

COMMISSION OF THE EUROPEAN COMMUNITIES

SEC(92) 1048 final

Brussels, 21 October 1992

1992 REVIEW OF THE SITUATION IN THE TELECOMMUNICATIONS SERVICES SECTOR

Communication by the Commission

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1. INTRODUCTION

Telecommunications are an essential feature and instrument of modern society. At work and in the home the widespread availability of modern, efficient and cost-effective telecommunications contributes to competitiveness, to reducing the impact of distance and opens up new opportunities for personal and business development. Since the publication of its Green Paper on telecommunications in 1987 the Commission has followed a policy of combining liberalisation and harmonisation in order to create an internal market in telecommunications for the benefit of the Community's citizens.

Community action has led to change at national level which has sometimes been resisted at first, but when implemented has been recognised as successful and accepted for the benefits it has brought. Telecommunications is an area which is changing fast and which is shaped not just by decisions taken at national or Community level, but also by international developments which cannot be ignored or warded off in today's international context.

When the last round of telecommunications directives was adopted in 1990 it was explicitly recognised that further change might be necessary and that the situation in the sector should be assessed and reconsidered in 1992. For this reason, the Commission has carried out an assessment of the current situation in the telecommunications sector and presents the results of this assessment in the present Communication. The 1990 directives reflected the major political compromise achieved in the Council in December 1989, which was possible through a careful balance of harmonisation and liberalisation. The Commission remains faithful to that spirit. The current review presents very openly the Commission's convictions and can serve as the starting point for a debate which will be useful and fruitful for the Community.

Great care has been taken to ensure that the options explored do not call into question the need to maintain, and perhaps even extend, universal access to the voice telephone service and network. Of the options explored, one seems better suited than others to the fundamental objectives of the Community in this policy area. However, rather than immediately proposing specific action to implement this option, the Commission proposes to consult a wide range of interested parties, and in the first place the governments of the Member States, so that they have an opportunity to comment on the Commission's findings and to present their views on the needs of the sector and that all of these views can be taken into consideration before any final decisions are taken.

In order to ensure an effective consultation, the Commission

stands ready to distribute its study materials and to give all necessary logistic and organisational support to the development of this important stage of Community policy-making.

1.1 The objective of this review

The Commission Directive 90/388/EEC of 28th June 1990 on competition in the markets for telecommunications services⁽¹⁾ and Council Directive 90/387/EEC on the establishment of the internal market for telecommunications services through the implementation of Open Network Provision (ONP)⁽²⁾ of the same date both call for a review during 1992 of the conditions under which the telecommunications sector in the Community operates.

Directive 90/388/EEC generally provides that regulatory restrictions on the provision of services, including voice, on leased lines connected to the public switched network are, or should have been, abolished. This excludes the simple resale of capacity for data communication and voice telephony to the public.

The Directive defines these exceptions with precision. Currently the provision to any limited number of clients, as opposed to the general public, is allowed. Therefore, any service provider may offer voice or data communication to, for example, a company and its client or to all banks.

The restriction on simple resale for data communication must, according to the Directive, be lifted on 1 January 1993, although deferment until 1 January 1996 is possible where the network for the provision of packet switched data services is not yet sufficiently developed.

Consequently, the only remaining restriction on the provision of services to the public on leased lines is that on voice telephony.

Commission Directive 90/388/EEC states (Article 10) that the Commission 'will carry out an overall assessment of the situation in the telecommunications sector' in relation to the aims of the Directive. It further specifies in the preambles that the Commission will 'in any event reconsider in the course of 1992 the remaining special or exclusive rights on the provision of

(1) *Commission Directive of 28th June 1990 on competition in the markets for telecommunications services (90/388/EEC, OJ L 192/10, 24.07.90).*

(2) *Council Directive of 28th June 1990 on the establishment of the internal market for telecommunications services through the implementation of Open Network Provision (90/387/EEC, OJ L 192/1, 24.07.90).*

services'.

In the preambles to the Directive 90/388/EEC, it was made clear that "the exclusive rights to telecommunications services granted to public undertakings or undertakings to which Member States have granted special or exclusive rights for the provision of the network are incompatible with Article 90 (1) in conjunction with Article 86" of the Treaty. However the Directive recognized that at the time "the opening-up of voice telephony to competition could threaten the financial stability of the telecommunications organizations" and consequently "these restrictions are compatible with Article 90 (2) of the Treaty". A temporary exception was therefore granted, subject to a re-examination in 1992.

The assessment required in Directive 90/388/EEC must therefore examine how far the basic assumptions for the maintenance of the major exception - the maintenance of exclusive or special rights for the (public) voice telephone service - are still valid⁽³⁾.

A number of fields, in particular mobile communications, satellite services and television networks, were excluded from the application of the Directive. The Review has also considered if the above assumptions are still valid and if the fields mentioned above should remain excluded.

In this Review the Commission has strictly followed the mandate given by Commission Directive 90/388/EEC and Council Directive 90/387/EEC. It kept in mind the general principle of any market economy that competition leads to efficiency in the provision of a large range of goods and services⁽⁴⁾.

Council Directive 90/387/EEC requires (Article 8) that 'during 1992 the Council, on the basis of a report which the Commission shall submit to the European Parliament and the Council, shall review progress on harmonisation and any restrictions on access to telecommunications networks and services still remaining, the effects of those restrictions on the operation of the internal telecommunications market, and measures which could be taken to

(3) *Those criteria are in particular:*

- *If the 'opening up of voice telephony to competition could threaten the financial stability of the telecommunications organisations'; and*
- *If the 'restrictions do not affect the development of trade to such an extent as would be contrary to the interests of the Community'.*

(4) *"Industrial policy in an open and competitive environment: guidelines for a Community approach", Communication of the Commission to the Council and to the European Parliament, Bulletin of the European Communities, Supplement 3/91.*

remove those restrictions'.

The publication of this Review fulfills the obligations set out in both directives.

The Green Paper on the Development of the Common Market for Telecommunications Services and Equipment⁽⁵⁾ which has developed since its adoption into the common base of national reforms and Community legislation in this sector, states as a basic position that 'exclusive provision (of basic services) must be narrowly construed and be subject to review within given time intervals, taking account of technological development and particularly the evolution towards a digital infrastructure'.

The objective of this Communication is to set out the Commission's assessment of the current situation in the telecommunications services sector. It identifies the critical factors for future development and singles out the bottlenecks to maximising the benefits of the sector for the European Citizen, advancement of the peripheral regions, European industry and Europe's position on the world market, and its contribution to global European cohesion, competitiveness and market expansion. The Communication also examines a number of options for future policy and identifies one which seems better suited than others to the Community's objectives in this area. However, before putting forward proposals for legislative action, the Commission intends to carry out a broadly based consultation of all interested parties to seek their views on the measures envisaged.

2. GLOBAL SITUATION IN THE TELECOMMUNICATIONS SERVICES SECTOR IN 1992

2.1 Technical and market development

The transformation of telecommunications during the last decade - from an electro-mechanical based telephone medium to a digital, computer-based multiservice offering - has made telecommunications the centre piece of electronic infrastructure of the economy.

Driving the Community's policy for this sector for the last decade has been the immense importance of telecommunications to Europe in terms of its contribution to economic prosperity and the quality of life, the vital role it performs in the creation and operation of trans-European networks (along with trans-European networks in the field of transport and energy) and the sector's role as a growth motor for the whole electronic sector.

In preparation for this Review the Commission has undertaken detailed studies of the technological and market developments in

(5) *Green Paper on the Development of the Common Market for Telecommunications Services and Equipment (COM(87)290, 30.06.87).*

the sector. A summary of these studies is provided in Annex I(6).

2.2 Development of EC telecommunications policy to date

2.2.1 Subsidiarity

In all areas where it takes or proposes action the Commission must consider whether the objectives of the proposed action cannot be sufficiently achieved by the Member States or whether, by reason of the scale or effects of the proposed action, they can be better achieved by the Community. Member States have, and will continue to have, their own national policies on telecommunications. However, in many areas the requirements of the telephone users cannot be met without complementary Community action. While there are substantial differences between Member States in terms of intensity of usage, technology and inward service, there are powerful forces driving telecommunications developments everywhere in a common direction. In the context of the internal market there is a need for both harmonisation and liberalisation at Community level in order to ensure that the development of telecommunications across the Community is not impeded by national barriers or practices which are incompatible with the achievement of the objectives of the Treaty. The genuine completion of the single market in this area and the achievement of its full potential requires action both on harmonisation and liberalisation. The 1987 Green Paper on Telecommunications set out lines of action for creating a common market in telecommunications. This Review continues and develops that approach, envisaging the minimum action necessary at Community level in order to remove obstacles to the provision of the widest possible range of telecommunications services. Within the framework thus created at Community level, Member States will continue to determine their own telecommunications policies.

2.2.2 Measures adopted by the Community

a) First phase

According to the telecommunications programme adopted by Council on 17th December 1984, Community telecommunications policy developed during the first phase along five main lines:

- the initial co-ordination of future development of telecommunications networks in the Community;

(6) *Telecommunications Issues and Options 1992-2010: study prepared for the Commission, October 1991;*
Performance of the Telecommunications Sector up to 2010 under different regulatory and market options: study prepared for the Commission, February 1992.

The main focus was on the principal stages of network development: Integrated Services Digital Network (ISDN); the ongoing transformation of the telephone network into a fully digital network; digital mobile communications, the new pan-European mobile communications network called GSM (Global Mobile Communications); and the future introduction of broadband communications, which was to become the flagship project of the RACE Programme.

- advancement towards a Community-wide market for terminals and equipment;

The main emphasis was on the first steps towards Europe-wide open standards.

- the promotion of pre-competitive and prenormative R&D, the definition phase of the RACE Programme;
- the promotion of the introduction and development of advanced services and networks in the less favoured peripheral regions of the Community;

This became the starting point of the STAR Programme (see below).

- the first steps towards common European positions in relation to international discussions in the area, in order to defend Europe's interest on the international scene.

This first phase concentrated on establishing a balanced framework for Community policy in the sector and moving forward with limited steps on the basis of the existing structures.

b) Second phase

By 1987, there developed a general consensus that, given the changes and the growing importance of telecommunications, a fundamental reform of the sector and a global concept for the development of the sector were needed.

Community telecommunications policy was expanded, with the publication of the Green Paper on Telecommunications adopted on 30th June 1988 by the Council⁽⁷⁾, to include the regulatory conditions and the introduction of competition in the sector.

(7) Council Resolution of 30th June 1988 on the development of the common market for telecommunications services and equipment up to 1992 (88/C 257/01, OJ C 117/1, 11.05.89).

The Green Paper fully integrated Community policy for this sector into the 1992 programme and set out objectives, for the achievement of a Community-wide open market. These objectives were:

- the liberalisation of supply and provision of equipment, both terminal and network equipment;
- the liberalisation of services, with the temporary exception of public-voice and the operation of the basic network, including national choice with regard to the latter;
- the separation of the regulatory and operational functions, in order to create sound structures for an efficient market;
- ensuring open access conditions to networks and interworking and interconnection (Open Network Provision (ONP));
- the stimulation of European standardisation, with the creation of the European Telecommunications Standards Institute (ETSI);
- the full application of the competition rules to the sector.

These general objectives were subsequently implemented in rapid succession through the adoption of a series of Directives, in particular in the field of terminal provision, public procurement, services, and Open Network Provision (ONP). (These are listed in Table 1). In December 1989 the Commission adopted Directive 90/388/EEC on competition in the markets for telecommunications services and the Council adopted Directive 90/387/EEC on Open Network Provision.

On 6th September 1991, the Commission published its global approach to the application of competition rules to the sector, with the adoption of the Guidelines on the application of EC Competition rules in the telecommunications sector⁽⁸⁾.

On 20th November 1990, the Commission submitted a specific Green Paper on satellite communications⁽⁹⁾ which was adopted by Council in its basic principles on 19th December 1991⁽¹⁰⁾. This extended the principle of liberalisation and harmonisation to this specific market segment.

(8) *Guidelines on the application of EEC competition rules in the telecommunications sector (91/C233/02, OJ C 233/2, 06.09.91).*

(9) *Green Paper on a common approach in the field of satellite communications in the European Community (COM(90)490, 20.11.90).*

(10) *Council Resolution on the development of the common market for satellite communications services and equipment (92/C8/01, OJ C 8/1, 14.01.92).*

In parallel, the programmes for creating a global vision for the sector was substantially expanded. In December 1987, the RACE Main programme was adopted⁽¹¹⁾ as the major Community R/D/T effort in the sector. It concerned in particular the development of future broadband (high-capacity) networks and technologies carrying voice, data and image signals.

Simultaneously, Community R/D/T programmes were started in related application sectors: AIM (medicine), DELTA (education), DRIVE (transport). A specific programme for Electronic Data Interchange was put in place with the TEDIS programme and the IMPACT programme (Information market) was launched.

The STAR Programme, for assistance to the less-favoured regions of the Community in telecommunications development, was put in to full operation followed later by the Programme Télématique. Finally, the basis was laid for a co-ordinated approach to the introduction of High Definition TeleVision (HDTV) in the Community.

With the adoption of the third Framework Programme, the R/D/T efforts in this field were integrated into an overall effort for the implementation of trans-European telecommunications networks which will have a central role in the Single Market.

The basis of Community actions in telecommunications R/D/T is now in the third phase of the RACE programme, adopted on 7th June 1991⁽¹²⁾ and the specific programme of research and technological development in the field of telematic systems in the areas of general interest, adopted on the same day⁽¹³⁾.

The above summarises the development of telecommunications policy in the Community to date. Throughout this period the telecommunications market has been opened to greater degrees of competition. These moves have been supported by actions in the

(11) Council Decision of 14th December 1987 on a Community programme in the field of telecommunications technologies, research and development (R&D) in advanced communications technologies in Europe (RACE programme) (88/28/EEC, OJ L 16/35, 21.01.88).

(12) Council Decision of 7th June 1991 adopting a specific reasearch and technological development programme in the field of communication technologies (1990 to 1994) (91/352/EEC, OJ L 192/8, 16.07.91).

(13) Council Decision of 7th June 1991 adopting a specific programme of reserach and technological development in the field of telematic systems in areas of general interest (1990 to 1994) (91/353/EEC, OJ L 192/18, 16.07.91).

fields of R&D and harmonisation so that the maximum potential benefit to all parties has been provided.

Equally the regulatory environment of telecommunications has evolved. The most important regulatory developments are summarised in Table 1.

Table 1

Major Directives¹

shaping the regulatory environment in the field of telecommunications

Commission Directive of 16th May 1988 on competition in the markets in telecommunications terminal equipment (88/301/EEC, OJ L 131/73, 27.05.88).

Council Directive of 29th April 1991 on the approximation of the laws of the Member States concerning telecommunications terminal equipment, including the mutual recognition of their conformity (91/263/EEC, OJ L 128/1, 23.05.91).

Council Directive of 17th September 1990 on procurement procedures of entities operating in the water, energy, transport, and telecommunications sectors (90/531/EEC, OJ L 297/1, 29.10.90).

Commission Directive of 28th June 1990 on competition in the markets for telecommunication services (90/388/EEC, OJ L 192/10, 24.7.90).

Council Directive of 28th June 1990 on the establishment of the internal market for telecommunications services through the implementation of open network provision (90/387/EEC, OJ L 192/1, 24/07.90).

Council Directive of 5th June 1992 on the application of open network provision to leased lines².

Proposal for a Council Directive on the application of open network provision to voice telephony³.

Proposal for a Council Directive on the mutual recognition of licences and other national authorisations for telecommunications services including the establishment of a Single Community Telecommunications License and the setting up of a Community Telecommunications Committee⁴.

1 Table 1 does not include a number of related Directives and Decision, e.g. the Council Directives in the field of radio-communications frequencies concerning the pan-European digital mobile communications systems and the Council Decisions in the field of numbering. In total, since 1984 some 35 Directives, Decisions, Regulations, Recommendations and Resolutions related to telecommunications have been adopted.

2 OJ L 165, 19.06.92, p. 27.

3 COM(92) 247 final - SYN 437.

4 COM(92) 254 final - SYN 438.

At the same time the Community regulatory approach has been confirmed by the European Court of Justice.

In 1985 the European Court of Justice recognised with a fundamental Judgment⁽¹⁴⁾, that the competition rules of the Treaty fully apply to the telecommunications organisations. Since then the consistent application of these rules has allowed the telecommunications organisations to play a key role in the process of adjustment and the creation of a growth oriented environment.

With its ruling of 19th March 1991 (Case 202/88), the European Court of Justice confirmed that "It must be held that Article 90(3) of the Treaty empowers the Commission to specify in general terms the obligations arising under Article 90(1) by adopting Directives." The Court moreover confirmed that even if Article 90 presupposed the existence of undertakings having special or exclusive rights, it did not follow that all such rights were necessarily to be considered compatible with the Treaty. The question of their compatibility depends on the rules to which Article 90(1) refers to, and in particular the free movement of goods, the freedom of establishment, the freedom to provide services and the prohibition of abuses of dominant position. Consequently, the Court acknowledged the powers of the Commission to spell out the obligations of the Member States i.a. by requiring the abolition of special or exclusive rights infringing the mentioned provisions of the Treaty.

The Court moreover clarified the respective provinces of Commission and Council. The possibility that the Council might adopt legislation under a general power conferred on by the Treaty (e.g. Article 100 a) in one of the fields covered by Article 90 did not prevent the Commission from exercising the powers it enjoyed under that Article. Both powers are complementary.

2.2.3 Measures adopted by Member States

Since the beginning of the 1980's a trend towards liberalisation has developed in the Community leading to the adoption of the Green Paper and subsequent Community legislation. As a consequence all Member States have now adopted - or are undertaking - a reform of the sector.

All Member States have implemented the liberalisation of the terminal equipment market resulting from the Commission Directive 88/301/EEC. Services have been, or are being, liberalised in all Member States to at least the extent required by the Commission's Directive - i.e. for value-added and data services - even if

(14) *Italy v. Commission, Case 41/83, Judgment of March 20, 1985; 1985 ECR 873 (also referred to as the 'British Telecom case')*.

important delays in this respect still exist⁽¹⁵⁾. In some instances the benefits of competition have yet to materialise fully.

These two Commission Directives also led to the separation of regulatory and operational functions and the application of competition rules have led - or are leading - in all Member States to a review of the organisational structures and to a more commercial approach by the telecommunications organisations. Major gains in efficiency can be expected from the opening of public procurement.

In the field of satellite and mobile communications, a number of Member States are moving, though in an uneven way, towards liberalisation. France, Germany, the Netherlands and the United Kingdom have introduced liberalisation, in line with the principles of the Satellite Green Paper, in advance of Community legislation in this area. Also Greece is preparing legislation in this area⁽¹⁶⁾.

Whilst the structures of the sector have changed substantially on the side of the equipment industry towards trans-European operations, the network and services side has still not developed trans-European structures to the necessary extent.

Member States have generally opted, with the exception of the United Kingdom, to maintain monopoly structures in the fields left to national choice by Commission Directive 90/388/EEC - i.e. for (fixed) network facilities and voice telephony services⁽¹⁷⁾. This remaining monopoly structure i.e. voice telephony service and related subscription revenues account for nearly 90% of total revenues of telecommunications organisations.

2.3 The international situation

With respect to the regulatory environment, substantial changes have taken place in non-EC countries. The opening of the long distance services and infra-structure to competition in the United States has fostered some 400 entrants⁽¹⁸⁾. The range of services has expanded considerably whilst the prices charged for them have

(15) *The Commission has initiated procedures against a number of Member States.*

(16) *Legislation in progress.*

(17) *A number of Member States have moved further towards liberalisation in the field of radiocommunications based services, in particular satellite and mobile communications.*

(18) *The vast majority of these new entrants are re-sellers, only four firms compete substantially with their own facilities.*

become very competitive to the benefit of users. In 1990 revenue for US interstate telephone service (excluding international and local calls) was \$52 billion whilst EC revenue for intra-Community and long distance calls was ECU 24 billion. In some instances there is competition in the provision of local services in the US.

The regulatory structure of telecommunications in Japan was changed in 1985 by defining new types of carriers. Type I carriers provide telecommunications services through network facilities that they install themselves. As of January 1992 there were a total of 67 Type I carriers⁽¹⁹⁾. These included 3 long-distance carriers, 3 satellite communications carriers, 7 regional carriers and 2 international carriers. Type II carriers provide telecommunications services through circuits leased from Type I carriers. As of January 1992 there has been a total of 1,100 new Type II entrants.

In Australia the government introduced a major policy reform that introduced network competition by the end of 1991. The telecommunications sector in New Zealand has been the subject of substantial reform since 1987 with the exclusive rights being withdrawn in April 1989. In Canada a recent decision has introduced competition in long distance telecommunications.

In Finland there has traditionally been for some time around 50 small independent telephone companies that provide local telecommunications services in distinct geographic areas. Mostly, the independent companies are subscriber owned and have now jointly created a second competitive long distance telecommunications company. In Sweden the publicly owned TO has never enjoyed exclusive rights. A new private network, Tele2, will eventually offer a complete range of services, primarily via fibre optical networks that have been laid alongside Sweden's main railway lines with connections to satellites and international cables. In addition to the data transmission services offered initially, Tele2 will offer domestic and international telephone, facsimile, and video conferencing services in 1992.

Elsewhere in Europe (particularly Poland, Hungary and Czechoslovakia) reforms are underway. In third world countries also major liberalisation is underway to introduce modern efficient communications.

2.4 Changing political context

In its conclusions on trans-European Networks⁽²⁰⁾, the Council

(19) *Only a few of these are involved in competition on fixed telephony networks.*

(20) *Adopted by Council on 31 March 1992.*

has reaffirmed its commitment to the establishment of trans-European networks 'in the framework of a system of open and competitive markets' and with the objective to reinforce economic and social cohesion'.

The inclusion of Title XII into the Treaty on Political Union, has made the objective of trans-European Networks the overriding goal of the Community's policy for the sector. The Community is committed, within a system of open and competitive markets, to aim at promoting interconnection and interoperability of national networks, and access to networks.

Creating the market environment for the development of such networks must therefore be a major objective. The Commission has emphasised competition as the main driving force behind the changes now under way⁽²¹⁾.

In COM(92)2000 the Commission stressed the centrality of a prosperous and dynamic economy. Experience shows that creating stimulating growth through the creation of a dynamic internal market has a crucial rôle to play in narrowing disparities and thus realising the objective of strengthening economic and social cohesion. The regions needing to catch up are generally speaking peripheral ones facing the specific handicap of distance from the centres of economic activity. Telecommunications clearly have a particular role to play in overcoming this handicap.

Telecommunications have a major role to play for the integration of the Community, European competitiveness and European cohesion all of them major policy goals for the Community.

At the same time, the dramatic changes in Central and Eastern Europe, and the increase in the Community's external role have given further emphasis to the urgency of developing trans-European networks. The Community's telecommunications policy must now be seen in the context of the new wider European dimension.

In this wider context, the Review has focused on those areas which contribute to advancing these general goals and on identifying existing bottlenecks. At the same time, this general political framework must be the basis for encouraging the expansion of the telecommunications market. This is inherent in policy for telecommunications, a sector which has developed, from the outset, a balance between the objectives of liberalisation and harmonisation.

(21) *From the Single Act to Maastricht and Beyond. COM(92)2000, 11.02.92.*

2.5 Summarizing: New needs in 1992

Summarizing, whereas the technical, market and political context has changed substantially, major bottlenecks continue to exist.

Technological development has accelerated in recent years in particular in the fields of international voice and data, integrated service offering based on digital network infrastructure and high speed intra-corporate communications. The United States and Japan have further liberalised, unleashing a substantial market dynamic. As a consequence carriers in the United States and Japan are about to penetrate global markets, following their international customers. At the same time the political context in the Community has also been changing rapidly.

The Council and the Commission have stressed the importance of the development of trans-European Networks. This has been confirmed in the Maastricht Treaty. Bottlenecks which were already difficult to accept two years ago, now become a virtual barrier to the future development of the Community. Restrictions particularly in intra-Community communications are no longer acceptable in the new context of far greater needs for Community integration and cohesion, and given that restrictions must not be allowed to affect the development of trade such an extent as would be contrary to the interest of the Community.

This new context is the background to investigating options for further development of the sector in this Review.

3. CURRENT SITUATION

3.1 Positive results

The Community and Member States policy to liberalise the telecommunications markets subject to objective and non-discriminatory regulation, led to the emergence of greater competition in many of its sub-sectors, and in particular in the markets for terminal equipment and value added and network services. In the liberalised services the participants have innovated, costs have fallen and users have been provided with better goods and services.

The liberalised services can be subdivided in various new sub-markets, of which the main are the communications and computer services market and the information service providers market. Both have experienced a steady growth in volume since liberalisation. Many undertakings entered the market, and the cumulated turnover passed 3.5 billion ECU, without taking into account the closed user group services.

Further growth of the services market is expected from 1 January 1993 on, when Member States will liberalise according to Directive 90/388/EEC, the provision of simple packet switched data transmission.

As regards the customer premises equipment - the terminal equipment - which were liberalised earlier the total turnover reached about 6 billion ECU in 1990. This volume does not reflect the real growth that has taken place in the market since prices have decreased significantly since liberalisation.

3.2 Remaining difficulties/Bottlenecks

While there has been a global process of reform towards more efficient market structures, both the lack of trans-European structures and the current, special and exclusive rights in substantial parts of the Community have led to a situation where major bottlenecks to telecommunications development in the Community continue to exist. The continuing deficiencies in trans-European Networks and services are turning into a stumbling block for future development. The following difficulties have been identified:

3.2.1 Tariffs

On 28 June 1990 the Council adopted its Directive on the establishment of the internal market for telecommunications services (ONP). This Directive specified in Annex II that "tariffs must be based on objective criteria and especially in the case of services subject to special or exclusive rights must in principle be cost-orientated, on the understanding that the fixing of the actual tariff level will continue to be the province of national legislation ...". This implies that it is for Member States to ensure that their telecommunication organisation apply this principle.

Despite this obligation tariffs in general have not been adjusted sufficiently to costs. In particular the tariffs for intra-Community communications remain high. Consequently the customers of telecommunications networks have not received the full benefits that are available. This has had a direct and unwelcome impact on all subscribers. Furthermore there have been negative consequences elsewhere.

Traditionally international tariffs have been set high to reflect historically high costs. New technology has reduced the cost of providing these services and the profits thus generated have, in some cases, been used for investment elsewhere in the network. However such practices are becoming increasingly difficult to maintain. Technological developments mean that where such charges

are out of line with costs traffic diversion becomes attractive and telecommunications organisations lose revenues.

The introduction of new technology remains difficult and is subject, in many cases, to substantial delays. High tariffs and delays together threaten to limit substantially the contribution of telecommunications to the economic and social integration of the single Market.

The Commission's Communication on telecommunications tariffs in the Community shows the continuing 'surcharge' for crossing national borders in the Community⁽²²⁾⁽²³⁾.

Firstly, there is a 'frontier effect' whereby a three minutes call in peak time from one Member State to another is on average between 2,5 and 3 times the price charged for the most expensive national long-distance call, even though the geographical distances are comparable. In off-peak periods the ratio is between 5 and 6 times that price, thus especially penalising residential users.

Secondly, the price of a call in one direction within the Community often differs significantly, up to a factor of two, from the price in the opposite direction, as shown in Table 2;

Thirdly, there is a continuing lack of night-time and weekend tariff offerings for international telephony. In the vast majority of Member States, off-peak reductions on national calls in the Community range between 32% and 69% whereas the reductions for Intra-Community calls are at most 33%. Three countries offer no off-peak tariffs to other Community countries.

For these three aspects the differences do not seem to be justified on a cost basis or the differing structure of tariffs.

The Federal Communications Commission of the US has estimated that between 1984 and 1992 Interstate telephone tariffs fell on average by 9.7% per year in real terms. The Commission has calculated that between 1980 and 1990 Intra-Community tariffs fell on average by 3.5% per year in real terms.

(22) Towards Cost Orientation and the Adjustment of Pricing Structures - Telecommunications Tariffs in the Community: SEC(92) 1050 final.

(23) Other tariff surveys have been published recently, e.g. by the European consumer organisations (BEUC).

TABLE 2

Tariffs for Intra-EC telephone calls
according to country of origin¹
in November 1991

Out- going from:	Incoming to:												
	B	DK	D	GR	E	F	IRL	I	L	NL	P	UK BT	UK MCL
B	-	2.54	1.84	2.54	2.54	1.84	1.84	2.54	1.27	1.55	2.54	1.84	1.84
DK	1.36	-	1.36	1.61	1.61	1.61	1.61	1.61	1.36	1.36	1.61	1.61	1.61
D ²	1.69	1.69	-	1.69	1.69	1.69	1.69	1.69	1.69	1.69	1.69	1.69	1.69
GR	2.38	2.38	2.38	-	2.38	2.38	2.38	2.38	2.38	2.38	2.38	2.38	2.38
E	3.20	3.20	3.20	3.20	-	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
F	1.98	1.98	1.98	1.98	1.98	-	1.98	1.98	1.98	1.98	1.98	1.98	1.98
IRL ³	2.60	2.60	2.60	2.60	2.60	2.60	-	2.60	2.60	2.60	2.60	1.99	1.99
I ³	2.53	2.53	2.26	2.26	2.53	2.26	2.98	-	2.26	2.53	2.98	2.53	2.53
L ²	1.07	1.54	1.54	1.54	1.54	1.54	1.54	1.54	-	1.07	1.54	1.54	1.54
NL ³	1.43	1.43	1.43	1.89	1.89	1.43	1.89	1.89	1.43	-	1.89	1.43	1.43
P	2.69	2.69	2.69	2.69	2.69	2.69	2.69	2.69	2.69	2.69	-	2.69	2.69
UK ⁴ BT	1.69	1.69	1.69	1.69	1.69	1.69	1.69	1.69	1.69	1.69	1.69	-	-
UK ⁴ MCL	1.42	1.42	1.42	1.42	1.42	1.42	1.42	1.42	1.42	1.42	1.42	-	-

- 1 Peak rate 3 minute calls, including value added tax at the applicable rate. All prices have been converted in ECU. For example the cost of such a call from Belgium to Denmark on 01/11/91 was 2.54 ECU, the cost from Denmark to Belgium was 1.36 ECU. The table does not show any changes in tariffs that have taken place since November 1991.
- 2 No tax is levied on telephone calls, so tax exclusive and tax inclusive prices are the same. For other countries business may in certain cases be able to reclaim the tax levied.
- 3 Taxed at residential consumer rate.
- 4 Tax increase to 17.5% rather than 15% from April 1991.

3.2.2 Traffic diversion

New technological opportunities have led to significant diversion of traffic between the Member States in favour of the operators offering the most attractive intra-Community tariffs, even where the actual cost of the routing would not justify such traffic flows. As regards transatlantic traffic, these technologies have led to a reduction of EC-US calls in favour of US-EC calls.

Automatic "call-me-back" equipment allows for traffic diversion from high tariff operators and a subsequent loss of revenue for them. Since traffic diversion is now technically possible and does not contravene the rules of competition it is an inevitable activity where tariff conditions favour its development. Consequently the risk of revenue losses for high tariff operators will continue. Such services are already available in Europe and larger companies are using them.

3.2.3 Delays in the offering of new networks and services

As regards the introduction of new technology based networks, a number of Memoranda of Understanding for network and service introductions have been signed by the telecommunications organisations, with Community telecommunications policy providing, in many cases, the necessary framework and support. While a major success has been achieved in mobile communications with broad progress towards the pan-European mobile digital system, in other fields, such as in the introduction of ISDN⁽²⁴⁾, success has up to now been less spectacular and in all cases delays have been experienced.

The availability of services varies between Member States. In some Member States there are lengthy waiting lists, sometimes up to several years, for the installation of lines and connection to the basic infra-structure. Here an exclusive right has failed to guarantee a universal service in a number of cases.

3.2.4 Limitation of supply of high-speed lines

There continues to be a persistent lack of progress in most Member States especially in the leading-edge part of high-speed

(24) *Integrated Services Digital Network, the evolution of the telephone network into a multi-service fully digital network. The speed of a voice telephone call in ISDN is 64 kilobits per second. High-speed transmissions are offered at 2 megabits per second. Broadband transmissions are capable of very high through-put volumes which enable video (television) messages to be transmitted.*

transmission offerings. The latter are vital for the interconnection of Local Area Networks and for the setting up of Europe-wide networks for private corporations and closed user groups. The lack of progress hampers intra-Community international services and the expansion of the telecommunications equipment sector.

Potential users of high speed networks in Europe are penalised by the prohibitively high prices charged for broadband leased lines. Prices for 2Mbit/s circuits can vary as much as tenfold between Member States. There is a continuing lack of high speed leased lines in many instances.

Difficulties with the bottlenecks set out above produce a cumulative effect in the field of trans-European high bandwidth (broadband) networks. This represents a significant impediment to the future application of the results of, and calls into question the Community's advanced R/D/T Programmes in this field. The experience in the framework of the RACE Programme during the EBIT trial⁽²⁵⁾ demonstrates these problems.

3.3 Current requirements

For the single market and the full integration of economic activity to become a reality, the telecommunications sector must change its structure and perspective. Changes must take account also of the Community's commitment to strengthening economic and social cohesion, in which telecommunications have a specific role to play.

The process of competition and the competitiveness of business operating in the Community will make a substantial contribution to all of the above objectives. In turn the success of business will be significantly influenced by the structure, perspective and performance of the telecommunications services sector. Trans-European Networks are therefore undoubtedly necessary. However such networks require an environment, both economic and regulatory, which allows for and fosters their development. This environment should also provide for the appropriate outlets for the outcomes of the Community R/D/T programmes if these are to make their maximum contribution.

All of these elements demonstrate the necessity of a development in the structure, perspective and performance of the telecommunications services sector. The existing situation is characterised by the previously identified bottlenecks,

(25) *European Broadband Interconnection Trial: experimental network for pilot applications in the field of high speed applications.*

particularly the "frontier-effect". Telecommunications markets remain largely national in nature. The relationship between telecommunications organisations in the Community is hardly different from their relationships with equivalent organisations outside the Community.

In the light of the above the telecommunications services sector has not adapted quickly enough. Clearly, this situation is increasingly unacceptable since it impedes progress towards the objectives of the Community.

4. BASIC OPTIONS

4.1 Objectives specific to telecommunications

It is essential that any new actions to be undertaken must, firstly, provide an effective solution to remaining difficulties and bottlenecks identified in section 3.2; secondly respond effectively to the requirements identified in section 3.3; and thirdly, be compatible with the following objectives specific to telecommunications services. These are:

4.1.1 Growth and efficiency

Businesses are increasingly dependent on efficient and cheap telecommunications. There is a clear need to break down barriers between Member States, inter alia, for the establishment of integrated high-speed networks for voice, data and image.

The efficient provision of services by the telecommunications services sector is essential to each of the following objectives. The conditions are required to encourage the introduction of cost-effective technology. This will make the achievement of universal service less costly, regional and social cohesion more achievable, cost-based cheaper tariffs more likely, addressing the extra-EC dimension less difficult and interoperability even more desirable.

4.1.2 The universal service

Universal cost effective trans-European telecommunications networks and services are vital for a flourishing single market. Universal service must therefore be guaranteed. Universal service consists in the provision and exploitation of a universal network i.e. one having general geographic coverage, and being provided to any user or service provider upon request within a reasonable period of time at affordable prices. All telecommunications organisations should be allowed to participate fully in the growth of new liberalised markets.

4.1.3 Tariffs

As confirmed by the Council (see section 3.2. on tariffs), tariffs must be set by objective criteria and cost-orientated. This objective has not been met for intra-Community telephony.

4.1.4 Regional and social cohesion

Improving the quality and availability of telecommunications is vital if less-developed regions are to catch up. Without services comparable to those in the rest of the Community, the competitiveness of businesses in these regions cannot be assured. Telecommunications contribute to overcoming the specific handicap of peripherality and this contribution is currently hampered by a lack of infrastructure and services as well as artificially high tariffs for intra-Community telephone calls.

The implications for the least favoured regions are further developed in section 4.3.2.

4.1.5 The international dimension

Universal service should not stop at the Community's borders. The non-EC dimension should also be kept in mind. This concerns the impact of developments both on the countries of Central and Eastern Europe, in order to implement the Community's vision of a larger Europe, and on the Community's Southern neighbours of the Mediterranean area, with which relations in this sector still have largely to be developed. The issues of fair market access and the current multilateral negotiations underway in the Uruguay Round should also be addressed.

4.1.6 Balance between liberalisation and harmonisation

Whereas in the US competition was introduced on one consistent network by the break up of AT&T, the situation is very different in the Community. The EC is characterised by the existence of twelve technically diverging national networks. Community-wide services can not therefore be guaranteed solely by the full implementation of the competition rules and the freedom to provide services. There is a need for harmonisation measures to ensure interoperability. Therefore, the continuity of Community telecommunications policy and the stable framework set by the Green Paper for Community and national reforms must be maintained. This concerns, in particular, the principle of balance between liberalisation and harmonisation which has underpinned Community telecommunications policy since 1989.

4.2 Basic options considered

With respect to the actions to be undertaken (which would resolve the remaining difficulties, meet the new requirements identified and be compatible with the objectives set out above) four basic options were considered in the process of preparing this Review. These options are examined below:

Option 1: Freezing of the liberalisation process (which was started by the Green Paper and Commission Directive 90/388) and maintain in effect the status quo.

Option 2: Introducing extensive regulation of both tariffs and investments at the Community level in order to overcome the bottlenecks and in particular the surcharge on intra-Community tariffs.

Option 3: The liberalisation of all voice telephony - i.e. International (inside and outside the Community) and national calls.

Option 4: An intermediate option of opening to competition voice telephony between Member States.

Options 3 and 4 would be introduced in conjunction with ONP regulation in order to assure interconnection and universal access to the network.

The advantages and disadvantages of these four options are as follows:

Option 1: This option has the advantage of maintaining the already established regulatory environment and thus assures a certain stability. On the other hand it has the following drawbacks:

It does not provide a solution to the tariff bottleneck. Neither is it conducive to growth. According to studies undertaken for the Commission⁽²⁶⁾, in the absence of a continuation of further liberalisation, the growth of telephony services would be between 3-4% in real terms a year, implying a doubling of activities by 2010. This growth path which is significantly lower than that generated by the alternatives implies a frustration of potential demand from consumers and business, to the detriment of their

(26) *Telecommunications Issues and Options 1992-2010: study prepared for the Commission, October 1991;*
Performance of the Telecommunications Sector up to 2010 under different regulatory and market options: study prepared for the Commission, February 1992.

welfare and efficiency respectively⁽²⁷⁾.

In addition this growth path would be significantly lower than in Japan and the United States and would harm the dynamism of the EC telecommunications equipment industry. Without the benefits of a large and rapidly growing internal Community market, EC telecommunications equipment producers would be disadvantaged on world markets where they must compete to obtain the necessary economies of scale.

Option 1 would not necessarily promote or facilitate universal service, regional and social cohesion or contribute to the extra-EC dimension. The development of Trans-European Networks would be less rapid than under the alternatives. Furthermore the setting up of Trans-European Networks implies in most cases cooperation between the operators concerned; these agreements would normally only be acceptable under the rules of competition to the extent consumers were given a greater choice via the opening of Community markets to competition, which is not foreseen under this option.

Finally option 1 does not necessarily guarantee legal security because it could be attacked before the Court. Commission Directive 90/388 considered the exclusive rights for telephony incompatible with the Treaty and that its maintenance could only be justified on an exceptional basis under Article 90(2). If the Commission would consider that the conditions for this exception are not fulfilled for certain telephony services, its maintenance would therefore not legally be justified.

Option 2 : each of the options set out in this paper involve some degree of regulation. Option 2 however, would involve bringing tariffs into line with costs by means of almost exclusive reliance on detailed administrative and regulatory instruments. This option would require the regulatory authorities to determine tariffs which in turn would fix the framework for investment decisions.

Even if the tariffs determined were cost based they would reflect monopoly costs rather than those which would be derived through the process of competition and its resulting efficiencies. For international telephony Option 2 would imply the setting up of a coordination mechanism between the relevant authorities of Member States or direct Community intervention thus adding yet another level of decision making and entail an increase in bureaucracy.

(27) According to the studies, lost opportunities by not introducing competition would account for a cumulated loss in service revenues of some 130 billion ECUs over the period to 2010.

Option 2 could remedy some of the current weaknesses, in particular those of intra-Community tariffs. However, to be effective Option 2 would require the establishment of a substantial regulatory machinery at the Community level. This would entail a significant transfer of responsibility to the Community level. The likely growth paths of Option 2 are close to those of Option 1.

Option 3: According to the studies the advantages of this option would be rapid interpenetration of telecommunications with other economic activities and the full use of telecommunications for the modernisation of the European economy. Such a policy would require immediate and substantial moves towards the introduction of competition in more areas. This policy would produce growth rates for the sector of 6 to 7% in real terms on an annual basis. As a consequence the Community's telecommunications services market (ECU 90 bn in 1990) would nearly quadruple over the next 20 years, with a broad range of new services rapidly emerging, in particularly advanced voice, video, data and mobile services.

An expansion of 6-7% per year in real terms would have a favourable impact on the equipment supply industry and allow these manufacturers to become more competitive on global markets. The effect of this liberalisation on industries using telecommunications services and consequently on all EC industry would also be beneficial.

However, it is still necessary to take account of the multilateral negotiations undertaken in the framework of the Uruguay Round for the opening-up of telecommunications outside the EC.

Consideration should also be given to the different situations in each Member State. In general the tariffs of the telephone operators are not yet aligned with costs as far as domestic and international traffic is concerned. Consequently an immediate application of Option 3 would oblige the telephone operators to suddenly align their tariffs with cost and could lead to some disruption.

Option 4: This intermediate option will lead to a partial opening of voice telephony to competition. It offers the opportunity to maintain the balance between liberalisation and harmonisation, competition and cooperation, underlying Community policy in this area on the basis of the Green Paper, while creating the necessary dynamics to overcome current bottlenecks in intra-Community communications.

Option 4 is fully compatible with existing policy and law since it is a continuation of the policy adopted by the Council and confirmed by the European Court of Justice. Furthermore, Option 4 promotes the basic freedoms as laid down in the Treaty (Articles 3f and 59). Option 4 would also provide a legal basis that would facilitate the establishment of Trans-European Networks which the Council reaffirmed should be introduced "in the framework of a system of open and competitive markets" and with the objective to "re-enforce economic and social cohesion"(28). It thus can overcome the bottlenecks identified above for intra-Community traffic.

On the basis of the figures available to the Commission this partial opening would not compromise the universal service obligations of telephone operators because:

- Intra-Community voice only represent 1% of traffic minutes;
- the growth of international (including intra-Community) traffic is much higher than purely national traffic (14% a year at present for International compared to 5-6% a year for total traffic). Consequently even if telephone operators lose some volume share, the overall growth of volume, which is likely to accelerate because of liberalisation, would provide a compensation;
- the revenues from intra-Community telephony only represent 4-5% of total revenues of telephone operators(29);
- the likely effect of liberalisation would be to stimulate competition between existing telephone operators. These monopoly operators are the only ones present to any significant extent on the market and any market share lost in the present "home" market may be partially compensated by gains in the growing markets of other Member States;

(28) COM(92)2000, 11.02.1992.

(29) Net contribution to the telecommunications organisations' revenue, i.e. collection revenue plus net settlement income from Intra-Community telephony. For individual telecommunications organisations (TOs) in Member States, the revenue contribution from Intra-EC calls varies significantly because of national differences in traffic flows and revenue structures. With one exception, the share of total telecommunications services revenue in a Member State represented by Intra-EC telephony ranges from 3 to 14 percent.

These figures do not include revenues of extra-Community international traffic. They are based on currently available tariff and traffic information.

- cooperative agreements between operators and other companies will be stimulated in a liberalised market and would generally have capacity adding pro-competitive effects;
- any new entrants would operate at least partially on the existing infrastructure of the current telephony operators. By renting this capacity, the telephone operators would obtain revenue even from new competitors;
- new entrants that build new infrastructure will still in most cases pay an access charge to the current telephone operators in order to interconnect with the network.

Option 4 would imply full liberalisation of Intra-Community public telephony services with a sufficient number of points of presence (interconnection points) for service providers on the territory of the Member States. This would include the liberalisation of the supporting infrastructure (for example long distance point-to-point fibre optic links and associated equipment needed for the provision of transborder telephone service) as far as necessary.

The above would be subject to appropriate interconnection agreements with the public networks at the intraconnection points and appropriate licensing conditions in accordance with Community law.

To achieve such liberalisation, it would be necessary to introduce measures which allow for the conditions necessary for full and effective entry. This includes the ability to physically interconnect, the charges payable for such interconnection, and access to wayleaves, where applicable.

The conditions under which new entrants would compete would be fixed by national regulatory bodies which will be able, in particular, to set appropriate access charges. These charges may include a contribution to the costs of maintaining the universal service.

Conclusions to options

Option 1 (maintaining status quo) would involve a steady falling back of the Community market with regard to the United States and Japan markets and therefore does not seem acceptable. Option 2 could resolve some of the problems identified in the Review by means of e.g. price-capping, but risks forgoing the efficiency gains of other options and furthermore would involve introducing extensive regulation at national and/or Community level. Option 3 and Option 4 both represent substantial opportunities for moving forward although their implications must be carefully studied.

The Commission's policy on telecommunications has always been to introduce competition gradually. Implementation of Option 3 would depart from this approach by introducing full liberalisation. The Commission considers, at this stage, that such an option would give rise to practical problems unless questions such as tariff rebalancing, access charges, etc. have been resolved. Therefore Option 3 can only be contemplated if introduced in phases. However, Option 4 provides one of the possible intermediate steps which moreover provides a solution to one of the most serious bottlenecks identified in the Review (the "frontier" effect). At this stage, the Commission therefore considers that Option 4 seems better suited than others to the fundamental objectives of the Community in this policy area.

In launching this consultation, the Commission seeks comments on all the options set out in this Review.

The tariff bottlenecks identified affects both intra-Community international voice services and voice services to third countries. In order to prepare further liberalisation of voice services to third countries, further investigations must still be carried out in order, on the one hand, to estimate the implications of this liberalisation keeping in mind, *inter alia*, the Community commercial policy (including access to third country markets) and, on the other, to evaluate the effects on the revenues of the telecommunications operators.

At the same time, the further development of Open Network Provision and its application to voice telephony should ensure Community-wide interconnection and universal access at reasonable conditions and quality throughout the Community.

4.3 Associated policies

In order to respond to the new requirements and obtain the objectives specific to telecommunications, actions will have to be undertaken with respect to both regulation in the form of ONP and the introduction of competition in intra-Community telephony. These actions will be accompanied by actions in areas of R&D, public procurement, cohesion, access to third country markets and competition and cooperation. Further complementary actions will also be required. In this way a balance will be developed between cooperation, competition and cohesion.

In order to achieve the objectives emphasised in this Review the following associated policies will need to be pursued:

4.3.1 Ensuring public service and universal access

Maintaining and expanding universal access to the voice telephone service and network must be seen as a major policy goal for the sector. Cumulated investment required in the entire Community up to the year 2000 for developing and expanding the Community's telecommunications networks will be around 400 billion ECU⁽³⁰⁾, according to the studies carried out.

This emphasises the importance of the financial stability and cash generation capability of the telecommunications organisations which has to be taken into account of in considering the process of liberalisation. Account was duly taken of this aspect in this Review. As already mentioned, Intra-Community voice telecommunications account for no more than 4 to 5% of total revenue of the telecommunications organisations for the whole Community.

At the same time, the further development of Open Network provision and its application to voice telephony should ensure Community-wide interconnection and universal access at reasonable conditions and quality throughout the Community.

4.3.2 Maintaining and increasing cohesion

Support for the peripheral regions of the Community will be needed to allow for these regions to catch up and remain in step with stepped-up market expansion.

The basic aims are to "connect" LFRs with the core and with each other and to extend basic networks to remote areas. In particular, high quality public voice telephony services should be available to all at affordable prices. In this way businesses in these regions can compete in and benefit from the single market. The availability and quality of telecommunications services are key factors in determining business location and can in particular help offset the disadvantage of peripherality.

Substantial financial efforts have been made by the Structural Funds in trying to address the problem of insufficient quality and availability of telecommunications services in less favoured regions. These have taken place within the Community Support Frameworks with a total of some 1.4 billion ECU dedicated to telecommunications as well as through specific Community initiatives. STAR with nearly 770 million ECUs of Community aid for the period 1987-1991 had a strong accent on infrastructure provision with 80% of the money intended for investment in

(30) Capital investment is defined as Net Expenditure on Tangible Fixed assets, this excludes customer premises equipment expenditure (1990 ECU).

infrastructures for international transmission and 20% going into the introduction of advanced telecommunications services within firms. TELEMATIQUE with 200 million ECUs for the period 1991-1993 aims to amplify the effort launched in STAR by pursuing the introduction of advanced telecommunications systems into firms.

Recent studies show that a substantial effort in terms of investment requirements for upgrading telecommunications infrastructure in LFRs still remains to be done if these regions are to reach levels comparable to those in regions which have good infrastructure and services.

In its Mid-Term review of Structural Policies (COM(92)84 page 32), the Commission assesses the total cost of expanding and upgrading telecommunications infrastructure in the lagging regions by 2010 to the standards prevailing in the rest of the Community at 8 bn ECU per year. More recent studies confirm this order of magnitude, for example, taking slightly different target levels, 40 billion ECU up to the year 2000.⁽³¹⁾

Concern is sometime expressed that liberalisation may disadvantage individuals and businesses in remote and rural areas of the LFRs because past experience shows that telecommunications related services tend to be introduced in the largest cities and businesses first. This is already the case under most existing national systems but technological developments will reduce the cost and the time delay in achieving universal service. Experience in other parts of the world shows that, where competition has been introduced, the provision of telephone services to remote areas has not been adversely affected and, for example in the USA, the coverage in remote areas has continued to increase. Moreover, in many cases where liberalisation has been pursued the authorities impose coverage obligations on private operators as a condition of granting licences (for example this is usual in the Community where licences for mobile telephones are granted).

The peripheral regions are those regions which could gain most out

(31) These target levels have been broadly defined as a penetration rate of telephone lines (42 lines/1000 population), network modernisation (the proportion of customer lines connected to digital local exchanges equal or greater to 75%), ISDN access (available to business subscribers in towns over 10.000), cellular mobile coverage (90% of the population should have GSM mobile radio coverage) and availability of Packet Switched Services (all business services should have local access to a packet switched mode). In this sense, it is necessary to point out that the number of lines varies from 46 subscriber lines/100 inhabitants in Germany and France in 1989 to 18 in Portugal.

of a dynamic development and change in intra-Community telecommunications, which would integrate them much closer into the economic pattern of the Community. The process of liberalisation bringing with it lower tariffs for intra-Community telephony will fully support the further integration of the peripheral regions with the core areas.

4.3.3 Balance between competition and cooperation

The introduction of further liberalisation will allow for more freedom for cooperation between European market operators. The Commission has made it clear previously⁽³²⁾ that "given the competition context in the telecommunications sector, the telecommunications operators should be allowed, and encouraged, to establish the necessary cooperation mechanisms, in order to create - or ensure - Community-wide full interconnectivity between public networks, and where required between services to enable European users to benefit from a wider range of better and cheaper telecommunications services".

In closed markets cooperative arrangements of a vertical or horizontal nature may produce impediments to effective competition. However in liberalised markets similar cooperative arrangements which add capacity, may be considered to be pro-competitive.

In many instances cooperative arrangements may fall outside of the scope of Article 85. Furthermore, many cooperative agreements can be exempted from the competition rules (Article 85(3) of the Treaty), particularly when they promote technical or economic progress while allowing consumers a fair share of the resulting benefits.

4.3.4 Access to third country markets

Necessarily there is a relationship between internal liberalisation and access for Community operators to third markets. The Community must pursue by all the means at its disposal this goal with the firm intention to create effective, comparable and lasting market opportunities for its own operators elsewhere, in particular in the multilateral framework of the current Uruguay Round.

4.3.5 R&D

The Community R&D programmes in the sector must be continued and strengthened, in order to ensure that European industry fully

(32) *Guidelines on the application of EEC competition rules in the telecommunications sector (91/C 233/02); 6.9.91.*

benefits most from the potential of accelerated market expansion by remaining competitive vis-à-vis Third countries' industry.

With the RACE programme, a comprehensive R&D effort in the area has been put in place. The framework of Community actions in telecommunications R/D/T is now the third phase of the RACE programme, adopted on 7th June 1991 and the specific programme of research and technological development in the field of telematic systems in the areas of general interest, adopted on the same day.

4.3.6 Public procurement

The telecommunications organisations will continue to be the main purchasers of network infrastructure: switching and transmission equipment. To ensure a 'level playing field' in the relevant market, the Council adopted on 17th September 1990 its Directive 90/531/EEC extending to the telecommunications sector the rules already in force for public procurement in other sectors. A notice inviting tenders for supply contracts above 600,000 ECUS will have to be published in the Official Journal of the European Community. The contracts will then be attributed according to transparent criteria; normally to the most economically advantageous or lowest priced tender. The Directive will enter into force the 1st January 1993. From then on there should be no discrimination anymore in favour of 'national champions'.

4.4 Complementary actions

In support of the above mentioned actions to be undertaken, the Commission will:

- continue its policy of ensuring the full and immediate implementation of the existing Community directives.

The Directive 90/388/EEC in its present form foresees full liberalisation of private communications, such as corporate or closed user group networks for all services, including voice, for both national and intra-Community applications. The Commission is carrying out an analysis on how far this position has been fully implemented in the Member States.

- accelerate the submission and adoption of satellite liberalisation and harmonisation measures on the basis of the Satellite Green Paper and the Council Resolution of 19th December 1991⁽³³⁾ adopting this paper.

The Commission has examined measures concerning the liberalisation of earth stations for both uplink and downlink,

⁽³³⁾ OJ No C 8/1 of 14th January 1992.

and is examining measures concerning the free choice of space segment provider, non-discriminatory procedures for separate space systems and improved access to the space segment of the International satellite organisations, taking account of the analysis of progress made to date.

The Commission is also examining the conditions necessary for full and effective entry to the satellite communication service market and the possibility of expanding the Commission Directive 90/388/EEC to include this area.

- review the possibility of extending existing Directives, particularly Directive 90/388/EEC, to include mobile communications where a general trend is developing in the Community and the Member States towards liberalisation⁽³⁴⁾. The progress achieved in the harmonisation of radio communications frequencies and in numbering now seem to provide the opportunity to move forward in this field. The latter should analyse the conditions for the liberalisation of this market segment in the light of the unique characteristics of the sector, and in particular licensing conditions, generalised local access to the fixed telecommunications networks, access to radio frequencies and numbering space.

Work in this field can now build on the long-term general agreements reached in the field of radio-communications frequencies at the World Administrative Radio Conference held in February 1992 at Torremolinos, Spain. This examination will be carried out without prejudice to the further implementation of the relevant competition rules, in particular when complaints are lodged.

- initiate an exploratory study into the future relationship between telecommunications networks and cable-TV networks given the need to reach a common Community position in this area and thus prepare a Community market for broadband services to the home.

5. FUTURE WORK AND FURTHER ANALYSIS

Looking to the short and medium term there are areas where the Commission believes a further examination is required. The areas where analysis is continuing are the following:

(34) In the field of mobile communications, Denmark, Germany, Greece, France, Portugal and the United Kingdom have introduced - or are introducing - substantial liberalisation for both public and/or private systems. Other Member States are considering such a move.

5.1 Harmonisation and competition

It is necessary to examine the ways to put in place more rapidly the necessary harmonisation of regulation required to maximise the benefit of any further liberalisation. Of particular interest is the further development of the legislation on Open Network Provision, in order to ensure efficient and effective interconnection, and implementation of the Single Community Licence Scheme, based on the principle of mutual recognition of licences, which the Commission is simultaneously presenting.

It is further necessary to examine provision of public telephone services and networks within the Member States. This is to ascertain if, for the provision of services within Member States, existing monopoly positions are still required to ensure the financial resources for the build up of networks and the provision of universal public telephone service, and if the exemption accorded in the Directive 90/388/EEC on this basis can still apply.

5.2 The peripheral regions

Further analysis is required of the specific requirements and support needed for the development of telecommunications in the peripheral regions of the Community. On the one hand these regions would particularly benefit from a dynamic development of trans-European communications - and on the other hand they will incur a significant financial burden in order to keep pace with the developments arising from such liberalisation.

6. CONSULTATIVE PROCEDURES

The Commission considers that the objectives of competitiveness and integration provide the basic framework for increasing the efficiency of telecommunications in the Community, ensuring its full contribution to economic growth and mobilising its full potential for the integration of the Community. The resulting benefits of open and competitive markets will arise in the areas of growth, tariffs, trans-European networks, cohesion and the implementation of the outcomes of Community R/D/T programmes.

The Commission considers that progress along the lines set out in Option 4 can be made while maintaining the stable framework of Community telecommunications policy.

At this stage the Commission will proceed to a broad consultation with all interested parties seeking their views on the actions envisaged, the appropriate time scale, the maintenance and expansion of universal access, and any specific situations which

need to be taken into account. The Commission particularly welcomes comments on how best to implement these proposals in a practical and effective manner.

The Commission also welcomes comments from all interested parties on the areas where analysis is continuing as set out in section 5.

Summary of the studies undertaken in preparation for the Review.

The Review has been prepared on the basis of analysis by the Commission and of additional study. Amongst others, two major studies were undertaken in preparation for the Review:

- "Telecommunications - Issues and options 1992 to 2010"(36).
- "Performance of the Telecommunications Sector up to 2010 under different Regulatory and Market Options"(37).

The main results of the first of these studies may be summarized shortly as follows:

the European telecommunications services market could quadruple by the year 2010 (from 88 billion ECU 1990 to about 340 billion ECU 2010) if orderly liberalisation takes place and Telecommunications Organisations are allowed an innovative-oriented pricing approach (cost orientation and price flexibility). In particular, the study highlights a number of market areas where otherwise opportunities would be missed.

A major element of orderly ("controlled") liberalisation must be "growth oriented regulation". This would involve permitting competitive entry into key services markets but ensuring at the same time that telecommunications organisations provide new interconnect facilities (deepening of the "Open Network Provision - ONP programme"), in order to avoid uneconomic fragmentation of the market;

As regards technology and market trends, the report defines as the major trends the introduction of SDH (Synchronous Digital Hierarchy), Signalling system 7, ATM, intelligent terminal equipment, intelligent Network features, and compression technologies.

The second study confirms in quantitative terms the overall conclusions reached by the first study. The study provides a detailed assessment of the revenue implications based on a detailed model of the telecommunications sector over the next two decades under a scenario of minimum change and a more dynamic one. Special attention has been paid to the implication for peripheral regions and Central and Eastern Europe. The main results study may be summarized as follows:

continued market expansion can be achieved. Liberalisation and expansion of the market are financially sustainable. Sufficient financial resources can be generated to enable forward-looking technology choices to be made, which in turn would enable rapid development of the existing networks and the generation of new revenues. For the incumbent Telecommunications Organisations, any loss of market share is more than offset by the growth in revenues

(36) Arthur D. Little, October 1991.

(37) Analysys, February 1992.

and profits from expansion of the sector as a whole;

Investment requirements in the peripheral countries of the Community, in order to keep pace with expansion in the rest of the Community, will need to be high. This total cannot be fully covered by commercial operations. It is not until near the end of the decade that positive cash surpluses will be generated overall. Assistance will therefore need to be directed at specific regions where financing requirements are particularly burdensome;

the early introduction of competitive, long-distance Intra-Community network operation and service provision would be the most effective measure to promote infrastructure development in support of the European economy, to provide a spur to the lowering and rebalancing of tariffs, and to accelerate commercialisation. Such an initiative should be combined with the definition of ONP conditions for carriers and service providers wanting to interconnect with national networks. Action on this can and should be taken immediately by Member States and the EC.

The executive and main reports of the studies will be made available on request.