt on this point: they all agree that the benefits of the single European market depend as much on the availability of infrastructures and services which actually make free movement possible as on a favourable legislative environment.

The Commission presented an interim report to the Council in July 1990. It is now in a position to present a Communication in the form of a Community action programme for the creation of trans-European infrastructure networks.

This Communication is in response to the wishes expressed by the Strasbourg and Dublin European Councils (December 1989 and June 1990 respectively) and to the Council Resolution of 22 January 1990.

After having explored (i) the reasons why the emergence of trans-European networks is a priority, (ii) the criteria which demonstrate the insufficiencies of infrastructures, (iii) the importance of the environmental dimension, (iv) the principal obstacles to the emergence of trans-European networks and (v) the nature of the financial constraints, the Communication proposes:

- a programme of actions aiming at the achievement of projects or networks, with the adoption of guidelines on financing as well as a series of measures of general importance destined to accelerate the emergence of trans-European networks.

- a draft Resolution of the Council for the adoption of a programme of actions.

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1 COM(90) 296 final of 19 July 1990.
1. FRAMEWORK FOR THE WORK CARRIED OUT

1.1 Mandate given to the Commission by the Council

The idea of an urgent discussion on a priority action programme has already been raised on several occasions within the Community institutions.

1.1.1 Following the discussions at ministerial level in the second half of 1989, the European Council (December 1989 and June 1990) indicated the importance it attached to the matter of infrastructure networks of European interest by placing further discussions on the following basis:

"Special priority should be given to the development and interconnection of trans-European networks, notably in the area of air traffic control, the linking of the main Community communications by broadband telecommunications networks, the most efficient surface communications links and energy distribution. The European Council asks the Commission to propose the appropriate measures, taking into account the possibility of extending such action to the whole of the Community, paying particular attention to situations arising at the Community's limits in the context of economic and social cohesion."

These conclusions were reiterated on 26 June 1990 by the Dublin European Council, which asked that "guidelines ... be agreed before the end of this year".

1.1.2 In December 1989, the Commission adopted a Communication entitled "Towards Europe-wide Networks: objectives and possible applications".\(^3\) This highlighted the problems involved in adapting infrastructures to the emergence of the Community market's new dimensions and indicated that "a particular priority should be accorded to the development of trans-European networks notably in the areas of transport, energy, telecommunications and training, all with a view to their interoperability and interconnection".

1.1.3 Acting on the basis of the Conclusions of the European Council and the Commission's Communication, the Council invited the Commission (in January 1990) to submit to it before the end of 1990, for the four areas proposed by the Commission,

"a work programme and proposals for appropriate measures, taking into account the possibility of extending such action to the whole of the Community and without prejudice to the distribution of work among the various formations of the Council. The Commission will submit an initial progress report during the first half of 1990."
1.2 Implementation of the Council Resolution

Throughout 1990, the Commission has relied on three sources of information and reaction, notably to its interim report of July 1990, in assessing infrastructure needs in the four areas concerned:

(i) the Member States, via a working party set up at the Council’s request and comprising national representatives: it has met a total of six times at the Commission’s initiative. Most of the national coordinators involved, in addition to attending these meetings, have submitted written contributions which have helped to move the discussions forward and the identification of priorities (in particular, France, the UK, Spain, Greece, Portugal, Ireland, the Netherlands and Denmark);

(ii) the economic operators involved, principally the European organizations most representative of the industrial and service sectors affected by trans-European networks, either as users or suppliers of goods or services: this consultation has extended over the entire year, but more particularly at an informal hearing held on 8 October 1990 in the presence of Commission officials and the national coordinators;

(iii) specialized Community bodies, on the basis of the work they have carried out concerning the creation or improvement of trans-European networks: this includes work approved or being dealt with by the Council in the various areas being considered so that maximum account is taken of measures which have been or are being launched and any duplication is avoided.

2. CONTRIBUTION OF THE COMMUNITY FRAMEWORK

With the prospect of a single market without internal frontiers, assessing infrastructures inevitably leads to recognition of the need to take account of the network requirements of that market. Appraisal of these needs at Community level cannot merely consist in adding together the individual needs of the Member States, as assessed on national lines. With respect to the principle of subsidiarity which should allow the identification of the Community added-value, acknowledgement of this fact must lead all those involved in the design and creation of infrastructures to incorporate the Community dimension into their work. This also offers numerous advantages which might encourage their emergence.

This view tallies with the guidelines identified in the preliminary document "Europe 2000: outlook for the development of the Community’s territory",4 which highlights the increasing pressure on a compartmentalized and fragile European area and the need to create a coherent reference framework giving information on what is happening throughout the Community.

2.1 Creation of a single market without internal frontiers generates an urgent demand for trans-European networks

The White Paper of June 1985 took the realization of four fundamental freedoms as a basis for proposing an overall balanced approach in all the sectors concerned. It is acknowledged today that the economic effects of successfully implementing these freedoms largely depend on the existence of networks which facilitate communications and shrink the Community in terms of time and distance, with a view to greater cohesion. A closer link between all the regions which make up the Community will enable them to

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4 COM(90)544 of 16 November 1990.
benefit as fully as possible from the Community dimension and from the expected benefits of abolishing internal frontiers.

This need for such infrastructures is strengthened by four factors:

- the predicted (and in part already discernible) increase in intra-Community trade unimpeded by physical, technical and, in the near future, tax barriers (volume effect);

- the need for existing infrastructures and services to be interconnected so that they will match the new dimensions of the market (interoperability requirement);

- the importance of taking the Community dimension into account in the design and development of future network systems (dimension effect);

- the increased need for adequate service quality throughout Europe (quality requirement).

- the need to draw closer all the elements of the Community space (cohesion effect)

2.2 Problems linked to the division of responsibilities

2.1.1 Role of the public authorities

Planning and development of infrastructures and services have, for historical reasons of competence, traditionally been tackled on a national or regional basis. This has resulted in a fragmentation of networks if they are considered from a Community viewpoint. The new dimensions of the internal market make it essential to consider networks in the much wider context of the Community and, beyond that, the European continent as a whole. This vital integration of infrastructures into that new context demands that each decision-making level (local, regional, national, Community, etc.) take account of the other levels, where this is justified by the nature of the project. This must lead to greater consultation between decision-makers at various political levels. Suitable forums must be sought for optimizing such consultation and making it as operational as possible.

2.2.2 Responsibility of economic operators

While public authorities play a major role in generating, and often in creating, networks, in particular in the areas of transport and training, the importance of economic operators in launching and executing infrastructure projects is growing. The increasing diversification of supply as a result of technological development is causing economic operators to show more interest. However, this interest is closely linked to the development of corresponding markets and therefore implies greater user involvement. The development of the notion of "service (user) charges", according to which the user is prepared to pay for the quality service he receives, should further strengthen this trend by facilitating the private financing of networks.

In other words, the emergence of trans-European networks depends as much on private-sector initiatives as on action by the public authorities. This is as frequently reflected in a partnership between the two.
2.3 Community contribution

Consideration of network problems within a Community context offers several decisive advantages. The networks seem to be inadequately exploited at present, as the consultations with economic operators demonstrated. Giving consideration to the problems identified might:

- facilitate thanks to a global vision, the identification of the Community interest in existing or planned projects;
- stimulate optimum exploitation of existing networks;
- promote the adoption of standards guaranteeing the interoperability of networks;
- stimulate the joint submission of transnational projects;
- promote the production of indicative plans as part of a medium- and long-term strategy for improving networks and securing optimum use of the European area;
- enable better account to be taken of the necessary balance between the centre and the periphery of the Community in the context of economic and social cohesion;
- maximize the economic impact of networks for the regions crossed;
- cause account to be taken in the profitability analysis of the benefits which projects should have for the entire Community;
- offer a framework for coordinating the statistics necessary for assessing network requirements;
- facilitate the expansion of opportunities for Community networks on a continental scale, in particular with the EFTA countries, eastern Europe, as well as their extension in the direction of the Mediterranean third countries;
- promote new synergies between regions in different Member States and between different branches of industry;
- assist or supplement the financing of projects of Community interest using the instruments available.

3. GEOGRAPHICAL DIMENSION AND CONTENT OF TRANS-EUROPEAN NETWORKS

3.1 Geographical dimension

The first priority is to enable Community networks to cater for the rapid growth of intra-Community trade which will result - and is already resulting - from completion of the internal market. This must first cover the infrastructures situated on the territory of the Community. It must thus contribute to achieving a better balance between the centre and the periphery so that peripheral regions can benefit from the advantages offered by the single European market. A more extensive and better-meshed network has a cohesive effect beneficial to the Community's peripheral and central regions alike.
However, the problems linked to trans-European networks cannot be limited to Community territory. Account must be taken of the imperative of integrating the entire European continent:

(i) the extension to the EFTA countries of the principles of free movement, currently being negotiated, makes it necessary for a further dimension to be added to Community network projects. In this respect, even greater priority should be given to the severe transit problems encountered in Austria and Switzerland in the transport and energy sectors;

(ii) the changes taking place in central and eastern Europe, which are reflected in a number of increasingly ambitious agreements, are reason enough for taking steps to satisfy the enormous infrastructure needs of the countries concerned with a view to their integration with the Community and EFTA. The Commission's recent proposals concerning the "European Energy Charter" initiated by the memorandum of the Dutch Prime Minister at the European Council in Dublin and clarified at the recent Paris Summit of the CSCE are consistent with this approach. Yugoslavia is of particular importance as regards the transport and energy sectors.

Furthermore, the development of relations with Mediterranean third countries should translate into the search for a greater interoperability of networks, in particular in the energy and telecommunications fields.

3.2 Content of trans-European networks

Several important aspects of these networks should receive greater attention from the Community, with account being taken of all the components of any network: transmission structures (links), points of contact (nodes), terminal installations, infrastructure-based services and the legislative environment. The deficiencies highlighted during the recent discussions show that trans-European networks must be developed in four main directions.

3.2.1 Developing trans-European operation of existing networks

The existing national networks have not been designed to cater for large trade flows between Member States, and this leads to inadequate interconnections and to rules and regulations which prevent such flows.

* The growth of intra-Community trade therefore requires links to be established where they are currently lacking in existing networks and bottlenecks to be overcome. This involves interconnecting existing networks or constructing new ones.

* Optimum exploitation of these networks requires that inhibiting national provisions be repealed and, where necessary, that harmonized provisions be introduced.

* The historical heterogeneity of the Community's economic structure must be compensated for by an attempt to establish, in coherent or more complete fashion, networks covering the entire Community territory. This applies particularly in the areas of gas pipelines, certain means of transport (motorways, railways) and telecommunications services.
3.2.2 Planning the networks of tomorrow

Technological developments and the growing internationalization of trade must lead the Community and its Member States to make coordinated and concerted plans for the networks of tomorrow in all the areas concerned. This is true whether one is talking about high-speed passenger rail links, and the liaisons between maritime and land transport, broadband links, air traffic control, energy exchanges or training. The development of interconnections with countries in central and eastern Europe comes under the same heading.

3.2.3 Improving communication nodes

The nodes of trans-European networks have a significance which has not yet been considered in the European context. The importance of nodes for goods and passenger transport networks increases still further when one considers the future high-speed links between European cities (urban networks) and the development of combined transport (terminals).

3.2.4 Promoting services aimed at the final user

Infrastructures in themselves serve no purpose unless they enable a service to be offered. Services offered on the networks, must also be trans-European and take maximum account of user requirements. This may find expression in the need for a management framework adapted to the European dimension or in the establishment of specific services (e.g. reservation systems, service-invoicing systems, charging systems, linguistic adaptation, energy exchange pools).

4. ENVIRONMENTAL DIMENSION OF PHYSICAL INFRASTRUCTURES

Infrastructures linked to trans-European networks do not in themselves give rise to problems any different from those encountered during the planning and construction of any physical infrastructure, in particular transport and energy links. This aspect is primarily the responsibility of the Member States and their regional and local authorities, even though protection of the environment is also a component of other Community policies.

Whilst respecting the division of responsibilities in this area, the Community can lay down general principles to be adhered to by the Member States and also conduct detailed discussions.

* A general Community framework has been established by Council Directive 85/337/EEC(5) on the assessment of the effects of certain public and private projects on the environment to ensure that allowance is made for the natural environment in national and regional infrastructure projects. (This Directive might shortly be extended to policies, programmes and plans such as regional development programmes, economic programmes and land-use plans proposed by the public authorities);

The Commission has recently considered in detail the matter of the environment and transport and the choice to be made between the nuisances caused by traffic congestion and the creation of an infrastructure which is designed to overcome these nuisances but which may, at the same time, give rise to serious problems of cohabitation with other functions of social life (housing, work) and damage to the man-made and natural environment. More fundamentally, environmental protection implies that the choice between means of transport and between the various transport organization systems must satisfy new criteria. With this in mind, the Commission aims to establish a long-term comprehensive scheme for multimodal infrastructures (allowing passage from one mode of transport to another without technical difficulties) and the creation of a network created for observing and disseminating the initiatives adopted by towns and cities to overcome transport problems and manage urban land.

In the area of energy, the main difficulties of environmental integration occur at the level of power interconnections. The paradox is, however, that overhead electrical lines are becoming an increasingly unacceptable form of visual pollution even though the development of interconnections by installing such lines is the best way of optimizing use of existing production capacities and of reducing polluting atmospheric emissions. It is therefore a question of choosing the most efficient solutions with the least impact on the environment. This choice should be better analysed.

The approach proposed for trans-European transport and energy networks should in itself make a significant contribution to protecting the environment. This is because, by favouring an integrated approach to the various means of transport and to energy interconnections at Community level, it directs political choices towards optimum use of the infrastructures available on Community territory.

5. BARRIERS TO EMERGENCE OF TRANS-EUROPEAN NETWORKS

Taken together, five types of obstacle explain the current situation of inadequate, and even non-existent, trans-European networks. Without vigorous and concerted political action, there is no prospect of these obstacles disappearing of their own account. They result essentially from problems of interoperability, an inadequate legislative environment, constraints linked to competition and a general lack of any global vision of infrastructures at Community level, reinforced by a shortage of statistics conceived on common bases. Although the existence of a further constraint linked to the volume of finance available is not proven, the combined effects of the obstacles identified above tend to complicate solutions to the problem of financing trans-European networks.

5.1 Difficulties of transfrontier interoperability

The work carried out in the telecommunications and transport sectors demonstrates how the fragmentation of infrastructures and the way in which they are managed on national lines hampers the cross-frontier provision of services.

The lack of interoperability between the various networks created by the Member States makes it impossible for them to link up with each other beyond national frontiers and for them to be operated simultaneously or consecutively so that they offer a coherent and satisfactory service at a reasonable cost to the user. These difficulties are linked not only to the facilities and installations concerned but also to the services provided.
A user wishing to make use of the infrastructures of several countries in order to supply services will have to contend with a multitude of different agents and pricing systems based on different parameters.

As regards telecommunications, the principal obstacles are of an administrative and above all tariff nature. In this domain in particular, the Commission has set itself the objective of bringing the operators to orient their tariffs on actual costs, which should allow particularly the reduction in costs crossing internal frontiers in the Community. It has the intention to publish during the first 6 months of 1991 a Communication on this tariff question which will propose a certain number of recommendations destined to speed up this evolution.

The inadequacy of pan-European telematics services is particularly striking as 1993 approaches, especially where services as basic as electronic mail and videotex are concerned.

Certain measures have been taken, in the wake of the Commission's Green Paper on Telecommunications, to determine the essential requirements which networks must meet particularly with the directive on open network provision C(89)1134 and to ensure that a standardization programme is implemented at European level by the ETSI, a new body specifically created for that purpose.

A further Green Paper recently adopted by the Commission concerning Satellite Communications(7) examines more particularly the measures to be taken to ensure the interoperability of satellite telecommunications networks (VSAT).

In some areas, such as videotex, transfrontier applications are hampered not only by the existence of different technical standards, but above all by national regulations and administrative provisions whose incompatibility inhibits the development of such applications.

In the area of mobile radio, where the incompatibility of national technical choices forces the user to acquire as many different pieces of terminal equipment as there are national services, the production of harmonized standards, currently in progress, will have to be accompanied by their effective implementation on the basis of new investment. The dates for the introduction of these paneuropean services are 1991 for the mobile radiotelephone, end 1992 for mobile radio-mess ageing and the cordless telephone.

The question still remains whether standardization is proceeding quickly enough for the Community's telecommunications to become compatible with each other within a period of time which is reasonable in relation to the establishment of the single market. This nevertheless raises the problem of the availability of the required expertise within the Community.

In the area of transport, the work already carried out on the matter of technical compatibility in the context of high-speed rail links has highlighted the sheer scale of the task, given the large number of national technical specifications. They represent a typical example of the situation to be avoided. The only solution immediately available lies in the juxta positions of differing systems, which entails an extreme complexity of electrical and electronic circuitry and significant constraints both in relation to weight and dimensions. The creation of such "universal" links presupposes the development of telecommunication systems of a compatible but not exactly identical nature on European railways.

(6) COM 1134 24.07.1990
(7) COM (90) 490 of 20 Nov. 1990
It has, in any case, become vital that the Community put a stop to ongoing rational developments and launch an ambitious standardization programme to guarantee compatibility of infrastructures and equipment.

Similar situations are likely to arise in the area of combined transport, which will in 1991 be the subject of work similar to that carried out on high-speed links.

In the area of air traffic control, 22 technically incompatible systems currently operate in Europe, leaving untouched a situation in which air frontiers cannot be reconciled with the frontier-free area aimed at the Single European Act.

A technical standardization programme, involving all the parties concerned by these infrastructures, should therefore be launched. This should, in particular, prevent new national standards from being produced and promote a European approach. This is more or less what was advocated by the Commission's recent Green Paper on the development of European standardization. 8

The management of a large number of networks takes no account of user requirements or comfort and leads to a variety of situations such as tickets being checked twice on international rail services, the absence of integrated reservation systems or a drastic restriction of choice.

5.2 Legislative environment

There are two sides to the coin in this respect: some rules and regulations favour freedom of movement and a better use of networks, whilst others make the creation of networks more difficult or costly.

On the one hand, national rules hamper the free movement of goods, freedom of establishment and freedom to provide services in the Community. They were highlighted in the Commission's White Paper of June 1985 and measures have been proposed by the Commission for liberalizing these areas.

These measures relate to all means of transport (air, road, sea, inland waterway, combined), telecommunications and energy (right of transit for power and gas).

Many of these measures have already been adopted by the Council and are being implemented. Others are still being discussed within the Council and the necessary decisions should be taken in the near future (cf. section 6.2.2. p. 26 below).

On the other hand, the creation of trans-European networks is hampered by considerable legal, administrative and tax difficulties linked to the different national provisions regulating them.

A particularly apposite example is Eurotunnel. The legal framework established by the Franco-British Treaty involves two concessions being granted: one governed by French law for the section of the tunnel on French territory, and one governed by UK law for the section on UK territory. This means that all procedures are duplicated since they must be carried out by different companies in each of the two countries, and this applies not only to the tunnel's construction and operation, but also to all necessary financial operations such as the recent increase in the capital of the two holding companies, Eurotunnel SA and Eurotunnel p.l.c. The extra cost in terms of administrative procedures, waiting periods, dossiers to be submitted, tax disparities, etc., is obvious.

3 COM(90)456 of 8 October 1990.
Because no appropriate European structure, such as the European company statute proposed by the Commission, is currently available, the tunnel will be operated by separate legal entities, each one complying with the legislation of its own Member State and subject to distinct tax regimes.

Moreover, the multiplicity and diversity of administrative procedures, differing from one country to another, with a view to obtaining the necessary authorisations for the establishment of physical infrastructures constitute a retarding factor and a supplementary cost which also must be taken into account, particularly at the level of financing.

5.3 Competition aspect

The Community is founded on the principles of free competition.

The role of public authorities in planning and creating transport and training infrastructures remains important.

As far as telecommunications are concerned, the separation of regulatory and operating functions resulting from Community action will allow this sector to be opened up to competition.

In the area of energy (electricity and gas), the rules in force give the public authorities a not-inconsiderable influence via their right to fix prices, grant investment authorizations and set the competition rules.

In these circumstances, the point at which the public authorities will become involved in creating infrastructures remains rather unclear. The consequences of this are as follows:

(i) By virtue of the division of responsibilities between public authorities and economic operators, a number of services for which there is a market demand will naturally compete with each other, and any public intervention is liable to distort such competition.

(ii) The integration of infrastructures via the interoperability of systems already in operation or still to be created would be considerably facilitated by cooperation between the economic operators involved. However, such cooperation should not lead to agreements between undertakings which would have as their objective or their effect to restrain competition in a manner incompatible with the Treaty and this in particular to the detriment of the users.

These matters are currently the subject of intensive discussions in the telecommunications sector because of the recent liberalisation which has occurred there following upon the entry into force of directives adopted within the framework of the Green Paper on Telecommunications (e.g. the Draft Directive on leased lines and draft guidelines on the application of the competition rules in the telecommunications sector applicable to public operators enjoying exclusive or special rights).

Other sectors are bound just as much by competition rules: for example cooperation between power generators and distributors in the Community aimed at making better use of production capacities (which is desirable in all respects) must not result in the elimination of competition between operators.
In the field of transport, the same problems arise both as regards the same means of transport (cooperation between airlines, railway companies, rotation system for barge operators, etc.) and as regards combined transport (e.g. cooperation between the railways and road haulage firms).

As regards payment systems, a closer integration of networks presupposes cooperation between the institutions involved. This applies, for example, to the interoperability of payment cards. As for transfers, the Commission insisted, in the context of its recent initiative, on clearing houses being linked up with each other. This can be achieved only on the basis of agreements between the systems concerned. However, such agreements must comply with the competition rules laid down by the EEC Treaty. There is a need to stimulate private-sector initiatives, particularly on the part of credit institutions, for establishing trans-European networks. Without waiting for the achievement of Economic and Monetary Union it is opportune to give the public authorities, in particular the central banks, the possibility of taking part in these systems and of monitoring their smooth operation. This also leaves open the possibility of the European system of central banks playing a major role.

All things considered, the desire for greater integration of networks, which inevitably presupposes increased cooperation between the various parties, is limited by application of competition rules, which are vital to ensure that the benefits of liberalization are not offset by the establishment of agreements or new illegal monopolies. It is therefore desirable that a balance be struck between the two imperatives - integration and competition - so as to guarantee the emergence of the trans-European networks which the internal market needs.

3.4 Lack of an overall view at European level of the increase in demand and corresponding infrastructures

The Commission has, repeatedly and in a number of areas, insisted on the need for an overall view of the development of European infrastructures and, even further upstream, of the changing pattern of requirements. It is obliged, however, to conclude that infrastructures are still being designed and developed on the basis of information which only partially incorporates the European dimension.

This situation was stressed by virtually all the economic interests (notably UNICE, ERT, CICL, FIEC) represented at the hearing of 8 October 1990, which regretted the absence of an overall view of infrastructure needs, particularly with regard to transport, at the level of the European continent.

In the telecommunications field, the Commission is setting up a forum for European ISDN users to increase demand and step up the pressure on operators.

The qualitative change brought about by the new dimensions of the Community market also make it necessary to redefine the frameworks within which infrastructures are designed, while respecting the subsidiarity principle.

(9) COM(90) 447 of 24 Oct. 1990
Better adapted and more efficient instruments of statistical measurement are needed, and this involves creating statistical information systems suitable in terms of methods, standardization and instruments of statistical measurement. These systems will have to count on trans-European telecommunications networks, and an attempt is being made to develop these. The Community’s Statistical Office is the natural framework for coordinating these measures.

Account must be taken of the major factors affecting the development of the Community area resulting from completion of the internal market, as was done in the initial interim report presented by the Commission to the Council prior to the presentation of a final report at the end of 1991.

These attempts at achieving coherence are probably inadequate given the scale of changes induced by completion of the internal market and by the speed at which the process of integrating the European continent is proceeding.

5.5 Extent of financing problems

5.5.1 Conditions for private financing

The analyses carried out do not indicate that the constraint of the volume of finance available is a major obstacle to the creation of trans-European networks. The ongoing decompartmentalization of financial markets should help stimulate the mobilization of funds, and the financial groups are increasingly organized in such a way as to be able to provide finance on a trans-national basis. It is the small number of large-scale and well-designed projects which is the main reason why so little in the way of private money has been mobilized.

All the analyses show that the logic underlying trans-European networks is that of the market, since these networks exist to satisfy needs that have been expressed. The fact that a project offers a satisfactory rate of return undoubtedly makes it easier to attract private finance. But profitability should not always be understood in a strictly financial sense. Consideration should also be given to external factors, such as a project’s more general positive repercussions for the areas concerned (reduction of isolation, decongestion of existing infrastructures, economic development of certain regions, location of economic activities, etc.). This will be all the more effective if the project is viewed in its entirety, and in particular in its overall Community context.

This approach must not, however, lead to the conclusion that no financing problems exist. This is because:

- the risks are still high for the private sector (long-term commitment, difficulty of evaluating the potential return, the cost and the duration of construction, macroeconomic parameters, complexity of the legal and administrative environment, political uncertainties);

- the financial networks are not always structured in such a way as to be able to cope easily with trans-European projects, particularly since they are generally segmented on a national or regional basis;

- the emergence of projects is often delayed, indeed completely shifted, by the absence of feasibility studies owing to a lack of funds for this type of study;
private-sector finance cannot be obtained in all cases, and public finance is therefore needed (potentially associated with a contribution from private capital):

* where projects do not offer a sufficient rate of financial return, even though their socio-economic profitability is established; this might be the case anywhere in the Community, but it occurs more often in the peripheral regions, where the population is less dense and the distance from the Community's main economic centres constitutes a severe handicap, or

* because it is impossible to make the user pay for the corresponding service (e.g. difficulty of introducing tolls in the most densely populated regions of the Community).

5.5.2 Current Community responses

The Community, through its own financial instruments (budget and loans), provides assistance for the execution of projects which are sometimes trans-European in nature even if they also serve other purposes such as regional development. The objective of cohesion within the Community, pursued by the Community instruments, would be served just as well by the financing of trans-European networks liable to reduce the isolation of regions vis-à-vis existing economic centres and to foster the development of economic activities.

Such assistance could be more effective if it formed a clear part of a Community network-creation policy. There have not, up to the present time, been any genuine outline plans for European networks in the various areas concerned would enable the Community to provide assistance in a more coherent fashion. The expected adoption of a master plan for high-speed railway links within the Community will, for the first time, provide a solid reference framework for Community financial assistance, as and when this is required. Nor is it any coincidence that a focusing of Community financial instruments on the establishment of this network is already apparent.

In this context, the supplementary nature of Community resources should be recalled, given to reinforcing national and/or regional interventions which play traditionally a significant role in the development of infrastructures.

In the specific area of telecommunications, the Community policy guidelines confirmed by the Council since 1985 have enabled finance to be granted coherently on the basis of a coordinated definition of Community priorities.

The following Community assistance is available:

(1) As regards the structural Funds, following their reform in 1988, the ERDF will spend a third of its allocated resources for the period 1988-93 on basic infrastructures, mainly in Objective 1 regions (chiefly Ireland, Greece, Portugal and Spain), included in the Community support frameworks and various Community initiatives, in particular Regen, Interreg, STAR, Télématique, Euroform etc..

Community assistance (ERDF grants) towards major transport and telecommunications infrastructures should amount to ECU 6.8 billion, with ECU 1.5 billion going to energy infrastructures (see figures in Annex 2);
(ii) The **Community budget** offers a number of other possibilities for the creation of trans-European networks, in particular

* in the **telecommunications sector**, with programmes such as CADDIA, INSIS, TESIS and IMPACT, which are intended to strengthen trans-European cooperation between the parties involved (administrations, businesses);

* in the **transport sector**, for which the Council has recently adopted a multiannual programme (1990-92) with a projected budget of ECU 328 million to help finance a series of major European projects (studies or works) on the basis of grants or other appropriate means.

* in the **vocational training sector**, under the COMET II, ERASMUS II, LINGUA, FORCE, EUROPEINFNET, PETRA in the field of training for research by research, thanks to the SCIENCE programme, and other research programmes with shared funding (DEMTA providing for the development of new technologies applied to education and training).

* in the domain of **informing small and medium sized enterprises** through the Euro-Info-Centres and the Business Co-operation-NET.

(iii) the **Community loan instruments** which, for example, provide the following funds in the field of information for small and medium enterprises with the Euro-info-centres and the Business Cooperation-NET:

* The **European Investment Bank** lent over ECU 2 800 million in 1989 for projects of Community interest in the transport, telecommunications and energy sectors (see figures in Annex 3);

* The **ECSC loan** facilities can be deployed to finance infrastructures using steel, and this has recently enabled particularly the TGV-Atlantique and the Rhine-Main-Danube Canal to be financed, and the gas distribution network in Greece.

(IV) Moreover the **PHARE programme** favouring cooperation with Central Europe offers some possibility to develop networks.

6. ELEMENTS OF A COMMUNITY ACTION PROGRAMME: PRIORITY PROJECTS BY AREA CONCERNED, HORIZONTAL AND FINANCIAL MEASURES

6.1. Priority projects by area concerned

Most of the projects listed below have come a good way in the gestation process at the Commission and some of them already form the subject of decisions by the appropriate Community bodies. They may be at the stage of research and development, feasibility studies or implementation; the aim of all of them is to meet the concerns expressed in this report concerning the inadequacy of existing trans-European networks. Their degree of priority has been assessed on the basis of criteria set out in this Communication and in the light of the contributions of the Member States during the coordination work and the observations formulated by economic circles.
6.1.1. Transport

Although the work carried out with a view to this communication revealed the interest in a global approach to all means of transport due to their complementary nature, the Community has only developed actions for certain infrastructures, despite the pressure from the Commission to go beyond such an approach. This explains the absence of any projects relating to ports or airports, taking into account the lack of decision by the Council on the proposal of the Commission seeking to extend the competences of the Community to these domains. However, discussions undertaken with the Member States show that the majority of them wish to develop such a joint effort in the perspective of a more global and multi-modal approach. In this context, it is particularly opportune to encourage the adoption of the programme of technological research and development in transport (EURET 1990-1993), aimed at optimizing the exploitation of transport and logistical networks (all modes of transport).

6.1.1.1. Air transport

The Commission considers that the solution to air traffic congestion will come about through decisions to unite the current control systems. The measures taken by the ECAC in April 1990 and the creation, under the aegis of EUROCONTROL, of a single management centre for air traffic control, are insufficient. Even though the Commission will contribute to implementation of these measures it considers them only as a first step, insofar as they are limited to ensuring the compatibility of existing national systems. It intends promoting further studies to influence complementary decisions which should be taken before 1994.

- Studies on a unified system of air traffic control: participation in the EUROCONTROL PHARE programme and ATLAS study (R & D aiming to define a solution allowing the establishment of an integrated system using advanced telecommunications techniques -1990-1992).

6.1.1.2. Road transport

(i) A Study will be carried out in the infrastructure Committee on the prospects for a Community motorway network by 2010 (1991);

(ii) Certain projects have already been identified as participating directly in the interconnection of existing networks; this is the case with the following projects which will be the subject of a Community financial subvention:

- Road links across the Pyrenees

  * Toulouse-Barcelona via the Puymorens tunnel (commissioning in 1994).

- The Bremer axis

(iii) Other projects participate in the opening up of peripheral regions and their achievement will facilitate access by these regions to the benefits of the internal market:
- Road link to Ireland: A5/A55 link between Crewe and Holyhead, in the United Kingdom
- Brindisi - Patras - Athens
- Lisbon - Madrid

(iv) Finally certain other projects should allow for better connections with countries bordering the Community:
- Road links in Scandinavia:
  * Aalborg-Frederikshaven motorway
  * Fehmarn links
- Athens-Evzoni-Yugoslavia

6.1.1.3. Rail transport

(i) Attention here is concentrated on the high speed rail links whose development envisages:
- High speed railway links (1990-2010):
  * North: Paris-London-Brussels-Amsterdam-Cologne, with connections to other Member States
  * South: Seville-Madrid-Barcelona-Lyon-Turin-Milan-Venice, and hence to Tarvisio and Trieste; Oporto-Lisbon-Madrid

Furthermore to give these links their full community dimension, it is opportune to proceed with:
- a study of the 15 key-links proposed by the high level group on the high speed rail network (end 1991)

(ii) The following project is in the context of dis-enclaving:
- The Dublin-Holyhead-Crewe and Dublin-Belfast axes

6.1.1.4. Combined transport

- The Brenner axis (1990-2000)
  - Implementation of the Council resolution of 12 November 1990 on a European combined transport network (establishment of a coherent pattern of lines and terminals) and submission of a report to the Council by 1 June 1991.
  - This work which concentrates on the road and railway modes should be extended to inland waterway and maritime, and this in view of the interest expressed in maritime transport by Portugal, Ireland, Denmark, Greece, Spain, and Belgium.
6.1.1.5. Inland waterways

(i) The economic development of the existing networks lies in inter­
connections, particularly in France (e.g. a study on the Seine - Nord
link will be achieved in 1991) and in Germany (Mittelall
kanal).

6.1.1.6. Sea shipping

The absence of political consensus ( cabotage, competence in matters of
port infrastructure) to successfully carry through concerted actions at
Community level hinders the examination of a more rational exploitation of
surface transport networks. For example , the development of port
infrastructures along the Atlantic and Mediterranean coastlines could be
studied in the perspective of the development of certain economies (e.g.
Ireland).

- Improvement of links with Ireland.
- Study on the development of short sea shipping.

6.1.2. Telecommunications and telematic services.

Expanding telematics services depends largely on there being a favourable
regulatory atmosphere and standards which will ensure interoperability (see
measures still to be taken below). It is up to business to take advantage
of this freer environment to create applications to meet existing needs.
On the other hand, the authorities may stimulate a number of concrete
applications permitting better management in Community affairs or in areas
where the role of the authorities is preponderant. This is the context in
which the Commission is advocating the following projects, falling into
three categories: applications, services and R&D.

6.1.2.1. Applications

(a) Management of Community affairs

The abolition of financial, physical and technical frontiers entails new
needs for exchanges of information between administrations and the economic
operators to ensure efficient management of the frontierless area in a
series of different domains.(10) This means putting in place the
networks for telematic services necessary for the completion of the
Internal Market, for example, information exchange systems between the
institutions of the Community and in particular with the Member States in
the context of the legislative process, procedures concerning, for
example, state aids, notification systems (e.g. under Directive 83/189),
early warning systems, etc.; information access systems (data banks, etc.).

Urgency requires that every administration concerned in the Member States
and the Commission buckle down to this task immediately.

The domains adjudged to have priority in relation to the achievement of the
frontier-free area are:

(i) in the customs and indirect taxation field:

The development of computer systems to meet customs and fiscal requirements is a crucial part of the single market implementation programme; They include communications networks to enable filing of data to be exchanged electronically between the Commission and the Member States, between Member States themselves, trader interfaces to enable data to be exchanged between national administrations and traders and central databases to provide customs and fiscal information for both administrations and traders.

Certain projects are already under way, but much remains to be done. The projects which follow are indispensable for 1.1.93 in the customs field:

* management of TARIC (common customs tariff): Considerable improvement of the database to reflect the much wider user population. Replacement of the existing relatively simple interface system.

* setting up an advanced computer network for the management of TARIC, quota (contingents) control, binding tariff information, mutual assistance and exchange of information

* redevelopment of the SCENT project for electronic transmission of information concerning measures to combat fraud

* transit monitoring

* the system of export controls

Hitherto, very little attention has been paid to the development of fiscal computer systems at Community level. However Member States must, on the basis of orientations fixed by the Council in November 1980, take the necessary steps to allow for the exchange of computer based data by means of telecommunications and such systems will need to be in place and operative by 1 January 1993. Thus there is an urgent requirement for:

* a telecommunications network to ensure rapid exchanges of information between national administrations for V.A.T. purposes.

* a control system for the transfer of goods subject to excise between warehouses.

* an intelligent system similar to or part of, the SCENT system for goods subject to indirect taxes to aid the suppression and detection of fraud.

(ii) in the veterinary and plant health field:

* SHIFT (System for Animal Health Inspection at Frontier Posts) is aimed at setting up an intensive system for exchange of information between the Commission, national veterinary administrations and inspection units at frontier posts, in order to speed up imports of meat and meat products

* ANMIS (Animal Moves Management System) is a system for recording and monitoring all movements of livestock in the Community, in order to safeguard animal and public health. This is a very important management tool for veterinary departments and it requires a high degree of integration of all the administrations concerned, in a single system.
* FYSAN (system for plant health monitoring) is designed to monitor plant diseases in the Member States, in order to control them and improve Europe's plant health situation.

(iii) Free movement of persons

The European Council has requested the setting up of a Convention on the exercise of controls at external frontiers of the Community. The implementation of this Convention will presuppose a significant exchange of information between the national administrations concerned. Up to the present, this requirement has appeared in the framework of the Schengen Agreement and there is being set in place, for this purpose, a specific system for information exchange, (SIS) a prototype for a European scale system. Even though the Community competence may not be formally recognised, the Commission, taking into account the expertise which it has acquired in the execution of its different programmes is ready to make its contribution to the setting up of these networks.

(iv) In the statistical field:

* Setting in place of infrastructures for the collection of statistical data (projects STATEL and Stadium) with the National Statistics Offices;

* Studies on procedures to be set in place in the Member States for the development and transmission of data on intra-community commerce (ex project COMEDI);

* Development of structures for the management, the diffusion and the coherence of reference information used in statistical systems (ex. statistical nomenclatures).

Three existing programmes are being redefined to allow for the most immediate requirements flowing from the removal of frontiers. They have provide as solid experience of collaboration between administrations concerned and have enabled the most immediate needs and problems to be identified. These are:

- INSIS (at the level of community institutions and Member States) which requires the re-inforcement of active participation of the administrations of the Member States;

- CADDIA which is directly linked to the management of the frontier free area in the fields of customs, agriculture and statistics;

- TEDIS whose second phase has just been adopted, offers economic operators ways of developing pan-European inter-sectoral EDI systems directly concerning administrations, transport and financial services. The success of TEDIS with businesses is further evidence of the way in which administrations concerned in this area tend to lag behind.

(b) Improvement of road traffic management systems under the DRIVE programme:

The IRIS concept (Integrated Road Safety, Information and Navigation System), developed by the DRIVE Infrastructure group in order to resolve the problems of road traffic, has already served as the basis for two concrete initiatives:
(i) The FOLIS project, launched in December 1989 by a number of European towns and designed to develop urban traffic management systems (in order to reduce congestion and the danger of accidents): Feasibility studies underway, pilot projects in 1991 and implementation from 1994. Financial feasibility to be studied in the light of socio-economic and environmental benefits.


(c) Trans-European payment systems

On the basis of the orientations of the Commission feasibility studies to stimulate the setting-up, by the economic operators concerned, of trans-European networks in the field of payment systems, and interconnecting existing clearing centres (1991).

(d) European electronic telephone directory

Feasibility study (1991) on legal and technical aspects.

(e) Support for the development of the information market

Pilot projects (1990) for interconnecting information systems on road freight and integrating data bases concerning standards (IMPACT programme).

7.1.2.2. Development of new services

- Development of an Integrated Services Digital Network (ISDN) on the basis of the recommendation of the Council on the coordinated introduction of ISDN in the European Community. 18 countries of the CEPT including all of the Member States have now signed a Memorandum of Understanding aiming to set in place the first phase of the Council’s recommendation between now and 1993 on the basis of European telecommunications standards developed by the ETSI.

- Definition of pilot projects on the basis of the results of the Forum of European users of the ISDN.

- Development of mobile telecommunications on the basis of the recommendations of the Council and the directives providing for the reservation of frequencies for cellular telephones (GSM), the digital cordless telephone (DECT) and radio-paging services (ERMES).

- Setting in place of new telecommunication services by satellite in conformity with the proposals contained in the Green Paper on satellite communications.
6.1.2.3. Research and development

(i) Telematics systems of general interest

The framework programme for research and development (1990-1994) offers, in the context of the specific programme being discussed at the Council on telematic systems of general interest, the possibility of defining new requirements and technical problems, with solutions to these problems being sought and pilot projects implemented in the fields of administrative cooperation (European Nervous Systems), transport, training and medicine.

(ii) Management of transport

- Framework programme for research and development: ATLAS study and DRIVE programme;

- outside the Community framework (Bureka), development of the PROMETHEUS project.

(iii) Development of broadband links

- Carrying out the RACE programme to define reference scenarios, provide prestandardization and assess pilot applications (timescale 1995).

- Setting in place of the METTRAN network (Managed European Transmission Network) in the frame of the Memorandum of Understanding of the CEPT in the course of adoption in the follow-up to the Commission’s Communication on Electronic Highways. (COM (88)341).

6.1.3. Energy interconnections

It is for the economic operators concerned to define the projects and determine their economic viability. The Commission considers that a number of projects now being studied or under way are of great Community interest, either because their purpose is to extend an existing network to new Member States or because they help to reinforce security of supply and optimum operation of production capacities. At this stage two priority areas of application have been identified.

6.1.3.1. Electricity interconnections

- Ireland–United Kingdom (1995)
- Greece–Italy (1995)
- Reinforcing interconnections (1991-1995) between:
  * France and Spain-Portugal
  * France and Germany-Belgium-Italy-Switzerland
  * Italy and Austria-Switzerland
  * Germany and Netherlands-Denmark-Austria

6.1.3.2. Gas interconnections

- Interconnections Ireland-United Kingdom (1993), France-Spain-Portugal
- Midal projects between Enden and Ludwigshafen (Germany) and "Zeepipe" (Belgium), whose purpose is to open up new ways of bringing in Norwegian gas (1991-1993)
- Three projects in Germany to link up the new Länder (1991-1993)
- Interconnections Belgium/Germany, Germany/Denmark, Denmark/Norway ("Scampipe") and United Kingdom/Continent
- Reinforcement of the Transmed gas pipeline (Italy-Tunisia, 1992)
- Interconnection Sardinia - Corsica and mainland Italy.

6.1.4. Vocational training

Most of the projects below involve the use of telematics services. All the technological research and development actions provided for in the third framework programme for research and development (1990-1994) envisaging measures of accompaniment such as training actions of which certain will be carried out on networks. This applies particularly to the specific programme on Human Capital and Mobility.

6.1.4.1. Information exchange and data bases

The projects proposed are all for the improvement of exchanges of information at Community level, in order to ensure that training systems are transparent, that experience is made proper use of and methods improved. The links with telematics services are obvious.

- Expansion of the Eurydice network and its capacity to process information and transfer it between States.
- Setting up a similar network for vocational training systems, in liaison with CEDEROP.
- Expansion of the EURYCLEE electronic network connecting initial and continuing training centres for exchange of information and data between teachers and pupils in all Community languages.
- Setting up national data base networks on training courses and high-level training or extending them to advanced technologies and research programmes.
- Organization of a directly accessible data base for public and private organizations on equivalence of vocational qualifications.
- Setting up a telematic network for exchanges and scholarships under the ERASMUS and CEMET programmes and on scholarships for researchers (a kind of "bursary bourse").
- Setting up a data base of requests for business partnerships under the various transnational training projects under the CEMET, EUROTECNET and FORCE programmes.
6.1.4.2. Distance training

- Organizing a network of the dynamic centres of distance training which have emerged in the various Community training programmes.

- Carrying out joint and networked pilot projects, making full use of information and communication technologies.

- Expanding the transnational distance teaching and training systems which have been tried out in a particular sector of activity or a particular geographical area.

- Stimulating the development of television programmes on education and training.

6.2. Measures to accelerate the emergence of trans-European networks

6.2.1. Drawing up comprehensive schemes

This is a working approach applying to transport, telecommunications and energy.

It consists in bringing together the operators concerned in a network and working out the scheme of a network which is the most appropriate on a Community scale for all parties concerned, trying to identify difficulties likely to arise in setting up the network, both technically and as regards regulation and administration.

This may be accompanied by detailed studies of the problems identified, and in particular feasibility studies on the joint initiative of the States concerned and the Commission. Community financing of such studies is particularly justified in such cases.

6.2.2. Rapid introduction of the rules needed for the emergence of trans-European networks

Regulatory measures already proposed or about to be proposed are still necessary to ensure the development of trans-European networks in satisfactory conditions.

All these measures are destined to create a legal framework favourable at the same time to the provision of services, the creation of businesses and the free circulation of goods, conditions essential to the setting in place and operation of trans-European networks.

The list of these measures is set out in annex 1 to this Communication.

6.2.3. Reinforcement of standardization programmes

If infrastructures are eventually to be integrated, then the requirements for European standardization are considerable. The task is already well in hand but should be reinforced by efforts on the part of all those concerned. The following consequences should be noted: the burden of work which should result from this for all the European standardization bodies reinforces again the necessity to decentralise towards the associated standardization bodies favouring pre-standardization (cf. the example of
the Bifact Board for EDI, or the AECMA for the aeronautic industry) with the full participation of the industrialists concerned; on the other hand the current budgetary constraints do not allow to consider possible supplementary finance. In all the fields involved, statistical standardization should also be strengthened (concepts, methods and definitions).

6.2.3.1. Transport

- Air transport
  * Establishment of technical specifications for air traffic control equipment and for access to public procurement.

- Rail transport
  * Standardization on the basis of the "new approach" Directive for equipment and infrastructures of the high-speed network.

- Combined transport
  * Standardization of containers.
  * Measures to be taken following the discussions in the high-level group (June 1991).

- Maritime transport
  * Standardisation to follow from the technical harmonisation directive to be proposed

6.2.3.2. Telecommunications and services.

The speedy development of technologies in this area requires rapid expansion of standardization and ongoing adaptation of programmes undertaken by European standardization bodies, and in particular ETSI. The following may serve as examples of standardization requirements:

- electronic mail: definition of the last technical specifications;

- Definition of a critical mass of EDI messages in conformity with the EDIFACT international standard.

- videotex:
  * definition of protocols for access to ISDN videotex
  * definition of second generation videotex standards;

- ISDN:
  * completion of standardization already under way
  * standards necessary to ensure migration of applications;
- Satellites: to accelerate the work on standards by ETSI concerning satellite telecommunications equipment.

- Mobile radio: stimulation of the drafting of appropriate standards for new mobile systems.

6.2.3.3. Customs and indirect taxation

Member States administrations are at various stages of customs and indirect tax systems development. This is a factor which makes it difficult to ensure the uniformity of treatment necessary for the achievement of the Single Market, and the measures necessary to ensure the uniform application by Member States of Community rules will be given high priority over the coming months. At the very least compatibility of systems must be ensured which implies that:

- an urgent study into the extent of this problem must be carried out and give recommendations for its resolution.

- standardised electronic messages for exchange of data must be developed using the EDIFACT standard.

- standardised codes must be developed for use by all the Member States.

- in the perspective of the development of exchanges with the EFTA and the states of central and eastern Europe, participation in the PHARE programme and in the negotiations in train is necessary to assure the required compatibility.

6.2.3.4. As regards Energy sectors

- Standards on equipment and product quality.

6.2.4 Granting a declaration of European interest

The advantages of a declaration of European interest emerged during contacts between the Commission and economic interest groups, particularly banks.

It could be granted according to a Community procedure to be defined, in well-defined limited cases, to a trans-European network or project forming part of a trans-European network, with a view to attracting potential investors.

The conditions would be strict so that only well-defined and economically viable projects, which contribute to the Community's development and which have been given the all-clear by independent feasibility and environmental impact studies, are targeted.

The potential consequences of such a declaration would be threefold: (i) the political uncertainty affecting any major infrastructure project, through the commitment it would require, would be reduced; (ii) access to financing would be facilitated, without involving any automatic financial contribution from the Community; (iii) investors would have some guarantee that the necessary administration coordination and cooperation would be supported at the highest level.
The procedure for granting the declaration, and the ways in which consultation would be carried out, will have to be specified.

Such a declaration could apply to any type of trans-European network or project.

This approach has just achieved a concrete form, in the "declaration of European usefulness in the programme of action in the domain of trans-European infrastructures (1990-1992) adopted by the Council on 20 November 1990.

6.2.5. Integrated discussion of European infrastructure needs and trends with all interested parties

At the hearing on 8 October 1990, the main representatives of European industry deplored the absence of an integrated discussion of European infrastructure needs and trends.

This reflection should be taken on a continental scale in order to take into consideration the necessities for interconnections with the EFTA countries and the central and eastern European states, with whom numerous projects are in the course of development involving Community cooperation as well as their extension towards the Mediterranean countries.

This reflection should allow:

- an analysis of the long-term trend in network requirements: this presupposes the availability of satisfactory statistics and sound forward-looking analyses;

- identification of the nature and optimum configuration of the networks to be created;

- involvement by all parties concerned in the practical establishment of these networks.

The organization to carry out this study should be independent of the political authorities and should be self-financing after a running-in period. It should be a forum for discussion in which all interested and representative parties (public authorities, users, manufacturers, consumers) could participate. It is particularly important to involve from the outset the reflections of the principal actors who will be directly linked to the use of trans-European networks (e.g. for industries with a maritime interest, this means ship building, equipment manufacture, maritime carriers, port authorities, and those involved in other modes of transport and their loaders.).

6.3. Potential financial assistance

Implementation and application of the horizontal measures referred to in the previous section should encourage the emergence of trans-European networks, the mobilization of private funds and the adjustment of financial flows.
As for public finance, and in particular from the Community, the following solutions should be considered as possible ways of helping resolve the three difficulties identified above: financing of feasibility studies; inadequate profitability with the possibility of a missing link in the financing chain; financing of trans-European projects in peripheral regions with a view to reducing the isolation of those regions and promoting cohesion.

6.3.1. Budgetary instruments

The Community could, in the frame of available budgetary resources and respecting the financial projections, accord to transeuropean networks a financial priority for:

- feasibility studies to be conducted with regard to projects of European interest associated with transeuropean networks;
- loans for projects with only very long-term profitability;
- budgetary contributions to projects in the most appropriate form (direct support, interest rate subsidies etc.)

Furthermore, it is opportune to recall that the structural Funds contribute substantially to the realisation of this objective in the framework and the limits of their own missions.

The setting out of new financial projections for the period after 1992 could provide the occasion for the reinforcement of the priority character of the completion of transeuropean networks.

6.3.3. Loan instruments of the EIB and ECSC

* The EIB is ready to continue and extend as widely as possible its contribution to the financing of transeuropean networks, within the framework of the tasks conferred upon it by Article 130 of the EEC Treaty. This means that it is willing to participate, as in the past, in the financing proper of such projects, by helping mobilize financial interests. It also means that it could facilitate their emergence and development by means of appropriate initiatives, profiting from the EIB's experience, at the outset of preparatory studies or by helping to set up optimum financing arrangements. This could be done in close collaboration with the bodies concerned, in particular the Commission.

* ECSC loans could also be resorted to finance transeuropean networks, subject to the limitations on them.

CONCLUSIONS

The programme presented by the Commission requires a permanent follow-up by the Commission and the Council. It also requires precise policy orientations from the latter and as a first step the adoption of a programme of action. In view of this the Commission proposes that the Council adopt the draft resolution attached, and in application of this resolution request the Commission to submit the necessary proposals and to report to it regularly on the evolution of the work.
ANNEX 1: ESTABLISHING THE REGULATORY FRAMEWORK

1. General measures

Some measures apply to more than one field:

- implementation of Directives on the award of public procurement contracts, especially in telecommunications, transport and energy;
- presentation and adoption of the Directive on data protection;
- proposals on the contractual and legal validity of electronic messages;
- adoption of the European Company Statute.
- proposal for a Council Directive concerning arrangements for the taking into account by enterprises of the losses of the permanent establishments and subsidiaries situated in Member States.

2. Transport

(i) The majority of regulations in this domain aim at the establishment of the cabotage regime which should be introduced for all modes (road transport of freight and passengers, combined transport, inland waterway and maritime transport). The measures have been tabled at the Council and should be adopted as soon as possible;

(ii) Measures of a technical nature are envisaged to ensure interoperability, particularly for:

- transport by rail
  * A "new approach" directive is to be proposed by the Commission concerning essential requirements (e.g. safety, environment) in order to ensure the comparability of technologies and infrastructures with trains operating on the high speed links.

- maritime transport
  * Proposal for a technical harmonisation directive for equipment for ships. (cf. COM(89) 266). (11)

(iii) The proposals concerning the setting up of a community concertation in the areas of infrastructures for air transport and maritime transport (12) should be adopted.

3. Telecommunications

- Drafting and adoption of Directives in application of the Directive OCP of 28 June 1990 particularly in the following domains:
  . leased lines
  . transmission of data by circuit or packet switching integrated services digital network
  . voice telephony services
  . telex services
  . mobile services where necessary
  . subject to further study, new types of access to these networks and access to broad band networks.

(11) COM(89) 266
- Harmonisation of procedures for declaration and authorisation to provide services on the public telecommunications networks, with a view to establishing the conditions in which mutual recognition of declarations and authorisations will be assured.

- Initial drafting of rules on mobile radio communications.

- Drafting and adoption of the measures referred to in the Green Paper of 14 November 1990 on satellite telecommunications, particularly in the following domains:
  
  . the mutual recognition of type approvals for satellite communication terminals
  . the mutual recognition of authorisation for networks of uni- and bi-directional satellites
  . harmonisation of the conditions relating to the provision of an open network for connection of satellite terminal networks
  . harmonisation of future techniques already identified for transmission and diffusion by satellite to the general public.

4. Energy

- Genuine implementation of Directives on transit.

- Completing consideration on third party access to networks.

- Studies and proposals on administrative and legal obstacles to the establishment of interconnections.

- Concertation procedures on optimal management of networks.
## Community Assistance in Favour of Main Basic Infrastructures

Community Support Frameworks (CSF) in Objective No. 1 Regions (1989-93) (in millions ECU)

### Transport Infrastructures

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<td>879</td>
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<tr>
<td><strong>P</strong></td>
<td>460</td>
<td>123</td>
<td>-</td>
<td>19</td>
<td>-</td>
<td>121</td>
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<td><strong>UK</strong></td>
<td>14</td>
<td>27</td>
<td>67</td>
<td>29</td>
<td>-</td>
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<tr>
<td><strong>TOTAL</strong></td>
<td>3611.7</td>
<td>1016</td>
<td>253.7</td>
<td>221.6</td>
<td>232</td>
<td>1128.2</td>
<td>1702.1</td>
</tr>
</tbody>
</table>
Financing by the EIB (individual loans and credits on global loans) within the Community, in favour of networks with a European interest. (1)

(Amounts in millions ECU)

<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td><strong>A. Networks of Community Interest</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transport</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>* Rail</td>
<td>103.9</td>
<td>1090.3</td>
<td>605.9</td>
</tr>
<tr>
<td>* Road</td>
<td>1148.4</td>
<td>1503.2</td>
<td>434.5</td>
</tr>
<tr>
<td>* Port infrastructures</td>
<td>29.0</td>
<td>235.6</td>
<td>129.2</td>
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<tr>
<td>* Airport infrastructures</td>
<td>52.8</td>
<td>715.7</td>
<td>163.2</td>
</tr>
<tr>
<td>* Intermodal centres</td>
<td></td>
<td>83.1</td>
<td>16.4</td>
</tr>
<tr>
<td>* Urban transport</td>
<td></td>
<td>35.5</td>
<td>35.5</td>
</tr>
<tr>
<td>Telecommunications</td>
<td>269.8</td>
<td>1568.4</td>
<td>817.0</td>
</tr>
<tr>
<td><strong>Transport and energy distribution</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3213.4</td>
<td>3231.9</td>
<td>635.0</td>
</tr>
</tbody>
</table>

| **B. Total Networks**        | 11966.8   | 15031.8   | 4412.9 |
| Transport                    | 3927.7    | 7060.8    | 2206.5 |
| * Rail                       | 599.8     | 1475.9    | 606.8  |
| * Road                       | 2789.5    | 4002.2    | 1015.4 |
| * Port infrastructures       | 320.0     | 370.7     | 135.6  |
| * Airport infrastructures    | 106.2     | 738.3     | 169.2  |
| * Intermodal centres         | 83.2      |           | 16.4   |
| * Urban transport            | 107.3     | 326.5     | 228.2  |
| * Other                      | 4.9       | 64.0      | 34.9   |
| Telecommunications            | 4245.5    | 4092.3    | 1258.2 |
| **Transport and energy distribution** | 3793.6    | 3878.7    | 948.2  |

| **C. Total activity within the Community** | 32432.8 | 40024.4 | 11265.9 |
| % A/B                                | 40.3    | 56.3    | 64.3    |
| % A/C                                | 14.9    | 21.1    | 25.2    |
| % B/C                                | 36.9    | 37.6    | 39.2    |

(1) Not including 578 million for networks located in Yougoslavia:
- transport of electricity: 92 million
- railway lines : 124.3 million
- motorway     : 361.7 million
COUNCIL RESOLUTION ON TRANSEUROPEAN NETWORKS

THE COUNCIL OF THE EUROPEAN COMMUNITIES,

Having regard to the Treaty establishing the European Economic Community

Whereas the European Council (Strasbourg in December 1989 and Dublin in 1990) requested that guidelines on trans-European networks should be adopted by the end of 1990 and that in its Resolution of 22 January 1990 * the Council asked the Commission to submit a work programme and proposals for appropriate measures by the same deadline;

Whereas the establishment of an area without frontiers and the free movement of persons, goods and services necessitate trans-European networks for transport, telecommunications, energy and vocational training in order that full advantage can be taken of the beneficial effects of the Single Market;

Whereas the completion of trans-European networks linking peripheral regions to the centre of the Community will contribute to the economic and social cohesion within the Community;

Whereas trans-European networks should also be set up with a view to the harmonious development of relations between the Community and the EFTA countries and those of Central and Eastern Europe, and taking into account their extension to the Mediterranean countries;

Whereas the study carried out by the Commission in 1990 with the aid of the Member States and economic operators has shown the deficiencies in existing networks and the necessity for wider consultation on the creation of networks in the future;

Whereas the reasons for these deficiencies have been identified and that they should be eliminated by taking the appropriate measures such as proposed by the Commission in the form of a Community action programme;

Whereas it is proper for the Council to adopt this programme;

Whereas it is for the Commission to present the complementary proposals necessary for the implementation of this programme;

Whereas the Community action programme thus adopted should be the subject of an annual report by the Commission with regard to its implementation;

HEREBY ADOPTS THIS RESOLUTION

1. The Council affirms that, in view of the assessment undertaken by the Commission in its report, the completion of an area without internal frontiers, as required by Article 8A of the EC Treaty, should be accompanied by the establishment of genuine trans-European networks, that is, interconnected and interoperable networks in the fields of transport, telecommunications, energy and vocational training, for the benefit of citizens, enterprises and administrations.

* OJ C 27/8 6.2.1990
2. The Council considers that the present deficiencies justify the immediate implementation of a priority action programme. Consequently, it adopts the programme proposed by the Commission which centres on three complementary and indissociable elements: priority projects chosen in relation to their contribution to the functioning of the internal market and to the reinforcement of economic and social cohesion, general measures intended to facilitate the development, the completion and the optimum exploitation of trans-European networks, and financial measures.

3. With regard to priority projects and without prejudice to the work in progress or which has been decided, the Council invites the Commission to submit complementary proposals for the implementation of these projects and insists in particular, in view of the completion of the Internal Market, on the following principles.

3.1. In the transport field, the Council considers that the proper functioning of the market for transport requires a multi-modes approach covering all the modes of transport allowing the optimal use of infrastructures and at the same time contributing to the reinforcement of the protection of the environment. It invites the Commission to pursue its work in the different sectors identified in its Communication;

3.2. In the field of telecommunications and telematic services, it invites the Commission before mid-1991, to take initiatives allowing the setting in place of telematic service networks needed for the operation of the Internal Market, in particular through the interconnection of the information systems of the public administrations concerned; furthermore it invites the Commission to ensure, within a short period, the implementation of the specific programme of research on telematic systems of general interest, after its adoption, in order to improve the efficiency of the networks of telematic services.

3.3 In the energy field, in view of completing the internal market, with the prospect of a European Charter for Energy, it invites the Commission to examine with interested parties how the interconnections can be better developed and exploited on a continental level to ensure the optimal use of capacities of production and to reinforce the Community's security of supply;

3.4. In the field of vocational training, it invites the Commission to promote with the Member States and interested parties the interconnection of the different existing networks between all the bodies involved in vocational training in order to produce all their multiplier effects throughout the Community and other European countries.

4. With regard to the measures of a general nature, and whilst respecting the principle of subsidiarity, the Council wishes such measures to contribute to the creation of a favourable environment for the establishment of trans-European networks by all interested operators.

4.1. The Council considers that the necessary regulatory measures, listed by the Commission in the annex to its Communication, to ensure the interoperability of networks and the provision of trans-European services must be adopted and implemented without delay or be proposed by the Commission as soon as possible.
4.2. The Council invites the Commission, in close cooperation with all interested parties, to proceed to:

- establish on a regular basis, in the most appropriate form, comprehensive schemes for trans-European networks in the fields of transport, telecommunications and energy;

- establish an annual programme of European standardisation necessary for ensuring the inter-operability of networks and having the effect of preventing the production of new diverging national standards;

- collect data necessary to evaluate the needs of networks and the technical and financial difficulties affecting their development with a view to supporting the above-mentioned work.

- establish feasibility studies allowing the identification of projects of European interest;

4.3. The Council gives a favourable welcome to the principle of a declaration of European interest and invites the Commission to make proposals to it for the establishment of a Community procedure which would permit such a declaration to be accorded to specific projects.

5. With regard to financial measures, the Council considers that the projects must be profitable and recalls that it intends to favour private financing by creating the most favourable conditions for the development, the completion and the exploitation of the trans-European networks. It considers, however, that public intervention is vital in a certain number of cases identified by the Commission. These Community interventions are of an additional nature. This does not prevent the Commission from granting, in the framework of available budgets and respecting financial perspectives, a financing priority to trans-European networks. This priority nature could be reinforced when establishing new financial perspectives for the period after 1992.

6. It invites the Commission to:

6.1 table to it appropriate proposals in 1991 for the achievement of the afore-mentioned requests

6.2 submit to it an annual report on the implementation of trans-European networks.
<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AECMA</td>
<td>European Association of Manufacturers of Aeronautical Equipment.</td>
</tr>
<tr>
<td>AIM</td>
<td>Advanced Informatics in Medicine in Europe</td>
</tr>
<tr>
<td>ANIMO</td>
<td>Animal Moves Management System</td>
</tr>
<tr>
<td>ASB</td>
<td>Associated Standardisation Bodies</td>
</tr>
<tr>
<td>ATLAS</td>
<td>Air Traffic Control/Air Land System</td>
</tr>
<tr>
<td>CADDIA</td>
<td>Cooperation on Automation of Data and Documentation of Imports/Exports and Agriculture</td>
</tr>
<tr>
<td>CEDEFOP</td>
<td>European Centre for the Development of Vocational Training</td>
</tr>
<tr>
<td>CEPT</td>
<td>European Conference of Post and Telecommunications Administrations.</td>
</tr>
<tr>
<td>CLCA</td>
<td>Liaison Committee of Motor Vehicle Manufacturers</td>
</tr>
<tr>
<td>COMETT</td>
<td>Action Programme of the Community in Education and Training for Technology</td>
</tr>
<tr>
<td>CORRIDOR</td>
<td>Cooperation on Regional Road Informatics by Demonstration on Real Sites</td>
</tr>
<tr>
<td>CSCE</td>
<td>Conference on Security and Cooperation in Europe</td>
</tr>
<tr>
<td>DECT</td>
<td>Digital Cordless Telephone Project</td>
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<tr>
<td>DELTA</td>
<td>Developing European Learning through Technological Advance</td>
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<tr>
<td>DRIVE</td>
<td>Dedicated Road Infrastructure for Vehicle safety in Europe</td>
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<tr>
<td>ECAC</td>
<td>European Civil Aviation Conference</td>
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<tr>
<td>ECSC</td>
<td>European Coal and Steel Community</td>
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<td>EDI</td>
<td>Electronic Data Interchange</td>
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<tr>
<td>EDIFACT</td>
<td>Electronic Data Interchange For Administration, Commerce and Transport</td>
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<tr>
<td>EFTA</td>
<td>European Free Trade Association, Geneva</td>
</tr>
<tr>
<td>EIB</td>
<td>European Investment Bank</td>
</tr>
<tr>
<td>ENS</td>
<td>European Nervous Systems</td>
</tr>
</tbody>
</table>
ERASMUS - European Community Action Scheme for Mobility of University Students
ERDF - European Regional Development Fund
ERMES - European Radio Messaging System
ERT - European Round Table (Industrial concerns)
ETSI - European Telecommunications Standards Institute
EUREKA - European Research Coordination Agency
EURET - Specific research and technological development programme in the field of transport (1990-93)
EUROCONTROL - European Air Traffic Control Organisation
EUROTECNET - European Technical Network
EURYCLEE - Network of national information centres on new information technologies and education in the Member States of the European Community
EURYDICE - Education Information Network in the European Community
FIEC - European Construction Industries Federation
FORCE - Continuing Vocational Training
FYSAN - System for Plant Health Monitoring
GSM - Cellular Telephones Project
IMPACT - Information Market Policy Actions
INSIS - Interinstitutional Integrated Services Information System
INTERREG - Community Initiatives Concerning Border Areas
IRIS - Integrated Road Safety, Information and Navigation System
ISDN - Integrated Services Digital Network
LINGUA - Promotion of the Teaching and Learning of Foreign Languages in the EC
METRAN - Managed European Transmission Networks
ONP - Open Network Provision
PCRD - Framework Programme on Research and Development
PETRA - Action programme for the training and preparation of young people for adult and working life.

PHARE - Poland and Hungary Aid to Economic Recovery

PHARE - Eurocontrol project on linking ground based control and on board flight management systems.

POLIS - Promoting Operational Links with Integrated Services (through road transport informatics between European cities)

PRISMA - Community initiative concerning the improvement in tendering for services by businesses in Objective I regions (ERDF)

PROMETHEUS - Programme for a European Traffic System with Highest Efficiency and Unprecedented Safety

RACE - Research and development programme on Advanced Communications technologies for Europe.

REGEN - Community initiative aimed at improvement of energy infrastructures in the peripheral regions

SCENT - System Customs Enforcement Network

SCIENCE - Plan to stimulate the international cooperation and interchange needed by European research scientists.

SHIFT - System for Animal Health Inspection at Frontier Posts

SIS - Specific Information Exchange System (Schengen Agreement)

STAR - Special Telecommunications Actions for Regional Development

TARIC - Customs Integrated Tariff

TEDIS - Trade Electronic Data Information Systems

TELEMATIQUE - Community initiative concerning the development and improvement of services provided on telecommunications networks in ERDF Objective I regions.

UNICE - Union of Industrial and Employers Confederations of Europe

VSAT - Very Small Aperture Terminals