

## THE GLOBAL TELECOMMUNICATIONS INFRASTRUCTURE: EUROPEAN COMMUNITY (UNION) TELECOMMUNICATIONS DEVELOPMENTS

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### Introduction

Information, electronics, and telecommunication technologies promise to create communications networks of greatly expanded capacity capable of moving messages across interconnected wired and wireless systems almost anywhere in the world. Such global systems will profoundly affect the economic and social life of all countries. For those countries and economic sectors with a history of significant involvement in electronics, computers, multimedia, and telecommunications, early and timely deployment of state-of-the-art infrastructure may be a matter of prime importance.

Many individual countries have made or are making changes intended to accelerate movement toward an information society, in large part because they recognize that a strategic competitive edge in the world economy will likely depend increasingly upon the availability, use, and exploitation of information.

A major participant in the information race is the European Union (EU), formerly the European Community. The Commission of the European Union (Commission) has launched a strong push to adopt a common strategy for the creation of a European information society driven by a European information infrastructure. This strategy is aimed at bridging individual initiatives being pursued by EU Member States. [1. Member States now in the Union include the following: Belgium, Denmark, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain, and the United Kingdom, Austria, Finland and Sweden joined the Union on January 1, 1995.1]

### The Bangemann Report

The first action by the EU was the acceptance by the heads of government of the Member States of a report at the June 1994 European Summit, which is titled Europe and the Global Information Society: Recommendations to the European Council, widely known as the Bangemann Report.[2. Europe and the Global Information Society: Recommendations to the European Council: widely known as the Bangemann Report, May, 1994; adopted by the European Council, Corfu, June 1994.2]

After consideration of a European Commission policy paper at the European Council (Council) meeting in December 1993,[3. European Commission White Paper, Growth, Competitiveness, Employment - The Challenges and Ways Forward into the 21st Century, 1993. 3] the heads of government had requested the views of highest-level representatives of industry and government across the Union of the future course of this industry. Such a group was organized by the Commission and chaired by the Commissioner for Telecommunications, Martin Bangemann. The group was asked

to recommend specific measures to be considered by the Union and the Member States for the creation of needed infrastructure in the sphere of information and telecommunications.

Their report calls for a break with past European inclination toward pervasive governmental intervention in this industry and, instead, advocates the substitution of "specific initiatives involving partnerships linking the public and private spheres. .. to stimulate markets so that they can rapidly attain critical mass." [4. Bangemann Report, supra note 2, at 8. 4]

The Bangemann Report builds a foundation for its recommendations through three major assumptions:

- (1) that the information revolution is inevitable and fundamental;
- (2) that the information revolution involves a transglobal race for a transglobal market; and
- (3) that the information revolution must be led by market forces.

The assumptions can be found at various points in the report, including the view that the first countries to enter the information society will reap the greatest rewards. They will set the agenda for all who must follow. By contrast, countries which temporize could, in less than a decade, face disastrous declines in investment and a squeeze on jobs. [5. Id. at 5. 5] Further, the report stresses that "in this sector, private investment must be a driving force... The prime task of government is to safeguard competitive forces." [6. Id. at 8.6]

These assumptions support a series of recommendations which, if implemented by the EU, would have far-reaching consequences for EU countries and for anyone doing business in those countries. Moreover, they would almost certainly influence the development of communications infrastructure and information industries in the Central European countries that are potential members of the EU.

The principal recommendations cluster around two main needs: on the one hand, the need to end monopoly provision of communications infrastructure; and on the other, the need to create an appropriate regulatory framework to support rapid emergence of new competitive information infrastructure and services. A third cluster of recommendations arises from the need to reduce disparate national regulatory regimes which threaten to fragment an internal market within the Union and retard the emergence of the information society.

Ending monopoly requires that:

- (1) Infrastructures and services still in the monopoly area by opened to competition.
- (2) Telecommunications operators be relieved of political obligations such as subsidization of public functions.
- (3) Provision of universal service and equal access to networks and services be shared through rebalancing public services responsibilities among all licensed public operators.
- (4) Tariffs be adjusted (presumably toward cost).
- (5) Regulation be implemented to enable and protect competition as well as to create an environment sufficiently predictable to support strategic planning and investment.

Enabling the market requires:

- (1) Establishment of an EU regulatory authority with minimum but sufficient power to develop new "rules of the game" for operations with Unionwide implications. These would include licensing, networked interconnection, interoperability of services, shared resource (spectrum) management, a single regulatory framework for all operators in regard to market access, and dispute resolution.
- (2) Review of the European standardization process in order to increase its speed and responsiveness.
- (3) Adjustment of international voice, data, and leased line tariffs to bring them in line with rates practiced in other advanced industrialized countries.

Reducing National Disparities

Concern about national disparities in regulation among Member States led the Bangemann Group to recommend a common regulatory framework for the protection of intellectual property rights, privacy, and security of information in the EU and for the EU to act internationally to insure intellectual property rights. The same concern prompted a recommendation for less divergent national rules on media ownership and an EU solution for electronic protection (encryption) and legal protection.

The report identifies some "building blocks" of the information society, including the Integrated Services Digital Network; mobile services, and satellite communications. Some are already in place or substantially in place. The committee recommended the formation of various monitoring, promotional, or steering bodies in these areas.

The closing concern of the Bangemann Report relates to financing the information society. It unequivocally states that the "creation of the information society in Europe should be entrusted to the private sector and to market forces." [7. Id. at 30.7] However, the expected flow of private investment will depend upon several factors: fast and credible market liberalization; implementation of interoperability and reciprocal access; tariff readjustment; and establishment of a regulatory framework.

This orientation toward private sector financing is a milestone in the evolution away from the former European disposition toward governmental ownership and public financing of telecommunications infrastructure. The near unanimous acceptance of this principle by EU Member States provides a gauge of the degree to which basic public policy in Europe regarding this industry has changed over the past fifteen years.

## The Action Plan

The Commission acted quickly to turn the principles and recommendations of the Bangemann Report into a plan for specific implementing actions and undertakings. On July 19, the Commission sent a communication to the Council, the European Parliament, and relevant Committees that presented an overview of the Commission's work program in this area prior to the Bangemann Report. This

Communication sets out a demanding legislative agenda for the Council, outlines a plan, for broad new policies and programs, and, at the same time, seeks political support from the European Parliament and various advisory committees.

Four areas are addressed by the Commission's plan. The first of these covers new proposals for the regulatory and legal framework touching the following: telecommunications infrastructure and services; protection of intellectual property rights and privacy; media concentration; and free movement of TV broadcast in the Community. The second area addresses the need to stimulate common action on networks, basic services, applications and content. Two other areas in the action plan take up the social, societal, and cultural aspects of the information society and identify some market stimulation activities aiming toward mass consumerization of information services and systems. A report on these issues is due by early 1995.

## Proposals on Regulatory and Legal Frameworks

The driving intent of proposed changes to the regulatory and legal framework for this industry is to reinforce the momentum toward a competitive environment. The action plan calls for an initial green paper setting out a timetable for competitive provision of telecommunications network infrastructure (this green paper is discussed in greater detail below). This area has been the most contentious between the Commission and the Member States, largely because the Commission's pro-competition policies represent an assault on the entrenched telephone monopolies.

The action plan also outlines the following undertakings for the EU regarding legal and regulatory matters:

- (1) study the establishment of a trans-European regulatory authority to identify activities of Member States and of the Commission which could be transferred to European jurisdiction;
- (2) identify appropriate Commission actions to increase the responsiveness of the standards setting process to market realities;
- (3) update the Open Network Provision framework to enable interconnection between existing and new service providers, to ensure network access, and to examine the standard interfaces for networks and services;
- (4) renew efforts, including Commission action against nonconforming Member States, to implement rebalanced tariffs and to require telecommunications operators to offer cost-oriented leased lines supported by verifiable cost accounting;
- (5) develop a report by the end of 1995 on the financing of universal service, aiming toward common access charges;
- (6) develop a green paper to propose revisions on intellectual property rights;
- (7) adopt existing proposals on legal protection of databases and on data privacy;
- (8) develop a green paper on legal protection of encrypted broadcasts in the internal market and adopt proposals concerning encryption and integrity of signatures in business and commerce.

#### Private Sector to Take Lead

Regarding networks and basic services, the action plan echoes the Bangemann Report's expectations that the private sector should and will take the leading role due to expertise and to capital requirements. Still, some concrete initiatives by the EU are proposed, particularly with respect to trans-European networks and audiovisual issues:

- (1) adoption by the Council of several proposals on development of ISDN on a trans-European basis and organization of a European Broadband Steering Committee by the end of 1994;
- (2) proposal of legislation by the Commission by the end of 1995 for further liberalization of the mobile communications sector and development of Union-wide markets for related equipment, networks and services;
- (3) recommendation of policies by the Commission on satellite services, possibly leading to action to liberalize satellite services;
- (4) development by the Commission of a framework for implementation of the varied trans-European telecommunications network initiatives;
- (5) creation of a European Forum for Basic Services to examine E-mail, video conferencing and multimedia as basic services; and
- (6) creation of a group to examine coexistence and convergence of Internet and OSI protocol suites.

Applications and content issues are also seen by the Commission as areas primarily for private sector action. The action plan endorses applications initiatives in teleworking distance learning, research networks, road traffic management, air traffic control, health care networks, trans-European public administration networks, electronic tendering, and telematic services for small and medium-size enterprises.

Despite expected private sector leadership, the action plan identifies specific undertakings for the EU in order to promote the internal market and to promote European industry to this section:

- (1) create an Information Society Project Office as the interface between the Commission and those parties taking initiatives in applications areas;
- (2) develop support for field trials and large-scale pilot experiments under Commission auspices that are designed to foster partnerships;
- (3) focus EU financial support programs for more effective information society initiatives, including deployment in telematics and information technology, feasibility studies, loan guarantees and interest rebates for trans-European network development, and incorporate an information society focus in the Union's structural funds program for 1994-95; and

(4) launch an effort to promote growth of European programs to support the audiovisual and information services industries and to stimulate both provision and use of such services. The first step toward this liberalization was taken on October 10, 1994, when the Commission sent the first part of a green paper on telecommunications infrastructure to the Council and the Parliament.

#### The Green Paper - Part 1

In a document entitled the Green Paper on the Liberalization of Telecommunications Infrastructure and Cable Television Networks, Part One, the Commission proposed principles on which liberalization would take place and set out a timetable for the introduction of competition in the provision of telecommunication network infrastructure. In January 1995, the Commission published the second part addressing how infrastructure liberalization is to be accomplished.

As a result of policies already adopted by the EU and several Member States, provision of many telecommunications services, except for public switched voice telephony, have been liberalized. The Green Paper-Part One calls for a two-stage schedule to liberalize infrastructure and to complete the liberalization of voice telephone. In the first stage, liberalized satellite, terrestrial, and mobile services would be promoted by removing restrictions on the use of own or third-part infrastructure for provision of already liberalized services. In the second stage, liberalization of infrastructure for provision of voice services to the general public would be allowed from 1998 onward, subject to transitional arrangements for smaller states.

Under current regulatory restrictions in most EU countries, liberalized telecommunications services can only be provided over leased lines obtained from the national telephone network operator. However, even though such use of leased lines has been liberalized, tariffs for those lines remain as much as ten times higher in several EU countries than comparable rates in North America.

In the Commission's view, current leased line tariffs constitute barriers to growth in innovative services and retard Europe's progress in developing the information society. The first-stage liberalization policies are designed to advance competition, and to bring pressure on those tariff rates. The Commission proposes authorizing the provision of already liberalized services over other existing networks.

The Green Paper-Part One posits the general principle that where telecommunications services are open to competitive provision, there should be free choice as to the underlying infrastructure used for delivery of liberalized services. On the basis of this principle, the Commission proposes removal of competitive restrictions in the following areas: delivery of satellite services; provision of already liberalized terrestrial services (i.e., data and value-added services, as well as private network and closed user group services); and provision of links within the mobile network to support competitive mobile services.

In the second stage of infrastructure liberalization, providers of new infrastructure would be licensed and full use of such new and existing infrastructure for voice service allowed. Implementation of the second stage raises several policy concerns; a regulatory and licensing regime governing establishment and operation of network infrastructure; maintenance of universal service and other public service functions; protection of access and quality of service; obtaining interconnection and interoperability of competing networks; development of competitive safeguards; and various social impacts. Full liberalization of voice telephony will require that needed safeguards be more fully developed; they were to be addressed in the second part of the Green Paper.

In addition to infrastructure liberalization, the Green Paper-Part One also addresses the appropriate application of the European competition (antitrust) rules to this sector. As state monopolies are restructured and, in many cases privatized, and as joint ventures, mergers, and strategic alliances expand, the Commission foresees the need to insure that these market structure changes do not foster or reinforce monopolistic or anticompetitive conditions.

#### And the Council Responds

The European Council of Telecommunications Ministers met on November 17 to consider the proposals set forth in the first half of the Green Paper. In a pattern that has become familiar to observers of the European Union, the Council equivocated, accepting those proposals that did not immediately advance competition. Recommendations that would have required near-term opening of additional markets were passed over or deferred.

The Council accepted the Green Paper's affirmation of liberalization of voice telephony over all infrastructure by 1998 with deferment for some of the smaller Member States. While the Council's acceptance of this timetable did nothing to promote immediate competition, it does make the 1998 target date a matter of settled European policy and, as much, is a critical decision in favor of eventual full competition. Similarly, the Council validated the broad timetable in the Commission's action plan by asking for the completion of the second half of this green paper by January 1995 and submission of proposed legislation by January 1996.

However, the Council declined to ask the Commission to propose legislation allowing immediate competition through use of existing infrastructure for the provision of liberalized services. Moreover, the Council did not address the Commission's proposal to allow direct access to space capacity of the incumbent satellite systems. Objections that such immediate liberalization would lead to bypass of the national telecommunications operators seemed to prevail. In addition, objections were raised to liberalization without first implementing a new regulatory framework.

The Council's failure to endorse the use of existing alternative networks for liberalized services constitutes a rejection of the Commission's proposed two-stage liberalization process. Instead, the Council stated that full liberalization should instead be implemented by first setting in place a regulatory framework to guarantee the furnishing and financing of universal service, to provide rules for interconnection, to define conditions and procedures for licensing across the EU, to apply appropriate antitrust rules, and to achieve comparable and effective access to third-country markets. To that end, the Commission is to propose before January 1996 necessary modifications to the regulatory processes of the EU and is to collaborate with the Member States on relevant issues.

In light of the Council's decision not to liberalize the use of existing alternative networks, the Commission is now considering using powers granted by Article 90 of the Treaty of Rome to promulgate a directive that would compel Member States to liberalize cable networks for competitive services. In a similar vein, the United Kingdom, France, Germany, and the Netherlands requested the Commission develop specific proposals for liberalized use of existing networks. (This statement was endorsed by Sweden and Finland, due to join the EU in January 1995, saying that such liberalization should take place only after consultation with all member countries.)

The Council did state that satellite communications should be able to make appropriate contributions to trans-European networks. To that point, the Council took note of the intention of the Commission to consider its authority under the Treaty of Rome to suppress restrictions on access to space capacity. The Council served notice on Member States of the need to adopt legislation and regulation at the national level that will provide nondiscriminatory access to space capacity. Once a coherent strategy for trans-European networks is in place, the Council stated that particular attention should be paid to the advantages offered by satellites in achieving such network arrangements.

The Council also endorsed alternation of the multilateral satellite organizations, Intelsat, Inmarsat, and particularly Eutelsat, on the basis of the following principles:

- (1) separation of regulatory and operational functions;
- (2) separation of or greater flexibility between investment levels and usage requirements on system shareholders;
- (3) nondiscrimination and transparency when space capacity and services are provided by the same entity; and
- (4) effective development of orbital resources and frequencies through the regulatory framework of the International Telecommunications Union.

The Council did not act on the Commission's proposal for a directive for mutual recognition of licenses for the provision of satellite networks and communications services over satellites. Instead, the Council charged the Committee of Permanent Representatives (the Ambassadors to the EU from the Member States) to revisit this proposal and to arrive soon at a common position.

## Mobile Services Liberalization

Despite the failure of the Council to accept the Green Paper's two-stage liberalization scheme, the Commission issued on November 23 a proposal to liberalize the mobile market. The Commission stated that the EU should act before January 1, 1996, to remove all state monopolies over mobile communications services. Before that date, the Commission intends that mobile operators be allowed to use alternative infrastructure to deliver their services.

The same concerns that defeated the two-stage liberalization proposal, that such liberalization will adversely impact leased line revenues, could be raised in this case. However, the Commission maintains that these services are increasingly being offered on a competitive basis, with at least two mobile service operators licensed in almost every EU state. Moreover, the Commission notes that these services are the fastest growing, with forecasts indicating greatly increasing demand. To meet that demand, liberalized use of existing infrastructure and introduction of full competition in the provision of these services by the end of 1995 is required.

In order to enforce this policy, the Commission intends to amend an Article 90 directive that allows it to take action without the approval of EU member state governments. This course would allow the Commission to avoid seeking approval of the Council as was the case with the Green Paper. Thus, the objections of national telecommunications network operators may not prevent this liberalization from going into effect.

The Commission further states that operators should be able to offer a full combination of fixed and mobile services by the January 1, 1998, deadline for full voice liberalization. The Commission wants Member State governments by that date to remove restrictions that prevent operators from using more than one mobile technology. The Commission also proposes a Union-wide licensing scheme for personal communications services to be provided over satellites and addresses changes needed regarding radio frequencies and numbering.

The Green Paper-Part Two confronts the key issues involved in establishing a regulatory framework for full competition in the telecommunications sector. These issues include matters relating to universal service, to interconnection and interoperability, to licensing, to the international dimension, to conditions for fair competition, to employment matters and, finally, the social and cultural dimensions.

The Commission chose to open its assessment of major issues with universal service, taking that to mean a minimum defined service of specified quality available to all users at an affordable price, but the precise meaning of which should evolve over time according to technology and user needs. However, the idea of universal service is meaningless without financing. On this point a preference was expressed for use of an independently administered universal service fund rather than levying of access charges.

The most difficult commercial issues facing the European Union in its migration toward competitive information society services are those of interconnection and interoperability of infrastructure and services. In the end these issues will primarily be national regulatory issues. However, the Commission does propose European wide regulation as a floor on such issues as interconnection requests, fair competition and resolution of disputes over attempted interconnection. As a point of comparison, in recent discussions of the International Telecommunications Society (Jan 9-11, 1995) of the American context regarding further extensions of competition into the local telephone networks both interconnection and interoperability are seen as the most critical issues. The key question is whether or not competitive markets (when they are achieved) will provide sufficient interconnection.

A key concern of national regulators of telecommunications is control over licensing of public or private telecommunications infrastructure. It is recommended that the ability to limit numbers of providers be based on one or two grounds, depending upon whether the provider is private or public. For public providers the number may be limited based on ability to meet essential service requirements or on public service regulations such as quality or permanence of service. For private providers the number may be limited on essential service ground only. The Commission opens the door to the possibility of creating a European Union Communications Commission.

The rest of the Green Paper-Part Two bows in several more directions. Treaty competition rules are invoked for guiding market entry and for new convergent business ventures, declining employment in traditional telecommunications sectors is noted but held to be less important than continuing telecommunications liberalization, and the social challenges of the information society noted. Last, the international dimension focuses on the European Union's goals to ensure access to global markets. At least some of this access will be determined by the current WTO/GATS negotiations on basic telecommunications services.

The closing theme of the Green Paper-Part Two looks at the questions of infrastructure in the context of the overall approach to the Information Society. In that context the Green Paper urges that the European Union's regulatory environment aim to remove restrictions on combinations of wired and wireless infrastructure and services in order to achieve a fully integrated personal communications environment. It further argues that a coherent regulatory environment is the best assurance of the investment needed to reach Information Society goals.

### What Happens Next?

The uncertainty for near-term liberalization that results from the Council's decision on the first part of the infrastructure green paper leaves Europe's way to the information society littered with potential barriers and obstacles. While the 1998 deadline for the introduction of voice competition is now confirmed by the constituent bodies of the European Union, opportunities abound for the entrenched telephone operators to slow the liberalization process and to delay introduction of meaningful competition.

The Council's condition that a comprehensive regulatory structure precede increased competition and that resolution be reached on several complicated regulatory issues, most particularly the expansion and financing of universal telephony, presents incumbent operators numerous opportunities to tie up the Union's deliberative processes. The terms and conditions for competition must be resolved by debates between bureaucrats, politicians politically powerful incumbent operators, and such interested parties as may assert themselves.

This prospect does not suggest that full liberalization will occur with any expedition. Nor does it bode well for Europe soon becoming a vigorous participant in or beneficiary of the much heralded information society. Moreover, if the Commission proves unable to enforce the 1998 deadline for full liberalization, the EU will be at risk of never attaining the industry's critical mass cited in the Bangemann Report.

Nonetheless, the inexorable pace of technological innovation that has driven this industry's evolution toward competition may ultimately win out. Because Member States may adopt full liberalization policies prior to the 1998 deadline, the four countries that have requested the Commission consider terms for increased liberalization could provide an avenue through which near term competition could develop in the principal national markets within the EU.

France, Germany, the United Kingdom, and the Netherlands together constitute a primary population and industrial core within the Union. If these countries move forward with full competition, other Member States would be hard-pressed to delay past 1998. Thus, direct action by these countries could set in motion a different course to liberalization across the Union. While it would likely be a more complicated route than the one charted in the Green Paper, such independent liberalization may prove the most effective way around the grip that recalcitrant Member States seem to have on the Council.

For the Commission, assertion of its authority under Article 90 to compel near term liberalization in certain key markets may now be its primary way forward. This course may also be slow and difficult if any Member State challenges such assertion of authority. While the Commission most likely would win any challenge to its Article 90 authority, other questions of EU law may be evoked. The European Court could easily take up to three years to render a decision, consuming the period remaining before the 1998 deadline. Despite the environment in which the information society in Europe must develop, the analysis and recommendations set out in the Bangemann Report, the Action Plan and the Green Paper constitute a comprehensive explication of the importance of this industry.



For anyone interested in understanding the potential and the problems inherent in information infrastructure of the future, the work of the European Union to date is worthy of careful consideration.

#### Endnotes

1. Member States now in the Union include the following: Belgium, Denmark, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain, and the United Kingdom, Austria, Finland and Sweden joined the Union on January 1, 1995.
2. Europe and the Global Information Society: Recommendations to the European Council: widely known as the Bangemann Report, May, 1994; adopted by the European Council, Corfu, June 1994.
3. European Commission White Paper, Growth, Competitiveness, Employment - The Challenges and Ways Forward into the 21st Century, 1993.
4. Bangemann Report, supra note 2, at 8.
5. Id. at 5.
6. Id. at 8.
7. Id. at 30.
8. Europe's Way to the Information Society: An Action Plan (Com. 47 final).