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**GREEN PAPER ON THE LIBERALISATION OF  
TELECOMMUNICATIONS INFRASTRUCTURE AND  
CABLE TELEVISION NETWORKS**

*PART II*

*A COMMON APPROACH  
TO THE PROVISION OF INFRASTRUCTURE FOR  
TELECOMMUNICATIONS IN THE EUROPEAN UNION*

(presented by the Commission)

## PREFACE

On 25 October 1994 the European Commission adopted Part I of a Green Paper on the liberalisation of telecommunications infrastructure and cable television networks. In that document the Commission set out the general principles and timetable for action which form the basis for the consultation on the development of a common approach to infrastructure in the European Union.

Part I, together with Part II of the Green Paper, launch the process of formulating Union policy on infrastructure, which was called for in Council Resolution 93/C213/01 of 22 July 1993 on the 1992 Telecommunications Review. This was seen by Council as a prerequisite to extending the process of liberalisation beyond voice telephony to the whole of the telecommunications sector.

The Commission's White Paper on Growth, Competitiveness and Employment (COM(93) 700 final) and the Report on *Europe and the global Information Society* by the group of leading industrialists under the Chairmanship of Commissioner Bangemann, emphasise the need within Europe for an efficient and effective communications infrastructure, capable of supporting the emerging Information Society.

This priority was reflected in the Bangemann Group Report whose first recommendation is a request to Member States to *"accelerate the on-going process of liberalisation of the telecommunications sector by opening up to competition infrastructures and services still in the monopoly area"*.

The Commission's Action Plan on the Information Society (COM(94) 347 final, 17.7.94) subsequently gave highest priority to the early formulation of a policy on infrastructure, both in relation to alternative telecommunications networks and cable networks and in relation to establishing a general regulatory framework for infrastructure liberalisation for the delivery of voice telephony services to the general public after 1 January 1998.

Finally, the Council of Telecommunications and Industry Ministers, meeting together on 28 September 1994 stressed *"..the importance and urgency with respect to rapidly evolving market conditions of setting a clear and stable regulatory and legal framework allowing market operators to engage in business activities, to invest and to take initiatives to bring about the Information Society<sup>1</sup>"*.

It is against this political background that Part I of this Green Paper proposed, in order to provide a coherent approach to infrastructure competition, a clear principle; namely, *"that provided the necessary safeguards are in place, the providers of telecommunications services which are open to competition should have a free choice of underlying infrastructure for the delivery of such services"*.

In response the Council of Telecommunications Ministers meeting on 17 November adopted a resolution confirming the principle of general liberalisation of

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<sup>1</sup> Conclusions of the 1787th session of Council 9561/94 (Press 197 - G), 28.9.94

infrastructure by 1 January 1998 for the full liberalisation of infrastructure<sup>2</sup>, including additional transitional periods for certain Member States in line with Council Resolution 93/C213/02<sup>3</sup>, and asked the Commission to develop the necessary regulatory framework.

Part II of the Green Paper now launches a broad discussion with all interested parties of the major issues involved in the future regulation of network infrastructure. This will allow the development of a common approach to infrastructure provision in the European Union. This approach must be fully integrated with the range of Union policies designed to support the Information Society.

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<sup>2</sup> A number of Member States have urged the Commission in an associated statement to come forward as quickly as possible with proposals to provide for the use of alternative infrastructure for telecommunications services which have already been liberalised.

<sup>3</sup> Council Resolution of 22 July 1993, OJ C213/02, 6.8.93

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## SUMMARY

Europe is shifting towards an information-based economy, where networks and network infrastructure play as significant a role as did the rail networks in transforming the European economies in the last century.

For Europe to meet the challenges presented by this Information Society, it is vital to ensure that business, industry and Europe's citizens can access modern, affordable and efficient communications infrastructures over which a rich and diverse range of traditional and new multi-media services will be offered.

This revolution has been recognised at the highest political level. In their conclusions on the Bangemann Group Report, the Heads of State and Government meeting in Corfu considered *"that the current unprecedented technological revolution in the area of the Information Society opens up vast possibilities for economic progress, employment and the quality of life"*. These changes are being driven by technology and by market forces. New global and regional partnerships are being formed to enable business and ordinary citizens to benefit from the opportunities offered by the convergence of broadcasting, telecommunications and information technologies.

Given the political consensus on the liberalisation of telecommunications infrastructure, it is now vital for Europe to put in place a clear and predictable regulatory environment. Such a framework will ensure:

- the completion of the internal market for telecommunications, stimulating the development of both basic and advanced infrastructures in the Union;
- providing Europe with efficient and cost effective telecommunications services, benefiting both business and consumers ;
- stimulating public and private sector investment, growth and innovation, thereby contributing to employment and cohesion;

This Green Paper now launches a broad consultation on the issues surrounding such a future telecommunications environment. The key questions are :

- How can universal service be developed? How much does it cost and who should pay for it?
- What should be the future framework for interconnection and inter-operability?
- How will telecoms networks be licensed? What restrictions can legitimately be placed on licence numbers and what conditions can be attached to licences?
- How can a fair competitive environment be ensured?
- How can infrastructure competition contribute to the challenge of employment? How should Europe address the shift in employment in telecommunications?
- How can Europe ensure comparable and effective access to global markets?
- What are the broader societal effects of the Information Society and how can the regulatory framework address these ?

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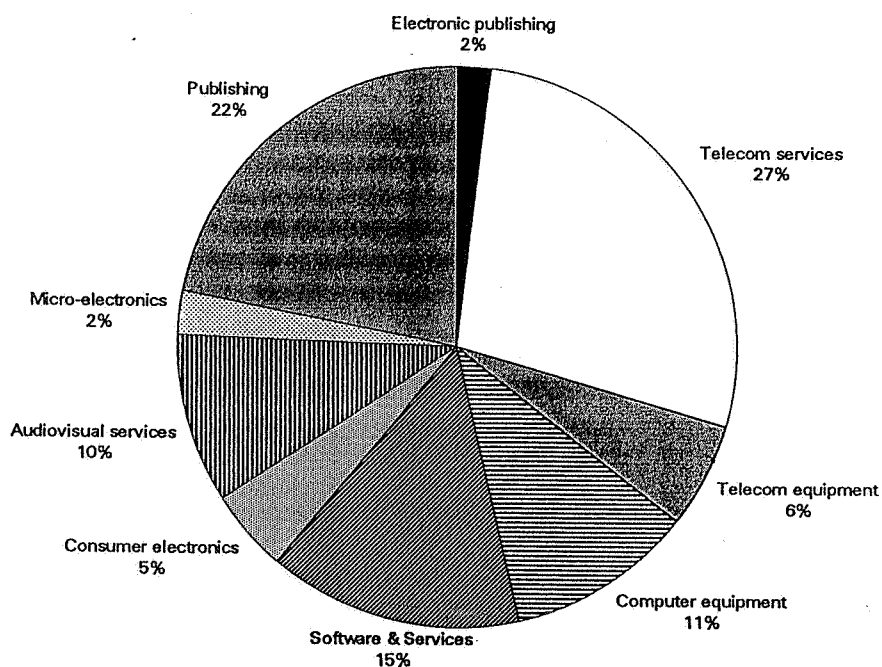
## Major market and technological developments

Despite the turndown in economic activity in much of the OECD area, the telecommunications sector continues to grow substantially in both volume and value terms. Total turnover for telecommunications services in the European Union in 1993 was about 120 billion ecu or nearly 3 per cent of overall GDP, despite falling price levels in the sector. The nominal growth rate over the last 5 years has averaged about 7 per cent annually.

As an indicator of telecommunications usage and growth, international public telephone traffic in the Union rose by just over 10 per cent in 1993 compared to volume increases of about 11 per cent in 1991 and 1992.

It is the new service market areas that are producing the largest growth rates, particularly where competitive service provision has occurred. In particular, mobile communications has displaced data communications and value-added services as the most dynamic part of the service market. In the Union, mobile services account for about 5 per cent of subscriber lines and nearly 10 per cent of service revenues. In the rest of the European Economic Area the figure is significantly higher. By the beginning of 1998, the date already agreed for the full liberalisation of telecommunications services, there is the real prospect of well over 10 per cent of telephone subscribers in the enlarged Union being served by competing wireless operators.

Table III.2 - Turnover of EU information sector in 1993.<sup>4</sup>



Total Market : 414 billion ECU

<sup>4</sup> Source : IDATE

In contrast, despite the development of integrated or multimedia services (combinations of voice, data and images), and considerable speculation about the emergence of multimedia networks, turnover for these new markets in Europe is as yet limited. The first applications are occurring in specific business markets such as intra-company advanced communications, video-conferencing, electronic data interchange, broadcasting and news services for the financial sector, certain ISDN applications, the emergence of some tele-working and the exploitation of some CD ROM products.

However, there is no significant turnover yet from the provision of multimedia services to the residential sector. Moreover, telecommunications and television or broadcasting services are in the main currently supplied by quite separate networks. This is the case even in the UK where in some areas telephone and cable TV services are being marketed jointly by companies with local cable TV and telecommunications franchises.

Total subscribers to cable television in the Union at the end of 1993 were 26 million, half of which were in Germany. This total corresponds to approximately 15 per cent of telephone lines.

The total turnover of broadcasters in the Union at the end of 1993, which includes both content and transport or transmission revenues, was about 27 billion ecu. Turnover for the provision of cable television was approximately 3 billion ecu. These totals are equivalent to about 22 per cent and about 2.5 per cent respectively of telecommunications services revenues.

The rapidity of technological and commercial developments combined with evolution in the regulatory environment in many parts of the world is already leading to a substantial degree of services and network competition and is making infrastructure competition inevitable.

Moreover, because of the risks and uncertainties associated with some applications and technologies, market forces are required to unlock the significant potential for innovation and investment for the development of telecommunications and the Information Society. Many of the fastest growing parts of the telecommunications sector are in niche markets, subject to competition from new players.

At the same time, attention must be paid to the social challenges and consequences of harnessing these market, technological and regulatory trends.

## **The Major issues raised**

### **Universal service**

The Commission reaffirms the fundamental importance of maintaining and developing universal service in the European Union, on the basis of a common minimum set of services and infrastructure. This political priority was recognised in Council Resolution 93/C213/01 on the review of the situation of the telecommunications sector and the need for further development in that market, which established as a major goal for Community telecommunications policy the liberalisation of all public voice telephony services, whilst maintaining universal service.



This Resolution recognised the importance, for the individual consumer and for the competitiveness of industry and commercial users, of a Union-wide telecommunications system offering to all users, including specific social groups, reasonable and affordable charges for access and use, high quality of service and technological innovation. The importance of universal service was equally emphasised in the Resolution of the European Parliament of the 20th April 1993 whilst supporting the liberalisation timetable and recognising the need to take full advantage of the potential for exploiting alternative infrastructures in Europe to supply and develop telecommunications services.

The Green Paper launches discussion on three key issues which must be addressed at a Union level with respect to universal service in the telecommunications sector. The first concerns the elements that comprise universal service, the second the methods for costing universal service and the third, the means of financing uneconomic aspects of universal service provision in a competitive telecommunications environment.

While recognising the political consensus that the core of universal service currently consists of voice telephony service, the Green Paper reinforces the view that the concept of Universal Service must evolve over time as technology and user needs develop.

With regard to the cost of universal service, the Green Paper reinforces the view that a common and progressive approach is required at a European level, even though the costs involved will be different in different Member States. In particular, the approach must be based on a calculation of the net cost to the operator of serving customers in terms of : (i) the revenue generated by a customer (including rental and call charges paid by the customer, and the revenue generated by in-coming calls to that customer), and (ii) the actual cost of providing service to that customer. The calculation of universal service costs must also recognise the fact that even low-profit customers have a marketing 'value' to a commercial organisation.

With regard to financing, the Green Paper recognises that all market players should in principle contribute to the provision and/or financing of universal service. The financing mechanisms would be put in place at a national level, but within a framework set at a Union level.

The Green Paper considers two financing methods in detail, either (i) the use of access charges or (ii) the use of independently administered universal service funds. The initial preference expressed is for Universal service funds.

### **Interconnection and interoperability**

Interconnection of competing telecommunications infrastructures and services will be the central commercial issue in a competitive environment. Interconnection will be primarily a matter for national regulatory authorities, but within an overall European framework. All interconnection agreements can be subject to the competition rules, but additionally, in the case of interconnection with public telecommunications infrastructure, it is important that there is a common regulatory approach at a European level.

The Green Paper outlines the scope of an Interconnection Directive - already foreseen in the Commission's Action Plan on the Information Society. The

Directive would provide a framework for negotiating interconnection terms, including interconnection charges, and provide dispute resolution mechanisms at a national and European level. It would also provide the legal mechanism for implementing schemes for sharing the cost of universal service among the market players.

### **Licensing procedures and conditions for infrastructure for the provision of telecommunications services**

The Green Paper addresses many of the licensing issues which would have been raised in the context of services liberalisation, even without the agreement on infrastructure liberalisation. These are :

- Who will licence ?
- How will licences be granted and what are the grounds for limiting numbers ?
- What conditions can be put into licences ?

Part II indicates that licensing of telecommunications infrastructure, networks and services will remain a matter for national regulators, but again within a framework provided at a European level. In terms of licensing procedures and conditions, the framework builds on the approach already followed in the telecommunications sector since 1990, based on the two categories of legitimate restrictions which define the scope of licensing procedures and conditions. These are (i) the essential requirements as defined in Community law, (such as rights of way or availability of frequency), which would be expanded to include environmental protection and (ii) public service specifications in the form of trade regulations (which are rules relating to the quality, availability and permanence of telecommunications services provided over the licensed infrastructure).

The Green Paper proposes that the number of licences for *public telecoms infrastructure* can only be restricted on the basis of these two categories; and in the case of *private infrastructure*, only on the basis of essential requirements.

The Green Paper also makes proposal concerning the procedures and criteria for awarding licenses and comments are invited on the degree to which these should be harmonised at a European level. It also considers the range of conditions which may be attached to licences, which again is delimited by the essential requirements and public service requirements in the form of trade regulations, depending on whether the infrastructure concerned is public or private.

Finally, any approach must be proportional to size and market position of the licensed operator, and take account of whether the operator enjoys rights of way or not.

### **The conditions for fair competition**

The Green Paper recognises the need for fair and effective competition in the new environment through the enforcement of the Treaty competition rules. This will be significant not only in encouraging market entry, but also in addressing the new

players and the new co-operative ventures, straddling a number of industries which are going to shape the emerging telecommunications markets.

In this context it is important that companies can plan and invest within a predictable environment; the competition rules will have a role to play in providing such predictability.

The Green Paper at the same time recognises that those rules complement the application of other provisions in the Treaty in relation for example to the free movement of services or the right of establishment.

### **Employment and the Information Society**

The issue of employment constitutes an essential part of the consultation on this Green Paper. The current employment situation in the telecommunications sector, as identified in Part II, can be summarised thus:

- employment levels of the main traditional source of telecommunications employment, the dominant TOs, has been declining for several years. This is a feature of competitive and monopoly markets alike and results from the adjustment by TOs to technological and commercial changes;
- New employment opportunities for the sector result from new entrants and new service areas, for example, in the area of mobile communications.
- The best means of reversing the overall trend is through the increased investment and market expansion which would flow from liberalisation, strengthening growth and employment in every sector of the European economy.

However, quantitative employment effects within the telecommunications sector alone should not be the principal consideration in the liberalisation debate. The central and overriding argument for telecommunications liberalisation must be that it will lead to greater efficiency in the information sector generally, and to productivity and competitiveness gains for the wider European economy taken as a whole. As such, it will be an important step in the fight against unemployment in all sectors of European industry.

In all of these areas, the liberalisation of infrastructure will be a facilitator of the improved services and choice which the Information Society may bring about. At the same time, full account must be taken in the consultation of the risks which future social changes present. In particular, consideration must be given to the potential impact of new patterns of work on individuals, for example, in respect of home working and/or tele-working.

### **The social challenges**

As recognised in the Bangemann Group Report on *Europe and the Global Information Society*, information and communication technologies now pervade our lives, affecting the way we work, the way we learn, the way we spend our

