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Fifth Report on the Implementation of the Telecommunications Regulatory Package

INTRODUCTION AND EXECUTIVE SUMMARY

This report examines the **state of implementation of the current telecommunications regulatory framework** prior to the Commission review of its operation and the introduction of proposals to adapt it to market and technological developments. The report

- assesses the extent to which the principles of the harmonisation directives[1] have been transposed into national law
- analyses the way in which the transposed national rules apply those principles in practice
- backs up this assessment with an overview of the current status of the telecommunications services markets in the Member States.

The report concludes by

- identifying the major outstanding barriers to the achievement of a single European market, and
- setting out a number of elements which will need to be taken into account in the legislative process leading to the revised regulatory framework, the Commission's vision of which is set out in the Communication on the review[2].

The **key conclusion** is that, **twenty-one months after the introduction of full competition, the regulatory framework now in place drives telecommunications services markets in the Member States with an accelerating growth rate, large numbers of market entrants and falling tariffs.**

The national markets will be worth around **EUR 161 billion** in 1999[3], just under **7% up on 1998**; the value of mobile services will have increased on average by around 16%. There are now more than **240 operators actually providing long distance and international calls** in the Member States, and more than **220 providing local calls**; more than **180 operators offer national and international and 375 offer local network services**[4]. Many more licences have been issued in these market segments, indicating further increases in activity in the future. The number of **Internet hosts per thousand inhabitants** is estimated to have grown at an average of **125% across the Union from January 1998 to July 1999**[5].

Residential tariffs over the period 1997 to 1999 are down in most Member States for **international calls**, on average by 40%[6]; **business tariffs for similar calls are also down** in

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1 Transposition of the liberalisation directives has been completed by all Member States with the exception of Portugal and Greece, which are due to liberalise fully on 1 January 2000 and 31 December 2000 respectively.

2 Communication on the Review of the Regulatory Framework for Electronic Communications Services, COM(1999) 539.

3 Voice telephony, mobile, network and data services. Source: EITO (European Information Technology Observatory), 1999.

4 Source: National Regulatory Authorities.

5 Source: Internet Software Consortium.

6 Source: Eurodata Foundation. Ten minute calls.

most Member States, on average by 25% over the same period. Tariffs for 10-minute regional and long-distance calls have decreased by 13% and 30% respectively.

Underpinning these figures are **effective licensing, interconnection, tariff, numbering and frequency regimes in the Member States**, supervised by regulatory authorities on the basis of Community and WTO principles.

There remain important **problems to be resolved**, in terms both of failures to implement fully the Community framework and of possible limitations in the framework itself. These have in some cases resulted in considerable barriers to the creation of a single market for telecoms services in Europe. There is in addition a sense on the part of some consumers that the benefits are not always clear. The regulatory package, which evolved over a period of ten years, has also inevitably been overtaken in some areas by the rapidity of the technological and market change it was designed to promote. The task therefore is to pinpoint those aspects of the current framework which remain to be fully implemented and those on which the review of the regulatory framework needs to focus. If in its input to the Communication on the review the report concentrates to a certain extent on present weaknesses this should not obscure the successes that have been achieved.

The **main messages for the review** are:

- The comparatively low level of harmonisation in particular of the Community licensing and interconnection regimes represents a **barrier to the single market**.

- The **wide divergences** in the way in which Community rules are implemented at national level raise **further barriers**.

- The **national regulatory authorities** are close to national markets and perform an essential task in assisting in achieving uniform implementation of the Community framework. Their role is hampered, however, by **disparities in the powers and resources** with which they are equipped, the way in which regulatory tasks are shared with other bodies, and differences in the procedures in place. NRAs need to be more active in particular in securing interconnection agreements.

- The lack of a proper national implementation of the regulatory framework for **cost accounting** in many Member States seems to be contributing to extensive price squeezes in particular between retail and interconnection tariffs, and to excessive tariffs for leased lines.

- There is currently a **lack of competition in the local access market** in all Member States, although steps are being taken to issue wireless local loop licences and to use national regulation to provide alternative ways of accessing the 'last mile'. Moreover, CATV networks remain controlled by the incumbent operators in certain Member States.

- In view of concerns in the market that **universal service funding schemes** constitute a barrier to market entry, there is a need for a rigorous assessment of the real net costs of universal service provision. There is no evidence that voice telephony tariffs applied by the incumbents have actually been rebalanced. Rebalancing is necessary to avoid price squeezes between interconnection charges and retail rates and to promote competition in

access markets (including price unbundling). Given the absence of – comparable – cost accounting systems, verification of whether or not rebalancing has actually occurred is currently difficult or impossible for the Commission.

- There are disparities in **consumer protection** across the Union due to differences in the way in which consumer interests are dealt with by individual Member States and differences in treatment depending on the telecommunications service in question.

- Finally, the current framework does not explicitly address issues such as special schemes for **Internet access**, or the safeguards to be applied to avoid possible distortions of competition arising from the integration of voice/data and fixed/mobile services.

TABLE OF CONTENTS

1. OBJECTIVES AND METHODOLOGY

In 1993 the European Community and its Member States committed themselves, in line with the Treaty and in advance of agreement on the global opening of markets under the GATS[7], to the liberalisation of the European telecommunications services sector on 1 January 1998. The necessary Community legislation was made up primarily of a series of directives having as their objective the creation of a single market for telecommunications services[8] in Europe.

The move to a liberalised and harmonised Community market was driven by a number of well-documented phenomena, in particular the **globalisation** of markets and rapid **advances in technology**. Other events, such as the rapid rise in **mobile penetration rates**, the spread of the **Internet**, and the **convergence of the telecommunications, broadcasting and information technology sectors**, were largely unforeseen, at least at the outset of the process. Underpinning the resulting regulatory framework was the political objective, set out in the Treaty in terms of the need to secure **growth, employment and competitiveness** and protect the **interests of consumers**, of ensuring a **wide choice of providers and services, innovation, competitive prices and quality of service**. The whole process of liberalisation and harmonisation has been accompanied by the ongoing enforcement of the competition rules laid down in the Treaty[9].

In view of the importance of the telecommunications regulatory package[10] to users, consumers, service providers, manufacturers of equipment and the wider EU economy, and the need to ensure compliance with the WTO/GATS agreement, the Commission took steps before the date of full liberalisation to secure full implementation, in line with the Council Resolution of 21 November 1996[11]. The pillars of this monitoring and enforcement exercise have been the series of reports to the Council and European Parliament submitted by the Commission from May 1997[12] and the Commission's use of the Article 226[13] infringement procedure to enforce compliance[14]. Early implementation reports focused on the transposition into national law of the key elements of the directives; more recently, not least in this Report, attention has moved to the **effective application of nationally transposed rules.**

The adoption of this Report meets the requirement in the Interconnection, Licensing, amended Leased Lines, amended ONP Framework and amended Voice Telephony Directives

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7 General agreement on trade in services, Telecommunications agreement in force 5 February 1998.

8 The parallel liberalisation and harmonisation of the provision of telecommunications equipment is not included in the scope of this Communication.

9 In particular Articles 81and 82 (formerly 85 and 86).

10 A full list of the directives, decisions and recommendations making up the telecoms regulatory package is given in Annex 2 to the Fourth Report.

11 Council Resolution of 21 November 1996 on new policy priorities regarding the Information Society, OJ C 376, 12.12.1996.

12 First Report on the Implementation of the Telecommunications Regulatory Package, 29 May 1997, COM(97) 236; Second Report, 8 October 1997, COM(97) 504, Third Report, 18 February 1998, COM(98) 80; Fourth Report, 25 November 1998, COM(98) 594.

13 Formerly Article 169.

14 There are currently 57 proceedings running in relation to the Council and European Parliament Directives adopted pursuant to Article 100a (now Article 95) and 30 in relation to the Commission Directives adopted pursuant to Article 90 (now Article 86).

to report to the Council and European Parliament[15] on their functioning. It also coincides with the launch of the Commission's review of the current regulatory framework in pursuance of the requirement in the directives to assess any adaptations necessary in the light of technical and market developments. The Communication on the review, in looking forward to propose principles for a regulatory framework for the foreseeable future, must be based on an overview of the extent to which the current framework has been successfully transposed and applied, the shortcomings in implementation of the EC framework at national level, and any failings in that framework.

The conclusions of the Report are complemented by the messages flowing from the consultations on the Convergence[16] and Radio Spectrum[17] Green Papers and the report on Digital Television in the European Union[18].

The Commission's assessment in this Report is based on a series of meetings held between June and September 1999 with representative groupings and associations of new entrant operators[19], pan-European operators and groupings[20], user and consumer groups[21], incumbent operators and representatives of the National Regulatory Authorities (NRAs) and relevant ministries, covering all fifteen Member States. In addition, detailed market data were received from each of the NRAs.

The situation taken into account in the Report is that at 1 October 1999[22]. Comments received from Member States on Annex 3 up to 12 October have been taken into account.

The Commission has used in this Report the methods of assessment of transposition and effective application of nationally transposed rules set out in the Fourth Report. As regards transposition of the directives, the Commission has carried out an article-by-article review of the key provisions of the main harmonisation directives. The Commission's assessment of the extent to which nationally transposed measures are being applied effectively in the Member States has been made on the basis of an analysis of compliance with the indicators, set out in the Fourth Report, reflecting the most important principles and requirements of the regulatory package.

The Commission intends, pending adoption of the revised regulatory framework, to continue the reporting process in order to consolidate the gains already made and to identify areas where rapid initiatives in the form of recommendations or other action may be necessary.

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[15] Article 22 of the Interconnection Directive 97/33/EC (OJ L 199, 26.7.1997); Article 23 of the Licensing Directive 97/13/EC (OJ L 117, 7.5.1997); Article 14 of the Leased Lines Directive 92/44/EEC and Article 8 of the Framework Directive 90/387/EEC, as amended by Directive 97/51/EC (OJ L 295, 29.10.1997); Article 31 of the amended Voice Telephony Directive 98/10/EC (OJ L 101, 1.4.1998).

[16] COM(1999) 108 of 5 March 1999 reporting on the consultations associated with COM(97) 623.

[17] COM(1999) 538 reporting on the consultations associated with COM(1998) 596.

[18] COM(1999) 540.

[19] A list of the operators represented is posted on http//www.ispo.cec.be.infosoc/telecompolicy and http//www.europa.eu.int/comm/dg4/lawliber.libera.

[20] EITIRT, ECTEL, Satellite Action Plan Regulatory Working Group, ETNO, EuroISPA.

[21] INTUG, BEUC.

[22] The market data in Annex 4 is that received up to September 1999; each table refers to the date of validity of the data used therein.

2. STATUS OF TRANSPOSITION OF THE LIBERALISATION AND HARMONISATION DIRECTIVES

The Third Report gave an overview of the transposition of all of the directives making up the regulatory package, and noted gaps in the transposition of two important directives (Licensing, Interconnection) for which the deadline for adoption of national measures fell shortly before the finalisation of that report. The Fourth Report focused on the way in which the principles in those two directives, together with the revised Voice Telephony and amended Leased Lines Directives, had been taken over into national law, and concluded that the necessary measures to transpose were very largely in place in most Member States.

The present Report now gives a consolidated overview of the transposition of the most important harmonisation directives, including those referred to in the preceding paragraph and also taking into account the ONP Framework Directive, as amended regarding the independence of NRAs and the separation of the operational and regulatory functions, the sector-specific Data Protection Directive, for which the transposition deadline was 24 October 1998[23], and the Numbering Directive, the deadline for which[24] was 31 December 1998. The details of transposition of these directives are given in Annex 2. The situation can be summarised as follows:

The **ONP Framework Directive** 90/387/EEC is substantially transposed by all Member States. Its amendment by Directive 97/51/EC is substantially transposed into the national legislation of eleven Member States and partially transposed by two (Luxembourg, Austria); two Member States have recently notified measures of transposition which are still under examination by the Commission's services (Greece and Portugal).

The **Leased Lines Directive** 92/44/EEC has been substantially transposed by twelve Member States. It is partially transposed in two Member States (Belgium and Luxembourg). One Member State has recently notified transposition measures which are still under examination by the Commission's services (Portugal). The amendment of the Leased Lines Directive by Directive 97/51/EC is substantially transposed into the national legislation of eleven Member States and partially transposed by one (Belgium). Two Member States have recently notified measures which are still under examination by the Commission's services (Greece and Portugal); one Member State has not notified any transposition measures (Italy).

The **New Voice Telephony Directive** 98/10/EC is substantially transposed into the national legislation of ten Member States and partially in three of them (Belgium, Luxembourg and Portugal). One Member State recently notified measures which are still under examination by the Commission's services (Greece). One Member State has not notified any transposition measures; however, the Old Voice Telephony Directive 95/62/EC is substantially transposed there (Italy).

With regard to the **Licensing Directive** 97/13/EC there is national legislation substantially transposing the Directive in twelve Member States. Two Member States have partially

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[23] Except for Article 5, the deadline for which is 24 October 2000.

[24] Excluding the Member States for which extended deadlines for full liberalisation were granted.

transposed (Belgium and Italy) and one Member State has recently notified measures which are still under examination by the Commission's services (Greece).

The **Interconnection Directive** 97/33/EC has also been substantially transposed by twelve Member States. Two Member States have partially transposed (Belgium and Luxembourg) and one Member State has recently notified measures which are still under examination by the Commission's services (Greece).

The **Numbering Directive** 98/61/EC, amending the Interconnection Directive 97/33/EC with regard to number portability and carrier pre-selection, is already substantially transposed by ten Member States and partially transposed by three Member States (France, Italy and Finland). One Member State has recently notified measures of transposition which are still under examination by the Commission's services (Greece). With regard to one Member State a decision on a request for deferment of the introduction of carrier pre-selection is pending (United Kingdom).

Seven Member States have substantially transposed the sector-specific **Data Protection Directive** 97/66/EC (Germany, Spain, Italy, Austria, Portugal, Finland and Sweden). The directive is partially transposed by another five Member States (Belgium, Denmark, France, The Netherlands and United Kingdom). Three Member States have not so far notified transposition measures (Greece, Ireland and Luxembourg).

The Commission notes the improvements in transposition in particular with regard to the Licensing Directive (where four more Member States have substantially transposed following the Fourth Report) **and the Interconnection Directive** (three Member States), together with the fact that thirteen Member States have transposed the Numbering Directive substantially or partially and eleven the Data Protection Directive. **The Commission urges those Member States responsible for the small number of gaps in transposition to take the necessary measures rapidly, in order to secure legal certainty for market players and to complete the solid basis necessary for the future evolution of the regulatory framework.**

As regards the **liberalisation directives,** Portugal has substantially transposed Directive 90/388/EEC as amended by Directive 96/19/EC, for which it was granted an additional implementation period by Decision 97/310/EC of 12 February 1997[25], and has recently notified certain measures, which are still under examination by the Commission's services. As regards Directive 1999/64/EC of 23 June 1999[26], the deadline to notify implementation measures has not yet elapsed, but a number of Member States have already initiated steps to implement it. **The Commission is following developments closely and urges Member States to promote the use of CATV networks to increase competition in the local loop, which is the aim of the Directive.**

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[25] OJ No L 133, 24.5.1997, p.19

[26] OJ No L 175, 10.7.1999, P. 39

3. ANALYSIS OF PRACTICAL APPLICATION OF THE LIBERALISATION AND HARMONISATION DIRECTIVES

In order to analyse the effective application of the current regulatory package, the Fourth Report identified eight key regulatory themes: national regulatory authorities, licensing, interconnection, universal service, tariffs, numbering, frequency, rights of way; in view of its importance in the market, an overview was also given of competition as it is evolving in local access. This section builds on the Fourth Report to assess the practical application of the provisions of the framework (overview set out in Annex 1), grouped by theme, in the Member States as at 1 October 1999. The Commission's assessment, based on the country analyses in Annex 3, are set out below; in some cases these vary from those in the Fourth Report not because the national framework has changed but because the needs and perceptions of market players have evolved considerably since October 1998.

National regulatory authorities (NRAs)

Basis of assessment

The national regulatory authorities are the cornerstone of the application in the Member States of virtually the entire regulatory package as currently constituted, and will play a major part in framing and applying the revised regulatory framework. They also play an important role in ensuring the consistent application of the EC regulatory framework through their input to the ONP and Licensing Committees[27], their participation in the High Level Committee of National Administrations and Regulatory Authorities and, in the case of regulatory bodies separate from national ministries, their coordination in the Independent Regulators Group.

In assessing the criterion of **independence from operators** and **structural separation** of the regulatory and control functions, the Commission has examined not only the formal structures put in place, including measures to ensure that officials associated with exercise of the regulatory function are not associated with the management of the incumbent, but also such factors as the mechanisms by which decisions are taken, their timeliness, the nature of the decisions reached, and the extent to which personnel are taken over or seconded from the incumbent or other operators.

The Commission has also examined not only whether NRAs have the necessary **powers** at their disposal, but whether staff are sufficiently well-qualified to use them effectively and whether other **resources**, including budgetary, are sufficient. Much also depends on the way in which NRAs use their powers, as set out in the directives, in a proactive manner, for example to stimulate competitive markets and ensure the fair and proper development of a harmonised European telecommunications market. A further important factor is the clarity with which powers are assigned as between the NRA and other bodies, including ministries and the national competition authority, or between the separate regulatory agency and the ministry where the latter is also notified as NRA; too wide a dispersal of regulatory powers can weaken implementation. In some cases the development of a coherent regulatory approach to the market as regards for example the relationship between retail tariffs and the

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[27] Set up respectively under Article 9 of the Framework Directive 90/387/EEC, OJ L 192, 24.7.1990 and Article 14 of the Licensing Directive 97/13/EC, OJ L 117, 7.5.1997.

underlying interconnection rates may be prejudiced, or the opinion of the separate regulatory agency may not be given due consideration in the absence of clear procedures for consultation or coordination between the authorities involved. In the final analysis, much depends on the political support or otherwise that regulators receive from governments; this applies equally in Member States where the incumbent is not, or is no longer, State-owned but where governments regard the incumbent as the 'national champion'.

The Commission's overall assessment of the structure and functioning of NRAs is as follows:

Given the fact that some Member States set up regulatory authorities well before liberalisation at EC level, there is clearly a wide range of models and experience as between the different Member States. Nonetheless, considerable progress has been made in those countries which were late in setting up NRAs, and cooperation with the Commission and national competition authorities, as well as between NRAs in the different Member States, has continued at a very satisfactory level.

Independence from operators/structural separation of regulatory function from control of the incumbent:

In one case the Minister remains the head of the NRA as well as representing the State's interest in the incumbent (Belgium). In one Member State, the relevant Ministry retains the power to propose the appointment of members of the board of the NRA and, along with the Minister of Finance, those members of the board of the incumbent representing the State's limited shareholding (Portugal); in another, the ownership and regulatory functions reside in the same Ministry, although the Constitution provides for the independence of the NRA (Sweden). In one Member State (Luxembourg) the Government has nominated as chairman of the incumbent a member of the staff of the Ministry responsible for regulation.

Even in cases where formal separation between the incumbent and the regulatory function is ensured, new entrants would seek to encourage a situation where governments do not intervene to safeguard the interests of the incumbent, in particular in cases where the sale of the State's shareholding is in prospect. This is especially the case where regulatory functions are exercised by departments of those Ministries that continue to exercise ownership functions.

Powers:

There is a sense among new entrants in a number of Member States that regulators are not using their full competences to combat the use by incumbent operators of their market power to delay access by engaging in protracted negotiation or failing to provide relevant information, or to abuse procedures for that purpose. In some cases, a concern was expressed by certain new entrants that the NRA does not make the most of its ability in exercising all the powers assigned to it (Germany, Spain, Sweden, United Kingdom). In one Member State, the NRA is considered by market players to focus on consumer interests rather than on the economic impact of its decisions (The Netherlands).

In some cases the NRA appears to have *insufficient* powers to reach binding decisions but rather plays an advisory role (Belgium, Luxembourg). In a number, the market would encourage the assignment of further powers (Belgium, Denmark, Germany, Greece, France, Austria and Portugal). In one case (Italy) although in law all the powers have been transferred to the NRA, it is reported that it is not yet fully operational.

There is a view among new entrants that the allocation of regulatory tasks as between ministries and regulatory agencies in certain Member States lacks clarity, or that powers are too widely dispersed (Spain, France, Italy, Austria). This is clearly perceived as working to the advantage of the incumbent. On the other hand some measure of coordination is required in many Member States between the NRA and the national competition authorities (NCA), in particular relating to the determination of undertakings with significant market power (SMP). This may be formalised in a protocol (The Netherlands) or memorandum of understanding (United Kingdom). No such formalised cooperation appears to exist in some Member States (Belgium, Greece, Spain and Austria). In other Member States, varying degrees of cooperation are provided for by law (Denmark, Germany, France, Italy, Portugal and Sweden). In the case of Spain, it appears that there is a de facto cooperation between the NCA and the NRA. Jurisdictional overlaps have been reported in two cases (Ireland and Finland) and more clarity in their relationship would be encouraged by market players (Luxembourg).

Increased pro-activity has not always been favoured by the new entrants, especially in those segments of the market where competition is viewed as performing well (The Netherlands). However, in some Member States a lack of pro-activity has been reported (Belgium, Greece, Sweden and Finland).

Procedures:

New entrants consider that delays are experienced in reaching decisions by the NRA in Germany, Greece, Italy and Sweden.

The effective enforcement of the decisions reached by the NRA could be a concern in one case (Austria). A need for further transparency in making decisions is perceived by the market in Italy. For some new entrants, over-reliance on information provided by the incumbent is seen as an issue (Sweden, United Kingdom).

In some Member States the procedures for appealing against decisions by the regulator may create lengthy delays (Denmark, Greece, Austria), or have suspensory effect (Ireland). In some cases, such review procedures are also criticised because they constitute merely a check on the legality of the original decision without reviewing the merits (Ireland, United Kingdom).

Resources:

A common problem is the difficulty of recruiting and retaining staff in a market where liberalisation and the rapid take-off of the market, including in some cases the market in telecoms equipment, has led to severe skills shortages; one NRA reported

that its average retention of personnel is six months at the executive level. In extreme cases the NRA is staffed partially by personnel on secondment from the incumbent operator, who sometimes retain their contractual link, including pension rights.

Operators reported difficulties experienced by the NRAs in attracting, and in some cases retaining, well-qualified personnel in Belgium, Denmark, Ireland, The Netherlands, Finland, Sweden and the United Kingdom, or in obtaining the necessary resources (Greece, Italy). In most cases the NRAs reject this assessment and emphasise the quality and integrity of staff.

Licensing

Basis of assessment

In making its assessment the Commission has had regard to the principle laid down in the directives that licensing regimes should be light, favouring general authorisations over individual licences.

Conditions should be published so as to give the fullest possible information to new entrants and to enable the market to function with the greatest possible degree of transparency. Onerous conditions going beyond those permitted under the Licensing Directive are not acceptable.

Procedures should be transparent and light. **Time limits** for the issue of licences and authorisations should be adhered to strictly and should not be prolonged by adherence to bureaucratic procedures. **Fees** should be demonstrably proportionate to the administrative work involved, and should not be forfeit without justification where the operator in question modifies the service provided or withdraws from the market.

Annex 4 sets out data relating inter alia to numbers of licences issued and fees charged in the different Member States.

The Commission's overall assessment of licensing regimes is as follows:

There are wide divergences between the national licensing regimes, ranging from the lightest possible, where operators are free to enter the market without formality (Denmark) or are required simply to register (The Netherlands) or notify (Finland, Sweden) their intention to do so (except where the use of frequency spectrum is requested), to the extremely heavy, where individual licences are the rule and in some cases a government minister is required to sign every licence.

In the lightest systems the conditions for the provision of networks or services are laid down in the legislation, providing the greatest possible transparency (Denmark, Sweden). In others, onerous conditions going far beyond the letter and spirit of the directives are laid down in the licences themselves, and in some cases are entirely confidential as between the issuing authority and the operator concerned. At least one regime involves the submission of detailed business plans covering long periods into the future (Belgium). Member States with light regimes report minimal problems in administering them, with maximum benefit to the market and users/consumers.

Satellite operators in particular are concerned at the wide divergences in the interpretation in the Member States of the principle that the number of licences may be limited only to ensure the efficient use of spectrum.

The Commission's more specific findings are as follows:

Conditions:

Two Member States impose licence conditions going beyond those set out in the Annex to the Licensing Directive (Belgium, France). In France the condition relating to a contribution to research and development is regarded as an entry barrier by new entrants, in particular small operators. Satellite operators regretted the fact that little use is made of the one-stop shopping possibilities in the Licensing Directive and the S-PCS Decision.

Time limits:

Procedures are too lengthy under the licensing regimes of a number of Member States, with complaints that deadlines exceed the six weeks laid down in the Licensing Directive (Greece, France for networks, Italy), although in some cases that target is met notwithstanding the non-conformity of the national regulation (Belgium). In the case of Greece the Licensing Directive has recently been transposed. In Italy the deadlines for obtaining satellite licences are long and complex. That country has, however, begun the process for bringing its regulation into line with the directive. In Germany, the licensing procedure in most cases exceeds six weeks in practice, and licences are normally granted only within 2 or 3 months.

Procedures:

In the majority of Member States the procedures for granting licences appear transparent, non discriminatory and accessible, with operators praising in general the NRAs' transparent approach in the process. Nevertheless the problem remains of at least one ministry carrying out a second evaluation (France) which, in a certain number of cases, can be a source of inconsistent decisions between the two regulatory authorities which share responsibility for issuing licences. This can also lead to excessive delays in issuing licences or a lack of transparency in those decisions.

Licensing procedures also appear to be protracted, heavy and lacking in transparency in Italy (even if 61 licences have now been granted), and a clear set of rules and conditions has not been established for general authorisations. However, the Italian authorities have started reviewing the licensing regime with a view inter alia to simplifying the procedures.

Fees:

In three countries (Germany, France, Luxembourg) it appears that fees and charges may be higher than the administrative costs incurred (even if it should be pointed out that there are large numbers of operators in the market in Germany and France). Furthermore, potential new entrants consider that their level tends to foreclose

market entry. In one country (Luxembourg) the level of fees could be considered high compared with the other Member States in terms of population and geographic coverage of the licences.

Even if the directive allows for account to be taken of the need to ensure optimal use of scarce resources, licence fees covering allocation of frequencies appear very high in one country (Portugal).

Satellite operators complain that the level and structure of fees vary dramatically from one Member State to another.

Interconnection/special access

Basis of assessment

The terms for the provision of interconnection, the physical linking of (fixed and mobile) networks and services so as to enable users of one to communicate with those of another, or to access services provided over another, are of crucial importance to the emergence of a competitive European telecommunications market.

The Commission's assessment takes into account the problems faced by many new entrants in obtaining interconnection with incumbent operators, in particular as regards protracted **negotiations** and lengthy delivery times and including outright refusal to interconnect.

The level of **tariffs** is of particular importance in a competitive market, with unjustifiably high tariffs in certain Member States, as well as relatively high interconnection tariffs combined with low end-user tariffs tending to foreclose market entry. The provision of non-discriminatory tariffs, irrespective of the purpose for which interconnection is required, is important to eliminate distortions of competition.

Late production and, where required by national law, approval of the **reference interconnection offer (RIO) by the NRA** is an important factor in delaying new market entry. RIOs should not set out offerings which do not meet the market needs of other operators, or which preclude the provision of services already offered by the originator of the RIO, or which bundle services so that new entrants are obliged to pay for services they do not wish to purchase, rendering the services they do offer uneconomic. Moreover, in the event that an NRA or other national authorities approve or impose tariffs that may reinforce or promote anti-competitive behaviour, the Member States themselves are potentially infringing the EU competition rules, and may be held liable for this.

The imposition by incumbent operators of onerous requirements relating to the network **architecture** of interconnecting parties should not be allowed to foreclose market entry by forcing new entrants to duplicate capacity unnecessarily.

The NRAs are given extensive competences under the directives to supervise the interconnection market, including the power to set ex ante conditions, amend RIOs, impose tariff amendments, intervene of their own initiative in interconnection disputes, scrutinise interconnection agreements, and supervise cost accounting and separation. The NRAs should

use these powers to the full extent necessary to ensure interconnection in the interests of all users.

Annex 4 sets out data relating inter alia to the number of interconnection agreements in place, the level of tariffs for call termination, and deviation from best current practice.

The Commission's overall assessment of interconnection regimes is as follows:

The greatest single problem facing new entrants in obtaining interconnection on fair terms is cited as being the reluctance, or lack of empowerment, of regulators to intervene in a forceful, timely and effective manner. As a result, new entrants are faced in many instances with RIOs that are published late or which contain unsatisfactory offerings, delays in negotiating terms and unacceptable delivery times. Many interconnection agreements contain asymmetric conditions in favour of the incumbent relating, for example, to penalties. A further major problem is that supervision by the NRAs of cost-accounting systems for interconnection is in many cases not adequate, in terms either of the regulation or procedures in place or the wide variation in tariffs charged throughout the single market. As a result the cost-orientation of the interconnection and retail tariffs of SMP operators cannot be verified. In particular, price squeezes resulting from high interconnection tariffs and low end-user tariffs have the effect in a number of Member States of foreclosing entry in various market segments.

Intervention by NRAs:

In some Member States where the problem of obtaining interconnection on fair terms has been raised in the past (Denmark, Italy, Portugal), the situation has improved in the course of the year, but the lack of pro-activity or authority by the regulator with regard to interconnection conditions remains a significant concern in Belgium, and to a lesser extent in Finland. Procedural delays in finalising the publication of an effective RIO, especially as a consequence of judicial reviews initiated by the incumbent operators, are also an objective impediment to the liberalisation pace. Only in very few Member States (Sweden, United Kingdom) can it be said that the Reference Interconnection Offer and the interconnection facilities are consistently offered by the incumbents on a timely basis and meet the reasonable expectations of new entrants.

The publication of interconnection agreements is intended to facilitate access to information; in practice incumbents often invoke confidentiality clauses or the protection of business secrets before the NRA. Additional difficulties may arise where the incumbent requires expensive and lengthy pre-tests, or may impose heavy penalty clauses in the arrangements negotiated.

Technical conditions:

The technical conditions for interconnection, including the provision of adequate capacity and the points of interconnection (PoIs) available or mandated, have been reported by new entrants as a substantial source of practical difficulties, cost and delay. It is, moreover, often difficult for new entrants to obtain accurate information

from the incumbents concerning the location of switches and their capabilities, and about the quality of service which they may rely upon. The timely availability of infrastructure capacity, in terms of leased lines or convenient PoIs, is reported to be problematic in Belgium, Germany, Greece, Ireland, The Netherlands, Austria, and Finland.

National regulatory regimes, or decisions by the regulator, sometimes appear to impose disproportionate obligations on interconnecting parties with regard to the number of points of interconnection they are required to provide. A solution to this problem has however started to emerge in Germany. In Belgium and Spain, where licensing of network operators is linked to infrastructure roll-out conditions, there is a potential for the NRA to impose disproportionate requirements with regard to the location and number of PoIs new entrants must provide. The same Member States limit the right of new entrants to obtain double tandem interconnection, with the objective of encouraging investment in infrastructure and limiting risks of overloading the incumbent network from an interconnection point at local level which was not designed to absorb nationwide traffic. Although these concerns are not in contradiction with specific provisions of the EC regulatory framework, they raise the issue of the proportionality of the requirements which may be laid down as against the distortion of competition they may provoke.

Direct access to space segment:

In most Member States, direct access to EUTELSAT and INTELSAT space segment is still not permitted by the respective Conventions. The process of privatisation of both organisations, to be completed by the end of 2001, should however provide a definitive solution to the problem of lack of multiple access. In the meanwhile, the majority of Member States have been addressing the issue by means of side agreements permitting direct access in their countries. These agreements involve eight Member States (Belgium, Denmark, Germany, France, The Netherlands, Austria, Sweden and United Kingdom) in the case of EUTELSAT and eleven Member States (Denmark, Germany, Spain, France, Ireland, The Netherlands, Austria, Portugal, Finland, Sweden and United Kingdom) in the case of INTELSAT. However, representatives of the satellite industry reported that in most cases it is still necessary to purchase satellite capacity via the local signatory, with fees to be paid to the signatory varying between approximately 5 to 20% (for INTELSAT) and 5 to 10% (for EUTELSAT) of the space segment cost.

Universal service and user/consumer protection

Basis of assessment

The interests of users and consumers are at the heart of the liberalisation and single market process in that the fundamental objective of the EC regulatory package is to secure a choice of operators and services, and lower tariffs. The universal service requirement exists in the EU framework to allow Member States to ensure that a minimum set of services, of specified quality and an affordable price, are made available to all users.

As far as the sector-specific regulation relating to universal service and users/consumers is concerned, the Commission has examined in particular the universal service **funding mechanisms** which currently exist, the role of NRAs, which once again bear a large responsibility for applying the concepts laid down in the framework in relation to users/consumers, and the main practical problems facing new entrants, users and consumers.

The Commission's overall assessment of universal service and user/consumer protection is as follows:

Universal service funding:

The provision of universal service does not appear to be creating an undue burden on the designated operators in the Member States. This is evidenced by the fact that, while nine Member States (Belgium, Denmark, Germany, Spain, France, Italy, Netherlands, Austria and Portugal) have introduced legal provisions for a universal service funding mechanism, only two of these (France, Italy) have been put into operation. Furthermore, only in France has this actually resulted in payment transfers between operators.

New entrants in those countries where a funding mechanism has been set up, or where the prospect of such a fund exists, regard funding as a supplementary tax on revenues and therefore a barrier to entry, as well as being bureaucratic and likely to distort the market. In France, the level of the costs which are to be recouped under the funding mechanism, and the method of calculating them, are regarded by new entrants as creating distortions in the market. This could also be the case in Belgium. The uncertainty about future liabilities, and the fact that the funding mechanism may be triggered in a number of Member States once certain market conditions are fulfilled, undermines the business planning and financial stability of new entrants.

New entrants consider that it is for governments to fund social obligations out of general taxation, as is the norm in other economic sectors. Moreover, in some Member States or geographical areas of Member States, competitive mobile markets are moving towards providing access at costs that are comparable to, or even lower than, the fixed universal service.

In most Member States, there is little evidence that voice telephony tariffs applied by the incumbents have actually been rebalanced, in particular when looking at monthly rental fees charged by incumbents, and that appropriate cost-accounting systems are in place to verify this. Where tariffs are fully re-balanced, affordability of universal service can usually be achieved by low usage schemes.

Consumers/users

The greatest problems affecting consumers appear to be the lack of transparency in tariffs and in service information, and the need to establish efficient and rapid complaint handling and redress mechanisms. A number of Member States are now creating mechanisms for dealing with problems which consumers experience, particularly in relation to contracts and quality of service. However, there is very little systematic monitoring of quality of service indicators by the NRAs, and this in turn makes it harder to monitor the effective achievement of universal access and affordability. It is

clear that the regular publication in the Member States of independently verified indicators would, in itself, improve both competition and consumer choice.

A special problem is the absence of transparency in the tariff offerings of new entrants, who regularly modify both tariffs and the structure of offerings, which differ widely from one operator to the other, thus making comparisons difficult for consumers. New entrants defend their behaviour by pointing out that they have on the one hand to react to changes in the incumbents' offerings, and on the other to the fact that they do not have the market profile or publicity budgets of the incumbents. In addition, contract terms can sometimes include unfair clauses, which are incompatible with horizontal Community legislation (e.g. clauses that oblige consumers to stay with an operator for a minimum fixed time, which contravene the Unfair Contract Terms Directive). A further major difficulty for consumers is billing, which accounts for the majority of complaints to regulators.

Consumers are also concerned that the existing competition in national and local services in many Member States extends only to business and not residential customers. The lack of effective competition in the local loop targeted to residential users is having a negative impact on the level of fixed charges and local call charges.

Another potential problem for consumers may arise with the analogue phase-out in the 900 MHz band driven by the extension of GSM. Consumers in the mobile market may be faced with the prospect of their analogue handsets becoming obsolete. Experience in some Member States shows, however, that operators have found market-based solutions that do not disadvantage consumers.

From a user perspective, there are very significant concerns about the effects of the cost of leased lines in Europe, including cross-border leased lines. The failure both of competition and of regulators to bring down what are perceived to be patently non-cost oriented tariffs works to the detriment of the provision of Internet and other services in Europe. This in turn is to the detriment of user access and choice, in particular with respect to news-gathering and market data services.

112

The 112 European emergency number is available throughout the Union[28], although in many Member States a response is given only in the language of the country or region in which the call is made. A barrier to free movement resides in the fact that although consumers in most Member States are aware that they can use the number in their own country, many of them are not informed that they can also use it when visiting other Member States.

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[28] With the exception of the incumbent in Greece.

Tariffs/accounting systems

Basis of assessment

The Commission has examined whether restrictions remain on **tariff rebalancing**, apart from the measures permitted in the context of universal service provision. PSTN (public switched telephony network), leased line and interconnection tariffs, where offered by SMP operators, should be **cost oriented**, with suitable **cost-accounting systems** in place, the methodology verified, information on cost-accounting systems published, and compliance with the cost accounting system verified by NRAs or other competent independent bodies.

Annex 4 sets out data inter alia on tariffs for leased lines, interconnection and PSTN.

The Commission's overall assessment of the application of tariff principles is as follows:

Tariff rebalancing:

Liberalisation has produced significant tariff reductions leading to convergence of call charges towards actual cost. This results from the fact that, in the long-distance and international voice telephony markets, competing operators have been able to undercut the incumbents' tariffs, which were characterised by artificially high prices in order to cross-subsidise their regulated below-cost charges for access and local calls. Data show that international tariffs have decreased over the period from 1997 to 1999, to the benefit of both residential and business users, by 40% and 25% respectively. In general terms, most Member States claim that tariffs have been rebalanced and consider that the process of progressive adjustment of tariffs toward costs has been completed.

The Member States which still benefit from additional periods to implement full competition (Greece and Portugal) were expressly granted such periods by the Commission to allow for the necessary structural adjustments. Both countries consider that tariff rebalancing will be concluded by the introduction of competition in the voice telephony market, although a detailed timetable has not been laid down beforehand.

With regard to the countries where the market was opened to full competition in 1998 or earlier, in several cases market operators have expressed doubts as to whether the tariff rebalancing process has actually been completed. In most Member States it is, in fact, not possible to determine whether subscriber tariffs are in compliance with the principle of cost-orientation, or to demonstrate that tariffs for local services are at a level at which they could be provided by new entrants; the same could also be argued with regard to the price of line rental when compared to the actual costing of the incumbent. Nevertheless, at present no Access Deficit Scheme is implemented in any Member State. The investigation in the local loop area which the Commission opened in July 1999 should enable the Commission to assess the actual level of rebalancing of tariffs achieved in the Member States, based on the incumbents' accounting data. It is essential that tariff rebalancing is fully completed as, in particular, tariffs kept at too low a level in the local market act as a disincentive to new entrants and do not allow them to find a reasonable profit margin between the retail tariff of the incumbent and

the corresponding interconnection charges, with resulting price squeeze effects or disincentives to investment in alternative local loop infrastructure.

Lack of clarity in the control of end-user tariffs by the NRA is reported in two countries (France, Luxembourg) and in some countries tariff transparency appears to be lacking (France), with particular regard to discounts offered to large business users (in particular Denmark, Italy, Luxembourg, Austria).

With the aim of maintaining the affordability of services or controlling prices, a number of Member States have decided to introduce price cap mechanisms until competition can provide effective price control over the incumbent's retail tariffs. However, in some Member States price caps were introduced before the adjustment of tariffs to costs had been completed.

Cost accounting:

In general terms, cost accounting remains a problematic issue in a large number of Member States. There is in fact little evidence in most of them that cost accounting principles are correctly applied. In several countries the NRA has not yet approved the cost accounting system of the incumbent (Belgium, Germany, Greece, Spain, Ireland, Luxembourg, Austria, Portugal) and therefore it cannot be ascertained whether a suitable cost-accounting system is in place for costing the services in question (voice telephony, interconnection, leased lines, etc.). Significant improvement has taken place in Greece since the Fourth Report, where a cost-accounting system for leased lines has been approved for the first time. A number of Member States are said to be working actively on their systems, but the lack of progress causes a serious gap in verification of the effective implementation of the regulatory framework. In several Member States, the cost accounting system of the incumbent is reported to lack transparency (Germany, Spain, Austria, Finland, Sweden) in particular for providing cost data regarding specific access elements (Belgium). Accounting separation is not sufficiently strict and is a source of general concern, as is the related risk of cross-subsidisation between the different operating arms of the former monopolist.

Leased lines:

There have in the past been great concerns on the part of users regarding excessive pricing of leased lines, including international leased lines; the latter constitutes a barrier to the emergence of a single market for telecommunications services. There is evidence, however, that competition is now bringing tariffs down for certain services. There are problems with regard to the transparency of leased line tariffs (Belgium as regards discounts, Italy, Luxembourg), the pricing methodology (Finland), and the conditions granted to large customers by the incumbent (Belgium, France, Luxembourg). In a large number of countries there are concerns in relation to the correct application of the principle of cost-orientation for leased lines, as also evidenced by market data (Belgium, Greece, Spain, France, Germany, Ireland, Italy, Luxembourg, Austria, Portugal; and Finland, Sweden, United Kingdom for international leased lines). In Greece this refers to the situation before the adoption of the new cost accounting system for leased lines. In both Sweden and the United

Kingdom concerns have been reported with regard to other particular types of leased lines (digital X-line and 'last mile' respectively) and the respective regulators are looking into the issue. In a few countries there are still problems in obtaining leased lines, and delays are reported which could also be due to scarcity problems (Belgium, The Netherlands). The investigation relating to the provision of leased lines that the Commission opened in July 1999 should enable the Commission to assess whether the situation observed derives from anti-competitive practices.

Numbering

Basis of assessment

The Commission has examined whether numbering plans have been published, whether effective management of the plans is separated from the incumbent operator, and whether mobile operators in particular have sufficient numbers made available to them.

As regards number portability and carrier pre-selection, the Commission has examined the scope of the services Member States have put, or are planning to put, into operation and the timing of the completion of their obligations under the Numbering Directive[29].

The Commission's overall assessment in relation to numbering is as follows:

There are concerns on the part of virtually all market players regarding the introduction of number portability and carrier pre-selection. The solutions adopted for the introduction of both services involve administrative arrangements and network reconfigurations of varying degrees of complexity, that are difficult to manage. The costs involved have in some cases proved to be relatively high, and definitive decisions have not yet been taken in all Member States as to how the costs are to be apportioned as between the operators involved and the end-customer. Furthermore, some operators have claimed that the introduction of these services at 1 January 2000 has been complicated by the risks associated with that date for networks and IT installations. The Commission is however encouraged by the fact that these services are already in place in a number of Member States and that others have indicated that they are on target for the prescribed date.

Number portability:

Operator number portability is applied ahead of the deadline of 1 January 2000[30] in seven Member States: Germany, France, Netherlands (geographic and non-geographic for fixed and mobile operators), Austria (within a geographical area by call forwarding), Finland (within a numbering area and for nation-wide numbers), Sweden (geographic and some non-geographic numbers) and the United Kingdom. In Denmark, number portability within the same geographical area was due to be introduced by 15 October 1999.

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[29] Directive 98/61/EC amending Directive 97/33/EC with regard to operator number portability and carrier pre-selection, OJ L 286, 3.10.1998.

[30] Deadline in the case of derogation countries is not later than two years following the introduction of full liberalisation.

Carrier pre-selection:

Four Member States have introduced carrier pre-selection ahead of the 1 January 2000[32] deadline: Denmark (since 1 January 1999), Germany (since 1 January 1998), Finland (for long distance calls since 1 January 1994, for international calls from fixed networks since 30 September 1998 and for international calls from mobile networks since 1 January 1999) and Sweden (since September 1999). The United Kingdom has requested a deferment of its obligations under the directive as regards the introduction of carrier pre-selection.

Numbering plans:

New numbering plans have been adopted in all Member States except Greece. Their management falls within the competences of the NRA in all Member States.

Frequency

Basis of assessment

The Commission has examined under this heading in particular whether use of the 900 MHz band for analogue mobile services is being phased out in accordance with commercial demand for GSM (digital) services; whether all frequencies have been allocated for GSM, paging and cordless telephony services; whether licences are issued in all cases where frequency is available; and whether assignment procedures are transparent, non-discriminatory and efficient.

The Commission's overall assessment in relation to frequency is as follows:

There are very few complaints or concerns relating to frequency management in the Member States in the context of the GSM, DECT and ERMES Directives. Many Member States are currently in the process of issuing licences for third generation mobile and for wireless local loop applications, and more specific comments are set out below. Several ministries and regulators drew attention during the preparation of the Report to the fact that frequency auctions can represent a hindrance to the roll-out of infrastructure and will tend to lead to higher end-customer tariffs, leading in turn to slower growth and a disbenefit to the wider economy. Others passed the strong message that mechanisms for placing value on spectrum, including auctions, represent an efficient tool for managing spectrum.

Phase-out of analogue:

In the great majority of Member States there is a time limit in place for the phasing out of the analogue system operating in the frequency bands reserved for GSM. In some cases this time limit seems to be longer than would correspond to commercial demand (Denmark, Italy, Austria, Finland, Sweden, although in the latter two cases at least the incumbent has committed to phase out by end 2000). However, phase-out

is being brought forward in a number of Member States from the dates specified in the Frequency Report[31].

Frequency management:

There is in principle no lack of frequency reported in Belgium, Denmark, Greece, Spain, France, The Netherlands, Austria, Portugal, Finland, Sweden, and the United Kingdom. Frequency plans exist in most Member States (Belgium, Denmark, Spain, France, Italy, The Netherlands, Austria, Finland, Sweden, United Kingdom). In the other Member States (Germany, Greece, Luxembourg) there is strong demand for the establishment of a frequency allocation plan in order to ensure transparent, non-discriminatory and efficient management of the spectrum. Spectrum management is not efficient in relation to the scarcity of this resource and the rapidly expanding demand for mobile systems in Italy.

Satellite operators expressed concern at the wide variations between Member States in the way in which spectrum is managed, allocated and assigned[32].

The necessary bandwidths have been reserved and allocated to GSM and DECT according to the relevant directives in all Member States. Nevertheless in some Member States transparency is still lacking (Italy, Luxembourg). All Member States have issued at least two licences for GSM 900 and at least one for DCS-1800.

Concerns as regards the monitoring of spectrum exists in one country (Greece) and can be considered as a major barrier to market operations.

Issuing of licences for third generation and wireless local loop:

Only Finland has so far granted licences for third generation mobile networks (March 1999). Licences are expected to be granted in Denmark and The Netherlands in 2000, and licensing is planned to start in Sweden in 2000. In the United Kingdom, third generation mobile services are to be offered in 2002. Belgium, Spain, France, Italy and Austria have launched public consultations on the introduction of third generation systems.

Most Member States except Greece, Italy, and Luxembourg have initiated procedures to allocate frequencies for wireless local loop, or experimental licences (Belgium, France, Sweden). In Austria no specific licence is required.

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[31] COM(1998) 559.

[32] Concern was voiced in particular that the current level of harmonisation achieved by means of CEPT decisions is insufficient: for instance, only 10 Member States have adopted CEPT/ERC/DEC (97)03 on spectrum use for S-PCS; in addition only five Member States have adopted CEPT/ERC/DEC (97)07 on spectrum use for UMTS.

Rights of way

Basis of assessment

The Commission has examined whether problems have arisen in practice in obtaining rights of way across public and private land, whether there is discrimination between operators, whether disputes have arisen in connection with facility sharing, and whether problems have arisen in connection with the landing of undersea cables and the associated backhaul.

The Commission's overall assessment in relation to rights of way/facility sharing/undersea cables is as follows:

There is no uniform approach to the question of rights of way given that in most Member States the relevant competences are in the hands of local or regional authorities rather than central government. Other areas of law may also be involved, such as planning and environmental law and building regulations, with complex historical precedents also playing a role.

Colocation in ducts, buildings, and masts/antennae represents a real problem for new entrants and incumbents alike, which are complicated by aesthetic, environmental, physical (e.g. lack of high buildings) and other factors, including building and town-planning regulation.

There is concern in a number of Member States that the incumbent operator uses its power to delay negotiation where there are no alternative infrastructures. There are also cases where ownership by the incumbent of cabling in office buildings or apartment blocks creates access bottlenecks.

Incumbent operators on the other hand are wary of allowing competitors access to facilities of this nature because of the perceived risks to cables and installations. The regulators in some Member States have been active in promoting creative solutions in particular in the mobile sector involving the shared use of masts and antennae owned by public authorities.

Rights of way:

All Member States have established a regulatory framework providing for rights of way on a non-discriminatory basis. In one country (Luxembourg) it is currently being examined whether, in practice, the incumbent is granted more favourable rights of way than new entrants.

The granting of public rights of way is not made subject to payment in six Member States (Denmark, Germany, Luxembourg, Austria, Finland, United Kingdom). In two countries (France, Italy) the amount of the payment may vary substantially due to the fact that it is set at local level. In a further country (Belgium), while the federal telecommunications law provides for free rights of way over public property, certain local authorities claim that this issue falls within their competence. As a result, pending a legal solution, new entrants do not pay for rights of way. In one further

country (The Netherlands) it is not always clear whether an additional local fee will be charged for the placing of antennae.

In three countries (Denmark, Germany, The Netherlands) operators can start works without significant delay, i.e., between six weeks and three months, and no problems have been reported in two further countries (Austria, Finland). In four countries (Greece, France, Italy, Luxembourg) the delays are considered to be long, reportedly due partially to co-digging rules and to rules against reopening of the public way (Italy, Luxembourg), or due to extensive use of powers by local authorities as regards environmental concerns and encouragement of colocation (France, Italy) and, in addition, administrative difficulties, such as the involvement of a number of public services and the difficulties experienced in co-ordinating them (Greece, Italy). In one country (Spain) the delays may vary substantially but no detailed data could be collected as to the time limits applied, nor was this possible as regards the remaining five countries (Belgium, Ireland, Portugal, Sweden, United Kingdom).

In thirteen countries (Belgium, Denmark, Germany, Greece, Spain, France, Ireland, Italy, The Netherlands, Portugal, Finland, Sweden, United Kingdom) there is a clear framework establishing the respective competences for granting rights of way. However, in one of those countries (Belgium) although the legislation is clear, certain local authorities consider that they have competence beyond that of the federal Government and this is leading to problems in practice. In a further country (Austria) no specific authorisation is needed. There are problems on clarity of competences reported as regards one country (Luxembourg).

No concern has been reported from any Member State as to whether access to private land is ensured.

Facility sharing:

There is facility sharing with the incumbents fixed network in ten countries (Germany, Spain, France, Luxembourg, The Netherlands, Austria, Portugal, Sweden, Finland, United Kingdom). However, in three of those countries (France, Sweden, United Kingdom), facility sharing is not granted on a compulsory basis; as regards one further country (Germany), concern has been expressed about claims regarding the incumbent's capacity constraints. In one country (Denmark) facility sharing for fixed networks is not compulsory. In a further country (Greece) the incumbent grants facility sharing only to its mobile subsidiary.

Facility sharing by mobile network operators is ensured in ten Member States (Belgium, Denmark, Spain, France, Italy, Luxembourg, The Netherlands, Austria, Portugal, Finland).

Undersea cables:

As regards access to sea cable head-ends, no problems have been reported as regards four countries (Belgium, France, The Netherlands, Finland). In two further countries (Denmark, Germany), access to sea cables is granted as a result of regulatory action. In two countries (Spain, Italy), the issue is not regulated.

Local access competition

While unbundled access to the local loop, to allow new entrants to use the existing subscriber line to access the end-customer, is not explicitly mandated by the harmonisation directives, there is a growing realisation in a number of Member States that local loop unbundling (LLU) is necessary in order to introduce competition at local level, while others are considering it. Given cost constraints, unbundling is in many cases important to new entrants in particular to enable them to make use of xDSL[33] technologies to give their customers access to broadband services, in particular the Internet. Decisions on unbundling, in particular the tariff set, will have an influence on operators' investment plans. Decisions on unbundling may also depend on the level of competition provided via TV cables or wireless local loop applications. Account should also be taken of the fact that problems remain with digging in relation to the roll-out of local infrastructure. Generally, however, at present neither cable TV networks nor wireless local loop (WLL) are widely used as a practical alternative for local access. Not only technical issues, but also the question whether or not the incumbent fixed operator still owns or controls key TV cable interests is of obvious relevance here.

The following is an overview of the current situation in the Member States regarding competition in the access network:

An increasing number of Member States (Denmark, Germany, Italy, The Netherlands, Austria, Finland) have decided to impose local loop unbundling. In Italy, The Netherlands and Austria, LLU is however not yet operational. Testing is under way in The Netherlands and in Italy a decision by the NRA on the determination of the conditions for LLU, which have been subject to a consultation for the past ten months, is expected before the end of 1999.

In a number of countries a decision on LLU is still under consultation (France, Ireland, United Kingdom). In Sweden, a proposal enabling compulsory LLU through licensing conditions is being assessed by the Government[34]. In Belgium, Greece, Spain, Luxembourg and Portugal there are not yet plans to unbundle the local infrastructure in the short term. Belgium, Spain, Luxembourg and Portugal claim that this measure would not be necessary due to the availability of alternative infrastructure, in particular CATV networks of competing undertakings, and as regards Spain and Portugal, the granting of WLL licences.

In most Member States, services via **ADSL technology** are being offered, but only by the incumbent, and without there being an obligation on the incumbent to offer access to other market players. In Germany, Spain and Finland, services via ADSL are also being offered by new entrants. In Greece, Luxembourg and Portugal, there are currently no ADSL services being offered, in The Netherlands and Austria there is a pilot for ADSL. The Italian NRA is assessing the possibility of including the ADSL service among the different options for local access. According to recent information the NRA in the United Kingdom intends to ensure that, when the incumbent upgrades its local loop to provide ADSL, wholesale products will be made available to other operators so that they can offer similar services over the

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[33] Digital subscriber line systems providing high speed access over existing copper cables.

[34] In the framework of the notification of their envisaged merger, Telia/Telenor made the commitment to implement a set of measures to introduce LLU.

incumbents network. In France it has been announced that there are plans to offer new entrants access to the incumbent's ADSL services.

Another means of increasing competition in the last mile is the **wireless local loop (WLL)**. In most Member States, licences have either been granted (Germany, Spain, Ireland, Portugal - operational 1 January 2000, Finland and the United Kingdom), or consultations are under way. In Spain two licences for wireless local access have been granted to new entrants, and the authorities have recently launched an invitation to tender for the issue of six new licences. In Austria a licence is not needed; the frequency assignment is expected soon. In Denmark, France and The Netherlands, licences will be granted in 2000, in France experimental licences have been granted in the meantime. In Sweden there are also temporary trials at the moment, but no application for a permanent licence has yet been made. Test licences are also granted in Belgium, where draft legislation is in preparation in order to grant definitive licences. A timetable has however not been indicated, which is also the case for Luxembourg. In Italy a consultation is planned for the end of 1999. In Greece there are no plans to grant licences for the wireless local access network.

Cable TV (CATV) networks are also a viable alternative local infrastructure, in particular where they are not owned or controlled by the incumbent, and an incentive to invest in the upgrading necessary to make CATV infrastructure suitable for telecommunications purposes therefore exists. In Belgium, Luxembourg and the Netherlands, television cable penetration is as high as that of the voice telephony network. In most other countries, cable television networks are present, mostly with coverage at the local level in urban/high density areas. In Belgium, Spain, The Netherlands, Austria and the United Kingdom, voice telephony via cable is actually being offered, even though large parts of the population are not being offered voice telephony services yet. The fact that cable operators tend to use cable for the provision of Internet access (data) rather than for voice telephony is one of the reasons for The Netherlands to decide in favour of LLU, as only two cable operators (covering 25% of the population) are actually offering local calls, although cooperation between four cable operators has been announced, which would lead to a coverage of approximately 70%. The provision of voice telephony via cable is currently not offered, or offered only at a very limited level, in Denmark, Germany, Greece, France, Ireland, Luxembourg, Portugal, Finland, and Sweden. In Italy, cable TV penetration is close to zero. In Ireland, following the recent privatisation of a cable company, competition in the access network is developing.

4. STATUS OF THE EU TELECOMMUNICATIONS SERVICES MARKET

The assessment given above of the status of the transposition of the regulatory package and application in practice of the principles laid down is reflected in the **market data** set out in Annex 4. In broad terms, it is clear that the liberalised regimes in place in the Member States are driving growth in all sectors of the market, large increases in market entry, a doubling of the number of interconnection agreements for call termination in fixed networks, large decreases in particular for long-distance and international call tariffs, and significant decreases in the cost of national and international leased lines, in particular for digital leased line services. However, the cost to residential consumers of national calls has remained stable over the past two years, and only small reductions have been recorded for business users. In addition, comparisons of the cost of leased line services between Member States reveal differences which can only be attributable to a lack of cost orientation in many cases.

Furthermore, a comparison of the cost of international half-circuits with the cost of national long-distance lines shows the former to be significantly overpriced.

Telecommunications services market

The telecommunications services market in the Member States (voice telephony, mobile, switched data and leased line services) is growing both in terms of value and of the number of subscribers, at a forecast average rate of just over 6.5% in 1999[35].

Although mature, the **voice telephony market** for 1999 is forecast to grow in value by an average 4.6% in relation to last year. Furthermore, although the provision of basic telecommunications services has in large part been accomplished in all Member States, the number of fixed lines per 100 inhabitants is still growing, probably driven by the demand for second residential lines and Internet connectivity through ISDN.

The **mobile market** continues to grow rapidly, with its value likely to increase by an average 15.7% in 1999, and the average penetration rate reaching 36% in August 1999 from 18% in August 1998. In some countries the number of mobile subscribers is comparable to that for the fixed service.

Network services (switched data and leased lines) are forecast to grow this year by an average 8.6%, while **Internet services**, which are still characterised by wide variations in penetration rates in the Member States, are nonetheless spreading at a very rapid rate: estimates based on the number of Internet hosts per 1000 inhabitants show an average increase by about 125% over the period January 1998 – July 1999.

Fixed voice telephony market

During the period August 1998 to August 1999, the number of operators authorised to offer fixed telephone services to the public increased dramatically. More than 260 licences were granted during that period, and the number of authorised operators per million inhabitants grew from 1.7 to 2.5. The following is the total number of operators now actually offering services: 223 in the local call market; 244 in the long-distance call market (compared with 195 in 1998); 280 in the international call market (166 in 1998).

Apart from Portugal and Greece[36], the whole population of the Union can now choose between more than one operator for long distance and international calls, and in seven countries (Denmark, Ireland, The Netherlands, Austria, Finland, Sweden, United Kingdom) they also have a choice of operators for local calls.

The effective presence of competition in the market is increasingly evident in the long-distance and international call markets, where new entrants are a significant presence: in one country (United Kingdom) their estimated international call market share is 45%; in four countries (Denmark, Germany, The Netherlands, Sweden) 30-37%; in two countries (Italy,

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[35] Variations in market values are expressed in nominal terms. Source: EITO (European Information Technology Observatory) 1999.

[36] Portugal and Greece are due to liberalise fully on 1 January 2000 and 31 December 2000 respectively.

Finland) 10-15%; and in six countries (Belgium, Spain, France – for the local, national and international markets combined, Ireland, Luxembourg, Austria) up to 5%.

Competition is now also becoming effective even in the local call market as a result of local carrier selection and unbundling of the local loop, and in five countries (Belgium, Denmark, Germany, The Netherlands, Austria) new entrants have an estimated market share of up to 5%. In the UK, where liberalisation was introduced in the mid-eighties, alternative operators now take 18% of the local call market.

Mobile market

The total number of mobile licences has increased, to 94 national licences (analogue, GSM, DCS) from 77 in 1998. Only two licensed operators are not yet active in the market. The number of mobile operators offering digital mobile services at national level is now 52, and in all Member States at least 95% of the population has a choice of operators.

New entrants are gaining increasing market share, and in two countries (Germany, United Kingdom) new entrants are now the leading operators. Furthermore, in six countries (Belgium, Spain, Ireland, Italy, Luxembourg, Finland) new entrants now have 30-40% of the overall mobile market; in four (Greece, The Netherlands, Austria, Sweden) they have 40-45%; and in two (France, Portugal) they have more than 50%. In the digital market, new entrants' shares are higher, and in seven countries (Denmark, Greece, France, The Netherlands, Austria, Portugal, Sweden) new entrants have a digital mobile market share of more than 45%.

Fixed network services

During the period August 1998 to August 1999, the number of operators authorised to offer network services increased by more than 400, and the number of authorised operators per million inhabitants grew from 1.4 to 2.5. There are many operators now in the market: 375 in the local network services market; 194 in the long-distance network services market (compared to 173 in 1998); and 187 in the international network services market (compared to 162 in 1998).

Interconnection

There are now 820 **interconnection agreements** for call termination on fixed networks[37], almost double last year's figure of 442.

In general terms, conditions for call termination on fixed networks in the main European markets are competitive. As regards fixed-to-fixed interconnection, not only has the number of countries with **interconnection charges** above best practice[38] decreased significantly (for example from nine to five for local level interconnection), but the percentage deviation is much lower: the average deviation for the countries with charges higher than best practice is

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[37] Aggregate of the figures for fixed-to-fixed and mobile-to-fixed.

[38] See Commission Recommendation on interconnection pricing in a liberalised environment (Part 1). The 1999 best practice call termination charges are 0.5 – 1.0 EUR/cents per minute for local interconnection, 0.8 – 1.6 EUR/cents per minute for single transit and 1.5 –2.3 EUR/cents per minute for double transit.

28% for local level interconnection (73% last year), 13% for single transit (67% last year), and 27% for double transit (102% last year).

The same is more or less valid for mobile-to-fixed charges, which are generally subject to the same conditions. At this stage, only Spain and Ireland maintain a difference between fixed-to-fixed and mobile-to-fixed charges; however, the NRAs in these countries envisage bringing these conditions into line in the near future.

Incumbents' retail tariffs

As a result of competition, operators are increasingly moving from charging by units to **per-second systems**, which are more transparent and fairer from the consumer and competitor viewpoint. In 1997 only five incumbent operators were applying the per-second charging system, in 1998 there were seven, and in August 1999 there were ten.

The process of **tariff rebalancing** is, as stated in section 3, continuing in a number of Member States: over the past two years there have been average annual increases, in nominal terms, of 4% in the price of ten-minute **local** calls, while the price of **regional and long-distance** calls has decreased by 7% and 15% respectively. During the past two years the charge for an average **international** call has decreased annually by 21% for residential users and by 13% for business users. In particular, the price of ten-minute international calls decreased by 17% for calls to neighbouring countries, by 8% for calls to more distant European countries, by 23% to the US and by 11% to Japan.

Annual expenditure for national calls has been more or less stable over the past two years for the typical residential user, while for the business user there has been an annual decrease of 4.2%.

A comparison with a leading US operator[39] shows that the price of local calls remains higher in Europe than in the US (EU tariffs in particular for a 3 minute call are three times those in the US), but that the difference dramatically decreases for 10-minute local calls (which are 20% higher), and that for regional and long-distance calls, the tariffs of the US operator are higher than the EU average. International calls from the EU to the US are double the cost of calls from the US to the EU, while a comparison with the Japanese incumbent[40] shows that international calls originating in Europe are 70% cheaper than those originating in Japan.

National leased lines

The average tariff for national leased lines decreased steadily over the period from August 1996 to August 1999. The trend of average standard retail tariffs for digital leased line services was as follows: 64 Kbit/s leased lines decreased in price by 45% in the case of 50 and 200 km lines and by 28% in the case of 2 km lines, and 2 Mbit/s leased lines decreased in price by 45% in the case of 50 and 200 km lines and by 35% in the case of 2 km lines. The decrease in the price of analogue circuits (M.1020) of 50 and 200 km was more modest at about 17%.

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[39] Figures for Nynex/Bell Atlantic, which can be regarded as purely indicative, and will vary with other operators.

[40] NTT

However, comparisons of leased line prices charged by incumbent operators in each Member State as of 1 August 1999 show that the same service may be charged at very different prices, which does not appear justifiable even if differing underlying costs are accepted.

International leased lines

The average tariff for international leased lines has decreased over the period from August 1996 to August 1999. The trend in EU average retail tariffs for digital leased line services was as follows: the average standard tariff for 64 Kbit/s connections to European countries and the US has decreased by over 30%; the average tariff for 2 Mbit/s connections to European countries and the US has decreased by between 22% and 29%. Decreases in the tariff for analogue circuits (M.1020) have been more modest, by 3% to 9% for connections to European countries and the US.

However, the level of prices as of 1 August 1999 remains relatively high if compared to the price of similar national services. For instance, the average standard retail tariff for 2 Mbit/s international half-circuits is from 7 to 14 times higher than for national 200 km circuits.

The provision of national and international high capacity circuits (34 and 155 Mbit/s) is still under development and standard prices for those services are available only in a few Member States. In most cases, at least for 155 Mbit/s circuits, they are given only on a case-by-case basis.

5. CONCLUSIONS AND PRINCIPLES FOR CONSIDERATION IN THE 1999 REVIEW

It is clear from the Commission's analysis of the national legislation in place, its application by the national authorities, and the evidence from the market that, less than two years after full liberalisation, overall implementation of the telecoms regulatory package has been and continues to be a success.

However, the Commission, given its role as guardian of the Treaty and the institution responsible for the procedures ensuring compliance with the directives, is bound to focus in reports such as this on those aspects of Member States' practical application of the regulation which are not in compliance with the regulatory framework. In this regard the role of the Commission in enforcing compliance with the regulatory framework has been acknowledged in the preparation of this report, by new market entrants and regulators alike. With the launch of the Communication on the review of the regulatory framework, the Commission's task is to use the lessons of the past to build the regulation of the first decade of the new millennium and beyond, and it is in this spirit that the critical aspects of this report are offered. There are in this context a number of messages; **corresponding proposals from the Commission for remedial action, where appropriate, are set out in the Communication on the review.**

Better harmonisation

While the process of creating a single market for telecommunications services is well under way under the current framework, the provision of pan-European services and cross-border investment is still hampered by the relatively low level of harmonisation in the European

directives in particular of the licensing regime and to a lesser extent the interconnection regime. It is clear here that there is enormous pressure from all parts of the market for action (see below).

Uniform implementation

Experience of the implementation of the current regulatory framework shows that even where the directives are drafted relatively tightly there are considerable divergences in the way in which the principles are applied in the Member States. There are already mechanisms for achieving uniformity, such as through the High Level Committee of National Administrations and Regulatory Authorities and the Open Network Provision and Licensing Committees. There is nonetheless a sense on the part of regulators and the market that this coordination should be sharpened.

NRAs

There is a preliminary point which is obvious but which is worth reiterating. The NRAs are the rock on which full and uniform implementation of the regulatory package is built. They need a strongly supportive national framework to enable them to function effectively. This includes providing them with the necessary human and financial resources and the legal and political environment which will enable them to perform their prescribed tasks.

The fact that the NRAs differ widely across the Member States is the result of the different legal and administrative cultures in which they are rooted, and this diversity is in turn a natural and welcome part of the culture of the Union. There is currently coordination between the regulatory agencies through the Independent Regulators' Group, which contributes to strengthening uniformity of implementation. There is, however, no form of benchmarking for example on supervision of the incumbent's cost accounting, approval of the reference interconnection offer, consultation procedures, response times or reporting on service quality or consumer complaints.

The disparities in the way in which NRAs are organised are reflected also in the procedures laid down for appeals against their decisions. Again, these are rooted in the legal and administrative cultures of the Member States, and as such are sometimes lengthy and may depend on a judiciary which may not be qualified to examine the technical complexities of telecommunications. Appeals procedures may also have suspensory effect which, in a fast-moving market, is likely to prejudice the interests in particular of new entrants, as do delays in clarification of the applicable regulatory regime generally.

There are further disparities in the way in which regulatory powers are divided as between ministries, regulatory agencies, national competition authorities, and sometimes other agencies with responsibility for example for regulating tariffs. This can lead to conflicts or at the least to an administrative barrier to new entrants. There are also disparities as regards the way in which responsibility for handling consumer complaints is allocated, which leads to consumer uncertainty as to the protection of their rights.

Licensing

Pan-European operators including satellite operators back their argument in favour of better harmonisation of the licensing regime at European level by pointing to the wide differences in procedures, periods of validity, fees, classifications of operators with which they are faced, not to mention the difficulty of submitting applications in the eleven official Community languages.

Virtually all operators are opposed to heavy regimes, for the obvious reason that they are costly, time-consuming and potentially exclusive. The experience of Member States which already have light regimes is that they operate successfully, mesh well with a liberalised environment, and lighten the regulatory burden on the NRAs.

The current rules on licence fees and the principle that they should cover only the cost of administering authorisations have also been implemented in widely different ways in the Member States. There has been no benchmarking exercise in this regard.

Interconnection

This Report shows that the powers of the regulator as currently set out in the framework are not always devolved to the NRAs at national level, or in some cases exist but are not used. This is particularly true of the power to intervene directly in interconnection negotiations without being invited to do so by the parties. Some regulators contend that the emphasis in the framework on commercial negotiation (and in the national context on freedom of contract), together with the right of parties to request intervention, makes such a power redundant. This view is not shared by the generally weaker parties to such negotiations, that is, new entrants with negligible market power. There is currently no mandate in the directives for NRAs to impose penalties on SMP operators for failure to produce RIOs or negotiate interconnection in timely fashion.

There is a considerable problem as regards the cost accounting of the incumbent operators for the tariffing of interconnection. There appear to be major weakness both in the regulation at national level and in the practices applied by NRAs, as regards cost accounting not only for interconnection but also for the provision of leased lines and voice telephony, in particular in the latter case to ensure correct rebalancing of tariffs. One result appears to the existence of price squeezes in a number of Member States. However, the implementation process has shown on the one hand how effective benchmarking at EU level has been in bringing down interconnection prices; on the other, several Member States have used benchmarking with EU and non-EU countries' tariffs to orientate their national interconnection tariffs. The Commission's benchmarking exercise will be continued at least for the lifetime of the present regulatory package.

Universal service

Although there is currently only one universal service fund in operation, it is clear from the implementation exercise that there is concern on the part of operators in Member States where financing mechanisms are likely to be put into effect. Most regard funding mechanisms as a barrier to market entry, and are confident in many cases of being able to provide universal service in their areas of operation on a competitive basis. There is therefore a need

to ensure that the assessment of the real net costs of universal service provision is rigorous, with particular attention being paid to the intangible benefits deriving from the provision of universal service. As regards the category of operators which may be required to contribute through funding mechanisms, account should be taken of the current and forecast growth in the mobile market.

Furthermore, where full rebalancing has been achieved and no access deficit remains, universal service can be achieved on the basis of low-user tariff schemes, without further need to rely on universal service charges that form potential barriers to market entry.

Consumer rights clearly need to be taken into account in the implementation of the current regulatory framework, in particular with regard to transparency of information and redress. In specific cases such as lack of transparency of tariff structures or unfair contract terms, Member States could apply the current framework more effectively while making better use of existing horizontal Community consumer protection legislation.

A barrier to the single market resides in the fact that the 112 European emergency number, while available in all Member States and largely publicised by operators, is not known by consumers to be available also in other countries of the Union. This problem also can be tackled under the current framework.

Improved coordination with the application of the competition rules

The comments expressed in the preparation of the report regarding leased line tariffs or lack of rebalancing of local loop tariffs show that notwithstanding the provisions of sector-specific legislation applicable for many years, new market players still face difficulties in a number of areas. Generally, it is evident that under the present regulatory framework local access competition remains problematic in all Member States, and that certain barriers to the development of transnational services and infrastructure persist. The Commission therefore decided on 27 July 1999 to open a sector inquiry under the EU competition rules relating to the level of leased lines tariffs, the level of roaming charges and the tariffs for the provision of access to and use of the residential local loop. By means of this investigation, the Commission wishes to determine whether the practices and prices observed constitute infringements of EC competition rules, in particular of Articles 81 and 82 of the EC Treaty. If the Commission finds such infringements, it will both act against them on a case by case basis, and consider the scope for future horizontal measures. The Commission will involve both the national regulators and the national competition authorities in this process. As close cooperation between competition authorities and national regulators is a general prerequisite to ensure a level playing field in the telecommunications markets it should further be improved.

Other conclusions

Numbering

The Commission is encouraged by progress in introducing number portability and carrier pre-selection in some Member States, in some cases ahead of the deadline set. It is concerned, however, at possible delays in particular in putting in place carrier pre-selection for all calls from fixed networks and in the way in which costs are to be apportioned between operators and consumers. As regards number portability, account should be taken of the fact that some

Member States have extended the obligation to mobile operators, thereby increasing the scope of competition in this sector.

Rights of way

The fact that rights of way are very often in many Member States in the hands of local or regional authorities and may be subject to planning and other non telecommunications-specific constraints means that regulators' hands are sometimes tied. Some Member States have taken action to apply creative solutions under the current regulatory framework at national and local level, in particular as regards colocation and site-sharing.