EUROPE CALLING EUROPE

Creating an Integrated Telecommunications Network In The European Community

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When Jacques Delors and his associates planned the Single Europe Act in the mid-Eighties, there was a curious omission in their strategy for speeding up European economic integration. It involved the critical role telecommunications and information resources would play in assuring that full integration took place.

The Single Europe Act did not mention the subject. The omission was not for lack of understanding of the need to strengthen European communications facilities. Over the years, telecommunications has been one of the most sensitive and contentious of Community issues.[1] At its 1980 Dublin summit, the European Commission addressed the Community's strategy for matching U. S. and Japanese high-tech competition, particularly in telecommunications goods and services. The EC Twelve collectively have had a large trade deficit with the Americans and Japanese in this sector, with few prospects for catching up. At the time of the Dublin meeting, EC countries accounted for only 15 per cent of global trade in communications goods and services. The Commission proposed doubling these capabilities by 1990, a goal that was only partially achieved. The need to strengthen EC resources in this

sector has been been stated in clear terms by a French industry minister, Alain Madelin:

> Europe has no choice but to become a third pole of equivalent weight to the U. S. and Japan. Or else, poor in raw materials, politically divided, technologically dependent, it will in fact become nothing more than a subcontractor for the other two.[2]

Telecommunications was played down in the Single Europe Act primarily for political reasons. Almost all EC governments resisted the idea of restructuring their Post-Telephone-Telegraph (PTT) operations to meet regional needs. In particular, the prospect of competing with private firms in telecommunications services was unwelcome. The PTTs were political sacred cows - state monopolies, major employers of unionized civil servants, and big contributors to national treasuries. By the mid-Eighties, only the United Kingdom had moved towards open competition. British Telecom, the national monopoly, was privatized and, at the same time, limited competition in telecommunications services was introduced. Other countries, notably France, were spending large sums to improve their domestic faciliites within the framework of government ownership.

THE IMPERATIVES FOR CHANGE

Despite these improvements, EC telecommunications facilities in the mid-Eighties were clearly inadequate to support the level of regional economic integration proposed in the Single Europe Act. The Community has lagged well behind North America in its telecommunications practices. Although the two regions have roughly the same population, Americans and Canadians use their telephone systems three times as much as Europeans.[3] Moreover, the overall reliability of public telecommunications services within Europe has been considerably lower, particularly for business users. In a 1990 survey, the European Association of Information Services (EUSDIC) found that almost 25 per cent of its members' international dial-up calls on public data networks were not completed.[4]

The EUSDIC survey and other indications of the region's communications inadequacies sparked a major effort by the EC's Brussels bureaucracy to force changes in this sector, This effort was strongly supported by European industry, which was frustrated by problems of doing regional business through facilities dominated by twelve separate and often uncoordinated telecommunications systems. The result has been significant progress, given the political and economic obstacles involved, towards an integrated regional communications system.

In this survey, we will look at three aspects of this change:

---- a summary of EC actions to strengthen

the region's telecommunications resources since the beginning of the EC-92 process.

---- the parallel growth of a stronger regional telecommunications private sector, including link-ups with American firms.

---- the future prospects for EC communications development.

Despite some early hesitations about reforming EC telecommunications, Community actions have been an important element in strengthening this sector. An American event was an indirect but powerful factor in bringing this about. In 1982, the U.S. Department of Justice issued a consent decree which laid out the conditions for breaking up AT&T, the U. S. version of a PTT. Among its other effects, the Department's decision has revised the notion that telecommunications is a natural monopoly requiring centralized management. The AT&T breakup has spawned thousands of new competitive enterprises, resulting in an expanded range of advanced services.

The lesson was not lost on Brussels planners. The ending of AT&T's quasi-monopoly had a strong impact on the Commission's plans for reforming EC telecommunications. Its proposals were outlined in a "Green Paper" issued in 1987. The sensitivity of member-governments to change was reflected in the fact that the Green Paper had no legal force. As approved by the EC Council, it

contained a commitment in principle to change rather than detailing specific actions. Nevertheless, the Green Paper was unequivocal in emphasizing the importance of telecommunications to the EC-92 program's success:

> The strengthening of European telecommunications has become one of the major conditions for promoting a harmonious development of economic activities and a competitive market throughout the Community and for achieving the completion of the Community-wide market for goods and services by 1992.[5]

The Green Paper focussed on two major goals: (1) achieving an efficient regional network structure to support other EC economic programs and (2) strengthening the private telecommunications sector to compete regionally and in global markets. The two goals were complementary. The European telecommunications-equipment sector has been historically divided into twelve separate industries, each primarily serving a national market and each usually protected by their governments from outside competition. This pattern did not fit the EC's need for integrated regional communications or for greater competition in world markets.

RESTRUCTURING THE PTTs

Reorganizing the PTTs in member states was the most difficult political issue facing officials in Directorate-General XIII (DG-13), the EC office charged with implementing the Green Paper. Basically, this required modifying PTT monopolies in ways that would open the regional market to more competition and more services. To achieve this, the Green Paper included a critical compromise. Politically, no EC member-states could agree to full deregulation of their PTTs. The Green Paper compromise was to allow the PTTs to keep full control over the largest share of their operations - ordinary voice telephone service. The rest would be open, for the first time, to competition between the PTTs and private firms. This meant, however, that over 95 per cent of European public telecommunications services was out-of-bounds for EC competition reform.

Despite this limitation, the small percentage of PTT telecommunications services targetted for change was a significant element in the Brussels reform plans. (These services are generally described as value-added services, as distinct from basic voice telephony.) Collectively, they represent the sector's fastest-growing area. A 1991 survey by Britain's National Economic Research Association puts the potential value-added-services market in the EC region at $15 billion annually by the end of the decade.[6] It includes new or improved services such as high-tech data networking, electronic mail, specialized satellite networks, electronic funds transfer, regional conference calling, and multi-

media communications. These are, moreover, the advanced services most needed by European industry, and which had been either non-existent or woefully inadequate in most EC countries, thanks to the PTTs' penchant for preferring the simple technologies and assured revenues of ordinary telephone service.

Brussels' strategy for restructuring EC telecommunications concentrated on forcing changes in the PTTs that would strengthen their ability to compete against new private-sector services. This required reorganization of the PTTs in ways that put them on a more cost-efficient basis. An important part of this change was separating the PTTs' telecommunications operations from their money-losing postal services. (As a result, PTTs are now known in EC-speak as telecommunications administrations.) In addition to spinning off postal services, the new telecommunications administrations were required to reorganize in ways that would ensure a clear separation of regulatory and operational functions. As the 1987 Green Paper pointed out:

> In a more competitive environment, the Telecommunications Administrations cannot continue to be both regulator and market participant, i.e. referee and player.....(They) should be market participants in the competitive sectors, in an improved competitive environment, in order to insure full service to the whole spectrum of users and industry.[7]

The second part of DG-13's strategy was to assure that new private-sector entrants into the formerly monopolistic telecom-services field would have a fair chance to compete against still-powerful public telecommunications authorities. This was done by setting criteria to assure non-discriminatory access by private firms to the government-controlled networks they needed to provide value-added services. It was a critical point, given the telecommunication authorities' inclination to make life difficult for any competitors.

Establishing the ground rules for this requirement (known as the Open Network Provision) involved some of the fiercest controversy in implementing the Green Paper's recommendations. The Open Network "framework directive," approved in June 1990, set out the general terms and conditions for allowing private competitors fair and equal access to government-controlled networks. The directive did not, however, set a timetable for meeting this goal. The result was protracted wrangling as some EC governments sought to put off the inevitability of competition. The French and Spanish obtained a postponment until the end of 1992 for the inauguration of competition in data networking, the most lucrative of the services involved. The Greeks and Portuguese were given until 1996 to comply, under the general EC rubric of allowing the "southern" countries longer adaptation periods for complying with Commission directives. [8]

SETTING COMMON STANDARDS

Another barrier to a more efficient regional communications structure was the jumble of technical standards that limited interconnections between the twelve national systems. An early directive, in July 1986, set the stage for harmonizing the testing and certification of telecommunications terminal equipment, with the goal of guaranteeing the right to connect such equipment to public networks throughout the Community. In order to assure common technical standards, the EC has also sponsored a European Telecommunications Standards Institute.

The Commission's 1989 directive on telecommunications equipment was significant for another reason. It involved the Commission's power, under the competition provisions of the Treaty of Rome (Article 90), to prevent member governments from unilaterally restricting competition by conferring monopoly or other special rights. The directive, which was issued under Article 90 authority, was challenged in the European Court. The Court basically upheld the Commission's action, and in effect confirmed the Commission's competence to issue such directives without requiring approval of the European Parliament or the Council of Ministers. The decision was a landmark case in the overall balance-of-power struggle between the Commission and the Council. The Commission, less protective of national interests that the Council, was clearly strengthened by the Court's decision, allowing it greater scope to

regulate telecommunications on a regional basis.

Meanwhile, the Commission took other steps to expand the capabilities of the regional telecommunications structure. Among its actions were decisions on harmonizing regional use of radio frequencies, mobile telephones and digital cordless telecommunications. More recently, the Commission has moved to reconsider the remaining national monopolies on basic voice telephone and network infrastructure, a campaign sparked by Sir Leon Brittan, when he was the EC's vice president for competition issues. A decision to open up voice telephony to competition will have a major effect on the pattern of future EC regional telecommunications.[9]

One of the most controversial of regional coordination issues involved satellite communications. Here the twelve member-states were dealing with a technology that is primarily a regional resource, not completely subject to national regulation. Their interim solution was to set up a regional cartel, Eutelsat, which operates satellites through which PTT organizations channel telecom services. Eutelsat has been a reasonably effective organization. It is not designed, however, to provide the wide choice of advanced services which is routinely available in the United States where unregulated direct access to satellites, primarily for business communications, is a competitive, growing business.

European companies wanted a similar arrangement, one that would allow them to bypass local telecommunications networks. The issue is important to them. Not only does it open the prospect of more direct control over their corporate communications but it also can free them from many of the high tariffs charged by most telecommunications administrations. They got substantially what they wanted in a decision that was the most dramatic step towards regional telecommunications integration in the entire EC-92 process. In a draft Green Paper on satellite policy, issued in November 1990, the EC Commission recommended major deregulation of member-nation controls over satellite communications. Specifically, the draft proposed permitting private ownership of earth stations, with unrestricted access to satellites, subject to some regulatory procedures. Full commercial freedom for both public and private satellite-service providers would also be allowed, including direct marketing of satellite capacity to potential customers.

The Commission's draft proposals were endorsed by EC telecommunications ministers in November 1991. The proposals, when implemented, will have particular importance for one of the fastest-growing satellite areas - channels for cellular telephones and other mobile communications uses. The EC satellite plan stipulates that once a mobile-satellite operator obtains a license in one EC country, the license will be valid in all other member states. There is still, however, residual opposition within EC

governments to giving up controls over satellite traffic. The Brussels proposals will have to run the gauntlet of approval by national legislatures. Most observers believe that the proposals will be adopted with some changes, but that it will be several years before they are finally put into effect. Meanwhile, European and American satellite entrepreneurs are positioning themselves to take advantage of the liberalized satellite rules when they are finally approved.[10]

STRENGTHENING THE PRIVATE SECTOR

As noted earlier, the primary aim of EC telecommunications strategy has been to restructure member-state policies and operations in ways that support an efficient regional network. The other part of the strategy is to strengthen the Community's private telecommunications goods-and-services sectors in ways that will make them more competitive. This calls for changes in the pattern which has divided the market among twelve separate industries. Most companies have operated largely in their own national markets, favored by protectionist policies, resulting in high costs, inefficient production, and less opportunity to sell their products regionally or in the wider world markets.

This situation is changing fast. The EC directives mandating an integrated European network open the prospect of a competitive, expanding regional market for the first time. The

telecommunications industry has reacted by reorganizing itself in a spate of cross-border mergers, acquisitions, and working agreements. What was, only a few years ago, a collection of separate nationally-based industries is now being reshuffled into fewer, and stronger, corporate alliances. These link-ups are primarily regional, but they also include American firms looking for commercial footholds in the new European market.

This development is part of the larger global shift towards international corporate alliances, particularly in high-tech industries. As noted earlier, world markets in telecommunications and information are dominated by the Americans and Japanese, with the Europeans a poor third. In 1991, EC countries had an overall deficit of $35 billion in electronics trade with the rest of world, much of it involving communications-related products. The EC's interest in expanding telecommunications exports is strengthened by the fact that this sector may account for as much as $500 billion in global trade annually by the mid-Nineties.

Overseas markets are important for European telecommunications firms, but their more immediate interests are closer to home. EC planners project overall sectoral growth to expand from three per cent of the region's gross domestic product in 1989 to seven per cent by the year 2000. Dataquest, an American research firm, is even more bullish, predicting an annual sectoral growth rate of nine per cent during the Nineties, double the rate of growth in the

United States.[11]

These are the realities driving European industry to restructure itself for new markets. The other reality is the fact that the Americans and Japanese are moving aggressively into this market, either directly or through partnerships with regional companies. While European companies are breaking loose from their national moorings, American and Japanese firms have had no difficulty in dealing with Europe as a single market.

In addition to curbing the PTT monopolies, Brussels has taken other steps to encourage private-sector competitiveness. The Commission has subsidized advanced electronics research on a regional basis, in cooperation with European industry. The equivalent of billions of dollars has been invested in two major programs - RACE and ESPRIT, both heavily weighted towards telecommunications research. Additionally, the Commission is working closely with the private sector to identify regional needs. One result is a 1992 initiative with the European Roundtable Industry Group, a consortium of major industries, to develop an EC-wide infrastructure plan, 25 per cent of which would involve telecommunications needs.[12]

The shift to competition in the new regional telecommunications market has been difficult for many European firms. One example is Germany's Siemens Corp., the largest of Europe's electronic conglomerates. The company, with $40 billion in annual sales, has

historically focussed its telecommunications activities on the German market, and particularly on the Bundespost, the former PTT. Despite Siemens' production and marketing expertise, the firm was earning net profits of under three per cent in the early Nineties. Its turn-around strategy has involved a massive internal reorganization, plus outside acquisitions and partnerships. The latter included America's Bendix Corp.; Plessey, a major British electronics firm, and Nixdorf, a German computer company.

While these moves have been generally helpful, Siemens still has problems in strengthening its regional presence. Its attempt to set up a regional electronics consortium, involving Philips, the Dutch electronics giant, and SGS-Thomson, a Franco-Italian semiconductor group, fell through in 1992.[13] A Siemens alliance with IBM to develop advanced semiconductor chips was also ended in 1992, when the company decided it could not compete against Japanese domination of the global memory-chip market. Earlier, Philips cut back its operations in this area. These decisions seriously hurt European prospects for a strong presence in the critical area of chip research and production.

CHANGING US-EC TRADE PATTERNS

One of the striking developments in EC private-sector telecommunications has been the "double invasion" of European firms into the American market and the equally aggressive moves of U. S.

companies into Europe. An American presence in Europe is not new: IBM and ITT, among other firms, have been major players there for decades. This was not true of European firms contemplating operations in the United States. For all intents and purposes it was a closed market for them. The reasons was that, for decades, AT&T dominated the telecommunications-equipment market through its Western Electric manufacturing affiliate. All local Bell telephone companies - the largest customers for such equipment - were required to buy from or through Western Electric. This virtual monopoly was ended in the 1982 agreement breaking up AT&T. As a result, the U. S. equipment market - the largest on earth - became fully competitive.

This prospect was not lost on European manufacturers. In the past ten years, every major EC firm producing telecommunications equipment and services has moved into the American market, many of them setting up manufacturing facilities for their products. The prime example is Siemens with 60 manufacturing and assembly facilities, employing 15,000 people who produced products worth over $4.5 billion annually in the early Nineties. A lesser-known firm, France's Alcatel Alsthom, has overtaken AT&T in recent years as the world's largest maker of telephone equipment. A state-owned company which was privatized in 1986, Alcatel is active in the American market. An early acquisition was ITT Corporation's telecommunications business in return for giving ITT a minority stake in Alcatel's telecommunications division. In 1991, Alcatel

bought Rockwell International's telephone transmission-equipment business, making Alcatel the number-two firm in this U. S. market.[14]

Other European firms have followed suit. Britain's Cable & Wireless is now the fifth largest U. S. telephone-service supplier, the result of its acquisition of independent phone companies in recent years. British Telecom, the privatized UK company, had invested $1.5 billion in McCaw Cellular Communications, the largest American cellular-phone operator, before deciding to seel off its 22.5 per cent stake in the firm to AT&T in 1992. Two other major European telecommunications-services suppliers, France Telecom and Germany's DBP Telekom, have also moved into the highly-competitive U. S. telecom-services market.[15]

In March 1993, British Telecom took a major step towards competing in the American market when it petitioned the Federal Communications Commission for permission to establish a unified international telecommunications network linking U. S. businesses directly with foreign firms. If the petition is approved, British Telecom would be the first telecommunications carrier to provide a single-source point-to-point link between U. S. and foreign locations for voice, video, facsimile and data traffic, primarily serving a business market with estimated annual revenues of $5 billion. Such a facility would bypass the current system which involved complex switching arrangements between American circuit

providers (AT&T, MCI, Sprint etc.) and their foreign counterparts. The British Telecom petition is being contested by AT&T and other U. S. carriers, largely on the grounds that they do not have an equal right to establish a similar system in Britain and other countries.[16] In April 1993, AT&T applied to the British government for permission to operate services in the United Kingdom similar to those sought by British Telecom in its FCC petition.

These European moves have been matched by equally aggressive American entry into EC markets in recent years. The earliest move was made in 1984 by AT&T, which formed a joint venture with Philips in hopes of assuring better access to the regional equipment market. It was a mismatch from the start, and Philips pulled out of the venture in 1990. AT&T has since revamped its European operations and is now a major player in both manufacturing and services. In the late Eighties, the company was chosen over European firms as a partner by Italy's state-owned equipment maker to help modernize the country's decrepit phone system. AT&T's two U. S. long-distance competitors, MCI and Sprint, have also expanded into the EC telecom-services field.

The surprising American entrants into the European market are the Baby Bells, the seven regional telephone companies. This was a consequence of restrictions placed on their U. S. operations in the wake of the AT&T breakup in 1984, requiring them to focus primarily on local telephone operations. The restrictions did not generally

apply to international ventures, with the result that the cash-rich regional companies have sought out overseas business ventures. Europe has been a prime target for Baby Bell investments. A striking example is their operations in Great Britain, where four of the companies (Nynex, US West, Southwestern Bell and Pacific Telesis) collectively dominate the small but growing cable-television industry. On the continent, Pacific Telesis is a partner in a German cellular-phone network and has won licenses for cellular-phone and paging systems in Portugal. Bell South has a Dutch partner for a wireless data networks.[17] US West and Telecommunications Inc. (TCI), which is the largest U. S. cable-TV company, have established a joint venture group to manage telephone and cable-TV investments in Britain, Norway, Sweden and Hungary.

These and other American investments have shaken many of the old-boy's-club attitudes in the European communications sector. In particular, AT&T's decision to operate data-communications networks throughout the region has had a wake-up-call effect on European service providers. Other American firms also play an important role as information-service providers in the Community. General Electric Information Services, IBM and General Motors' Electronic Data Systems each have expanded into Europe-wide data networking in recent years. For both American and European firms, the economic stakes involved in the new European telecommunications goods-and-services market are huge. According to CIT Research, a London consulting firm, the West European market

in this sector will top $240 billion annually by the year 2001, an increase of 40 per cent in a decade.

U. S. firms have positioned themselves strongly to capture a significant share of this business. By and large, EC-92 telecommunications initiatives have facilitated their expansion into European markets and the transition to a regional market is clearly in their interests. Moreover, the shake-up in the old-line European firms has provided greater opportunities for American companies to develop investment, mergers and other working relationships with their European counterparts.

RESISTING THE NEW PROTECTIONISM

Although EC policy has been generally receptive to a greater American role in the European telecommunications sector, questions remain as to whether this will continue. The problem is not the much-exaggerated fear of a Fortress Europe. The North Atlantic economies are too intertwined to tolerate a return to the more blatant forms of protectionism. The problem is more subtle. In telecommunications, European industries have pressured the EC bureaucracy for relief in the form of subsidies and other help designed to meet foreign competition. In a 1991 report to the Commission, the French Syndicat des Industries de Telecommunications (SIT) cited the example of fax-machine production: "Already all the fax machines sold in Europe use

foreign technology and components, because there is no longer such technology which is strictly European." One proposal in the report called for EC help in providing financing terms equivalent to those enjoyed by non-European companies.[18]

European governments and industries will continue to pressure the EC for subsidies and other special advantages in dealing with foreign competition, particularly in telecommunications and other high-tech sectors. A more serious problem may be posed by efforts to limit American investment in Europe. In 1992, the EC's competition commissioner, Sir Leon Brittan, suggested the need for the Community to address the problem of distinguishing between "good" strategic alliances and those which might be anti-competitive. He called for striking

> a correct balance between, on the one hand, giving a rapid response that firms require for their strategic alliances if they are to compete in a changing world market, and, on the other hand, identifying anti-competitive alliances that have no objective benefits and threaten competition.[19]

Setting the ground rules for identifying good and bad mergers could prove troublesome to American companies seeking to expand into Europe. However, the 1989 merger regulations do not discriminate between EC and non-EC companies, requiring both to meet minimum thresholds for a-priori notification of mergers to the

Commission.

Although the public focus in US-EC trade disputes has usually been on agricultural policies, telecommunications and information issues have been also major subjects for negotiation between the two trading partners. In recent years, telecommunications and information disputes have ranked high on the annual publications issued by the EC and the U. S. government, each listing the alleged trade-barrier sins of the other. The most publicized case has been the European Council's 1989 decision to require a majority of European-originated programs on regional television stations "where practicable and by appopriate means" - a requirement aimed at reducing the amount of imported American programming transmitted by the stations.[20] In another area - satellite communications - a 1993 EC draft directive proposed to limit the activities of foreign (i.e. American) firms by mandating that only satellite operators owned at least 75 per cent by Community-based companies should have their licenses recognized throughout the Community.[21]

Although both sides support more open trade in general, the American position is affected by protectionist Congressional legislation, notably the Trade Expansion Act of 1988 which mandated retaliatory action against countries which did not open their markets to U. S. telecommunications goods and services. In 1991, the White House's Office of the U. S. Trade Representative cited continuing EC telecommunication restrictions as grounds for

possible retaliation - the first major application of the 1988 legislation in this sector.

The Clinton Administration has indicated that it will take a tougher stand against what it regards as EC attempts to impose trade restrictions in the telecommunications area.
In April 1993, the Administration's chief trade negotiator, Mickey Kantor, announced that restrictions would be placed on U. S. government purchases of selected telecommunications products and services from EC countries. The move followed an unsuccessful attempt to resolve US-EC differences on telecommunications trade. The Americans objected specifically to an EC directive on public procurement of such equipment that allows a three per cent price bia towards European bidders. The European pointed out, in vain, that a longstanding Buy American Act allows U. S. firms a six per cent advantage in their home market.[22]

In summary, telecommunications has been a litmus test of the impact of the EC-92 process. The sector is politically sensitive, technologically complex and economically critical to the Community's goal of a barrier-free regional market. The EC Commission has been generally successful in its telecommunications policies when it has acted pragmatically, adapting to achievable goals. An example, cited earlier, was its decision not to get involved in the sensitive subject of opening up national voice-telephone services to regional competition. The Commission

focussed instead on liberalizing the market in advanced services, where its directives have had a strong impact on strengthening EC telecommunications resources.

SHAPING A NEW AGENDA

The process is by no means complete. By the end of the EC-92 cycle, West European telecommunications were still inadequate to meet present and potential needs of a barrier-free trade area. The subject will be on the EC agenda for a long time to come. Four major challenges will have to be addressed if the Commission's goals in this area are to be met:

1, Carrying out decisions already taken. As noted earlier, most EC countries have been slow to implement directives approved at the Brussels level. Government officials, particularly those who were involved in the old PTT organizations, still resist giving up the century-old practices and privileges of their communications monopolies. By the end of 1992, many of the telecommunications directives approved by the European Commission still has not been ratified by all twelve national legislatures, usually because of objections raised by government telecommunications agencies.

Despite these rear-guard actions, most telecommunications directives will be substantially in place by the end of 1993. The pressures to implement them at the national level will be primarily

economic, not political. As individual countries liberalize their communications systems, profitable new businesses will emerge, serving both national and regional needs. The urge not to get left out will be a powerful incentive for other governments to open up their telecommunications sector to more competition. The alternative was outlined by AT&T chairman Robert E. Allen in a 1992 talk to European executives:

> Customers have power, and they have options. They can shift their investments to countries where the telecommunications system provides competitive choices. Or, if they choose, the technology gives them the option of bypassing national networks.[23]

2. Setting up a regulatory framework for administering current and future telecommunications directives. The EC directives process has been described as a competition between thirteen regulatory systems - twelve in the member-states and the thirteenth in Brussels.[24] Now that most EC telecommunications directives are in place, the question of monitoring and regulating their application becomes critical. The Commission has moved carefully in this area. A July 1992 proposal by the Commission proposed setting up a Community Telecommunications Committee - a somewhat watered-down version of the tougher regulatory watchdog group advocated by some Eurocrats.

The Community Telecommunications Committee would be made up of national regulatory authorities. Its purpose is to help the Commission develop future Community-wide telecommunications arrangements, including the issuance of what would be called "Single Community Telecommunications Licenses." Region-wide licensing would presumably end the present practise whereby member-states unilaterally license telecommunications services if they can argue that it is necessary to meet special local circumstances.[25] Progress in implementing the Telecommunications Committee proposal was initially slow, although many industry observers see it as a useful step toward establishing Brussels' regional authority to override protectionist national practises.[26]

EC-watchers in Brussels point out that bureacratic infighting within the Commission will be an important element in determining how its regulatory role in telecommunications will be shaped. The bureaucracies involved are DG-4, the directorate which deals with competition and anti-trust policy and DG-13, the telecommunications directorate. Both directorates have a stake in how EC industrial policy in the communications sector is finally resolved.

3. Expanding EC deregulation to include voice-telephony services. As noted earlier, the telecommunications services deregulated under EC rules by the end of 1992 represent about five per cent of all such services in the Community. For political reasons, the Commission backed off from even a partial deregulation

of ordinary public voice telephony services - the other 95 per cent, jealously guarded as a lucrative monopoly by eleven of the twelve telecommunications administrations. The exception is the United Kingdom, which has moved cautiously but steadily towards voice-telephone competition.

This situation is changing. In 1992, the Commission indicated that it was prepared to take on the sticky issue of deregulating monopolies in voice-telephone services as well as national network infrastructures. The initiative was led by Sir Leon Brittan, who was then head of DG-4, the competition directorate. He argued that deregulation was needed, among other reasons, to reduce the excessively high tariff charges Europeans paid for telephone calls - often four times greater for a three-minute long-distance call as the same call over the same distance in the United States.[27] Despite overwhelming evidence on the need to change for economic-efficiency reasons, most EC member-states have resisted attempts to introduce competition to their monopolistic voice-telephone services.

This opposition has been the primary factor in delaying Commission actions in this area. In October 1992, it issued a watered-down document on the subject, calling for a six-month "consultative period" for member-states and other interested parties to provide their views on four options, ranging from doing nothing to full liberalization of telephone services.[28] By March 1993, the

Commission was actively considering a proposal to step up the introduction of competitive cross-border voice services by a996. However, opposition from most of the Community's national telecommunications authorities forced the Commission to drop its proposals. Full competition in regional voice services may, as a result, be delayed until the end of the decade.[29]

4. Integrating EC telecommunications with the rest of Europe. Given the nature of telecommunications technology, the Community's infrastructure must be integrated with those in the rest of Europe. This will not be difficult in the EFTA countries, whose communications systems are, by and large, technically and operationally compatible with the EC's new regulations.

The former Communist countries of Central Europe are another matter. Without exception, their telecommunications systems were kept at Third World standards over the past forty years, with the added burden of being tied to Soviet technical and operational patterns. They all face daunting problems in upgrading these systems, including integrating them into the West European network. This will be a slow process. The best prospects lie in eastern Germany, where the Federal Republic is committed to a $30 billion five-year effort to upgrade telecommunications.[30] In other parts of Central Europe, both the European Community and the European Bank for Reconstruction and Development have given high priority to telecommunications in their aid efforts. In 1991, PHARE, the

EC's program for supporting East European reconstruction, began initial funding of telecommunications projects in Poland and Bulgaria.

In summary, there is still some distance to go before attaining a West European telecommunications resource capable of matching the region's political and economic needs. Nevertheless, the EC-92 initiatives have played a critical role by eliminating many of the political, economic and technical barriers that have blocked regional integration in this sector. The EC directives have defined the basic regulatory ground rules for a regional telecom system. Getting these rules approved and enforced has proven more difficult. Century-old PTT monopolies are not easily changed. The economic imperative to develop an integrated regional network is the most powerful factor in generating and sustaining the EC's telecom reforms. The countries which lag in strengthening their networks to meet national and regional needs will be increasingly disadvantaged as Europe's economic integration continues.

1. For a useful survey of the evolution of European Community telecommunications policies. see Michel Carpentier, Sylviane Farnoux-Toporkoff and Christian Farric, Telecommunications in Transition. New York: John Wiley & Sons, 1992. See also: Thomas J. Ramsey, "Europe Responds to the Challenge of the New Information Technologies: a Teleinformatics Strategy for the Nineties," Cornell International Law Review, Vol. 14, 1981, pp. 237-285.
2. Quoted in European Trends, The Economist Intelligence Unit (London), No. 2, 1989, p. 49.
3. Michel Carpentier, "The Single European Market and Telecommunications in a World Context," Single Market Communications Review (London), January 1991, p. 28.
4. "Data Networks Disappoint," Communications Week International, 16 July 1990, p. 1.
5. On the Development of the Common Market for Telecommunications Services and Equipment. Report COM 87(260), Commission of the European Communities, Brussels, 1987. For an analysis

of the Green Paper, see Morris Crawford, "The Common Market for Telecommunications and Information Services," Center for Information Policy Research, Harvard University, Report P-90-6, July 1990.

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