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REGULATIONS ON TELECOMMUNICATION SECTOR IN TURKEY DURING EU INTEGRATION PROCESS

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ABSTRACT

Regulations On Telecommunication Sector In Turkey During EU Integration Process

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The telecommunication sector has an important role in economic growth and development of national competitiveness of countries. State monopolies were dominant in telecommunications sector of many economies until the first half of 1990s. But increased concerns about efficiency lead many countries to regulate their telecommunications for an efficient functioning, remove special and exclusive rights and privatize their public monopolies to end state control over the market, and finally establishment of independent regulatory authorities and develop policies encouraging competition to liberalize the sector.

The objective of this thesis is to study the regulations in Turkish Telecommunications Sector under the lights of the laws and regulations, and the developments in EU telecommunications sector. To achieve this objective, the current regulatory framework of the EU is examined in details by considering the regulation, privatization and liberalization processes in the EU telecommunications. Thereafter the regulations in the Turkish telecommunications sector and the applications and effects of the regulations are analysed.

It is concluded that the regulations in the Turkish telecommunications are the same as or widely similar to those developed in the EU telecommunications sector but despite of this fact there were some problems such as the dominant position of Turk Telecom in the short distance fixed lines and broadband internet access markets. In order to create a more efficiently functioning telecommunications sector via liberalization policies, increase in the speed and commitment of the Telecommunications Authority and new steps to be taken with guidance of updated regulations are recommended.

Keywords: Telecommunications Sector, Regulations, Turkish Telecommunications Sector, the EU Telecommunications Sector, Liberalization in Telecommunications Sector in EU, Regulatory Models in Telecommunications Sector in EU, Turk Telecom

ÖZET

Avrupa Birliği Entegrasyonu Sürecinde Türkiye'deki Telekomünikasyon Alanındaki Regülasyonlar

Duygu Kılıç

Avrupa Birliği İlişkileri

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Telekomünikasyon sektörü ülkelerin ekonomik gelişmeleri ve ulusal rekabet güçlerinin geliştirilmesi açısından önemli bir role sahiptir. 1980'lerin ikinci yarısına gelene kadar Dünyanın pek çok ülkesinde telekomünikasyon sektörüne kamu tekelleri hâkimdi. Ancak artan verimlilik endişeleri ile beraber telekomünikasyon sektörleri önce regülasyonlar yardımı ile verimli bir işleyişe uygun hale getirilmiş, sonra tekel haklarının kaldırılması ve kamu tekellerinin özelleştirilmesi ile devletlerin kontrolünden çıkarıldı ve son olarak da bağımsız düzenleyici kurullar kurulması ve rekabeti teşvik eden düzenlemeler getirilmesi yolu ile verimli işleyen liberal piyasalar haline gelmiştir.

Bu tezin amacı Avrupa Birliği mevzuatı ve AB telekomünikasyon sektöründeki politikalar ışığında Türkiye'deki Telekommünikasyon sektöründe gerçekleştirilen düzenlemelerin incelenmesidir. Bu amaca yönelik olarak AB Telekommünikasyon sektöründeki düzenlemeler, özelleştirmeler ve liberalleşme süreçlerine değinilerek AB'de hâkim son Telekommünikasyon mevzuatı detayıyla incelenmiştir. Bu incelemenin ardından, Türk Telekomünikasyon sektörü mevzuatına getirilen düzenlemeler ve bunun sonucu olarak sektördeki uygulama ve sonuçlar ele alınmıştır.

Sonuç olarak Türkiye'de Telekomünikasyon Sektöründe gerçekleştirilen düzenlemelerin AB Telekomünikasyon Sektöründeki düzenlemeler ile aynılık veya büyük ölçüde benzerlik taşıdığı ancak buna karşın tam rekabet ortamının yaratılmasında sabit hatlar ve uzun bant internet piyasalarında Türk Telekom'un tekelci kontrolü gibi bazı sorunların devam ettiği sonucuna varılmıştır. Liberalleşme yoluyla daha verimli işleyen rekabetçi bir telekomünikasyon sektörünün oluşturulabilmesi için güncellenmiş düzenlemeler ışığında Telekomünikasyon Kurulu'nun uygulamalarının hızlandırılması yolu ile yeni adımlar atılması gerekliliği tavsiye olarak sunulmuştur.

Anahtar Kelimeler: Telekomünikasyon Sektörü, Yasal Düzenlemeler, Türk Telekomünikasyon Sektörü, AB Telekomünikasyon Sektörü, AB'de Telekommünikasyon Sektörünün Liberalleşmesi, AB'de Telekomünikasyon Sektöründe Düzenleyici Modeller, Türk Telekom

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ABBREVATIONS

Application Program Interface	**API**
Digital European Cordless Telecommunications	**DECT**
Pan-European Paging	**ERMES**
Pan-European Digital Mobile Communications	**GSM**
Integrated Services Digital Network	**ISDN**
Internet Service Provider	**ISP**
International Telecommunications Union	**ITU**
Long Distance Telephone Services	**LDTS**
Memorandum of Understanding	**MoU**
Open Network Provision	**ONP**
Publicly Available Telephone Services	**PATS**
Public Switched Telephone Networks	**PSTN**
Public Telecommunications Operator	**PTO**
Universal Service Obligation	**USO**
Telecommunications Operator	**TO**

1. INTRODUCTION

Reforms in telecommunications sector have significant impact on national competitiveness, economic development and globalization of a country. In today's liberal economies such changes come into existence in the forms of regulations, privatization and liberalization. The privatization process indicates a process of transferring ownership from state to private entities and may or may not be accompanied by a process of liberalization. Privatization without liberalization rests on a policy of privatizing monopoly power and usually preferred by cash-striving countries. Regulations are usually devised to harmonize the telecommunications sector and to create a sound legal infrastructure, which ensures efficient operation of the market. The liberalization process, which follows the privatization process in many instances, is the final phase of the efforts of creating a competitive and efficient telecommunications industry.

Telecommunications sector's poor performance under public ownership, accompanied with lack of state financing of renewal and maintenance investment are the main motives of the reforms. Since 1980, and particularly after the privatization and liberalization of telecommunications sector in Britain and United States (U.S.), a dramatic change is observed in telecommunications sector all around the world (Li Wei and Colin , Lixin Xu 2000). The rapid development of technology has also accelerated the transition from regulated sector with state-owned incumbent to an increasingly competitive telecommunications sector. These problems and the impetus drawn by the international organizations encouraged developing and transition countries to carry out reforms for attracting private investors into the sector. The result is remarkable, in two decades since 1980 the ratio of private ownership in telecom operators increased from 2 percent to 42 percent in 167 countries (Li Wei and Colin, Lixin Xu 2004).

Turkey, which has similar concerns about efficient functioning of telecommunications sector and similar objectives to create a sound

telecommunications sector supporting national economic development and prosperity, has transformed its telecommunications sector with a number of regulations within the last two decades. Like its counterparts in the European Union (EU) Turkey followed the sequence of regulations, privatization and liberalization. Since the country has undertaken to bring its telecommunications system in conformity with the current regulatory framework of the EU, the reforms in Turkish telecoms sector are no doubt closely correlated and related with the EU experience.

The main objective of this paper is to analyze the regulations took place in Turkish telecommunications sector under the lights of regulations, reforms and liberalization works performed in the EU. To achieve this objective, first, the history of regulations and changes in the European telecommunications were studied and a theoretical background was prepared. The transition from public monopolies to competitive industries and regulations and privatization policies developed in this transition were investigated. In this sense, the successive regulatory models, which were devised and implemented between 1990 and 2000, were examined.

The third chapter, current regulatory framework, which was developed in 2002, was studied in details. In this respect, the legal infrastructure for electronic communications networks, the role and duties of national regulatory authorities, the issues of access and interconnections of electronic communications networks, and competition in the electronic communications networks and services markets, and the questions of privacy and authorization in electronic communications networks were explained.

The Commission Review of 2006 is an important milestone in the development of a liberal telecommunications sector in Europe. In the fourth chapter of the study, the review was presented. The topics of flexibility and coordination in the spectrum management, need to streamline market reviews, consolidation of the internal market, enhancing consumer protection and users' rights, and improving security were taken into consideration in the review.

Finally, regulations adopted and liberalization steps taken in the Turkish telecommunications market were studied. The privatization of Turk Telecom Inc. (the public incumbent in the sector), services and operators in the Turkish telecoms market, the access and interconnection regulations including standard reference tariffs, and regulations for competition were indicated in this part.

At the end of the paper, a conclusion was drawn based on the experiences and drawbacks of the current framework, and recommendations for further development were provided.

2. REGULATIONS IN THE EUROPEAN TELECOMMUNICATIONS SECTORS

2.1. THE TRANSITION FROM PUBLIC MONOPOLIES TO COMPETITIVE MARKETS

Beginning from its very early development network industries were dominated by State monopolies all around the world. There were several reasons for this. First, there was a belief that such industries were natural monopolies, i.e. that there was only space for one undertaking in the market. This view was based on the observation that sectors, such as telecommunications and energy, were subject to large economies of scale and that network infrastructures were very hard or even perhaps impossible to duplicate. Exclusive rights thus legally translated the perceived economic model governing network industries.

Second, exclusive rights were often granted in return for the monopolist to provide universal service, also often referred to as "public services" or "services of general economic interest". There was thus a kind of "regulatory contract" between governments and large utilities. The latter would provide their services throughout the territory (including in loss-making areas), to all customers (including unprofitable ones), with a given level of quality and without discontinuity, thereby ensuring social and geographic cohesion. The provision of universal service would certainly have a cost, but the monopoly granted to these firms would allow them to cross-subsidize profitable services with loss-making ones and still make a profit.

Third, because of the importance of these industries from several viewpoints governments believed it was important to consolidate various actors in one firm, which they would control. Network industries were (and in many ways still are) of central importance at several different levels: (i) strategic (need to control basic infrastructures in case of war or major crisis); (ii) economic (these industries employ millions of workers and represent a significant part of the GDP); and (iii) political

(State monopolies were often part of the administration or had closed links with public authorities).

In the late 1970s, however, the basic tenets of the monopoly model started to be challenged by economists, lawyers, policy-makers, industrialists and consumer organizations. First, economists started to argue that, while some market segments in network industries (e.g., the local loop in telecommunications and electricity transport network) certainly have natural monopoly features, others are contestable (W. Baumol, J. Panzar, and R. Willig., 1982) . For instance, while the local loop (the "last mile" of copper wires) could hardly be duplicated by new telecommunications entrants and would thus, at least for some years, remain monopolized by the incumbent, a number of other market segments, such as the provision of services were potentially competitive. Such segments should thus be freed of exclusive rights to allow competition to take place.

Similarly, the provision of universal service did not necessarily require the maintenance of public monopolies cross-subsidizing unprofitable market segments with profitable ones. Cross-subsidization is an imprecise funding mechanism, which also distorts competition. Other methods of financing, such as targeted subsidies from general taxation or the creation of compensation funds could instead be used to contribute to the (often exaggerated) costs of providing universal service.

Second, industry organizations in sectors subject to fierce international competition, such as the production of steel or the manufacturing of automotive vehicles, argued that they were largely penalized by the high costs of essential production inputs (electricity, gas, transport, etc.), which were provided by public monopolies. If these sectors were to remain competitive in the face of the globalization of the economy, network industries had to be liberalized to allow the advantages of competition to materialize, i.e. lower prices and better quality of service.

Third, consumer organizations also started to complain about the poor performance of public monopolies. Consumer prices tended to be high and the quality of service

poor. The absence of competition, and thus of alternatives for consumers, gave public monopolies few incentives to adopt consumer-friendly policies and provide innovative products and services. Together with industry organizations, they claimed that competition was the best way to induce better prices, improve quality of service, and stimulate innovation.

Fourth, early experiences of liberalization in the United States and the United Kingdom convinced European authorities that the liberalization model was workable and could provide positive economic results. A new model, based on the opening of network industries to competition, combined with regulation through independent agencies, offered an interesting alternative to the much criticized and loss-making monopolies created at the turn of the 20th century.

Finally, the European Commission realized that public monopolies, which were based on the granting of exclusive rights to national undertakings, were fundamentally at odds with its internal market policy. National monopolies prevented other Member States' operators from competing and thereby impeded the free movement of goods and services.

In other words, the granting of exclusive rights had the effect of partitioning the common market in contradiction with the basic principles of the EC Treaty (Directive 90/388 of 28 June 1990)

In the mid-1980s, the European Commission took a number of policy initiatives, such as the publication of Green Papers, leading to the adoption of proposals for directives liberalizing the various network industries. While in the area of telecommunications, the Commission managed to achieve quick results through its reliance on directives based on Article 86(3) of the EC Treaty, which provides the Commission with the power to adopt directives by itself, in other sectors (J.L. Buendia Sierra ,2000) the Commission relied on the lengthy legislative process comprised in Article 95 EC (co-decision between the Council and the European Parliament) (J.L. Buendia Sierra ,2000). Directives in the energy and postal services

sectors were thus the result of compromises between Member States and EU institutions, which were often short of the market opening ambitions of the Commission. Liberalization directives were indeed often met with skepticism on the part of certain Member States, such as France or Belgium, which were keen to protect their public monopolies. Other Member States, such as the Netherlands or the United Kingdom, were by contrast in favor of rapid market opening. There was a tension between Member States over the necessity and the speed of the liberalization of network industries.

2.2. REGULATIONS AND PRIVATIZATION POLICIES FOR LIBERALIZATION

Regulations in telecommunications sector in the EU dates back to the first half of 1980s. By the early 1980s, telecommunications in the EU-15 was dominated by state-owned monopolies, which had exclusive and special rights. The primary objective of the regulations in the EU telecommunications sector was liberalization that opens up national markets to competition by eliminating monopoly rights granted by Member States. In 2004 only Luxembourg has a fully state owned public sector telecom operator.

Edwards and Waverman (2005:8) points out that liberalization of telecoms markets before privatization, as it is the case for most of the countries other than the US, leads to a specific problem for regulation which derives from the dual role of the state. Because the state will act both as a regulator and as an incumbent PTO in such a case. However, a distinguishing characteristic of the EU wide regulatory policy, which offers from national regulatory policies, provided solutions to this problem. With respect to the objectives of regulations clearly indicated “the social dimension has important legal and constitutional implications within the European legal system” (Bavasso, 2004:87). This requires not only a common liberalization policy but also harmonization of the regulation. Consequently, the regulation of telecoms sector in the EU has two dimensions: liberalization and harmonization.

Geradin (2006:4-6) indicates the "three pillars" on which liberalization of EU network industries relied on. The first one is the removal of the exclusive rights early granted to companies. This pillar which constitutes one of the distinguishing characteristic of EU liberalization policy resulted in telecoms sector opening the markets to competition where possible. Consequently, a progressive -stage by stage- approach is adopted in the liberalization process of the telecoms and other network industries. This situation is in accordance with the reforms implemented by countries other than the European States. As Afonso and Scaglioni (2006:5) point out even though the process of liberalization has been faster in the wireless sectors, there were no countries with a monopoly for provision of fixed network services throughout the OECD in 2004.

Secondly, a common regulatory framework, among other obligations, necessitated independent regulatory agencies. As a consequence of this second pillar more competition occurred in the relevant fields of telecommunications markets.

Thirdly, as the liberalization implemented, dependency on competition policy tools besides the sector-specific rules occurred. These two sets of rules are being applied as complementary policies in the EU. In addition to these three pillars, there is another main reason for the liberalization of EU telecoms sector which "rests on the internal market principles" (Bavasso 2004:88).

2.3. THE SUCCESSIVE REGULATORY MODELS DEVELOPED BETWEEN 1990 AND 2000

To have a better understanding of current regulations in European telecommunication sector a short review of various regulatory models, which took place between 1990 and 2000, is needed. Since various regulatory models, which build upon one another, have many common elements, such a review would let the reader find out where certain elements of the current regulatory framework are coming from.

2.3.1. The Starting Model (Until 1990)

Before the 1987, the telecommunication sector in each member state of EC was dominated by one monopoly service and infrastructure provider, which was the public telecommunications operator or PTO). The PTO was in general wholly or partly owned by the State or even fully integrated in the administration of the State, being an administrative department or agency. The only exception among the Member States was the UK. Within all Member States, telecommunications infrastructure and all kinds of telecommunications services were provided by the local PTO exclusively (Larouche 2000)

Cross-border services within the EC were carried out under the traditional "correspondent system" in which services between two countries are provided by the PTOs from these two countries in cooperation with each other. PTOs working together to ensure that their respective national networks are linked are bilaterally responsible. Each PTO acts as a "correspondent" for the other, taking responsibility for the termination of cross-border traffic originating from the other PTO. On the commercial side, the originating PTO collects all the charges for the call from the originating customer ("collection rate"). In order to compensate the terminating PTO for the costs of terminating the call, the two PTOs agree on an "accounting rate" which is theoretically supposed to represent the cost of carrying traffic between the two countries, usually on a per minute basis. The "accounting rate" is split between the two PTOs, usually 50/50, to give the "settlement rate", i.e. the amount which the terminating PTO should receive from the originating PTO as a settlement for the costs of terminating traffic.

The only alternative to using the services provided by the PTO was to self-provide those services, which was only possible for the largest telecommunications customers (multinational corporations, banking and insurance sector, government etc.). Self-provision is based on leasing capacity from the PTO and utilizing one's own equipment (to the extent it was possible) in it in order to provide the desired communications services. The leased lines, especially those in cross-border

communication which requires buying from two or more PTOs), was too costly in the EC.

2.3.2. The Regulatory Model of the 1987 Green Paper (1990-1996)

Technological developments and increased demand for telecommunications sector lead Europe to revise its regulatory framework. The 1987 Green Paper proposed following propositions, first three of which were later translated into Community law via Directive 90/388 adopted on the basis of Article 86 (3) EC (ex 90 (3)):

A. Member States may leave communications infrastructure under monopoly, and must preserve network integrity in any event;
B. Amongst services, only public voice telephony may be left under monopoly
C. Other services must be liberalized
D. Community-wide interoperability must be realized via harmonized standards

To attain the last objective, Directive 91/263 on the approximation of the laws of the Member States regarding telecommunications terminal equipment, involving the mutual recognition of their comformity, was enacted on 29 April 1991 on the basis of Article 95 EC (ex 100a) to provide a framework for the adoption of so-called "common technical regulations" relating to terminal equipment, and a series of Commission decisions have been made following it. Coordinated introduction of Integrated Services Digital Network (ISDN), pan-European digital mobile communications (GSM), pan-European paging (ERMES) and Digital European Cordless Telecommunications (DECT) was ensured on the basis of Article 95 and 308 EC (ex 100a and 235). Furthermore, introduction of third-generation mobile communications was decided as follows:

E. An Open Network Provision (ONP) must be put in place to regulate the relationship between monopoly infrastructure providers and competitive service providers (including trans-border interconnect and access

As clearly indicated the telecommunications sector was partially liberalized and partially left under monopoly. The Open Network Provision (ONP), which acted as a framework regulating interactions between part of telecommunications services under monopoly and those liberalized, indicated the set of monopoly services and infrastructure to be offered, terms and conditions imposed on the providers of liberalized services for access to and use of monopoly services and infrastructure, the ratification of these monopoly services and infrastructure, etc. The exact content of ONP was constructed with a number of instruments as follows:

1. Directive 92/44
2. Recommendation 92/382 of 5 June 1992 on the harmonized provision of a minimum set of packet-switched data services (PSDS) in compliance with open network provision principles
3. Recommendation 92/383 of 5 June 1992 on the provision of harmonized integrated services digital network (ISDN) access arrangements and a minimum set of ISDN offerings in accordance with open network provision (ONP) principles
4. Directive 95/62 of 13 December 1995 on the application of open network provision (ONP) to voice telephony

F. Terminal equipment must be liberalized: The terminal equipment market was liberalized on the basis of Article 86(3) EC (ex 90 (3)), Directive 88/301 on 16th of May 1988. Furthermore, Community-wide mutual recognition of terminal equipment was ensured through Directive 91/263.
G. Regulatory and operational functions of PTOs must be separated: Article 6 of Directive 88/301 and Article 7 of Directive 90/388 were enacted to active that objective.
H. Competition law must be applied to PTOs, especially as regards cross-subsidization
İ. Competition law must be applied to new service providers as well

J. The Common Commercial Policy must be applied to telecommunications, and competition law must be applied to international telecommunications

2.3.3. Comparison of the Models of 1990 and 1996

Between 1990 and 1996, two sectors were added to the regulatory model, namely satellite and mobile communications. They had been expressly left out of the regulatory model of the 1987 Green Paper as it had been implemented by Directives 90/387 and 90/388 in 1990 and they were not included in any of the categories such as infrastructure, reserved services or liberalized services.

Satellite communications is based on the utilization of earth stations and satellites. A satellite communications can be broken down into segments: an earth segment from the originator of the communication to an earth station, a satellite segment from the earth station to a satellite (uplink) which then relays the signals coming on the uplink to another earth station (downlink) and finally a second earth segment from the receiving earth station to the addressee of the communication. The Commission changed Directives 88/301 and 90/388 to:

1. liberalize the market for earth station equipment by bringing it under the definition of "terminal equipment" in Directive 88/301
2. liberalize the use of satellite networks for the provision of telecommunications (with the exception of public voice telephony) by ensuring that telecommunications services provided over satellite networks are comprised in the definition of "telecommunications services", where according to Directive 90/388 no special or exclusive rights can be maintained (with the exception of public voice telephony). However, the practical impact of that first breach of the infrastructure monopoly in favour of satellite networks was limited, because of technical and economical considerations (satellites are expensive and cannot support every telecommunications application) and because the

TOs controlled most of the available capacity on the space segment in any event;

3. subject space segment provision to competition law principles, by abolishing restrictions to the provision of space segment capacity to authorized earth station operators, and by requiring the Member States to collaborate with the Commission in the investigation of possible anti-competitive practices by international satellite organizations.

2.3.4. The Transitional Model of 1992 Review and the 1994 Green Paper (1996-1998)

Directive 90/388 provided for a review of EC telecommunications policy in 1992. In addition, the Commission had undertaken to review telecommunications pricing within the Community at the start of 1992 to see if and how much progress had been made towards the objective of cost-orientation of tariffs.

At the end of 1992, following these reviews, the Commission published a Communication as a basis for discussion, in which it laid out a series of options, including the full liberalization of voice communications, from which it favoured the incremental option of opening intra-Community cross-border voice communications to competition. The Commission suggested following decisions to be taken by 1996:

- Liberalization of alternative infrastructure for self-provision of services as well as provision of services to Corporate Networks and CUGs
- Liberalization of cable TV network for the provision of liberalized services
- Review of the policy concerning public telecommunications infrastructure with a Green Paper by 1995

Furthermore, the Commission also proposed following changes to be done by 1998:

- Full liberalization of telecommunications services (i.e. liberalization of public voice telephony, the only remaining reserved service) by January 1998
- A new framework for public telecommunications infrastructure

2.3.5. The Fully Liberalized Model (1998)

In the 1992, the Council agreed to liberalize public voice telephony by 1 January 1998, and on the basis of the 1994 Green Paper, the Council accepted the Commission's proposal to alight the liberalization of telecommunications infrastructure with that timetable. Following a consultation process on the 1994 Green Paper, the Council adopted a Resolution in September 1995 in which it outlined the basic principles applicable to the main regulatory issues to be settled. In addition, the Resolution listed main legislative measures that still had to be adopted until 1 January 1998 on the following topics (the actual measures which were adopted are mentioned):

- Liberalization of all telecommunications services and infrastructures
- Adaptation to the future competitive environment of ONP measures
- Maintenance and development of a minimum supply of services throughout the Union and the definition of common principles for financing the universal service
- Establishment of a common framework for the interconnection of networks and services
- Approximation of the general authorization and individual licensing regimes in the Member States

Directive 96/19, which was adopted by the Commission on the basis of Article 86(3) EC (ex 90(3)), realized the objective of "liberalization of all telecommunications services and infrastructures". Furthermore, Directive 96/19 involved the main elements of a regulatory model for the liberalized telecommunications market. To revise the ONP framework, Directive 97/51 of 6 October 1997 and Directive 98/10 of 26 February 1998 were adopted by Council and European Parliament on the basis of 95 EC (ex 100a).

The action of the Community in the area of universal service is more difficult to account for. The Commission outlined its vision of universal service in telecommunications in a Communication released in early 1996. Both Directive 98/10 and Directive 97/33 contain provisions regarding universal services, while Directive 98/10 defines a basket of services which can be funded through universal service funding mechanisms. Directive 97/33 specifies how the costs of universal service can be recovered from certain market participants. In a further Communication, the Commission indicated how it intended to review the universal service financing mechanisms which could be put in place by Member States.

2.3.5.1. The Model of Directive 96/19

Pursuant to Directive 90/388 as amended by Directive 96/19, Member States must impose many specific obligations – as well as some specific rights- on certain actors (in practice the former monopoly holders) in order to ensure that competition takes root on liberalized markets. The main ones are:

- TOs must provide interconnection to the public voice telephony service as well as the public switched telecommunications network to other providers authorized to provide the same services or networks and publish standard interconnection offers.
- TOs must implement accounting systems for public voice telephony and public telecommunications networks in order to be able assess the cost of interconnection.

Similarly Member States may impose an individual licensing process only for public voice telephony, public telecommunications networks and other networks using radio frequencies. Moreover, contributions to a universal service fund can only be required from providers of public telecommunications networks. Providers of public telecommunications networks are subject to non-discriminatory treatment as regards the grant of rights of way.

The concept of public voice telephony therefore retains a central role under the regulatory model of Directive 96/19, since it triggers the application of a heavier regulatory framework.

2.3.5.2. The Model of the New ONP Framework

The new ONP framework results in a more complex regulatory model than that of Directive 96/19. Under the old ONP framework, ONP directives applied to infrastructure and reserved services, i.e. leased lines and voice telephony. Member States were thus bound by the ONP Directive to impose certain obligations on their respective TOs, which held exclusive rights for the provision of infrastructure and reserved services. As regards the scope of application, Article 1 of Directive 90/387 appears not to have been changed: the ONP framework concerns "public telecommunications networks" and "public telecommunications services". The definition of "public telecommunications networks" was modified in Directive 90/387 in the same way as in Directive 90/388, thus giving rise, as discussed above, to some uncertainty as regards the meaning of "publicly available". No definition of "public telecommunications services" is given, although the other two ONP Directives and Directive 97/13 use the term publicly available telecommunications services instead.

The new regulatory model as resulting from the ONP directives affected the distinctions which were at the core of the model of the 1987 Green Paper and with a few modifications, of the transitional model (and were "recycled" to some extent in the model of Directive 96/19):

i. The distinction between regulatory and operational functions, which underpinned Directive 90/388, is given a new dimension by the inclusion of general provisions on the independence of the NRA towards both the TO and the State
ii. The distinction between services and infrastructure has not expressly been repudiated, but the new regulatory model uses the terms "network" and "service" in parallel, so that every category in the new model encompasses both networks

and services, which would indicate that the distinction between networks and services is not very useful anymore. Nonetheless, that distinction retains a role, among others in the rules relating to interconnection and licensing

iii. The distinction between reserved services (and public infrastructure), on the one hand, and liberalized services (and alternative infrastructure), on the other hand, disappears, since it serves no purpose anymore. The new regulatory model replaces it with a new cardinal distinction, between public or publicly available networks and services, on the one hand, and the networks and services on the other hand. As was mentioned before, the meaning of the terms "public" and "publicly-available" has not yet been elaborated, and the only guidance now available concerns the interpretation of the phrase " for the public" in the definition of "public voice telephony" under the regulatory model of the 1987 Green Paper. However, each of the new ONP Directives, as well as the Licensing Directive, adds its own enumerations or explanations or "public" or "publicly-available" services, so that in the end these terms may become no more than empty labels to cover a series of specific categories defined in the context of each legislative measure;

iv. The distinction between access and interconnection, even if it is not very solid, as explained above, retains some significance, since the new ONP framework does extend interconnection rights under EC law beyond the sphere of organizations providing public networks or services.

2.3.5.3. Main Substantive Elements

While public voice telephony and infrastructure were under legal monopolies, public policy concerns translated in a number of constraints imposed on TOs through various instruments ranging from regulations to administrative circulars, including license conditions or cahier de charges. These made up a relatively opaque regulatory framework, which under the fully liberalized model had to be adapted to a competitive environment and articulated in open terms. Furthermore, a number of new issues arose (or took on new dimensions) as a result of liberalization.

2.3.5.3.1. Universal Service

In the fully liberalized model, universal service rests on the three principles of continuity (a specified quality must be offered all the time), quality (access must be offered independently of location) and affordability. Member States are in principle free to decide on the scope of universal service obligations (USOs) which they impose on certain telecommunications service providers, provided they respect Community law. Pursuant to Directive 98/10, Member States are however bound to include a defined set of services within their USO, namely access to the PSTN for the purposes of voice, fax and data communications – on a narrowband scale -, directory services, public payphones and specific measures for disabled users or users with special social needs. In addition, the ONP framework requires Member States to ensure the availability of a range of services and features, but not necessarily according to the principles of universal service. Obviously, the imposition of USOs aims to compel service providers to offer certain services everywhere, irrespective of geographical location, and to everyone at a given price, irrespective of the economic situation. The very existence of an USO therefore implies that in many cases the services in question would not be offered under normal market conditions since they would not be profit-making.

In counterpart to the imposition of an USO and in order not to put the service provider subject to it at too great a competitive disadvantage, the service provider could conceivably be relieved from all or part of the losses linked to the USO. A first possibility would be for the State to assume these losses directly by way of a subsidy to the service provider subject to an USO, subject to Community State aid rules, however, in the current budgetary context, this appears unrealistic. Accordingly, the Community regulatory framework has focused more on the possibility of spreading the costs of USOs over the industry. Directives 96/19 and 97/33 provide for two mechanisms, namely supplementary charges for interconnection with the service provider subject to the USO or a universal service fund, fed by contributions from the industry to proportion to market activity, in order to compensate that service provider for losses related to the USO. Pursuant to Directives 97/33 and 98/10,

supplementary charges or universal service funds can only be used in relation to USOs which Member States are bound to impose under Community law, as listed above (access to PSTN, directory services, public payphones, disability/social programmes). Beyond that limited range of services, no USO may be financed through an industry-wide cost-sharing mechanism.

2.3.5.3.2. Interconnection

Interconnection agreements essentially aim to ensure that the networks of the parties to the agreement are linked in such a way that the customers of the party can both communicate with those of the other party and obtain services provided on the other party's network by the other party or by a third party (Directive 97/33, Art. 2 (1) (2) as well as Directive 90/388, Art. 1(1) as added by Directive 96/19).

Interconnection is an attractive proposition for telecommunications service providers for a number of reasons. Firstly, the value of their respective networks to actual and potential customers increases with the number of reachable users, a phenomenon known in economics theory as "network effects". Secondly, interconnection in and of itself can be a profitable business, since the provider can ask for compensation in return for connecting one of its customers to a customer of another provider. It can readily be seen that the incentives freely to conclude interconnection agreements will vary from one provider to another: the incumbent, with almost complete dominance of the market, gains little by having access to the few customers of a new provider, whereas the new provider absolutely needs interconnection. The incumbent therefore has a very strong bargaining position, and it could impose prohibitive charges on the newcomers, so as to stifle market entry.

In the light of above, interconnection is a key element of the fully liberalized model. The general principles of the fully liberalized model are that interconnection between public networks and services must be ensured, and that operators with significant market power must grant access to their networks and respect the principles of non-

discrimination, proportionality transparency and objectivity (Directive 97/33, Art. 4(2), as well as Directive 90/388, Art. 4a (as introduced by Directive 96/19).

It should be noted that, under the fully liberalized model, the interconnection rules are meant to apply not only to interconnection between competing providers within a given Member State, but also to cross-border interconnection. Accordingly, it is intended that the traditional correspondent system for international communications, as described earlier, with its shared facilities and its accounting rates, will disappear as between the Member States.

2.3.5.3.3. Licensing

Under EC telecommunications law, authorizations comprise general authorizations and individual licenses. A general authorization procedure provides that undertakings complying with certain conditions may offer a given service without a prior and explicit authorization from the authority (Directive 97/13, Art. 2(1)(a) and Directive 90/388 Art.2) .
An individual licensing procedure, in contrast, requires undertakings to obtain a prior and explicit permission from the regulatory authority before offering a given service (Directive 97/33, Art. 2(1)(a)). It follows from that distinction that general authorizations will contain a limited number of "off-the-shelf" conditions that can be formulated ex ante to apply to all providers alike. In contrast, individual licenses are "tailor-made" to suit each licensee (within the limits of general principles such as necessity, proportionality and non-discrimination); accordingly, the licensing authority has more discretion in the formulation of individual license conditions, and furthermore it can use individual licenses to impose on a given licensee more exacting conditions than could justifiably be imposed through a general authorization (e.g. conditions relating to market power or control over certain facilities).

The fully liberalized model affects authorization procedures in two respects. Firstly, the abolition of special and exclusive rights implies that entry in the telecommunications sector should be free; in cases where conditions must be

imposed upon entrants, they must be objective, proportional, transparent and non-discriminatory. In particular, if licenses are required, their number should not in principle be limited; if it is only possible to grant a limited number of licenses (e.g. for lack of available frequencies), they must be awarded according to the principles just mentioned.. Secondly and more importantly, authorization procedures must not prevent market entry or distort competition; it follows therefrom that any authorization procedures provided for in national law must be both necessary and proportionate. These two conditions are reflected in the choice of authorization procedure:

- Authorization procedures should only be used where essential requirements are at stake; these requirements have been harmonized in the EC regulatory framework
- Authorization procedures should intrude as little as possible on the freedom to provide services and on competitive market forces. Hence, as a rule, the authorization procedure should take the form of a general authorization. Only in a few cases, where ONP obligations are involved or scarce resources must be attributed, should Member States be able to require individual licenses.

2.4. CONCLUSION

As a summary it can be indicated that the EC telecommunications law went through four regulatory models between 1990 and 2000; from the traditional model (until 1990), through the model of the 1987 Green Paper (1990-1996) and the short-lived transitional model of the 1992 Review and the 1994 Green Paper (1996-1998) through to the fully liberalized model (in place since 1998). The evolution was progressive, however, with each new model building on the elements of its predecessors under the lights of experiences.

3. THE CURRENT REGULATORY FRAMEWORK 2002

3.1. COMMON REGULATORY FRAMEWORK FOR ELECTRONIC COMMUNICATIONS NETWORKS

The regulatory framework shaped since 1988 was successful in creating the circumstances for effective competition and general efficiency in the telecommunications sector during the transition from monopoly to full competition. But more progress was needed to create a fully liberal model.

It was November 1999 when the Commission sent a communication to the European Parliament, the Council, the Economic and Social Committee and the Committee of the Regions entitled "*Towards a new framework for electronic communications infrastructure and associated services- the 1999 communications review*". In this paper, the Commission assessed the existing regulatory framework for telecommunications based on its obligation on the establishment of the internal market for telecommunications services via the implementation of open network provision. It also provided a series of policy proposals for a new regulatory framework for electronic communications infrastructure and related services for public consultation.

Approximately five months later, the Commission provided a communication to the European Parliament, the Council, the Economic and Social Committee and the Committee of the Regions about the results of the public consultation on the 1999 communications review and orientations for the new regulatory framework. The communication included the consequences of the public consultation and recommended some critical orientations for the preparation of a new framework for electronic communications infrastructure and associated services.

The convergence of the telecommunications, media and information technology sectors requires a single regulatory framework appealing to all transmission networks

and services. That regulatory framework is comprised of five specific Directives as follows:

a. Directive 2002/21/EC of the European Parliament and of the Council of March 2002 On A Common Regulatory Framework for Electronic Communications Networks and Services (Framework Directive)
b. Directive 2002/20/EC of the European Parliament and of the Council of 7 March 2002 on the authorisation of electronic communications networks and services (Authorisation Directive),
c. Directive 2002/19/EC of the European Parliament and of the Council of 7 March 2002 on access to, and interconnection of, electronic communications networks and associated facilities (Access Directive),
d. Directive 2002/22/EC of the European Parliament and of the Council of 7 March 2002 on universal service and users' rights relating to electronic communications networks and services (Universal Service Directive),
e. Directive 97/66/EC of the European Parliament and of the Council of 15 December 1997 concerning the processing of personal data and the protection of privacy in the telecommunications sector,

Based on the principle of the separation of regulatory and operational functions Member States are obliged to ensure the independence of the national regulatory authority or authorities to guarantee the fairness of their decisions. Member States are required to ensure any party who is the subject of a decision by a national regulatory authority has the right to appeal to a body that is independent of the parties in question. This body may be a court. Moreover, any undertaking which asserts that its applications for the provision of rights to install facilities have not been processed according to the principles established in the Current Regulatory Model should have a right to appeal against such decisions.

In order to achieve their tasks effectively national regulatory authorities are required to collect information from market players. Such information may also need to be collected for the Commission, to help it in carrying out its obligations under

Community law. Information requests should be proportionate and not impose heavy obligations to undertakings. Nonetheless, information obtained by national regulatory authorities should be publicly available, except in so far as it is confidential according to national rules on public access to information and subject to Community and national law on business confidentiality. Information considered as confidential by a national regulatory authority, in compliance with Community and national rules on business confidentiality, may only be provided for the Commission and other national regulatory authorities where the information is strictly necessary.

National regulatory authorities are obliged to consult all related parties on proposed decisions and consider their evaluations before adopting a final decision. National regulatory authorities are also required to notify certain draft decisions to the Commission and other national regulatory authorities to give them the opportunity to comment to ensure that decisions at national level do not have an negative effect on the single market or other Treaty objectives. After consulting the Communications Committee, the Commission is able to request a national regulatory authority to withdraw a draft measure where such decisions would create a barrier to the single market or would be incompatible with Community law and in particular the policy objectives that national regulatory authorities should follow.

The requirement for Member States to ensure that national regulatory authorities consider the desirability of making regulation technologically neutral, that is to say that it neither imposes nor discriminates on behalf of the use of a particular type of technology, does not prevent the taking of proportionate steps to promote certain specific services where this is justified, for example digital television as a means for increasing spectrum efficiency.

Radio frequencies are an important input for radio-based electronic communications services and, to the degree they relate to such services, should therefore be allocated and assigned by national regulatory authorities in compliance with a set of harmonised objectives and principles governing their action as well as to objective,

transparent and non-discriminatory criteria, taking into account the democratic, social, linguistic and cultural interests related to the use of frequency. It is important that the allocation and assignment of radio frequencies is managed as efficiently as possible. Transfer of radio frequencies can be an effective instrument of increasing efficient use of spectrum, as well as there are sufficient safeguards in place to protect the public interest, in particular the need to ensure transparency and regulatory supervision of such transfers.

All elements of national numbering plans are subject to regulations of national regulatory authorities, including point codes used in network addressing. Where there is a need for harmonisation of numbering resources in the Community to enhance the development of pan-European services, the Commission may take technical implementing measures using its executive powers.

The current regulatory framework of 2002 requires national regulatory authorities to encourage facility sharing which is regarded as of benefit for town planning, public health or environmental reasons on the basis of voluntary agreements. For the cases where undertakings do not have access to viable alternatives, compulsory facility or property sharing imposed by national regulatory authorities are suggested. It includes the following: physical co-location and duct, building, mast, antenna or antenna system sharing.

In the regulatory framework of 2002 it is pointed out that ex ante regulatory obligations should only be imposed where there is not effective competition, i.e. in markets where there are one or more undertakings with significant market power, and where national and Community competition law measures are not sufficient to resolve the problem. It is necessary therefore for the Commission to draw up guidelines at Community level in compliance with the principles of competition law for national regulatory authorities to follow in evaulating whether competition is effective in a given market and in assessing significant market power. National regulatory authorities should analyze whether a given product or service market is effectively competitive in a given geographical area, which could be the whole or a

part of the territory of the Member State concerned or neighbouring parts of territories of Member States considered together. An analysis of effective competition should include an assessment as to whether the market is prospectively competitive, and thus whether any lack of effective competition is long lasting. Those guidelines will also address the issue of newly emerging markets, where de facto the market leader is likely to have a significant market share but should not be subjected to inappropriate obligations. National regulatory authorities are required to cooperate with each other where the relevant market is assessed to be transnational.

In the regulatory framework of 2002, *Standardization* is suggested to remain mainly a market-driven process. However it is also stated there may still be situations where it is appropriate to mandate compliance with specified standards at Community level to provide interoperability in the single market. At national level, Member States are obliged with the provisions of Directive 98/34/EC. Directive 95/47/EC of the European Parliament and of the Council of 24 October 1995 on the use of standards for the transmission of television signals did not mandate any specific digital television transmission system or service requirement. Any decision to make the implementation of particular standards mandatory is required to follow a full public consultation.

In the *Common Regulatory Framework* Directive, interoperability of digital interactive television services and enhanced digital television equipment, at the level of the consumer, is recommended to be encouraged in order to ensure the free flow of information, media pluralism and cultural diversity. It is indicated that it is desirable for consumers to have the capability of receiving, regardless of the transmission mode, all digital interactive television services, having regard to technological neutrality, future technological progress, the need to promote the take-up of digital television, and the state of competition in the markets for digital television services. Digital interactive television platform operators should try hard to implement an open application program interface (API) which conforms to standards or specifications adopted by a European standards organisation. Migration from existing APIs to new open APIs should be encouraged and organised, for example by

Memoranda of Understanding between all relevant market players. Open APIs promote interoperability, i.e. the portability of interactive content between delivery mechanisms, and full functionality of this content on enhanced digital television equipment.

In case of a dispute between undertakings in the same Member State for example relating to obligations for access and interconnection or to the means of transferring subscriber lists, an aggrieved party that has negotiated in good faith but could not reach agreement is able to call on the national regulatory authority to resolve the dispute. The Common Regulatory Framework Directive of 2002 requires National regulatory authorities be able to impose a solution on the parties.

Under the Common Framework Directive, national regulatory authorities and national competition authorities are required to provide each other with the information necessary to apply the provisions of this Directive and the Specific Directives, in order to allow them to cooperate fully together. With respect to the information exchanged, the receiving authority is obliged to ensure the same level of confidentiality as the originating authority.

3.1.1. National Regulatory Authorities

The Framework Directive in the Current Regulatory Model requires member States to ensure that each of the tasks assigned to national regulatory authorities is carried out by a competent body. Furthermore, member States are required to ensure the independence of national regulatory authorities by guaranteeing that they are legally separate from and functionally independent of all organizations providing electronic communications networks, equipment or services. Member States that have ownership or control of undertakings providing electronic communications networks and/or services are required to ensure effective structural distinction of the regulatory function from activities associated with ownership or control. The national regulatory authorities are required to exercise their powers impartially and transparently.

As another provision of the Framework Directive, national regulatory authorities and national competition authorities are required to provide each other with the information necessary for the application of the current regulatory model. With respect to the information exchanged, the receiving authority is obliged to ensure the same level of confidentiality as the originating authority.

3.1.2. Right of Appeal

The Common Framework Directive of 2002 requires Member States to ensure that effective mechanisms exist at national level under which any user or undertaking providing electronic communications networks and/or services who is affected by a decision of a national regulatory authority has the right of appeal against the decision to an appeal body that is independent of the parties involved. This body is required to have the appropriate expertise available to it to enable it to carry out its functions. Member States are obliged to ensure that the merits of the case are duly processed and an effective appeal mechanism is available.

3.1.3. Provision of information

Under the Framework Directive, undertakings providing electronic communications networks and services are obliged to provide all the information, including financial information, necessary for national regulatory authorities to ensure conformity with the provisions of, or decisions made in accordance with relevant telecommunications directives. These undertakings are required to provide such information promptly on request and to the timescales and level of detail required by the national regulatory authority. The information demanded by the national regulatory authority should be proportionate to the performance of that task. The national regulatory authority needs to give the reasons justifying its request for information.

National regulatory authorities are obliged to provide the Commission, after a reasoned request, with the information necessary for it to achieve its tasks. The information requested by the Commission should be proportionate to the

performance of those tasks. Where the information provided refers to information previously provided by undertakings at the request of the national regulatory authority, such undertakings should be informed thereof. To the extent necessary, and unless the authority that provides the information has made an explicit and reasoned request to the contrary, the Commission needs to make the information provided available to another such authority in another Member States. In this respect, Member States are obliged to ensure that the information submitted to one national regulatory authority can be made available to another such authority in the same or different Member State, after a substantiated request, where necessary to allow either authority to achieve its responsibilities under Community law.

Where information is regarded confidential by a national regulatory authority in accordance with Community and national rules on business confidentiality, the Commission and the national regulatory authorities in question are required to provide such confidentiality. Member States need to ensure that, acting in accordance with national rules on public access to information and subject to Community and national rules on business confidentiality, national regulatory authorities publish such information as would enhance an open and competitive market

3.1.4. Tasks of National Regulatory Authorities

The national regulatory authorities are required to develop competition in the provision of electronic communications networks, electronic communications services and associated facilities and services by *inter alia*:
(a) ensuring that users, including disabled users, derive maximum benefit in terms of choice, price, and quality;
(b) ensuring that there is no distortion or restriction of competition in the electronic communications sector;
(c) encouraging efficient investment in infrastructure, and promoting innovation; and
(d) encouraging efficient use and ensuring the effective management of radio frequencies and numbering resources

The national regulatory authorities are required to contribute to the development of the internal market by *inter alia*:
(a) removing remaining obstacles to the provision of electronic communications networks, associated facilities and services and electronic communications services at European level;
(b) encouraging the establishment and development of trans-European networks, and the interoperability of pan-European services, and end-to-end connectivity;
(c) ensuring that, in similar circumstances, there is no discrimination in the treatment of undertakings providing electronic communications networks and services;
(d) cooperating with each other and with the Commission in a transparent manner to ensure the development of consistent regulatory practice and the consistent application of this Directive and Specific Directives.

The national regulatory authorities are obliged to promote the interests of the citizens of the European Union by *inter alia*:
(a) ensuring all citizens have access to a universal service specified in Directive 2002/22/EC (Universal Service Directive);
(b) ensuring a high level of protection for consumers in their dealings with suppliers, in particular by ensuring the availability of simple and inexpensive dispute resolution procedures carried out by a body that is independent of the parties involved;
(c) contributing to ensuring a high level of protection of personal data privacy;
(d) promoting the provision of clear information, in particular requiring transparency of tariffs and conditions for using publicly available electronic communications services;
(e) addressing the needs of specific social groups, in particular disabled users; and
(f) ensuring that the integrity and security of public communications networks are maintained.

3.1.5. Management of radio frequencies for electronic communications services

1. Member States are obliged to ensure the effective management of radio frequencies for electronic communication services in their territory. They are

required to ensure that the allocation and assignment of such radio frequencies by national regulatory authorities are relied on objective, transparent, non-discriminatory and proportionate criteria.

Member States are called for ensuring that an undertaking's intention to transfer rights to use radio frequencies is notified to the national regulatory authority responsible for spectrum assignment and that any transfer takes place in accordance with procedures laid down by the national regulatory authority and is made public. National regulatory authorities should ensure that competition is not distorted as a result of any such transaction. Where radio frequency use has been harmonized through the application of Decision No 676/2002/EC (Radio Spectrum Decision) or other Community measures, any such transfer would not result in change of use of that radio frequency.

Numbering, Naming and Addressing

Under the Framework Directive, Member States are obliged to ensure that national regulatory authorities control the assignment of all national numbering resources and the management of the national numbering plans. Member States are also required to ensure that adequate numbers and numbering ranges are provided for all publicly available electronic communications services. National regulatory authorities should establish objective, transparent and non-discriminatory assigning procedures for national numbering resources.

Numbering plans and procedures would be applied in a manner that gives equal treatment to all providers of publicly available electronic communications services. In particular, an undertaking allocated a range of numbers would not discriminate against other providers of electronic communications services as regards the number sequences used to give access to their services.

The national numbering plans, and all subsequent additions or amendments thereto, would be published, subject only to limitations imposed on the grounds of national security.

Rights of Way

According to the Framework Directive, when a competent authority considers:

i. an application for the granting of rights to install facilities on, over or under public or private property to an undertaking authorised to provide public communications networks, or
ii. an application for the granting of rights to install facilities on, over or under public property to an undertaking authorised to provide electronic communications networks other than to the public,

the competent authority:

i. acts on the basis of transparent and publicly available procedures, applied without discrimination and without delay, and
ii. follows the principles of transparency and non-discrimination in attaching conditions to any such rights

The abovementioned procedures can differ depending on whether the applicant is providing public communications networks or not.

Where public or local authorities retain ownership or control of undertakings operating electronic communications networks and/or services, there is effective structural distinction of the function responsible for granting the rights from activities associated with ownership or control. Member States are required to ensure that effective mechanisms exist to let undertakings to appeal against decisions on the granting of rights to install facilities to a body that is independent of the parties involved.

Co-Location and Facility Sharing

Where an undertaking providing electronic communications networks has the right under national legislation to install facilities on, over or under public or private property, or may take advantage of a procedure for the expropriation or use of property, national regulatory authorities are required to encourage the sharing of such facilities or property.

In particular where undertakings lack access to viable alternatives because of the need to protect the environment, public health, public security or to meet town and country planning objectives, Member States may impose the sharing of facilities or property (including physical co-location) on an undertaking operating an electronic communications network or take measures to facilitate the coordination of public works only after an appropriate period of public consultation during which all interested parties must be given an opportunity to express their views. Such sharing or coordination arrangements may include rules for apportioning the costs of facility or property sharing.

Accounting Separation and Financial Reports

According to the Common Framework Directive of 2002, undertakings providing public communications networks or publicly available electronic communications services which have special or exclusive rights for the provision of services in other sectors in the same or another Member State are obliged to:

(a) keep separate accounts for the activities associated with the provision of electronic communications networks or services, to the extent that would be required if these activities were carried out by legally independent companies, so as to identify all elements of cost and revenue, with the basis of their calculation and the detailed attribution methods used, related to their activities associated with the provision of electronic communications networks or services including an itemised breakdown of fixed asset and structural costs, or

(b) have structural separation for the activities associated with the provision of electronic communications networks or services. Member States may choose not to apply the requirements referred to in the first subparagraph to undertakings the annual turnover of which in activities associated with electronic communications networks or services in the Member States is less than EUR 50 million.

Where undertakings providing public communications networks or publicly available electronic communications services are not subject to the requirements of company law and do not satisfy the small and medium-sized enterprise criteria of Community law accounting rules, their financial reports needs to be drawn up and submitted to independent audit and published.

Undertakings with Significant Market Power

Where an undertaking has significant market power on a specific market, it may also be deemed to have significant market power on a closely related market, where the links between the two markets are such as to allow the market power held in one market to be leveraged into the other market, thereby strengthening the market power of the undertaking.

Market Definition Procedure

According to the Framework Directive, the market definition procedure works as follows: After public consultation and consultation with national regulatory authorities the Commission adopts a *recommendation* on relevant product and service markets. The recommendation identifies in accordance with product and service markets within the electronic communications sector, the characteristics of which may be such as to justify the imposition of regulatory obligations prejudice to markets that may be defined in specific cases under competition law. The Commission publishes guidelines for market analysis and the assessment of

significant market power which are in accordance with the principles of competition law.

National regulatory authorities are obliged, taking the utmost account of the recommendation and the guidelines, to define relevant markets appropriate to national circumstances, in particular relevant geographic markets within their territory, in accordance with the principles of competition law.

Market Analysis Procedure

Following the adoption of the recommendation or any updating, national regulatory authorities are required to conduct an analysis of the relevant markets, taking the utmost account of the guidelines. Member States are obliged to ensure that this analysis is carried out, where necessary, in cooperation with the national competition authorities.

Where a national regulatory authority concludes that the market is effectively competitive, it is not obliged to impose or maintain any of the specific regulatory obligation. In cases where sector specific regulatory obligations already exist, it is entitled to withdraw such obligations placed on undertakings in that relevant market. An appropriate period of notice should be given to parties affected by such a withdrawal of obligations.

Where a national regulatory authority determines that a relevant market is not effectively competitive, it is required to identify undertakings with significant market power on that market and the national regulatory authority should on such undertakings impose appropriate specific regulatory obligations.

Standardisation

The Commission, acting in accordance with the procedure referred to in Article 22(2), draws up and publishes in the *Official Journal of the European Communities* a list of standards and/or specifications to serve as a basis for encouraging the

harmonized provision of electronic communications networks, electronic communications services and associated facilities and services. In the lack of standards and/or specifications drawn up by European standards organizations, Member States need to encourage the implementation of international standards or recommendations adopted by the International Telecommunication Union (ITU), the International Organization for Standardization (ISO) or the International Electrotechnical Commission (IEC). Where international standards exist, Member States is required to encourage the European standards organizations to use them, or the relevant parts of them, as a basis for the standards they develop, except where such international standards or relevant parts would be effective.

If the standards and/or specifications have not been properly applied so that interoperability of services in one or more Member States cannot be provided, the implementation of such standards and/or specifications may be made mandatory to the extent strictly necessary to provide such interoperability and to ensure freedom of choice for users.

Where the Commission decides to make the implementation of certain standards and/or specifications mandatory, it publishes a notice in the Official Journal of the European Communities and invites public comment by all parties concerned. The Commission makes implementation of the relevant standards compulsory by making reference to them as compulsory standards in the list of standards and/or specifications published in the Official Journal of the European Communities.

Interoperability of Digital Interactive Television Services

In order to promote the free flow of information, media pluralism and cultural diversity, Member States are required to encourage:
(a) providers of digital interactive television services for distribution to the public in the Community on digital interactive television platforms, regardless of the transmission mode, to use an open API;

(b) providers of all enhanced digital television equipment deployed for the reception of digital interactive television services on interactive digital television platforms to comply with an open API in accordance with the minimum requirements of the relevant standards or specifications.

Member States are also obliged to encourage proprietors of APIs to make available on fair, reasonable and non-discriminatory terms, and against appropriate remuneration, all such information as is necessary to enable providers of digital interactive television services to provide all services supported by the API in a fully functional form.

Harmonisation Procedures

Where the Commission provide recommendations to Member States on the harmonized application of the provisions, Member States are required to ensure that national regulatory authorities consider those recommendations in carrying out their tasks. Where a national regulatory authority chooses not to follow a recommendation, it is obliged to inform the Commission giving the reasoning for its position.

Dispute Resolution between Undertakings

In case of a conflict arising in connection with obligations arising under the relevant directives of the current regulatory model between undertakings providing electronic communications networks or services in a Member State, the national regulatory authority concerned is required to, at the request of either party, issue a binding decision to resolve the dispute in the shortest possible time frame and in any case within four months except in exceptional circumstances. The Member State in question need to require that all parties cooperate fully with the national regulatory authority.

Member States may make provision for national regulatory authorities to decline to resolve a dispute through a binding decision where other mechanisms, including mediation, exist and would better contribute to resolution of the dispute in a timely manner. The national regulatory authority needs to inform the parties without delay. If after four months the dispute is not resolved, and if the dispute has not been brought before the courts by the party seeking redress, the national regulatory authority is required to issue, at the request of either party, a binding decision to resolve the dispute in the shortest possible time frame and in any case within four months.

Resolution of Cross-Border Disputes

In the event of a cross-border dispute between parties in different Member States, where the dispute lies within the competence of national regulatory authorities from more than one Member State, any party may refer the dispute to the national regulatory authorities concerned. The national regulatory authorities are obliged to coordinate their efforts in order to bring about a resolution of the dispute. Any obligations imposed on an undertaking by the national regulatory authority in resolving a dispute should respect the provisions of the Framework Directive and other specific directives.

According to the Framework Directive, Member States may make provision for national regulatory authorities jointly to decline to resolve a dispute where other mechanisms, including mediation, exist and would better contribute to resolution of the dispute in a timely manner. They need to inform the parties without delay. If after four months the dispute is not resolved, if the dispute has not been brought before the courts by the party seeking redress, and if either party requests it, the national regulatory authorities are required to coordinate their efforts in order to create a resolution of the dispute.

3.2. ACCESS TO AND INTERCONNECTION OF ELECTRONIC COMMUNICATIONS NETWORKS

Directive 2002/21/EC of the European Parliament and of the Council of 7 March 2002 on a common regulatory framework for electronic communications networks and services (Framework Directive) has the objectives of a regulatory framework to include electronic communications networks and services in the Community, including fixed and mobile telecommunications networks, cable television networks, networks used for terrestrial broadcasting, satellite networks and Internet networks, whether used for voice, fax, data and images. Such networks may have been authorized by Member States via Directive 2002/20/EC of the European Parliament and of the Council of 7 March 2002 on the authorization of electronic communications networks and services (Authorisation Directive) or have been authorized under previous regulatory measures. The provisions of this Directive appeal to those networks that are used for the provision of publicly available electronic communications services. The Access and Interconnection Directive includes access and interconnection rules between service suppliers.

Directive 95/47/EC of the European Parliament and of the Council of 24 October 1995 on the use of standards for the transmission of television signals did not make any specific digital television transmission system or service equipment compulsory, and this created an opportunity for the market actors to take the initiative and develop suitable systems.

In an open and competitive market, there should be no restrictions that preclude undertakings from negotiating access and interconnection rules between themselves, in particular on cross-border agreements, subject to the competition rules of the Treaty. In the context of achieving a more efficient, truly pan-European market, with effective competition, more choice and competitive services to consumers, undertakings which receive requests for access or interconnection are required in principle to conclude such agreements on a commercial basis, and negotiate in good faith.

In markets where negotiating powers of undertakings show significant variance and where some undertakings need infrastructure provided by others for delivery of their services, it is necessary to develop a framework to ensure that the market functions effectively. National regulatory authorities are required to have the power to secure, where commercial negotiation fails, adequate access and interconnection and interoperability of services in the interest of end-users. In particular, they may ensure end-to-end connectivity by imposing proportionate obligations on undertakings that control access to end-users. Control of means of access may entail ownership or control of the physical link to the end-user (either fixed or mobile), and/or the ability to change or withdraw the national number or numbers needed to access an end-user's network termination point.

Competition rules alone may not be sufficient to ensure cultural diversity and media pluralism in the area of digital television. Directive 95/47/EC provided an initial regulatory framework for the newly born digital television industry which should be maintained, including in particular the obligation to provide conditional access on fair, reasonable and non-discriminatory terms, in order to make sure that a wide sort of programming and services is available. Technological and market developments make it necessary to review these obligations on a regular basis, either by a Member States for its national market or the Commission for the Community, especially to determine whether there is justification for extending, obligations to new gateways, such as electronic programme guides (EPGs) and application program interfaces (APIs), to the extent that is necessary to ensure accessibility for end-users to specified digital broadcasting services. Member States may specify the digital broadcasting services to which access by end-users must be ensured by any legislative, regulatory or administrative means that they consider necessary.

3.2.1. General Framework for Access and Interconnection

Under the Access and Interconnection Directive, Member States are required to ensure that there are no restrictions which prevent undertakings in the same Member

State or in different Member States from negotiating between themselves agreements on technical and commercial arrangements for access and/or interconnection in compliance with Community law. The undertaking demanding access or interconnection does not need to be authorised to operate in the Member State where access or interconnection is requested, if it is not providing services and does not operate a network in that Member State. Member States are required not to take legal or administrative measures that require operators, when granting access or interconnection, to offer different terms and conditions to different undertakings for equivalent services and/or imposing obligations that are not related to the actual access and interconnection services.

3.2.2. Rights and obligations for undertakings

Operators of public communications networks have a right and, when requested by other undertakings so authorised, an obligation to negotiate interconnection with each other for the objective of providing publicly available electronic communications services, in order to ensure provision and interoperability of services throughout the Community. Operators offer access and interconnection to other undertakings on terms and conditions in accordance with obligations imposed by the national regulatory authority.

Public electronic communications networks established for the distribution of digital television services are entitled to be capable of distributing wide-screen television services and programmes. Network operators that receive and redistribute wide-screen television services or programmes are allowed to maintain that wide-screen format.

Member States are obliged to require that undertakings which acquire information from another undertaking before, during or after the process of negotiating access or interconnection arrangements use that information solely for the purpose for which it was provided and respect at all times the confidentiality of information transmitted or stored. The received information cannot be passed on to any other party, in particular

other departments, subsidiaries or partners, for whom such information could provide a competitive advantage.

3.2.3. Powers and responsibilities of the national regulatory authorities

According to the Access and Interconnection Directive of the Regulatory Framework 2002, national regulatory authorities are required to encourage and where appropriate ensure proper access and interconnection, and interoperability of services, exercising their responsibility in a way that promotes efficiency, sustainable competition, and gives the maximum benefit to end-users.

National regulatory authorities need to impose:

i. obligations on undertakings that control access to end-users to ensure end connectivity
ii. obligations on operators to provide access to the other facilities on fair, reasonable and non-discriminatory terms to ensure accessibility for end-users to digital radio and television broadcasting services specified by the Member State.

When imposing obligations on an operator to provide access, national regulatory authorities may establish technical or operational conditions to be met by the provider and/or beneficiaries of such access Obligations and conditions imposed are required to be objective, transparent, proportionate and non-discriminatory.

3.2.4. Obligations on Operators and Market Review Procedures

Conditional Access Systems and Other Facilities

Member States may entitle their national regulatory authority to review the conditions, by undertaking a market analysis to determine whether to maintain, amend or withdraw the conditions applied. Where, as a result of this market analysis, a national regulatory authority finds that one or more operators do not have

significant market power on the relevant market, it may change or withdraw the conditions with respect to those operators only to the extent that:

a) accessibility for end-users to radio and television broadcasts and broadcasting channels and services identified with Article 31 of Directive 2002/22/EC (Universal Service Directive) would not be negatively affected by such amendment or withdrawal, and

b) the prospects for effective competition in the markets for:

- retail digital television and radio broadcasting services, and
- conditional access systems and other associated facilities,

would not be adversely influenced by such amendment or withdrawal.

Obligation of Transparency

Transparency of terms and conditions for access and interconnection covering prices, serve to speed-up negotiation, avoid disputes and give confidence to market players that a service is not being provided on discriminatory terms. Openness and transparency of technical interfaces can specifically important in ensuring interoperability. Where a national regulatory authority set obligations to make information public, it may also specify the manner in which the information is to be made available, covering for example the type of publication (paper and/or electronic) and whether or not it is free of charge, taking into account the nature and purpose of the information concerned.

National regulatory authorities may impose obligations for transparency with respect to interconnection and/or access, requiring operators to make public specified information, i.e. accounting information, technical specifications, network characteristics, terms and conditions for supply and use, and prices.

Where an operator has obligations of non-discrimination, national regulatory authorities may oblige that operator to publish a reference offer, which should be sufficiently unbundled to ensure that undertakings are not required to pay for facilities which are not necessary for the service requested, giving a description of the relevant offerings divided into components according to market needs, and the associated terms and conditions including prices. The national regulatory authority should be able to impose changes to reference offers to have obligations performed.

Obligation of non-discrimination

A national regulatory authority is entitled to impose obligations of non-discrimination, with respect to interconnection and/or access. The Access and Interconnection Directive requires obligation of non-discrimination should ensure, in particular, that the operator applies equivalent conditions in equivalent circumstances to other undertaking providing equivalent services, and offer services and information to others under the same conditions and of the same quality as it provides for its own services, or those of its subsidiaries or partners.

Obligations of Accounting Separation

Accounting separation allows internal price transfers to be arranged visible, and allows national regulatory authorities to audit compliance with obligations for non-discrimination where applicable. National regulatory authorities need to balance the rights of an infrastructure owner to utilize its infrastructure for its own benefit and the rights of other service providers to access facilities that are essential for the provision of competing services. Where obligations are set on operators that oblige them to meet reasonable requests for access to and use of networks elements and associated facilities, such requests should only be refused on the basis of objective criteria such as technical feasibility or the need to maintain network integrity. Where access is refused, the aggrieved party has a right to submit the case to the dispute resolutions procedure referred to in Articles 20 and 21 of Directive 2002/21/EC (Framework Directive). An operator with mandated access obligations can

A national regulatory authority may impose obligations for accounting separation with respect to specified activities in relation to interconnection and/or access. In particular, a national regulatory authority may oblige a vertically integrated company to make transparent its wholesale prices and its internal transfer prices inter alia to ensure compliance where there is a requisite for non-discrimination or, where necessary, to prevent unfair cross-subsidy. National regulatory authorities may identify the format and accounting methodology to be used.

In order to make the verification of compliance with obligations of transparency and non-discrimination easier, national regulatory authorities need to have the power to ask that accounting records, including data on revenues received from third parties, are provided on request. National regulatory authorities may publish such information as would contribute to an open and competitive market, while obeying national and Community rules on commercial confidentiality.

Obligations of access to, and use of, specific network facilities

A national regulatory authority may impose obligations on operators to meet reasonable requests for access to, and use of, specific network elements and associated facilities, inter alia in situations where the national regulatory authority considers that rejection of access or unreasonable terms and conditions having a similar effect would limit the creation of a sustainable competitive market at the retail level, or would not be in the end-user's interest.

Operators may be required inter alia:

(a) to give third parties access to specified network elements and/or facilities, covering unbundled access to the local loop;
(b) to negotiate in good faith with undertakings calling for access;
(c) not to withdraw access to facilities already provided
(d) to offer specified services on a wholesale basis for resale by parties;

(e) to provide open access to technical interfaces, protocols or other key technologies that are indispensable for the interoperability of services or virtual network services;
(f) to provide co-location or other forms of facility sharing, involving duct, building or mast sharing;
(g) to offer specified services needed to ensure interoperability of end-to-end services to users, including facilities for intelligent network services or roaming on mobile network;
(h) to provide access to operational support systems or similar software systems needed to ensure for competition in the provision of services;
(i) to interconnect networks or network facilities.

Price Control and Cost Accounting Obligations

According to the Interconnection Directive of the Regulatory Framework of 2002, price control may be needed when market analysis in a particular market indicates inefficient competition. The regulatory intervention may be relatively small, such as an obligation that prices for carrier selection are reasonable as laid down in Directive 97/33/EC, or much serious such as an obligation that prices are cost oriented to provide full justification for those prices where competition is not sufficiently strong to prevent high pricing. In particular, operators with significant market power are obliged to avoid a price squeeze whereby the difference between their retail prices and the interconnection prices charged to competitors who provide similar retail services is not adequate to ensure sustainable competition. When a national regulatory authority calculates costs incurred in establishing a service compulsory under the Interconnection Directive, it is proper to allow a reasonable return on the capital employed involving appropriate labour and building costs, with the value of capital adjusted where necessary to consider the current valuation of assets and efficiency of operations. The method of cost recovery is required to conform to the circumstances taking account of the need to promote efficiency and sustainable competition and maximise consumer benefits.

A national regulatory authority may set and impose obligations regarding cost recovery and price controls, involving obligations for cost orientation of prices and obligations concerning cost accounting systems, for the provision of specific types of interconnection and/or access, in cases where a market analysis reveals that an absence of effective competition shows that the operator concerned might sustain prices at an excessively high level, or implement a price squeeze, to the detriment of end-users. National regulatory authorities are authorized to take into account the investment made by the operator and permit him a reasonable rate of return on adequate capital employed, considering the risks involved.

The Interconnection Directive in the Regulatory Framework requires national regulatory authorities to ensure that any cost recovery mechanism or pricing methodology that is compulsory serves to advance efficiency and sustainable competition and maximise consumer benefits. In this scope national regulatory authorities may also consider prices available in comparable competitive markets.

Where an operator has an obligation in relation to the cost orientation of its prices, the burden of proof that charges are derived from costs including a reasonable rate of return on investment belongs to the operator in question. In order to calculate the cost of efficient provision of services, national regulatory authorities may utilize cost accounting methods independent of those used by the undertaking. National regulatory authorities may require an operator to provide full justification for its prices, and may, where appropriate, demand prices to be adjusted.

National regulatory authorities are required to ensure that, where implementation of a cost accounting system is compulsory in order to support price controls, a description of the cost accounting system is made publicly available, showing at least the basic categories under which costs are grouped and the rules used for the allocation of costs. Conformity to the cost accounting system is required to be verified by a qualified independent body. A statement indicating compliance should be published annually.

3.3. COMPETITION IN THE MARKETS FOR ELECTRONIC COMMUNICATIONS NETWORKS AND SERVICES

Before the Current Regulatory Framework of the European Union Telecommunications Sector, Directive 90/388/EEC obliged Member States to remove special and exclusive rights for the provision of telecommunications services, initially for other services than voice telephony, satellite services and mobile radio communications, and then it gradually set full competition in the telecommunications market. A number of other Directives in this field have also been adopted with Article 95 of the Treaty by the European Parliament and the Council targeting, principally, at the establishment of an internal market for telecommunications services through the implementation of open network provision and the provision of a universal service in an environment of open and competitive markets.

Member States are required to eliminate exclusive and special rights for the provision of all electronic communications networks, not just those for the provision of electronic communications services. Member States are not allowed to restrict the right of an operator to establish, extend and/or provide a cable network on the ground that such network could also be used for the transmission of radio and television programming. In particular, special or exclusive rights which amount to restricting the use of electronic communications networks for the transmission and distribution of television signals are contrary to Article 86(1), read in conjunction with Article 43 (right of establishment) and/or Article 82(b) of the EC Treaty insofar as they have the effect of permitting a dominant undertaking to limit production, markets or technical development to the prejudice of consumers. This is, however, without discriminating the specific rules adopted by the Member States in accordance with Community law, and, in particular, in accordance with Council Directive 89/552/EEC of 3 October 1989 (1), on the coordination of certain provisions identified by law, regulation or administrative action in Member States concerning the pursuit of television broadcasting activities, as amended by Directive 97/36/EC

of the European Parliament and of the Council, governing the distribution of audiovisual programmes developed for the general public.

According to the principle of proportionality, Member States are required not to make the provision of electronic communications services and the establishment and provision of electronic communications networks subject to a licensing regime but to a general authorization regime. This is also obliged by Directive 2002/20/EC, according to which electronic communications services or networks should be provided on the basis of a general authorisation and not on the basis of a license. An aggrieved party should have the right to take a decision preventing him from providing electronic communications services or networks before an independent body and, finally, before a court or a tribunal. It is a basic principle of Community law that an individual is entitled to effective judicial protection whenever a State measure violates rights provided for him by the provisions of a Directive.

Public authorities may use a dominant influence on the behaviour of public undertakings, as a result either of the rules administrating the undertaking or of the manner in which the shareholdings are distributed. As a result, where Member States control vertically integrated network operators which operate networks which have been established under special or exclusive rights, those Member States should ensure that, in order to avoid potential breaches of the Treaty competition rules, such operators, when they have a dominant position in the relevant market, do not discriminate on behalf of their own activities. It follows that Member States should take all measures necessary to preclude any discrimination between such vertically integrated operators and their competitors.

3.3.1. Exclusive and special rights for Electronic communications networks and electronic communications services

The Competition Directive of the Regulatory Framework 2002 requires Member States not to grant or maintain in force exclusive or special rights for the establishment and/or the provision of electronic communications networks, or for the

provision of publicly available electronic communications services. Under the Directive Member States are obliged to take all measures necessary to ensure that any undertaking is required to provide electronic communications services or to establish, extend or provide electronic communications networks.

According to the Competition Directive, Member States need to ensure that no restrictions are imposed or maintained on the provision of electronic communications services over electronic communications networks established by the providers of electronic communications services, over infrastructures provided by third parties, or by means of sharing networks, other facilities or sites. Nonetheless, Member States need to ensure that a general authorization granted to an undertaking to provide electronic communications services or to establish and/or provide electronic communications networks should be relied on objective, non-discriminatory, proportionate and transparent criteria.

3.3.2. Vertically Integrated Public Undertakings

The Competition Directive of the Regulatory Model 2002 requires Member States to ensure that vertically integrated public undertakings which provide electronic communications networks and which are in a dominant position do not discriminate on behalf of their own activities.

3.3.3. Rights of Use of Frequencies

According to the Competition Directive of the Regulatory Framework 2002, Member States are required not to grant exclusive or special rights of use of radio frequencies for the provision of electronic communications services and the assignment of radio frequencies for electronic communication services should be based on objective, transparent, non-discriminatory and proportionate criteria.

3.3.4. Directive Services

Under the Competition Directive Member States are required to ensure that all exclusive and/or special rights with regard to the establishment and provision of directory services on their territory, involving both the publication of directories and directory enquiry services, are removed.

3.3.5. Universal Service Obligations

Where universal service obligations are imposed in whole or in part on public undertakings providing electronic communications services, this should be taken into account in calculating any contribution to the net cost of universal service obligations.

3.3.6. Satellites

Member States need to ensure that any regulatory prohibition or restriction on the offer of space segment capacity to any authorized satellite earth station network operator are removed, and should authorize within their territory any space-segment supplier to verify that the satellite earth station network for use in connection with the space segment of the supplier in question is in conformity with the published conditions for access to such person's space segment capacity. Member States which are party to international conventions setting up international satellite organisations should, where such conventions are not compatible with the competition rules of the EC Treaty, take all appropriate steps to eliminate such incompatibilities.

3.3.7. Cable Television Networks

According to the Competition Directive of 2002, each Member State is obliged to ensure that no undertaking providing public electronic communications networks operates its cable television network using the same legal entity as it uses for its other public electronic communications network, when such undertaking:

(a) is controlled by that Member State or benefits from special rights; and
(b) is dominant in a substantial part of the common market in the provision of public electronic communications networks and publicly available telephone services; and
(c) operates a cable television network which has been established under special or exclusive right in the same geographic area.

3.4. PROTECTION OF PRIVACY IN ELECTRONIC COMMUNICATIONS

Directive 95/46/EC of the European Parliament and of the Council of 24 October 1995 on the protection of individuals with regard to the processing of personal data and on the free movement of such data obliges Member States to ensure the rights and freedoms of natural persons with respect to the processing of personal data, and in particular their right to privacy, in order to ensure the free flow of personal data in the Community. Confidentiality of communications is guaranteed in accordance with the international instruments relating to human rights, in particular the European Convention for the Protection

New advanced digital technologies are currently being introduced in public communications networks in the Community, which give rise to specific requirements concerning the protection of personal data and privacy of the user. The development of the information society is characterized by the introduction of new electronic communications services. Access to digital mobile networks has become available and affordable for a large public. These digital networks have large capacities and possibilities for processing personal data. The successful cross-border development of these services is partly dependent on the confidence of users that their privacy is not at risk.

The Internet is overturning traditional market structures by providing a common, global infrastructure for the delivery of a wide range of electronic communications services. Publicly available electronic communications services over the Internet open new possibilities for users but also new risks for their personal data and privacy.

In case of public communications networks, specific legal, regulatory and technical provisions are needed to be made in order to protect fundamental rights and freedoms of natural persons and legitimate interests of legal persons, in particular with regard to the increasing capacity for automated storage and processing of data relating to subscribers and users. Legal, regulatory and technical provisions adopted by the Member States concerning the protection of personal data, privacy and the legitimate interest of legal persons, in the electronic communication sector, are required to be harmonized in order to avoid obstacles to the internal market for electronic communication.

The Member States, providers and users concerned, together with the competent Community bodies, are called for cooperating in introducing and developing the relevant technologies where this is necessary to apply the guarantees provided for by this Directive and taking particular account of the objectives of minimising the processing of personal data and of using anonymous or pseudonymous data where possible.

By supplementing Directive 95/46/EC, the Current Personal Data Protection Directive of the Regulatory Framework 2002 targets protecting the fundamental rights of natural persons and particularly their right to privacy, as well as the legitimate interests of legal persons. The Current Personal Data Protection Directive does not impose an obligation for Member States to extend the application of Directive 95/46/EC to the protection of the legitimate interests of legal persons, which is ensured within the framework of the applicable Community and national legislation.

The prohibition of storage of communications and the related traffic data by persons other than the users or without their consent is not aimed at forbidding any automatic, intermediate and transient storage of this information in so far as this takes place for the sole purpose of carrying out the transmission in the electronic communications network and provided that the information is not stored for any

period longer than is necessary for the transmission and for traffic management purposes, and that during the period of storage the confidentiality remains guaranteed.

With the Current Personal Data Protection Directive, confidentiality of communications is also required to be ensured in the course of lawful business practice. Where necessary and legally authorized, communications can be recorded for the objective of providing evidence of a commercial transaction. The Directive requires parties to the communications to be informed prior to the recording about the recording, its purpose and the duration of its storage. The recorded communication should be erased as soon as possible and in any case at the latest by the end of the period during which the transaction can be lawfully challenged.

Terminal equipment of users of electronic communications networks and any information stored on such equipment are part of the private sphere of the users requiring protection under the European Convention for the Protection of Human Rights and Fundamental Freedoms. So-called spyware, web bugs, hidden identifiers and other similar devices can enter the user's terminal without their knowledge in order to gain access to information, to store hidden information or to trace the activities of the user and may seriously intrude upon the privacy of these users. The use of such devices should be allowed only for legitimate purposes, with the knowledge of the users concerned.

However, such devices for instance so-called "cookies", can be legitimate and useful tool, in analyzing the effectiveness of website design and advertising, and in verifying the identity of users engaged in on-line transactions. Where such devices, for instance cookies, are intended for a legitimate purpose, such as to facilitate the provision of information society services, their use should be allowed on condition that users are provided with clear and precise information in compliance with Directive 95/46/EC about the purposes of cookies or similar devices so as to ensure that users are made aware of information being placed on the terminal equipment they are using. Users should have the opportunity to refuse to have a cookie or

similar device stored on their terminal equipment. This is especially important where users other than the original user have access to the terminal equipment and thereby to any data including privacy-sensitive information stored on such equipment. Information and the right to refuse may be offered once for the use of various devices to be installed on the user's terminal equipment during the same connection and also covering any further use that may be made of those devices during subsequent connections. The methods for giving information, offering a right to refuse or requesting consent are required to be made as friendly as possible. Access to specific website content may still be made conditional on the well-informed acceptance of a cookie or similar device, if it is used for a legitimate purpose.

The exact moment of the completion of the transmission of a communication, after which traffic data should be erased except for billing purposes, may depend on the type of electronic communications service that is given. For example for a voice telephony call the transmission will be completed as soon as either of the users terminates the connection. For electronic mail the transmission is completed as soon as the addressee collects the message, typically from the server of his service provider. The obligation to erase traffic data or to make such data anonymous when it is no longer needed for the purpose of the transmission of a communication does not conflict with such procedures on the Internet as the caching in the domain name system of IP addresses or the caching of IP addresses to physical address bindings or the use of log-in information to control the right of access to networks or services.

The service provider may process traffic data regarding subscribers and users where necessary in individual cases in order to detect technical failure or errors in the transmission of communications. Traffic data needed for billing purposes may also be processed by the provider in order to detect and stop fraud consisting of unpaid use of the electronic communications service.

According to the Personal Data Protection Directive of the Regulatory Framework 2002, systems for the provision of electronic communications networks and services should be developed to limit the amount of personal data necessary to a strict

minimum. Any activities regarding the provision of the electronic communications service that go beyond the transmission of a communication and the billing thereof is required to be based on aggregated, traffic data that cannot be related to subscribers or users. Where such activities cannot be based on aggregated data, they are required to be considered as value added services for which the consent of the subscriber is needed.

Whether the consent to be obtained for the processing of personal data with a view to presenting a particular value added service should be that of the user or of the subscriber, will depend on the data to be processed and on the type of service to be provided and on whether it is technically, procedurally and contractually possible to distinguish the individual using an electronic communications service from the legal or natural person having subscribed to it.

Where the provider of an electronic communications service or of a value added service subcontracts the processing of personal data necessary for the provision of these services to another entity, such subcontracting and subsequent data processing are required to be in full compliance with the requirements regarding controllers and processors of personal data as established in Directive 95/46/EC.

It is necessary, as regards calling line identification, to protect the rights of the calling party to withhold the presentation of the identification of the line from which the call is being made and the right of the called party to reject calls from unidentified lines. There is justification for overriding the elimination of calling line identification presentation in specific cases. Certain subscribers, in particular help lines and similar organizations, have an interest in guaranteeing the anonymity of their callers. It is necessary, as regards connected line identification, to protect the right and the legitimate interest of the called party to withhold the presentation of the identification of the line to which the calling party is actually connected, in particular in the case of forwarded calls. The providers of publicly available electronic communications services should inform their subscribers of the existence of calling and connected line identification in the network and of all services which are offered

on the basis of calling and connected line identification as well as the privacy options which are available. This will allow the subscribers to make an informed choice about the privacy facilities they may want to use. The privacy options which are offered on a per-line basis do not necessarily have to be available as an automatic network service but may be obtainable through a simple request to the provider of the publicly available electronic communications service.

In digital mobile networks, location data giving the geographic position of the terminal equipment of the mobile user are processed to enable the transmission of communications. However, in addition, digital mobile networks may have the capacity to process location data which are more precise than is necessary for the transmission of communications and which are used for the provision of value added services such as services providing individualized traffic information and guidance to drivers. The processing of such data for value added services should only be allowed where subscribers have given their consent. Even in cases where subscribers have given their consent, they should have simple means to temporarily deny the processing of location data, free of charge.

Directories of subscribers to electronic communications services are widely distributed and public. The right to privacy of natural persons and the legitimate interest of legal persons require that subscribers are able to determine whether their personal data are published in a directory and if so, which. Providers of public directories should inform the subscribers to be included in such directories of the purposes of the directory and of any particular usage which may be made of electronic versions of public directories especially through search functions embedded in the software, such as reverse search functions enabling users of the directory to discover the name and address of the subscriber on the basis of telephone number only.

The obligation to inform subscribers of the purpose(s) of public directories in which their personal data are to be included should be imposed on the party collecting data for such inclusion. Where the data may be transmitted to one or more third parties,

the subscriber should be informed of this possibility and of the recipient or the categories of possible recipients. Any transmission should be subject to the condition that the data may not be used for other purposes than those for which they are collected. If the party collecting the data from the subscriber or any third party to whom the data have been transmitted wishes to use the data for an additional purpose, the renewed consent of the subscriber is to be obtained either by the initial party collecting the data or by the third party to whom the data have been transmitted.

Safeguards should be provided for subscribers against intrusion of their privacy by unsolicited communications for direct marketing purposes in particular by means of automated calling machines, telefaxes and e-mails, including SMS messages. These forms of unsolicited commercial communications may one the one hand be relatively easy and cheap to send and on the other may impose a burden and/or cost on the recipient. Moreover, in same case their volume may also cause difficulties for electronic communications networks and terminal equipment. For such forms of unsolicited communications for direct marketing, it is justified to require that prior explicit consent of the recipients is obtained before such communications are addressed to them. The single market requires a harmonized approach to ensure simple, Community-wide rules for businesses and users.

Within the context of an existing customer relationship, it is reasonable to allow the use of electronic contact details for the offering of similar products or services, but only by the same company that has obtained the electronic contact details in accordance with Directive 95/46/EC. When electronic contact details are obtained, the customer should be informed about their further use for direct marketing in a clear and distinct manner, and be given the opportunity to refuse such usage. This opportunity should continue to be offered with each subsequent direct marketing message, free of charge, except for any costs for the transmission of this refusal.

Other forms of direct marketing that are more costly for the sender and impose no financial costs on subscribers and users, such as person-to-person voice telephony

calls, may justify the maintenance of a system giving subscribers or users the possibility to indicate that they do not want to receive such calls. Nevertheless, in order not to decrease existing levels of privacy protection, Member States should be entitled to uphold national systems, only allowing such calls to subscribers and users who have given their prior consent.

To facilitate effective enforcement of Community rules on unsolicited messages for direct marketing, it is necessary to prohibit the use of false identities or false return addresses or numbers while sending unsolicited messages for direct marketing purposes.

The functionalities for the provision of electronic communications services may be integrated in the network or in any part of the terminal equipment of the user, including the software. The protection of the personal data and the privacy of the user of publicly available electronic communications services should be independent of the configuration of the various components necessary to provide the service and of the distribution of the necessary functionalities between these components. Directive 95/46/EC covers any form of processing of personal data regardless of the technology used. The existence of specific rules for electronic communications services alongside general rules for other components necessary for the provision of such services may not facilitate the protection of personal data and privacy in a technologically neutral way. It may therefore be necessary to adopt measures requiring manufacturers of certain types of equipment used for electronic communications services to construct their product in such a way as to incorporate safeguards to ensure that the personal data and privacy of the user and subscriber are protected. The adoption of such measures in accordance with Directive 1999/5/EC of the European Parliament and of the Council of 9 March 1999 on radio equipment and telecommunications terminal equipment and the mutual recognition of their conformity will ensure that the introduction of technical features of electronic communication equipment including software for data protection purposes is harmonized in order to be compatible with the implementation of the internal market.

Where the rights of the users and subscribers are not respected, national legislation should provide for judicial remedies. Penalties should be imposed on any person, whether governed by private or public law, who fails to comply with the national measures.

Where presentation of calling line identification is offered, the service provider must offer the calling user the possibility, using a simple means and free of charge, of preventing the presentation of the calling line identification on a per-call basis. The calling subscriber must have this possibility on a per-line basis.

Where presentation of calling line identification is offered, the service provider must offer the called subscriber the possibility, using a simple means and free of charge for reasonable use of this function, of preventing the presentation of the calling line identification of incoming calls.

Where presentation of calling line identification is offered and where the calling line identification is presented prior to the call being established, the service provider must of the called subscriber the possibility, using a simple means, of rejecting incoming calls where the presentation of the calling line identification has been prevented by the calling user or subscriber.

Where presentation of connected line identification is offered, the service provider must offer the called subscriber the possibility, using a simple means and free of charge, of preventing the presentation of the connected line identification to the calling user.

3.4.1. Security

The provider of a publicly available electronic communications service must take appropriate technical and organizational measures to safeguard security of its services, if necessary in conjunction with the provider of the public communications network with respect to network security. Having regard to the state of the article and

the cost of their implementation, these measures need to ensure a level of security appropriate to the risk presented.

In case of a particular risk of a breach of the security of the network, the provider of a publicly available electronic communications service must inform the subscribers concerning such risk and, where the risk lies outside the scope of the measures to be taken by the service provider, of any possible remedies, including an indication of the likely costs involved.

3.4.2. Confidentiality of the Communications

Member States are required to ensure the confidentiality of communications and the related traffic data by means of a public communications network and publicly available electronic communications services, through national legislation. In particular, they need to prohibit listening, tapping, storage or other kinds of interception or surveillance of communications and the related traffic data by persons other than users, without the consent of the users concerned, except when legally authorized to do so.

Member States need to ensure that the use of electronic communications networks to store information or to gain access to information stored in the terminal equipment of a subscriber or user is only allowed on condition that the subscriber or user concerned is provided with clear and comprehensive information in accordance with Directive 95/46/EC, with purposes of the processing, and is offered the right to refuse such processing by the data controller. This should not prevent any technical storage or access for the sole purpose of carrying out or facilitating the transmission of a communication over an electronic communications network, or is strictly necessary in order to provide an information society explicitly requested by the subscriber or user.

3.4.3. Traffic Data

Traffic data relating to subscribers and users processed and stored by the provider of a public communications network or publicly available electronic communications service must be erased or made anonymous when it is no longer needed for the purpose of the transmission of a communication.

Traffic data necessary for the purposes of subscriber billing and interconnection payments may be processed. Such processing is permissible only up to the end of the period during which the bill may lawfully be challenged or payment pursued.

For the purpose of marketing electronic communications services or for the provision of value added services, the provider of a publicly available electronic communications service may process the data to the extent and for the duration necessary for such services or marketing, if the subscriber or user to whom the data relate has given his/her consent. Users or subscribers should be given the possibility to withdraw their consent for the processing of traffic data at any time.

Processing of traffic data must be restricted to persons acting under the authority of providers of the public communications networks and publicly available electronic communications services handling billing or traffic management, customer enquiries, fraud detection marketing electronic communications services or providing a value added service, and must be restricted to what is necessary for the purposes of such activities.

3.4.4. Itemised Billing

The introduction of itemized bills has improved the possibilities for the subscriber to check the accuracy of the fees charged by the service provider but, at the same time, it may jeopardize the privacy of the users of publicly available electronic communications services. Therefore, in order to preserve the privacy of the user, Member States are required to encourage the development of electronic

communication service options such as alternative payment facilities which allow anonymous or strictly private access to publicly available electronic communications services, for example calling cards and facilities for payment by credit card. To the same end, Member States may ask the operators to offer their subscribers a different type of detailed bill in which a certain number of digits of the called number have been deleted.

Subscribers should have the right to receive non-itemised bills. Member States are obliged to apply national provisions in order to reconcile the rights of subscribers receiving itemized bills with the right to privacy of calling users and called subscribers, for example by ensuring that sufficient alternative privacy enhancing methods of communications or payments are available to such users and subscribers.

3.4.5. Presentation and Restriction of Calling and Connected Line Identification

Member States may limit the users' and subscribers' rights to privacy with regard to calling line identification where this is necessary to trace nuisance calls and with regard to calling line identification and location data where this is necessary to allow emergency services to carry out their tasks as effectively as possible. For these purposes, Member States may adopt specific provisions to entitle providers of electronic communications services to provide access to calling line identification and location data without the prior consent of the users or subscribers concerned.

Safeguards should be provided for subscribers against the nuisance which may be caused by automatic call forwarding by others. Moreover, in such cases, it must be possible for subscribers to stop the forwarded calls being passed on to their terminals by simple request to the provider of the publicly available electronic communications service.

3.4.6. Location Data other than Traffic Data

Where location data other than traffic data, relating to users and subscribers of public communications networks or publicly available electronic communications services,

can be processed, such data may only be processed when they are made anonymous, or with the consent of the users or subscribers to the extent and for the duration necessary for the provision of a value added service. The service provider must inform the users or subscribers, prior to obtaining their consent, of the type of location data other than traffic data which will be processed, of the purposes and duration of the processing and whether the data will be transmitted to a third party for the purpose of providing the value added service. Users or subscribers should be given the possibility to withdraw their consent for the processing of location data other than traffic data at any time.

Where consent of the users or subscribers has been obtained for the processing of location data other than traffic data, the user or subscriber must continue to have the possibility, using a simple means and free of charge, of temporarily refusing the processing of such data for each connection to the network or for each transmission of a communication.

3.4.7. Technical Features and Standardisation

Member States are obliged to ensure that no mandatory requirements for specific technical features are imposed on terminal or other electronic communication equipment which could impede the placing of equipment on the market and the free circulation of such equipment in and between Member States.

3.5. THE AUTHORIZATION OF ELECTRONIC COMMUNICATIONS NETWORKS AND SERVICES

The consequences of the public consultation on the 1999 review of the regulatory framework for electronic communications, as reflected in the Commission communication of 26 April 2000, and the finding reported by the Commission in its communications on the fifth and sixth reports on the implementation of the telecommunications regulatory package, has confirmed the need for a more harmonized and less onerous market access regulation for electronic communications

networks and services throughout the Community. Convergence between different electronic communications networks and services and their technologies requires the establishment of an authorization system covering all comparable services in a similar way regardless of the technologies used. The Authorization Directive of the Regulatory Framework 2002 contains essential provisions, which are explained below, for the purpose of establishment of a sound authorization system.

3.5.1. General Authorisation of Electronic Communications Networks and Services

According to the Authorization Directive of the Regulatory Model 2002, Member States are required to ensure the freedom to provide electronic communications networks and services. To this end, Member States are obliged not to prevent an undertaking from providing electronic communications networks and services, except where this is necessary for the reasons identified in Article 46(1) of the Treaty.

The provision of electronic communications networks or the provision of electronic communications services may only be subject to a general authorisation. The undertaking concerned may be required to submit a notification but may not be required to obtain an explicit decision or any other administrative act by the national regulatory authority before exercising the rights stemming from the authorisation. Upon notification, when required, an undertaking may begin activity.

3.5.2. Minimum List of Rights Derived from the General Authorisation

Under the Authorization Directive, undertakings authorized are given the right to:
(a) provide electronic communications networks and services;
(b) have their application for the necessary rights to install facilities considered in accordance with Article 11 of Directive 2002/21/EC (Framework Directive).

When such undertakings provide electronic communications networks or services to the public the general authorisation should also give them the right to:
(a) negotiate interconnection with and where applicable obtain access to or interconnection from other providers of publicly available communications networks and services covered by a general authorization anywhere in the Community under the conditions of and in accordance with Directive 2002/19/EC (Access Directive);
(b) be given an opportunity to be designated to provide different elements of a universal service and/or to cover different parts of the national territory in accordance with Directive 2002/22/EC of the European Parliament and of the Council of 7 March 2002 on universal service and users' rights relating to electronic communications networks and services (Universal Service Directive).

3.5.3. Rights of Use for Radio Frequencies and Numbers

The Authorization Directive requires Member States not to, where possible, especially where, the risk of harmful interference is negligible, make the use of radio frequencies subject to the grant of individual rights of use but should include the conditions for usage of such radio frequencies in the general authorization. Where it is necessary to grant individual rights of use for radio frequencies and numbers, Member States should grant such rights, upon request, to any undertaking providing or using networks or services under the general authority and any other rules ensuring the efficient use of those resources in accordance with Directive 2002/21/EC (Framework Directive).

Without violating specific criteria and procedures adopted by Member States to grant rights of use of radio frequencies to providers of radio or television broadcast content services with a view to pursuing general interest objectives in conformity with Community law, such rights of use are required to be granted through open, transparent and non-discriminatory procedures. When granting rights of use, Member States need to specify whether those rights can be transferred at the initiative of the right holder, and under which conditions, in the case of radio frequencies, in accordance with Article 9 of Directive 2002/21/EC (Framework Directive). Where

Member States grant rights of use for a limited period of time, the duration should be appropriate for the service concerned.

Decisions on rights of use should be taken, communicated and made public as soon as possible after receipt of the complete application by the national regulatory authority, within three weeks in the case of numbers that have been allocated for specific purposes within the national numbering plan and within six weeks in the case of radio frequencies that have been allocated for specific purposes within the national frequency plan.

3.5.4. Conditions attached to the general authorization and to the rights of use for radio frequencies and for numbers and specific obligations

According to the Current Authorization Directive, specific obligations which may be imposed on providers of electronic communications networks and services under Articles 5(1), 5(2), 6 and 8 of Directive 2002/19/EC (Access Directive) and Articles 16, 17, 18 and 19 of Directive 2002/22/EC (Universal Service Directive) or on those designated to provide universal service under the said Directive need to be legally separate from the rights and obligations under the general authorisation. In order to achieve transparency for undertakings, the criteria and procedures for imposing such specific obligations on individual undertakings are required to be referred to in the general authorisation.

Where a Member State is considering whether to limit the number of rights of use to be granted for radio frequencies, it is obliged to:

(a) give due weight to the need to maximize benefits for users and to facilitate the development of competition;
(b) give all interested parties, including users and consumers, the opportunity to express their views on any limitation in accordance with Article 6 of Directive 2002/21/EC (Framework Directive):

(c) publish any decision to limit the granting of rights of use, stating the reasons therefore;
(d) after having determined the procedure, invite applications for rights of use; and
(e) review the limitation at reasonable intervals or at the reasonable request of affected undertakings,

Where a Member State concludes that further rights of use for radio frequencies can be granted it is required to publish that conclusion and invite applications for such rights. Where the granting of rights of use for radio frequencies needs to be limited, Member States need to grant such rights on the basis of selection criteria which must be objective, transparent, non-discriminatory and proportionate.

3.5.5. Harmonized Assignment of Radio Frequencies

Where the usage of radio frequencies has been harmonized, access condition and procedures have been agreed, and undertakings to which the radio frequencies will be assigned have been selected in compliance with international agreements and Community rules, Member States are required to grant the right of use for such radio frequencies in accordance therewith. Provided that all national conditions attached to the right to use the radio frequencies concerned have been satisfied in the case of a common selection procedure, Member States are not allowed to impose any additional conditions, additional criteria or procedures which would hinder, change or delay the correct implementation of the common assignment of such radio frequencies.

3.5.6. Declarations to Facilitate the Exercise Rights to Install Facilities and Rights of Interconnection

At the request of an undertaking, national regulatory authorities are obliged to, within one week, issue standardized declarations, confirming, where applicable, that the undertaking has submitted a notification under Article 3(2) and detailing under what circumstances any undertaking providing electronic communications networks

and services under the general authorization has the right to apply for rights to install facilities, negotiate interconnection, and/or obtain access or interconnection in order to facilitate the exercise of those rights for instance at other levels of government or in relation to other undertakings.

3.5.7. Compliance with the Condition of the General Authorisation or of Rights of Use and with Specific Obligations

National regulatory authorities may require undertakings providing electronic communications networks or services subject to the general authorisation or enjoying rights of use for radio frequencies or numbers to provide information necessary to verify compliance with the conditions of the general authorisation or of rights of use or with the specific obligations.

Where a national regulatory authority finds that an undertaking does not comply with one or more of the conditions of the general authorisation, or of rights of use or with the specific obligations referred to in Article 6(2), it is required to notify the undertaking of those findings and give the undertaking a reasonable opportunity to state its views or remedy any breaches within:
- one month after notification, or
- a shorter period agreed by the undertaking or stipulated by the national regulatory authority in case of repeated breaches, or
- a longer period decided by the national regulatory authority

If the undertaking in question does not remedy the breaches within the period the relevant authority is required to take appropriate and proportionate measures aimed at ensuring compliance. In this respect, Member States may give the relevant authorities the power to impose financial penalties where appropriate. The measures and the reasons on which they are based should be communicated to the undertaking concerned within one week of their adoption and need to stipulate a reasonable period for the undertaking to comply with the measure.

Member States may empower the relevant authority to impose financial penalties where appropriate on undertakings for failure to provide information in accordance with obligations imposed under Article 11(1)(a) or (b) of this Directive or Article 9 of Directive 2002/19/EC (Access Directive) within a reasonable period stipulated by the national regulatory authority.

In cases of serious and repeated breaches of the conditions of the general authorisation, the rights of use or specific obligations referred to in Article 6(2), where measures aimed at ensuring compliance have failed, national regulatory authorities may prevent an undertaking from continuing to provide electronic communications networks or services or suspend or withdraw rights of use.

3.5.8. Information required under the General Authorisation, for rights of use and for the Specific Obligations

Without violating information and reporting obligations under national legislation other than the general authorisation, national regulatory authorities may only require undertakings to provide information under the general authorisation, for rights of use or the specific obligations that is proportionate and objectively justified for:

(a) case-by-case verification of compliance with conditions where a complaint has been received or where the national regulatory authority has other reasons to believe that a condition is not complied with or in case of an investigation by the national regulatory authority on its own initiative;

(b) procedures for and assessment of requests for granting rights of use;

(c) publication of comparative overviews of quality and price of services for the benefit of consumers;

(e) clearly defined statistical purposes;

(d) market analysis for the purposes of Directive 2002/19/EC (Access Directive) or Directive 2002/22/EC (Universal Service Directive)

3.5.9. Administrative Charges

Any administrative charges imposed on undertakings providing a service or a network under the general authorization or to whom a right of use has been granted need:

(a) in total, cover only the administrative costs which will be incurred in the management, control and enforcement of the general authorisation scheme and of rights of use and of specific obligations, which may include costs for international cooperation, harmonisation and standardisation, market analysis, monitoring compliance and other market control, as well as regulatory work involving preparation and enforcement of secondary legislation and administrative decisions, such as decisions on access and interconnection; and

(b) be imposed upon the individual undertakings in an objective, transparent and proportionate manner which minimises additional administrative costs and attendant charges.

3.5.10. Fees for Rights of Use and Rights to Install Facilities

Member States may allow the relevant authority to impose fees for the rights of use for radio frequencies or numbers or rights to install facilities on, over or under public or private property which reflect the need to ensure the optimal use of these resources. Member States are required to ensure that such fees should be objectively justified, transparent, non-discriminatory and proportionate.

4. THE COMMISSION REVIEW OF 2006

The Last Commission Review, which took place in 2006, has provided important insights into the future of the Regulatory Framework 2002. The current directives of the telecommunications sector have been subject to amendments suggested by the Review. There are two major areas of changes identified in the Commission Review of 2006 and these are as follows:

i. application of the Commission's policy approach on spectrum management, as set out by the Commission in its Communication of September 20051
ii. reduction of the procedural burden associated with the reviews of markets susceptible to ex-ante regulation.

Other proposed changes seek to:

i. consolidate the internal market,
ii. strengthen consumers and user interests,
iii. improve security and
iv. remove outdated provisions.

Changes to the regulatory framework require new EU legislation, and any new legislative provisions would be expected to come into force around 2009/2010 and remain in force until around 2015.

4.1. NEW APPROACH TO SPECTRUM MANAGEMENT: FLEXIBILITY AND COORDINATION

The demand for radio spectrum for electronic communications services and networks, such as mobile, wireless and satellite communications, TV and radio broadcasting, and other radio applications like short-range devices, defence, transport, radio location and the GPS/Galileo satellite system, has increased dramatically during the last decade, and this trend is expected to continue. National

borders are increasingly irrelevant to wireless electronic services and many operators and equipment manufacturers operate globally.

In the area of electronic communication services, conditions for access to, and use of, radio resources still vary according to the type of operator, for example, between mobile operators and broadcasters, while the electronic services provided by these operators increasingly overlap. These divergences create tensions between rights holders and in their demand for spectrum, and discrepancies in the implied value of the spectrum being used. Moreover, the gap between market demand and the supply under current spectrum distribution practices impairs efficient use of spectrum and the development of a genuine internal market. Inefficient spectrum use creates costs and reduces the take-up of innovative services, to the detriment of consumers and the wider economy.

The current regulatory framework for electronic communications establishes general principles for spectrum management which are difficult to implement in practice and do not ensure coherence at EU level, with the exception of the coordination of technical radio spectrum usage conditions pursuant to the Radio Spectrum Decision6 and equipment regulation under the R&TTE Directive. The legal framework needs be modified to achieve further coherence and coordination at EU level and ensure suitable mechanisms for spectrum management.

The baseline approach, as already laid down in the current framework, is to include the conditions for using spectrum in general authorisations for the provision of electronic communication services, with the objective to reduce hurdles to market entry as much as possible.

This approach is well reflected where spectrum access is operated on an ‘unlicensed’ basis. However, a more common practice is to grant exclusive usage rights on the basis of individual licences, in order to guarantee an appropriate level of protection against harmful interference. As a general trend, technological progress is

progressively reducing the risk of harmful interference and therefore making the use of individual rights less necessary in certain bands.

4.1.1. Introducing the freedom to use any technology in a spectrum band (technology neutrality)

The lack of flexibility in spectrum management constitutes a bottleneck for new radio technologies, yields inefficient spectrum use and artificially restricts innovation to the detriment of the internal market. It is therefore proposed to increase such flexibility, and to provide a stronger legal basis for the principle of technology neutrality, whereby spectrum users would be free to use any type of radio network or access technology in a given spectrum band to provide a service.

The entire spectrum used for electronic communications would be made subject to technology neutrality. However, limits to technology neutrality could be imposed on the grounds of ensuring proper sharing of generally authorised spectrum, avoiding harmful interference, or limiting public exposure to electromagnetic fields. Any additional exceptions to technology neutrality would need to be strictly justified on the basis of a limited number of legitimate general interest objectives.

4.1.2. Introducing the freedom to use spectrum to offer any electronic communications service (service neutrality)

The principle of service neutrality would complement the principle of technological neutrality, by allowing owners of spectrum usage rights the freedom to provide any type of electronic communications service in that spectrum. With appropriate transitional measures, it should, as a general principle, apply to all bands used for electronic communications. The current regulatory framework already calls for the least burdensome restriction on the freedom to provide services, but this principle needs to be strengthened. It is therefore proposed to reinforce the obligation to apply the principle of service neutrality when issuing rights to use spectrum and to include the conditions and necessary transitory measures for its implementation.

Exceptions to service neutrality would need to be proportionate, time-limited, non-exclusive, justified and necessary to achieve a limited number of legitimate general-interest objectives. Such objectives could be audiovisual policy, promotion of cultural and linguistic diversity and media pluralism, establishment of services with a pan-European coverage or safety of life. A mechanism will be needed to coordinate at Community level, where necessary, the definition of such general interest objectives and their application to a given band.

4.1.3. Facilitating Access to Radio Resources: Coordinated Introduction of Trading in Rights of Use

The Commission presented its general approach to spectrum trading in 2005, with the aim of optimising the efficiency of spectrum use and reducing the burden on access to spectrum where individual usage rights apply. It built upon the opinion of the Radio Spectrum Policy Group11 which endorsed the principle of the coordinated introduction of spectrum trading in appropriate circumstances. In specific spectrum bands identified to this end and subject to individual rights, tradability would apply throughout the EU.

Spectrum tradability - combined with technology and service neutrality and applied to a sufficient amount of spectrum - would ensure a high level of fluidity of radio resources and reduce the direct and indirect costs of obtaining usage rights. Under the proposal, trading would gradually replace the administrative management method for individual rights. Spectrum authorities would retain the power to regain control of the bands from the users, against a fair compensation, where justified by specific general interest objectives. Such objectives could be the introduction of a pan-European service or the EU-wide application of general authorisations in a band where technical developments so allow.

It is therefore proposed to establish a committee mechanism whereby potentially tradable bands are identified jointly by Member States and the Commission, so that

tradability under common conditions can be applied throughout the EU. The mechanism will include appropriate measures to ensure a smooth transition from existing rights to tradable rights in specific bands, inasmuch as existing spectrum rights should not automatically become tradable to avoid competition distortions. Also, public authorities would retain the right to take action, where justified, so as to ensure that trading does not lead to a distortion of competition.

4.1.4. Establish Transparent and Participative Procedures for Allocation

Where allocation of spectrum to specific technologies or services remains necessary, such allocation reduces the freedom of users to choose the type of service or technology they could provide or use. Under Article 9 of the Framework Directive, allocation must be based on objective, transparent, non-discriminatory and proportionate criteria.

To ensure the effective implementation of such criteria as well as of the general principle of consultation in Article 6 of the Framework Directive, it is proposed to introduce rules so that allocation would be subject to appropriate public consultation, and to include guarantees similar to those applicable to the procedure used to limit the number of spectrum usage rights under Article 7 of the Authorisation Directive.

4.1.5. Improve Coordination at EU Level via a Wider Application of Committee Mechanisms

Implementation of the new approach described above would require decision mechanisms that yield binding results to be commonly applied by all Member States under their national powers to manage spectrum. Such mechanisms should be robust enough to produce results applicable in all Member States, allow for comparatively fast adoption of measures, and facilitate implementation at national level.

Proposed areas where such decision mechanism would be applied are:

i. identification of the bands where the use of spectrum throughout Europe should be made subject to general authorisations only (e.g. unlicensed bands) and coordination of the conditions applicable to the use of spectrum in those bands;
ii. identification of the bands where spectrum rights should be made tradable;
iii. definition of the minimum format of the rights to be made tradable;
iv. availability, accessibility and reliability of information necessary to establish a functioning spectrum trading environment;
v. definition of any specific requirements aimed at protecting competition in relation to the tradability of rights;
vi. adoption of common criteria to solve legacy issues, i.e. for the transformation of existing rights into tradable rights, or for subjecting specific bands to general authorisations; this may also include spectrum refarming and compensation mechanisms;
vii. where necessary, the common definition of exceptions to technology or service neutrality;
viii. development of a common approach to service authorisation with pan-European or internal market dimension

4.2. STREAMLINING MARKET REVIEWS

4.2.1. Relaxing Notification Requirements for Article 7 Procedures

By 2010, NRAs in all 25 Member States will have conducted at least two and possibly three market reviews under the current notification procedure in Article 7 of the Framework Directive. The procedure requires regulators to make draft measures "accessible to the Commission and to the national regulatory authorities in other Member States, together with the reasoning on which the measure is based" (Article 7(3) of the Framework Directive) in a form that would allow the measures to be assessed for their potential to create a barrier to the internal market or as to their compatibility with Community law.

In the light of experience with the Article 7 procedure, the Commission suggested that the process could be streamlined while preserving the Commission's role in ensuring consistency of regulation within the internal market. Based on this experience, a relaxation of the current notification requirements could be introduced. NRAs would still be obliged to conduct market reviews and undertake national and European consultations, but for certain market analyses and notifications the current level of detail would no longer be required; a simplified procedure would be introduced that could apply to the following categories of cases:

– notifications of markets which were found to be competitive in the previous review, unless substantial changes in competitive conditions have occurred since that review;
– notifications where only minor changes to previously notified measures are proposed (such as the details of a remedy).

For cases falling under the simplified procedure, a standard notification form could be established to limit the information required to a minimum so as to reduce significantly the administrative burden for NRAs, operators and the Commission. In such cases, in exceptional circumstances where the Commission detected serious problems with the measures under consultation, it could still require the measure to be notified in full. Also, in the case of Member States that had recently joined the EU, the Commission would routinely require a first complete round of market analyses to be notified in full.

4.2.2. Rationalizing the Market Review Procedures in a Single Instrument Including Timetables

At present, some of the procedural elements of the Article 7 procedure are contained in the Framework Directive and others are in a (non-binding) Commission Recommendation (Commission Recommendation C(2003) 2647 of 23 July 2003). In the short term, it is proposed to issue a revised version of the procedural Recommendation to initiate the simplified notification procedures from 2007.

In the longer term, it is proposed to modify the framework to gather all of these procedural elements together into a single Regulation that would replace the current Recommendation and certain parts of the Framework Directive. In addition, the proposed Regulation could set a precise and legally binding timetable, using defined triggers, for initiating and for completing future market analyses and for the imposition or removal of remedies. Changes could be introduced to lay down a deadline for the start of market analyses, such as within twelve months of the adoption of a revised Commission Recommendation on relevant markets. Once started, all market reviews would have to be completed within a further fixed time period, such as 12 months. A prescribed timetable for completion of market reviews would also be relevant to future accession countries for their initial reviews.

4.2.3. Minimum Standard for Notifications

In many past cases, the Commission had to ask for further information from the NRA in order to make an effective assessment of a notification. Also, NRAs had occasionally chosen to split the notification process into two parts, the first dealing with market definition and/or SMP assessment, and the second dedicated to either proposed remedies or SMP assessment and proposed remedies. The Commission found this approach inefficient.

More efficiency in the market review procedure could be achieved if the requirements for notifications were set out by a binding legal instrument. The proposed Regulation would require NRAs to include, in their notifications, all three aspects of the Article 7 market review mechanism, i.e., the definition of the relevant market, the assessment of SMP and the imposition or withdrawal of the relevant remedies; the Regulation could also require NRAs to provide the necessary information and analysis for a proper evaluation according to a standard template.

4.2.4. Re-notifications after Vetoes

Although the Commission has issued relatively few 'veto' decisions, it has been found in some cases that the NRA does not carry out and re-notify a revised market review. The proposed Regulation could therefore also include a requirement for regulators to re-notify their re-assessment and revision of the initial market reviews, within a specified time period (e.g., 6 months), where the Commission has issued a 'veto' on the first notification. The duration of the national consultation would be a matter for the NRAs.

4.3. CONSOLIDATING THE INTERNAL MARKET

4.3.1. Commission Veto under the "Article 7 Procedure"

In order to contribute to the development of the internal market, the Commission proposed to extend the veto powers under the market review procedure to include proposed remedies. Such an extension would contribute to a consistent approach to the way remedies are applied across Europe and improve the competitive environment within the internal market. The Commission would not have the power to replace an NRA remedy by one of its own, but would indicate the problems with the remedy proposed by the NRA in its justification for the veto decision. Based on experience to date, and prior to the entry into force of any new provisions, the Commission would provide an analysis of the lessons learnt from earlier market analyses, to provide guidance on formulating appropriate and proportionate remedies.

The impact was expected to make the market review procedure more transparent, to diminish the burden of conducting this procedure and would positively affect the development of the internal market. As a result, the effectiveness of the ex ante regulatory mechanism in the regulatory framework was foreseen to be improved.

4.3.2. Making the Appeals Mechanism More Effective

Article 4 Framework Directive in the current regulatory framework required that an effective appeal mechanism at national level should have been available for any party to appeal against an NRA decision. Pending the outcome of such an appeal, the regulator's decision should in principle be maintained. Some countries have relatively efficient national appeal processes. Others have systems that take years to reach a final outcome and systematically suspend regulatory decisions during the appeal process. When courts routinely suspend an NRA decision pending the outcome of appeals, it creates an incentive for undertakings systematically to use the appeal process as a delaying tactic. Delaying the application of regulatory measures can hinder the development of competition in the relevant market as well the consolidation of the internal market, to the detriment of other market players who would benefit from the disputed regulatory measures.

The proposed approach would be to deal with the problem of routine suspension of regulatory decisions by amending the provisions of Article 4 so as to lay down legal criteria, based on European case-law, that national courts must use in deciding whether to suspend NRA decisions on appeal, i.e. NRA decisions should be suspended only where irreparable harm to the appellant can be shown. The effect of this measure would be to harmonise the treatment of requests for suspension as well as to reduce significantly the number of appeals not serious or without good will.

It is proposed to introduce a mechanism for Member States to report on the timing and the number of appeals and suspended opinions to allow the situation across the EU to be monitored.

4.3.3. Common approach to the authorisation of services with pan-European or internal market dimension

The deployment of services with a pan-European footprint or where a presence in many or all Member States creates an economy of scale is both an opportunity to

reinforce the internal market and an unavoidable trend as markets emerge at the pan-European level. The development of interoperable services and the marketing of communications equipment become more attractive if the permitted conditions of use are common throughout the EU. However, authorising the deployment of such services and the production and distribution of related equipment on a European scale are critically dependent on a coherent and efficient regulatory procedure, for access to scarce resources such as numbers or radio spectrum.

The arrangements in the current regulatory framework shaped in 2002 for authorising such services are complex, as service providers still need to comply with essentially national procedures. Although the current regulatory framework establishes general authorisations as the norm, the practice shows that most often individual rights of use are required at national level for using scarce resources. These rights are coupled with conditions that may differ among Member States. Furthermore, there are no binding mechanisms to coordinate the issuance of individual rights and the conditions attached thereto, for the provision of services with a pan-European scope or a cross-border dimension. This impacts negatively on industry and delays the achievement of an internal market and hinders the development of wider pan-European services.

The possibility to coordinate usage conditions for certain pan-European services would overcome such difficulties. Agreeing at EU level on the appropriate authorisation approach to be commonly applied would complement the current system of granting rights of use for scarce resources. Where a service has a pan-European scope or internal market relevance, one authorisation granted in one Member State should be valid throughout the EU and be a sufficient condition to provide the service in all Member States, once all the conditions and requirements for the provision of such a service have been agreed. This would considerably facilitate the access of such services to the market and reduce the administrative burden of obtaining authorisations.

To this effect, it was proposed to amend the current provisions of the regulatory framework so as to allow coordination of the following aspects of service authorisation at EU level:

i. qualifying services as having a pan-European scope or an internal market dimension, which would be a pre-condition for using the EU procedure for the coordination of authorisations;
ii. defining authorisations and selection methods, to be commonly applied by all Member States;
iii. defining conditions attached to the rights of use for scarce resources (frequency bands and/or numbers) where appropriate (e.g., maximum duration of the rights of use, technological and operational conditions, etc)20, to be commonly applied by all Member States.

The practical implementation of the authorisation procedure would continue to be managed at national level, such as the assignment of rights of use, monitoring of compliance by undertakings, and the like.

To ensure the effectiveness, legal certainty and speed of the coordination procedures, a decision mechanism was considered as a need. It was proposed to use a committee approach to achieve a consensus among Member States which would then be applied through a subsequent Commission Decision.

4.3.4. Amendment to Article 5 of the Access Directive: Access and Interconnection

Article 5(1) of the Access Directive empowers regulators to impose remedies, under certain conditions, on undertakings without Significant Market Power (SMP) in order to ensure adequate access and interconnection, and the interoperability of services (i.e. end-to-end connectivity) in a way that promotes efficiency, sustainable competition, and gives the maximum benefit to end-users. In order to ensure the consistent application of this provision and avoid the imposition of inconsistent obligations without a market analysis, it was proposed to bring the procedure into

line with that to be followed by regulators (in Article 8(3) of the Access Directive) when they intend, under exceptional circumstances, to impose remedies other than those defined in the Access Directive.

It was proposed that NRAs should have submitted a request to the Commission for authorisation to impose an obligation on a non-SMP undertaking. The Commission could take a decision under an advisory committee procedure to authorise or prevent the adoption of the relevant measure. This would prevent the risk of over-regulation and a fragmentation of the Internal Market through the imposition of inconsistent non-SMP obligations.

4.3.5. Introducing a procedure for Member States to agree common requirements related to networks or services

It is in the interests of the EU for Member States to agree common requirements to facilitate some forms of interoperability in electronic communications networks or services. One example is the development of common requirements for the interface between network operators and public safety answering points for the handover of emergency calls. Other examples can be found in data retention or network security. Typically the development of such common requirements entails a tight co-operation between different networks and/or organisations.

Standardisation in the EU is a voluntary industry-led process, although there is provision in the regulatory framework to make certain standards mandatory if necessary. Because it is a voluntary process, stakeholders active in the standardisation bodies may not reach consensus on developing standards for regulatory purposes. In the absence of such standards, Member States tend to impose their own requirements on suppliers.

The proposal of the 2006 Review was to establish a mechanism whereby a common set of requirements for certain features or certain forms of interoperability needed to support regulation in critical areas could be agreed at EU level. These common

requirements would then be passed to European standards bodies for development of the appropriate technical standards.

4.3.6. Broadening the scope of technical implementing measures taken by the Commission on numbering aspects

The current provisions under EU law allow the Commission to take technical implementing measures in the field of numbering where there is a need for harmonisation of numbering resources "to support the development of pan-European services" (Article 10(4) of the Framework Directive) . There is scope for increased coordination at EU level - and cooperation among Member States – on numbering aspects and associated tariff schemes with a view to improving certain services across the EU.

In the Review of 2006, it was proposed to enable the Commission to take - where appropriate - harmonisation measures to ensure a coherent and common approach supporting the development of the internal market for certain services. While the assignment of numbering resources would remain the sole responsibility of the Member States, it was proposed to broaden the scope of technical implementing measures that the Commission could adopt, assisted by a committee procedure, in the area of numbering management.

4.3.7. Amendment to Article 28 of the Universal Service Directive on non-geographic numbers

The current provisions of the regulatory framework concerning access to non-geographic numbers need to be changed in order take into account technological progress as well as the increasing use of cross-border services using non-geographic numbers. The current provisions have a narrow scope as they apply to non-geographic, telephone-based services; moreover, effective access can be restricted for technical and economic reasons or when the called party has chosen for

commercial reasons to limit access to calling parties located in a specific geographical area.

The proposal is therefore to introduce a more general provision to clarify that end-users have a right to access services using non-geographic numbers, including Information Society services, across borders. This would foster access to all cross-border services (for example to free phone numbers) and remove technological restrictions in the current framework which are no longer justified in the light of the expected upgrading to Next Generation Networks (NGNs). Exceptions would be permitted to combat fraud and abuse (e.g. in connection with premium-rate services).

4.3.8. Improving Enforcement Mechanisms under the Framework

The implementation of the regulatory framework was not considered fully satisfactory in certain respects. Enforcement mechanisms and powers available both to the NRAs (under the Authorisation Directive), and to the Authorities concerned with the implementation of the e- Privacy Directive did not seem to be working effectively and require adjustment.

In response to the Call for Input, the European Regulators Group (ERG) and Member States described their experience to date with the enforcement mechanisms under the regulatory framework. Current measures empowering the NRAs, including the Data Protection Authorities, to impose fines on operators failing to comply with regulatory measures have proved insufficient to provide adequate incentives for compliance, to the detriment of both operators and consumers. Under the Authorisation Directive, operators are given the opportunity to rectify any breaches before penalties are imposed; in practice, undertakings have no incentive to comply immediately with an NRA measure, as they would be able to gain from unfair commercial or anti-competitive practices for a period - including the duration of the NRAs investigation – and can redress the situation after the event, avoiding any penalty for non-compliance for their past conduct.

As regards breaches of the e-Privacy Directive, light sanctions and uneven enforcement have led in some cases to ineffective or insufficient protection of consumer rights in the field of privacy and personal data. In order to create incentives for regulated players to comply with the regulatory framework, new rules were suggested for both the Authorisation Directive and the e-Privacy Directives such that:

• NRAs could be empowered to impose sanctions on undertakings found to have acted in breach of the authorisation conditions even when the undertakings rectify the breach afterwards. Moreover, enforcement provisions could be reinforced by granting NRAs the power to impose significant and dissuasive penalties (e.g. in proportion to turnover, retroactivity, etc.).
• As regards the implementation of the e-Privacy Directive, new rules could be established providing for specific remedies (e.g. an explicit right of action against spammers, possibly on behalf of consumers) or an indication of the level of penalties to be expected for breaches (as above).

4.3.9. Strengthening the obligation on Member States to review and justify 'must carry' rules

'Must carry' rules existed well before the entry into force of the regulatory framework, usually coming under the broadcasting laws of the Member States. They served as one way of enabling broadcasters to meet their public service remit. However, technological progress has significantly changed the conditions under which 'must carry' rules operate. More transmission capacity is now available with even more capacity becoming available after completion of the transition to digital TV. In addition, network penetration has increased and new networks are being rolled-out (fibre, DLS, etc.), offering new services and new ways of delivering existing radio and TV content. The fact that more distribution channels exist does not necessarily mean that 'must-carry' rules have lost their purpose. This would depend on the actual use of these distribution channels and whether or not they meet defined general interest objectives. However, attention must be paid to possible distortions of

competition; ‘must carry’ obligations must be proportionate and transparent. Moreover, ‘must- carry’ obligations of the future must be kept to the minimum necessary to achieve the general interest objectives at stake, and must reflect evolving market and technological developments.

Implementation of the ‘must-carry’ existing provisions has been uneven, and general interest objectives are sometimes not well defined by Member States. To encourage the relevant authorities to properly define their general interest objectives, it was proposed to introduce a deadline for reviewing all national ‘must carry’ rules (e.g., one year following the application of the new legislation). Failure to carry out a review could lead to an infringement procedure. This would ensure that ‘must carry’ rules are not simply carried forward without examination, that they are adapted in line with market and technological developments, and thus that they remain proportionate. To enhance the proportionality of ‘must carry’ rules, Member States would be required to include a justification of their rules in their national laws.

4.3.10. Adapting the regulatory framework to cover telecommunications terminal equipment, ensuring constancy with the R&TTE Directive

The regulatory framework for electronic communications does not cover ‘telecommunications terminal equipment’ as defined in the R&TTE Directive 1999/5/EC24. This separation between terminal and network dates back to the early days of the liberalisation of the telecommunications sector, when Commission Directive 88/301/EEC opened up to competition the market for telecommunications terminal equipment. By contrast, the regulatory framework does have provisions for consumer ‘terminal’ equipment used for broadcast reception, since this was never subject to monopoly supply in the same way as telecommunications equipment.

Addressing this anomaly would require changes in both the R&TTE Directive and the electronic communications framework. As a first step, it was proposed to review the definition of the Network Termination Point in the Universal Service directive and to enable a relaxation of the obligation in the current R&TTE directive for public

network operators to publish their network-terminal interface specifications. According to the Regulatory Framework shaped in 2006, this obligation applies to all types of network. Whilst the objective of maintaining competition in the terminal market should be retained, a general obligation would make it unattractive for manufacturers to co-operate with network operators to innovate. A relaxation of this obligation should therefore be envisaged to promote investment in innovative technologies and networks.

4.4. STRENGTHENING CONSUMER PROTECTION AND USERS' RIGHTS

Universal service and consumer and user rights are covered by the Universal Service Directive which lays down the basic principles for universal service and addresses other specific user and consumer rights, with corresponding obligations on undertakings. The Directive defines universal service as the "minimum set of services, of specified quality to which all end-users have access, at an affordable price in the light of national conditions, without distorting competition". In May 2005 the Commission invited comments on the future evolution of the scope of universal service. The responses indicated acceptance of the need to change the scope of universal service in the long term, but a reluctance to make immediate changes.

4.4.1. Changes Related to Consumer Protection and User Rights

Improving the transparency and publication of information for end-users

Two main problems have been identified in relation to the transparency and publication of consumer information. Firstly, callers are often unable to find out, or are not aware of, which tariff applies to their services. For example, when calling a premium rate number, consumers are not always adequately informed on the price involved or even on the type of service behind the number. Another example is that a mobile call to a number advertised as "freephone" may be not free. Secondly, making price comparisons can be difficult for consumers, particularly in cases of service bundling.

The suggested changes seek to (a) give NRAs powers to require from operators better tariff transparency (with the possibility to agree technical implementing measures at EU level) to ensure that consumers are fully informed of the price before they purchase the service, (b) ensure that third parties have the right to use without charge or hindrance publicly available tariffs published by undertakings providing e-communication services, for the purpose of selling or making available comparative price guides, and c) empower NRAs to make price guides available where the market has not provided them.

i. Improve the transparency and publication of information for end-users
ii. Strengthen the obligation for network operators to pass caller location information to emergency authorities
iii. Separate the provision of access to public communications networks from the provision of telephone services
iv. Remove provisions on universal directories and directory inquiry services from the scope of universal service
v. Adapt 'telephone service specific' provisions to technology and market developments
vi. Update the provisions on number portability to ensure transfer of all relevant data
vii. Ensure that regulators can impose minimum quality of service requirements
viii. Strengthen the right of disabled users to access to emergency services via the number '112'
ix. Introduce a Community mechanism to address e-Accessibility issues

Improving Caller Location Obligations related to Emergency Services

Current provisions in the Regulator Framework of 2002 on calls to the single European emergency number require network providers to make caller location information available to emergency services when this is technically feasible. Technical feasibility can no longer be considered as an obstacle for the provision of caller location with most technologies (PSTN, GSM), and are not expected to be an

issue in 2010-2015 even for a technology like VoIP; therefore, it is proposed to strengthen the obligation for network operators to pass caller location information to emergency authorities, while recognising that some exceptions may be justified in order not to overburden innovative services. Moreover, it was proposed to specify that caller location information should be provided to the emergency authorities in a "push" mode, and the cost of this transmission should be borne by the network operator.

4.4.2. Updating Universal Service

Responses to the 'Call for Input' on the Review, together with contributions received on the Commission consultation on the scope of Universal Service, suggest a need for a fundamental reflection on the role and concept of Universal Service in the 21st century. The issues extend beyond the confines of the review of the framework, touching upon the balance between sector-specific and horizontal rules for protecting consumers, in particular disabled users; the validity of requiring commercial firms to finance directly social obligations; and the feasibility of a one-size-fits-all approach in a Union of 25 Member States.

Separation of Access and Provision of Services

The current EU provision of universal service have been based on the 'traditional model' of a vertically integrated telecommunications operator providing both network access and voice telephony services. As networks move increasingly to IP, voice was expected to become just one application on the IP network. This will create an internet-like model, whereby anyone with an IP connection can choose between a range of competing voice service providers.

To prepare for this, it was proposed to amend the Universal Service Directive to introduce separate obligations on providers of access infrastructure and on providers of services. This change would not affect the scope or provision of universal service to consumers and end users, but would facilitate a future review of the obligations for the provision of telephone service and network access. Linked to this is the need to

update several definitions, mainly in the Universal Service Directive, e.g. PATS (PATS: Publicly Available Telephone Service, Article 2(c) of the Universal Service Directive) , NTP (NTP: Network Termination Point) .

Removing provisions on universal directories and directory inquiry services from the scope of universal service

With an increasingly competitive market for the provision of directory inquiry services, and the development of internet-based directories, it was proposed to remove the provision of directories and directory inquiry services from the scope of universal service and leave the market to meet demand for these services.

The wholesale obligations on network operators to make directory data available to third parties would remain in force. This was expected to ensure that providers of directories and directory services obtain essential subscriber data while leaving the right of subscribers to "opt into" directory listings unaffected.

4.4.3. Other Changes Relating to Consumers and Users

Adapting "telephone service specific" provisions to technology and market developments

There are a number of provisions in the Universal Service Directive that were expected to be valid for some time to come but which at some stage over the life of any revised directive may need to be technically updated. These include articles relating to provision of additional (telephone) facilities and to carrier selection and carrier pre-selection. It was proposed to introduce a mechanism by which such measures can be withdrawn or modified under a committee procedure.

Adapting the Concept of Number Portability

Portability of telephone numbers is currently required when users switch service providers. In future, switching operators could become much more complicated. For example, some service providers already store a subscriber's personal directory not

on the user device itself, but centrally (via a "Personal Directory & Profile information" service). While this may offer added value for consumers, it may render the transfer of this directory information problematic when they switch providers. Provisions on number portability may need to be updated accordingly.

As a complement to the point above, other provisions of the framework (e.g. Article 2, Universal Service Directive; Article 10 Framework Directive) were considered as needed to be updated to include identifiers other than traditional telephone numbers. Internet naming and addressing will remain outside of the scope of the responsibilities of the NRAs under the existing framework (Recital 20, Framework Directive).

4.4.4. "Net Neutrality": Ensuring that regulators can impose minimum quality of service requirements

A key concern for the near future will be to ensure that the internet remains "open": open from the point of view of service providers wanting to deliver new, innovative services and open from the point of view of consumers wanting to access, create and distribute the services of their choice. "Net Neutrality" relates to the ability of a network provider to offer different levels of quality-of-service for content travelling over its network.

In general, a competitive market means that if one supplier seeks to restrict user rights, another can enter the market with a more 'open' offer. In Europe the regulatory framework allows operators to offer different services to different customer groups, but does not allow those who are in a dominant position to discriminate between customers in similar circumstances. However, there is a risk that, in some situations, the quality of service could degrade to unacceptably low levels. It is therefore proposed to give NRAs the power to set minimum quality levels for network transmission services in an NGN environment based on technical standards identified at EU level.

The existing provisions for NRAs to impose obligations on operators with significant market power, and the powers for NRAs to address access and interconnection issues could be used to prevent any blocking of information society services, or degradation in the quality of transmission of electronic communication services for third parties, and to impose appropriate interoperability requirements.

4.4.5. Facilitating the use of and access to e-communications by disabled consumers

The Commission highlighted the existence of significant barriers to achieving eAccessibility for all citizens in a 2005 Communication on this issue. The Commission identified three ways of addressing the problems, one of which is the use of legal measures.

Introducing a Community mechanism to address eAccessibility issues

The proposed change seeks to address in general terms eAccessibility issues where there is a proven need for prescriptive action. The proposal is to create a mechanism to enhance eAccessibility in practice by establishing a group consisting of Member States, associations of the electronic communications industry and associations representing disabled users which would identify appropriate action to address problems with eAccessibility. The Commission would adopt specific measures following committee procedures.

4.5. IMPROVING SECURITY

Security is identified in i2010 as one the four challenges for the creation of a Single European Information Space. Competition driven policies have had a very positive impact in the electronic communications sector. Market and technological developments have resulted in more players entering the field of electronic communications. The trend towards IP-based transmission networks means that networks are in general more open than in the past. A wide take-up of converging services partly depends on trustworthy, secure and reliable ICT. However, the

growth of spam, viruses, spyware and other forms of malware is reducing users' confidence in electronic communications. At the same time, society is becoming more dependent on essential modern electronic communications networks and services for everyday life, in business or at home. The market has so far failed to address security problems to the satisfaction of users. The current document addresses the need for the regulatory framework to provide an adequate legal framework to protect citizens and businesses, and to promote consumer trust and confidence in the information society, while contributing to the development of the internal market. It is important that security measures do not reduce the interoperability of services or serve as a pretext for anti-competitive practices.

A key policy proposal in this area is to extend and strengthen existing provisions on security and network integrity, currently found in the e-Privacy Directive and the Universal Service Directive, and at the same time bring them together within a specific chapter of the Framework Directive, thereby highlighting the importance of the subject in a competitive environment. These modifications would also require corresponding minor changes in the Authorisation Directive (conditions attached to general authorisations).

This Communication does not deal with Radio Frequency Identification Devices (RFID), which are subject to a separate public consultation. In the light of the RFID consultation, further changes could be proposed to the ePrivacy Directive.

4.5.1. Obligations to take security measures, and powers for NRAs to determine and monitor technical implementation

The e-Privacy Directive states that providers of a publicly available electronic communications service must take appropriate technical and organisational measures to safeguard the security of their services (Article 4). If necessary this must be done in conjunction with the provider of the public communications network with respect to network security. In principle, these measures must ensure a level of security

appropriate to the risk presented, having regard to the state of the art and the cost of implementation.

While in some Member States specific requirements apply to the obligation to take appropriate technical and organisational measures, many others leave the assessment of the security level to service providers without offering guidance. As security threats multiply, the effective implementation of these measures is being called into question.

It was proposed to clarify what these 'appropriate technical and organisational measures' should be. New requirements would be imposed on providers of electronic communications networks and services to:

i. implement and maintain security measures to address security incidents, and to prevent or minimise the impact of such incidents on customers and on other interconnected networks which would include a liability clause for not taking appropriate security measures;
ii. respect any guidance issued by regulators in conformity with Community law on the practical implementation of such measures; and
iii. insert in contracts with consumers a specific clause to inform them of specific actions that could be taken in reaction to security/integrity incidents and in prevention of known security threats and vulnerabilities (by modifying Article 20 of the Universal Service Directive).

There would be no need to include a very detailed list of requirements in the Directive, and in any case the requirements are likely to change as threats evolve. For these reasons regulators were suggested have flexible powers to implement the legal provisions in an appropriate and proportionate way.

NRAs would therefore be given new powers to:

i. require information, such as specific security policies including emergency plans of an operator; require audits to be conducted, and sanction companies not complying with these requests, e.g., by fining; and

ii. issue binding instructions to providers of electronic networks or services in order to implement any relevant Commission recommendations. In order to avoid distortions of the internal market that could result if individual regulators placed very different demands on market players in their countries, it is proposed that the Commission should be able to adopt technical implementing measures in the form of Decisions, under a committee procedure, in areas coved by the proposed new legal provisions. Such measures would not touch upon aspects of national security. The relevant changes would also include a provision recognising the advisory role of ENISA in security matters.

4.5.2. Notification of security breaches by network operators and Internet Service Providers (ISPs)

Article 4 of the e-Privacy Directive requires service providers to take appropriate technical and organisational measures to safeguard the security of their services. Today's rules only require the notification of security risks, but not the notification of actual security breaches.

A security breach may lead to the interruption of services, and/or the loss of personal data. Under the general Data Protection Directive, all undertakings that process personal data are obliged to take measures to protect such data against loss, alteration, and unauthorized disclosure or access. Network operators and ISPs, as the gatekeepers for users' access to the on-line world, carry a special responsibility in this regard.

A requirement to notify security breaches would create an incentive for providers to invest in security but without micro-managing their security policies. The proposed

changes would require providers of electronic communications networks and services to:

i. notify the NRA of any breach of security that led to the loss of personal data and/or to interruptions in the continuity of service supply. The regulator would have the possibility to inform the public if they considered that it was in the public interest; and
ii. notify their customers of any breach of security leading to the loss, modification or destruction of, or unauthorised access to, personal customer data.

4.5.3. Future-proof network integrity requirements

Article 23 of the Universal Service Directive imposes obligations to ensure the integrity of the public switched telephone network (PSTN), the availability of PSTN and publicly available telephone services at fixed locations in case of certain catastrophic events, as well as uninterrupted access to emergency services from fixed locations.

The emphasis on the telephone network in this context was becoming outdated, so it was proposed to adapt this provision to reflect the importance of mobile and IP networks in modern communications. The implementation of such integrity requirements would seek to guarantee the stability and resilience of the networks that underpin society today.

The changes would include:

i. extending, in a proportionate manner, the scope of the integrity requirements beyond the traditional public telephone network, to cover mobile and IP networks used for public services; and
ii. separating the obligations concerning the use of telephone networks in emergency or disaster situations from the obligations concerning the integrity of the underlying networks.

The changes proposed seek to reinforce the trust and confidence of business users and individual users in electronic communications, for the benefit of the sector itself and the economy as a whole. Such changes would improve the protection of the interests of citizens in line with the key objectives of the regulatory framework and would set more detailed standards for security in electronic communications while creating incentives to comply. In this way, the changes would future-proof integrity requirements for networks and make the competent national authorities better able to monitor and guide private undertakings.

Enhancing the security of networks and services benefits all users, but entails costs for market players which ultimately may need to be recouped from their customers. The proposed modifications would mostly affect the providers of electronic communications networks and services, in particular those who at present have inadequate security measures in place. Extending integrity requirements beyond the telephone network to other networks would also entail costs for other network operators, for example for installing back-up facilities. Nevertheless, the critical contribution that the ICT sector makes to the economy justifies further legal measures. The overall benefit for the sector generated by a higher level of trust, as well as the de facto dependence on ICTs within -industry in general, should justify the individual costs for the companies concerned.

4.6. CONCLUSION

The proposal with the greatest potential economic impact is the application of the Commission's policy approach to spectrum management by incorporating new provisions into the regulatory framework for electronic communications.

The other main proposal was to reduce the burden of the regulatory procedures associated with the reviews of relevant markets. The suggested relaxation of the notification requirements under the Article 7 procedure, through the introduction of a simplified procedure for certain cases, was expected to cut down the administrative burden for NRAs and for market players; these changes would also rationalise the

use of scarce resources, in particular in NRAs; and allow the Commission to monitor national implementation more effectively. The value of the market review procedure was proposed to be enhanced to make it less time consuming and burdensome.

Overall, the proposals were suggested to add significantly to the effectiveness, transparency and proportionality of the procedure.

Suggestions for strengthening the internal market take several forms. Creating the power for the Commission to veto and, where appropriate, veto proposed national remedies from an internal market perspective will strengthen the effectiveness of the core regulatory provisions of the framework. Allowing NRA decisions on remedies to be reviewed in a European, and not simply a national, context, will ensure that the internal market interests are fully reflected in the process, and will also inject greater transparency, predictability and legal certainty into the regulatory procedure. The changes in the rules on appeals that are suggested would reduce the undue length of many of the national appeal procedures and avoid the systematic suspension of regulatory decisions which currently frustrate effective implementation.

Introducing a coordinated authorization procedure for market entry of certain wireless pan- European services could stimulate a significant growth in wireless pan-European services which are currently held back by a fragmented regulatory environment.

In terms of consumer protection, the changes suggested would improve the reliability and transparency of information available to consumers and improve the ability of emergency services to use caller location information. While possibly creating new costs for companies, these changes would empower users to make informed choices and indirectly put pressure on prices. Reinforcing caller location obligations relating to emergency services would enable emergency services to respond more effectively, thus improving safety and the quality of emergency services, particularly for people travelling within the EU. Other changes reflect the move away from voice-based

services and recognise that future electronic services will be diverse and be delivered via different end-user terminals.

Earlier consultations have shown widespread consensus that universal service should evolve with the times. While it would be premature to suggest fundamental changes at present, some aspects of the current system could be adjusted to anticipate changes in markets and technologies and increase flexibility. Such changes would allow for regulatory obligations to be reduced once the market is shown to be meeting users' needs and would render the framework more future proof.

Users with special needs such as the disabled are entitled to enjoy universal service no less than others. The changes to universal service that are suggested for those with special needs would reinforce the right of disabled users to access the emergency services via the number '112'; and create a mechanism to adopt eAccessibility measures at EU level. Changes along these lines would contribute to e-inclusion, and in particular to eAccessibility, which is one of the pillars of the i2010 strategy, partly filling the gap between the rights of the disabled and those of other users.

The critical contribution that the ICT sector makes to the economy justifies the suggested additional measures to enhance the security of the EU communications environment. The overall benefit for the sector generated by a higher level of trust outweighs the individual cost for the companies concerned. In view of the current risks, enhancing security of networks and services will benefit all users, but will also entail costs for market players which ultimately may need to be recouped from their customers.

It was also proposed to repeal legislative provisions that are now unnecessary as well as those that will be obsolete by the time any revision of the framework is implemented, thus eliminating uncertainty regarding the status of certain provisions and making the framework more up to date.

5. THE TURKISH TELECOMMUNICATIONS SECTOR IN TRANSITION

Similar to its counterparts over the world, the Turkish Telecommunications Sector plays a very critical role in development of its hosting country. Like the telecommunications industries in Europe and other developed world countries, the Turkish telecommunications sector has been in a process of significant changes, which can be regarded as a transformation. The main legs of the transformation are regulations adopted, privatization and liberalization efforts pursued. The regulations and liberalization efforts are widely shaped in accordance with Turkey's effort to adopt the legal infrastructure of the European Union (EU), whose membership is an old and long lasting strategic target of the country.

5.1. REGULATIONS AS REQUISITES OF ACCESS TO THE EUROPEAN UNION (EU)

Turkey originally applied in 1959 to join in the European Economic Community, which is the European Union's (EU) predecessor. In 1970 the long-term objective of the association was determined as a customs union. This objective was attained in January 1996 and by 1999, tariffs on industrial products in trade with the EU were declined to zero. By December 2004, EU members had come to a consensus that sufficient progress had been realized on political and economic pre-conditions, so that a start date for full membership negotiations could be determined. After complex political negotiations, the formal negotiations started on 4 October 2005, but are estimated to take as many as 10 years to complete as Turkish law and institutions are in conformity with EU standards.

5.1.1. Membership Requirements

In order for Turkey to be accepted into the EU, the country must meet the broadly stated membership requirements that it has ‘‘a functioning market economy’’ and

that it has the capacity to cope with competitive pressure and market forces within the Union. The determinations that it has (or has not) met these requirements and aligned its law and institutions with the EU are indicated within the framework of roughly 30 acquis chapters, most of which refer to economic conditions, policies and institutions. These chapters cover such titles as free movement of capital, company law, agricultural policy, telecommunications and organization of the energy sector.

Turkey's current economic performance has brought about a conditional certification as ''a functioning market economy'' in the EU's 2005 progress review (European Commission (2005) Key Findings of the 2005 Progress Reports on Crotaria and Turkey, Press Release, 9 November, 2005, 411) . However, the institutional and administrative challenges that remain are still material, as the EU's reviews of Turkey's progress have pointed out. A principal concern is lack of ''clarity, transparency and legal certainty'' of the Turkish judicial system and its effect on the business sector, particularly foreign investment (European Commission (2004(a), 2004 Regular Report on Turkey's Progress Towards Accession, p. 119.). Another concern is related to the competition policy and state aid to firms. The acquis seek for the establishment of an independent body with the power to enact and enforce anti-trust law and another body to monitor state aid for business. In Turkey's case, an independent Competition Authority was established in 1997, but the 2004 review reported that there was ''no alignment'' with the EC Treaty rules on state aid, and that the role of the Competition Authority in economic policymaking required to be enhanced fairly

5.1.2. Telecommunications acquis

Turkey's telecommunications regulatory framework will have to be in accordance with guidelines identified in Chapter 10 of the EU acquis for candidate members. The acquis consists of specific rules on electronic communications, on information society services, in particular electronic commerce and conditional access services, and on audio-visual services. In the sphere of electronic communications, the acquis aims to remove obstacles to the effective operation of the internal market in

telecommunications services and networks, to increase competition and to safeguard consumer interests in the sector, including universal availability of modern services. In the field of audio-visual policy, the acquis requires the legislative alignment with the Television without Frontiers Directive, which identifies the conditions for the free movement of television broadcasts within the EU. The acquis target the establishment of a transparent, predictable and effective regulatory framework for public and private broadcasting in compliance with European standards. The acquis also requires the capacity to participate in the community programmes Media Plus and Media Training.

The principles establishing Chapter 10 are driven by the EU's Lisbon Strategy of March 2000, which sought to make the EU ''the most competitive and dynamic knowledge-driven economy by 2010.'' To realize this objective, the strategy stresses that ''businesses and citizens must have access to an inexpensive, world-class communications infrastructure.'' (European Commission, 2005). To implement strategy in the telecommunications sector, the European Commission published a set of directives, which became effective in July 2003.

These directives cover a wide range of subjects, including the elimination of restrictions on competition, simplification of licensing criteria, access to service, personal data protection, and the organization, staffing and powers of the telecommunications regulatory authority. The EU approach emphasizes that governments should follow a policy of ''technical neutrality'' e.g. to avoid favoring one particular telecommunications ''pipeline'' over another in the delivery of services, such as voice telephony, data transmission and internet access.

The 2004 EU report on Turkey's progress in meeting Chapter 10 accession requirements noted that substantial additional efforts were needed to complete the regulatory framework, as well as more evidence of effective implementation and enforcement of the Commission's rules (European Commission 2004). An earlier OECD report had similar recommendations, as well as specific suggestions for simplifying the licensing process

A particular concern for both the OECD and the EU is the Turkish Telecommunications Authority's (TA) tendency to restrict entry into telecommunications services that do not involve the allocation of scarce resources, such as radio frequencies or satellite positions. This is executed by means of restrictive licensing. The preferred alternative, as called for in EU directives is that ''electronic communications services or networks should be provided on the basis of a general authorization and not on the basis of a license European Commission (2002)."

5.2. THE OLD PTO: TURK TELECOM INC.

Until 1994, the telecommunications services in Turkey were provided by a state monopoly, so called "Posts, Telegraph and Telephone" (PTT), which was founded by Law No 406 of 1924. The first significant change was made in 1994 and the telecommunications services were separated from PTT, and Türk Telekom A.Ş. (Turk Telecom Inc.) was founded as a distinct state owned enterprise. By 2001, Turk Telekom operated as an undertaking and regulator in the industry. A regulation authority that started functioning in August 2000 was established in 2000 based on Law No 4502 amending Law No 406. By the end of 2003 monopoly rights of Turk Telekom was ended based on the same law. In May 2001, licensing authority, which was held by Ministry of Transport, was taken over by Telecommunications Authority.

5.2.1. Privatization of Turk Telecom Inc.

55% of Turk Telekom was privatized by 14 December 2005. The state control on Turk Telekom was ended with this privatization. The privatization process excluded Turkish Competition Authority Cable TV, which remained under State control.

Meanwhile the Turkish experience regarding liberalization of the mobile telecommunications services goes back to 1990s. Mobile telecoms sector in Turkey

firstly established by revenue sharing agreements between Turk Telekom and two operators, namely Turkcell and Telsim. Later on during mid 1998 this method is replaced with 25 year licenses. This change had been not only an effective incentive for more investments but also shifted the competitive structure of the industry to a stiffer position since the operators began to face a longer period. Today there are three mobile operators in the sector, Turkcell, Telsim (owned by Vodafone) and Avea which is mainly owned by Turk Telekom. As of May 2006, mobile penetration rate is 63.7% in Turkey (European Commission, 2006:40).

Analyses of several performance indicators from the year 2000 to 2006 may provide better insights into effects of entry of new GSM operators into the sector and Turk Telecom privatization on types of services received by subscribers. Change in the number of fixed line telephone subscribers may be considered as an indicator. The number of subscribers dramatically increased from nearly 18.400.000 to over 18.800.000 between 2000 and 2001. Perhaps due to the impact of the financial crises of 2001 in Turkey, there seems to be no changes in this indicator by 2003. Following a rise from slightly over 18.900.000 to around 19.100.000, there is a gradual decline from that point to roughly 18.800.000 between 2004 and 2006 SPO (2007) Economic and Social Indicators 1950 – 1998 and Telecommunications Authority 2007 Statistics.)

Even though the quantity of fixed line subscribers in Turkey is relatively high, fixed line penetration rate (fixed lines per 100 inhabitants) is behind the new comers of the EU. One explanation of this issue may be the large family feature in Turkey (Akdemir et al 2003; Yilmaz 1999).

The number of subscribers may also be analyzed taking into account the number of employees. There is a significant decline in the number of employees, from over 70.000 to slightly over 40.000, of Turk Telekom. A considerable amount of this decline took place after privatization of Turk Telecom in 2005; from slightly over 50.000 to nearly 40.000. The significant decline after the privatization (particularly after 2005) is due to the fact that more than 10,000 employees preferred to return

back to work as a government official. As a result of these changes, there has been an increase in the ratio of subscribers per employee.

Contrary to the gradual decline in subscriber number after the privatization process, the fixed line central capacity has kept a stable trend fluctuating between approximately 20.500.000 and 21.500.000 for the period from 2000 to 2006. This means that necessary capacity investments are done on fixed lines.

The number of PSTN subscribers increased from roughly 18.250.000 to 18.750.000 between 2000 and 2001 but remained roughly at this level from 2001 to 2003. Even though this indicator experienced a rise to from 18.800.000 to nearly 19.000.000 between 2003 and 2004, then had a slight decline from 19.000.000 in 2004 to 18.600.000 in 2006. The reason for this decline might be the competitive pressure of the mobile telecoms sector. During the same period Turkish GSM sector witnessed a noticeable increase in the amount of subscribers. The number of GSM subscribers reached to 51.219.000, almost 3.5 times of its number in 2000. Even though the PSTN penetration rate had a stable trend and remained slightly under 30%, the GSM penetration rate boosted from 20% to over 70% in the period in question (Telecommunications Authority 2007 and TURKSTAT 2007)

5.2.2. Turk Telecom's IPO

In May 2008, the initial public offering for the 15 percent stake of the nation's fixed-line operator, Turk Telekom for the 525 million new Turkish liras (YTL) ($410 million) par value Treasury held stocks was realized. The bid collection process took place between May 7 and 9. Following the approval of İstanbul Stock Exchange (ISE), the offered shares were traded on 15 May 2008.

Turk Telekom, which was partly privatized in 2005, listed a 15 percent stake or 17.25 percent including an over-allotment option. According to the IPO price, Turk Telekom's price/earnings (P/E) ratio stands at 6.5. Sales of Turk Telekom increased by 23 percent to 9.2 billion YTL ($7.18 billion) in 2007. The company had 18.2

million fixed-line subscribers at the end of 2007, while its broadband Internet subscribers stood at 4.2 million.

Turk Telekom, whose mobile business, Avea, is the third operator in the fast-growing Turkish market, had revenue of 9.2 billion YTL ($7.18 billion) last year and a net profit of 2.5 billion YTL ($1.95 billion.), according to a circular released by the Privatization Administration

5.3. SERVICES AND OPERATORS IN THE TURKISH TELECOMMUNICATIONS SECTOR

The major services provided and main operators operating in the Turkish telecommunications sector are shortly indicated in this section.

5.3.1. Infrastructure versus Services

In Turkey, rapidly changing technology produces considerable threats to existing service and infrastructure providers as well as uncertainties as to which technology offers greater long-term public benefits. In analyzing the situation in Turkey, as elsewhere, it is helpful to distinguish between the telecommunications infrastructure alternatives and the types of services (voice telephony, text and email, data, video, internet, etc.), which are provided by that infrastructure. The infrastructure can be roughly categorized by type of network.

5.3.1.1. Fixed line networks

These include Public Switched Telephone Networks (PSTN), the traditional copper wire analog telephone circuits and switches, as well as newer fixed lines systems that consist of digital transmission, optical fiber cable and similar advances. Cable companies originally established to provide for television are part of this group. In the future, this category may well involve the electric power grid, where the basic infrastructure is already in place. With the exception of microwave transmission

systems, these types of networks do not require publicly supervised allocation of through-the-air bandwidth. However, they do require extensive ‘‘rights of way’’ to build the requisite transmission infrastructure.

5.3.1.2. Wireless networks

These networks are distinguished by their heavy reliance on through-the-air bandwidth for terrestrial-based transmission of analog and digital signals containing the various services mentioned earlier. Many wireless networks also rely heavily on fixed networks for some portion of their transmission chain, since they interconnect with them. Mobile telephony is the most visible type of wireless network. However, broadband services transmitted at local ‘‘fixed wireless’’ points, such as shopping centers or university campuses, are increasingly common in many countries. The right to use specific transmission frequencies is typically controlled or auctioned off by governments.

5.3.1.3. Satellite-based networks

Once thought to be the future of international telecommunications, satellite networks now are largely used for television broadcasting and for military and niche commercial applications, such as vehicle positioning information. Satellites can also be used for internet services, usually in conjunction with fixed line facilities (needed for ‘‘uploads’’ from the user). Here, too, transmission frequencies must be allocated through some government-supervised process.

The three different types of infrastructure (as well as alternative types of delivery technology within each basic type) can be thought of as competing ‘‘pipelines’’ for delivering telecommunications services. At the same time, continuing rapid advances in telecommunications technology threaten to make past and current investment obsolete. The regulatory challenge in Turkey, as elsewhere, is to permit the various competitors to deploy their systems as rapidly as possible, letting the

telecommunications users—rather than the omniscience of the regulator—shape the resulting outcome.

5.3.2. Operators and Provided Services

Number of operators in the sector has gradually increased in via the authorization of new services and consumers have started to make use of several services for cheaper prices and in a more comfortable manner.

5.3.2.1. Satellite Operators

Satellite operators are categorized into two groups, namely operators providing satellite telecommunications services and satellite platform operators. Satellite telecommunications services cover the performance of unidirectional and bidirectional data transmission via satellites and earth stations. As of 31 December 2006, number of those operators supplying this service is 20.

On the other hand, Satellite Platform Operation is realized through the combination and multiplication of analog or digital signals from various transmission media and finally their transmission to subscribers in form of digital package via satellites. Among the services introduced in Satellite Platform Operation are high-speed Internet access, broadband data transmission, digital TV and radio broadcast, and multimedia applications. As of 31 December 2005, number of those operators supplying service is 2. For Satellite Platform Service, one authorization was given in 2006.

5.3.2.2. Operators Providing GMPCS Mobile Telephony Service

As of 31.12.2006, there are 4 operators supplying GMPCS Mobile Telephony Service, which is described as a telecommunications service that directly provides users with services covered by GMPCS MoU (Memorandum of Understanding) over a group of satellites, either existing or being planned, whose position and operating

frequencies are specified and designated by International Telecommunications Union (ITU), which can be fixed or mobile, broadband or narrowband, global or non-global, geostationary or non-geostationary.

5.3.2.3. Operators Serving as Cable and Wireless Internet Service Provider

Operators serving as Internet Service Providers (ISP) provide the necessary infrastructure, hardware and software and supply Internet access service to the end-user. Business of an ISP can be expressed as transporting the users to local and international Internet backbones via computer equipment belonging to it and lines that it leases.

Serving in accordance with service provision contracts already made with Türk Telekom ISPs in Turkey also perform their activities based on a "General Authorization" like in developing countries and EU countries. Within this framework, as of 31.12.2006, there are 72 operators registered in the scope of General Authorization including 8 new operators which are registered in 2005.

5.3.2.4. Operators Providing Data Transmission over Terrestrial Lines

Data transmission over Terrestrial Lines means the transmission of data over terrestrial lines such as optical, copper, coaxial, etc. lines to the network termination points without treatment under any process. As of the end of 2006, in Turkey, there are 20 operators authorized to provide the said service.

5.3.2.5. Operators Providing Long Distance Telephony Services

Long Distance Telephone Services (LDTS) embraces the introduction of inter-provincial and/or international telephony service to the users over any telecommunications network and infrastructure belonging to the operators by use of any technology. In other words, operators can supply inter-city and/or international telephone service to the users over another fixed, mobile or developing network by

any technology they wish to use. There are 35 operators that provide LDTS as of the end of 2006.

5.3.2.6. Operators Providing PAMR Services

PAMR Service covers a telecommunications service, which accommodates more than one closed user group within the same system by use of analog and digital technologies, consists of at least one repeater and adequate number of subscriber radio devices, involving the provision of unidirectional and/or bidirectional voice data and optimized package data, message, image, etc. services to the subscribers, either cellular or non-cellular, and can be operated locally and regionally. PAMR Services were started to be authorized by the Authority in 2004. Because of the negative developments in the wireless market and since the service has been negatively affected by other alternative telecommunications services; the license fees of this service have been planned to be reduced, and following the studies in this scope, the license fee of the said service has been reduced approximately 55 percent by the Decision of Council of Ministers dated 15.12.2006 and numbered 2006/11430. As of 31.12.2005 there are 49 companies providing PAMR Services.

5.3.2.7. Cable Platform Service

Cable platform service means a telecommunications service which covers one/two way transmission of all sorts of voice, data, video and Radio/TV broadcast signals in coded/encoded manner to subscribers through cable platform network. As of 31.12.2006 there are 4 companies providing Cable Platform Services.

5.3.2.8. Infrastructure Operation Service

Infrastructure operation service is establishment, and operation of transmission infrastructure which permits offering of telecommunication services to users and operators. Since the beginning of the authorization of infrastructure operation

services in March 2006, there have been seven operators authorized by the end of 2006.

5.4. THE CURRENT REGULATORY FRAMEWORK

The current regulatory framework of the Turkish telecommunications sector has been widely transformed and is in process of being shaped in compliance with adoption of the European Union laws and regulations. Major changes come into force in the sector in recent times are stated below.

5.4.1. Tariffs

5.4.1.1. Tariff Regulations

Tariff Ordinance is the basic framework for price regulation on telecommunications services' prices. According to the provisions of Tariff Ordinance, the tariffs of operators with significant market power and/or legal or de facto monopoly are audited and approved by the Telecommunications Authority. In accordance with the Board Decision named "Türk Telekomünikasyon AŞ- The determination on de facto monopoly" No. 2004/246 dated 11.05.2004 which was published in the Official Gazette No.25483 dated 05.06.2004 and the Board Decision named "TÜRKSAT AŞ – The determination on de facto monopoly" No.2005/496 dated 26.07.2005 which was published in the Official Gazette No.25910 dated 18.08.2005, the tariffs of services offerred by Türk Telekom and TÜRKSAT AŞ are subject to approval in the context of Tariff Ordinance. GSM operators may determine their prices freely provided that tariffs are lower than the upper limits which are determined in line with the provisions of GSM Concession Agreements. The tariffs of other operators which are deemed to be out of scope of Tariff Ordinance are not subject to the approval.

5.4.1.2. Fixed Telephony Services

The tariffs of fixed telephony services of Türk Telekom are approved regarding to the provisions of Tariff Ordinance. Price Cap Communique, published in the Official

Gazette No.25333 dated 31.12.2003, has been abolished on December 31, 2006. On the other hand, new Price Cap Communique, namely "Sabit Telefon Şebekesine Erişim Veya Sabit Şebeke Üzerinden Arama Hizmetlerine Yönelik İlgili Piyasalarda Etkin Piyasa Gücüne Sahip İşletmecilerin Bazı Hizmetlerine İlişkin Tarifelerin Tavan Fiyat Yöntemi İle Onaylanmasına Yönelik Usul ve Esaslara İlişkin Tebliğ" has been put into effect by being published in the Official Gazette No.26405 dated 16.01.2007.

In 2006, Türk Telekom proposed tariff offers about new services to the Telecommunications Authority generally such as Virtual Telephone, Fixed SMS, etc. While six of the nine applications related to fixed telephony services were resulted in positive, three of them were resulted in negative. At the beginning of 2006, Telecommunications Authority made an investigation on Türk Telekom's fixed to mobile call prices. Depending on the investigation the Board required Türk Telekom to reduce those prices. Türk Telekom proposed a tariff offer to the Telecommunications Authority due to this requirement. However, Türk Telekom's proposal wasn't approved and the Board warned Türk Telekom to propose the tariff offer including reduction by considering declining trend of interconnection prices. The second offer of Türk Telekom on fixed to mobile call services was approved by the Board. Thus, fixed to mobile call prices declined with varying rates between 26% and 32%. A comprehensive tariff proposal of Türk Telekom about ŞirketHatt and KonuşkanHatt was rejected by the Board in the last quarter of 2006 due to insufficient information. At the last month of 2006, Türk Telekom's another comprehensive tariff offer concerning Şirket Hall, KonuşkanHatt, StandartHatt, HesaplıHatt and YazlıkHatt was approved by the Board. According to approval there are increases with varying rates between 17.7% and 26.4% in local call prices and increases with varying rates between 15% and 23.6% in monthly rentals. In long distance call prices; there are reductions with varying rates between 45.6% and 57.1%. Besides, there are significant reductions with varying rates between 4.5% and 60% in international call prices. Finally, fixed to mobile call prices are declined substantially with varying rates between 1.9% and 46.9%.

5.4.1.3. Mobile Telecommunications Services

Pursuant to the provisions in GSM Concession Agreements, which were signed between GSM operators and the Telecommunications Authority, upper limit for tariffs to be applied to end-users by GSM operators is specified and approved by the Telecommunications Authority. Within this framework, upper limit for the GSM tariffs was specified and approved twice during 2007, in March and September. GSM operators are free to determine their tariffs as far as not exceeding the upper limits.

Within the context of mobile telecommunications services, GSM operators offer both new and existing subscribers voice services as well as data services and internet services so as to increase subscribers' adherences to them. Furthermore, in 2007, advantageous implementations for services in question were continued. In addition to the SMS and mobile internet services, the promotional applications for the platforms that enable to offer data and voice services together were continued in 2007.

5.4.1.4 Internet Access and Data Transmission Services

Tariffs of internet access and data transmission services of Türk Telekom and TÜRKSAT have been regulated in accordance with the relevant legislation. In this context, tariffs of internet access and data transmission services of these operators are subject to the approval of the Telecommunications Authority.

The privatization of Türk Telekom by the block sales of the 55% of its shares was completed by signing the share transfer agreement and thereafter concession agreement on 14.11.2005. Meanwhile, within the scope of the relevant decision of the Competition Authority on 02.09.2004 requiring that "the ISP activities of Türk Telekom have to, at the latest in the six months period after the transfer of the Türk Telekom, be passed to a different legal personality separate from the other business units" and the Terms of Reference dated 25.11.2004 about the privatization of Turk

Telekom, TTNet AŞ was established and registered in the scope of General Authorization to serve as an internet service provider.

In 2006, about fifteen Board Decisions were taken on the tariffs of internet access and data transmission services. These decisions are related to tariff approvals and application principles of tariffs. In all two unfavorable decisions were issued on nearly fourteen of tariff proposals. The board decisions issued on tariffs in 2006, which are mainly concerning internet access services, have leaded to many significant developments in the market.

ADSL internet access service is being offered in two forms namely metered and unmetered by Türk Telekom in the wholesale market and by several ISPs including TTNet in the retail market. The wholesale tariffs of ADSL were changed once in 2006. The tariff proposal including the abolition of the unmetered 256 Kbit/s ADSL internet access service, the upgrade of speed of the metered ADSL internet service from 512 Kbit/s to 1024 Kbit/s and some reductions on unmetered ADSL internet access and bitstream access tariffs was submitted to the Telecommunications Authority. However, this offer was rejected since it did not meet the requirements of the relevant provisions covered in Tariff Ordinance. Thereafter, Türk Telekom revised its proposal including the unmetered 256 Kbit/s ADSL internet access option. The revised proposal has been evaluated and approved by the Board in accordance with the relevant legislation. Consequently, in the wholesale unmetered ADSL tariffs there have been reductions varying between 10% and 18% according to the access speeds. Through 2006 the level of tariffs regarding metered ADSL service remained unchanged; nevertheless the access speed increased from 512 Kbit/s to 1024 Kbit/s. While bitstream access tariffs for the 256 Kbit/s option is increased by 1%, the tariffs for the other access speeds are decreased by percentages changing from 11% to 20%.

Some promotional offerings submitted by Türk Telekom to the Telecommunications Authority were evaluated by the Board in 2006. In this context, some offerings namely “Campaign on Computer and Internet Access Prize for Students” and “ADSL Internet Week Campaign” were approved. Furthermore, the offering regarding “the

wholesale ADSL discount" of Türk Telekom devoted to the ISPs was approved. According to this offering, if ISPs apply for new subscriptions on the relevant dates and their subscription would continue at the end of the 23rd month, then the monthly fee for the 24th month would be free.

Another broadband internet access service is "internet access over Cable TV network (Cable Internet)" and currently it is provided by TÜRKSAT. In December 2006, a proposal of TÜRKSAT regarding Cable Internet tariffs was approved, so the unmetered cable internet access tariffs were reduced by percentages changing between 5% and 32% depending on the access speeds and for the first time tariffs for metered cable internet access were approved. Furthermore, a proposal including discounted activation fees for Cable TV and Cable Internet was approved. It is thought that in the broadband internet access market, effective competition among different infrastructures (ADSL, Cable Internet etc.) will bring about reduced prices and service diversity so the broadband internet access penetration will rise.

Tariffs of Internet Data Center (IDC) services provided by Türk Telekom were evaluated and approved for the first time in 2006. Public and private corporations, education centers need departments having servers for data storage and analysis, IP routers, switching equipment, UPS, technical staff, backup devices in order to provide efficient internet aided services. A corporation or institute should either build such an infrastructure by its own or procure this service from a supplier of IDC services. The tariffs of the IDC services "Server Hosting, Storage and Backup" were decided to be determined by Türk Telekom freely, and the tariffs of the IDC Bandwidth service were approved with the context of the relevant legislation.

International Full Capacity Leased Line (to the POPs of Türk Telekom in Europe and America) were begun to be served for the first time in 2006 and the tariffs were approved. International Full Capacity Leased Line service includes the transmissions between the customer addresses in Turkey and the points where Türk Telekom's POPs exist (New York, London, Paris, Amsterdam and Frankfurt).

Tariffs of the services like ATM, Frame Relay, Metro Ethernet and G.SHDSL based point to point data transmission and internet access services, ADSL based point to point data transmission, national digital leased lines, international leased lines and IP-VPN, which were mainly devoted to business customers, experienced no changes in 2006.

5.4.1.5. Accounting Separation and Cost Accounting

According to the Principles and Procedures on Accounting Separation and Cost Accounting (Principles and Procedures) prepared in accordance with the Access and Interconnection Ordinance, operators having significant market power (SMP) in mobile call termination market and Türk Telekom are obliged for accounting separation and cost accounting. By the end of 2005, the transition period of two years stated in the Principles and Procedures ended for Turkcell and Türk Telekom. The reports of the operators in question regarding the year 2005 has been submitted to the Telecommunications Authority.

According to the Board Decision published in the Official Gazette Numbered 26037 and dated 28.12.2005, all GSM operators have SMP in the GSM mobile call termination market by 31.12.2005. Within this scope, transition period of two years has started for and completed by Vodafone and Avea as of the beginning of 2006.

5.4.2. Access and Interconnection Regulations

5.4.2.1. Standard Reference Tariffs of Interconnection

In accordance with the provision of "*The Authority; shall publish the Standard Reference Tariffs of Interconnection that the related operators may include into their standard terms and conditions where appropriate and the Authority amend these tariffs when necessary."* take place in the 10th article of the Law no. 406, the Authority publish the Standard Reference Tariffs of Interconnection when necessary and the tariffs in question remain in effect until new ones are published by the

Authority. Within this context, Standard Reference Tariffs of Interconnection for Türk Telekömünikasyon A.Ş. (Turk Telekom Inc.) (the incumbent) and GSM Operators with Significant Market Power (SMP) were published on the 2nd February, 2006 as seen in the table given below and by the way the Standard Reference Tariffs of Interconnection published in 2008 March lost force.

Table 5.1 Standard Reference Tariffs of Interconnection

Operators	Tariffs (Ykr/min.)	
Türk Telekomünikasyon AŞ	In-Zone	Out-Zone
	1,71	2,70
Turkcell İletişim Hizmetleri AŞ	9,10	
Vodafone Telekomünikasyon AŞ	9,50	
Avea İletişim Hizmetleri AŞ	11,20	

Source: The Information and Communication Technologies Authority (2008)

5.4.2.2. EU Funded Project NATP-II

"NATP-II" as the continuation of the NATP-I (New Approaches to Telecommunications Policy) initiated by the EU Commission in 2000 with the aim to supply information exchange about technical and regulatory issues on telecommunications field from the Commission and EU member states towards the Mediterranean regulatory authorities, was started to strengthen regional assistance to the Mediterranean authorities for 2004-2006 period. In this context, the Authority made a consultancy demand on the issues including the structure of interconnection rates and a report was submitted to the Authority analyzing the interconnection rates on fixed telecommunications network including suggestions about the issue.

5.4.2.3. EU Funded Project Concerning Access Markets

Harmonization with Acquis Communautaire in the field of telecommunications and information technologies and preparation of the markets for full liberalization determined as the main priorities in Accession Partnership Document in 2003, it was deemed as appropriate to give support for Turkey with a Project valued 1.2 Million €

by the name of "*Technical Assistance Concerning the Development of Access Framework in Turkish Telecommunications Market"*. By the said Project, it is aimed that the Authority will gain necessary expertise and competence on the implementation guidelines of accounting separation and know-how on cost models that are essential for a cost based access pricing regime as foreseen in the EU regulatory package. Where Central Financing Contracting Unit (CFCU) is responsible for all procedural aspects of the tendering process, contracting matters and financial management of the project activities, Terms of Reference was prepared by the Authority and it is planned that the Project will be started in May 2007.

5.4.2.4. Reference Interconnection Offers

Reference Interconnection Offers have a great importance in that the conditions for interconnection with incumbent operators can be set forth, specifications of the sector can be clarified and especially the new operators can estimate under what conditions they can enter the market. Obliging the operators having dominant position or significant market power to publish Reference Interconnection Offer is a widely accepted practice across the world. In Turkey, the arrangements regarding reference interconnection/access offers are given place in Article 24 of the Ordinance on Access and Interconnection:

> *"Türk Telekom and operators with significant market power are obliged to prepare and send the reference offers on access and/or interconnection to the Authority. The Authority publishes the reference offers upon the approval… Unless otherwise specified by the Board decision; reference offers are renewed every year and sent to the Authority up to the end of February. Existing reference offers on access and/or interconnection continue to prevail up to the new ones' approval.*
>
> *Operators with significant market power are obliged to prepare and send the reference offers on interconnection to the Authority within utmost three months after they are designated by the Authority as having significant market power and Türk Telekom is obliged to prepare and send the reference offer on interconnection to the Authority within utmost three months after this regulation come into force.*

The Board may decide amendments to be made in the reference offers on access and /or interconnection considering the principles defined in the Article 5 of this Ordinance."

In accordance with the said Ordinance Türk Telekom, Turkcell, Vodafone and Avea Reference Interconnection Offers are published on the web site of the Authority upon approval by the Board. Currently, reference interconnection offers of these operators are published by the Board. Currently, reference interconnection offers of these operators are published on the web site of Telecommunications Authority.

5.4.2.5. Unbundling Access to the Local Loop

Local Loop Unbundling became a current issue generally in the end of 90's; the first regulations regarding the issue were made in the beginning of 2000's. Similarly, the Regulation of the EC on Unbundling Access to the Local Loop (2887/2000) came into force in 2000. The EU attaches a special importance to the use of local loop by alternative operators. This is why the issue was regulated by a regulation which is directly binding for member states instead of a directive. In Turkey "*The Communique on Procedures and Principles Regarding Unbundled Access to the Local Loop"* which is in line with aforesaid regulation of EC came into force on 01.07.2005.

Despite the importance attached to the local loop bundling in European countries, because the technical and administrative aspects of the issue are very complicated and problematic, the expected progress could not be achieved for a considerably long period. So the national regulatory authorities had to introduce new and detailed regulations. As a result, it is observed that the number of copper lines used by alternative operators started to increase as from 2004.

As in interconnection, the main document for local loop unbundling is Reference Unbundling Offer which is prepared by the incumbent and approved by the National Regulatory Authority. The reference offer which includes the main matters regarding

the technical, administrative and fiscal issues constitutes a base for the agreements to be signed between the incumbent and alternative operators.

After a public consultation, necessary changes were made in the Reference Unbundling Offer which was prepared and submitted by Türk Telekom according to "*The Communique on Procedures and Principles Regarding Unbundled Access to the Local Loop"*. The approved offer was published on 22.11.2006. By comparing the draft offer and approved offer, it can be seen that comprehensive changes were made on the draft version. These primary changes can be seen in brief as follows:

5.4.2.5.1. Authorization to Access to the Local Loop

Türk Telekom claimed that the firms which wanted to access to the local loop must have been authorized separately by the Authority and prepared draft offer in conformity with his claim. But it is thought that there is no need to have a separate authorization to access to the local loop which provides alternative means for the operators which give services that is covered by their licenses. So the constraints regarding the issue are extracted from the offer.

5.4.2.5.2. The Services

The draft offer submitted by Türk Telekom includes the full unbundling and line sharing, but excludes the sub-loop unbundling. Sub-loop unbundling eases to five high speed xDSL services and is a kind that Türk Telekom is obliged to provide according to the "*The Communique on Procedures and Principles Regarding Unbundled Access to the Local Loop"*.

In this frame, sub-loop unbundling was defined in the approved offer and listed in the services that Türk Telekom should provide. But it is stated in the reference unbundling offer that the sub-loop unbundling is provided in full unbundled way, so the sub-loop line sharing which is technically very hard and problematic to implement left unavailable for the time being.

5.4.2.5.3. List of Switches Available

In the draft offer submitted by Türk Telekom, it was stated that the list of available switches would be determined after a 3-month trial period. In this beginning period only 3 switches (İstanbul/Beyoğlu, İzmir/Alsancak and Ankara/Ulus) would be available. In the approved offer, this was turned into the model in which there is no trial period, İstanbul/Beyoğlu, İzmir/Alsancak and Ankara/Ulus switches are available in the beginning and the list of available switches will be expanded in the end of every 3-month period according to the demand survey which will be done by Türk Telekom.

5.4.2.5.4. Pricing

"*Connection fee per line"* and "*monthly fee per line"* constitutes the basic elements of LLU pricing. Those fees approved by the Authority are given as follows:

Table 5.2 Connection and Monthly Fees

	YTL	
	Connection	Monthly
Full Unbundling	100	20
Line Sharing	110	6.75

Establishment fee per block and monthly usage fee per block were also decreased as follows:

Table 5.3 Establishment and Monthly Fees per Block

	YTL	
	Establishment	Monthly
Full Unbundling	342	26.57
Line Sharing	383	26.57

5.4.2.5.5. Collocation and Energy Services

The fees operators must pay for their devices necessarily located into Türk Telekom's buildings were decreased as follows:

Table 5.4 Collocation Fees

	Metropolitan City Center (YTL/m2)	City Center (YTL/m2)	District Center (YTL/m2)
Inside the building	186	158	130
Outside the building	35	30	25

Formulas used to calculate the price of the energy (AC, DC, UPS, and generator) supplied to the collocated devices were revised in the approved offer and necessary changes were done.

5.4.2.6. The Review of Access and Interconnection Agreements

Access and interconnection agreements that are signed between the operators are submitted to the Authority in accordance with the relevant legislation (Article 10 of Law No. 406) . The type and number of agreements that are submitted to the Authority within this context by the end of 2006 are shown in the table below.

Table 5.5 Agreements on Access and Interconnection Submitted to the Authority

Paties to the Agreement	Number
PSTN-GSM	3
GSM-GSM	3
PSTN-LDTS Calling Cards: 20 Carrier Selection: 7 Carrier Pre-selection:8	35
GSM-LDTS	34
LDTS-LDTS	19
PSTN-GMPCS	4
LDTS-GMPCS	3
LDTS-GMPCS	2
ISP-ISP	1
Total	104

Agreements on access and interconnection submitted to the Authority are evaluated in accordance with the provisions of laws and regulations and the deficiencies and/or discrepancies determined according to the legislation are ensured to be realigned by the operators.

5.4.2.7. Dispute Resolution Procedures Regarding Access and Interconnection

In accordance with 10th Article of Law No. 406 and 21st Article of Ordinance on Access and Interconnection, in case that the related operators cannot reach an agreement on access including interconnection within utmost three months, any one of the parties may apply to the Authority for dispute settlement procedure.

10 dispute resolution procedures were concluded between Türk Telekom and LDTS, GSM and ISP operators regarding interconnection and ADSL/G.SHDSL bit stream access determining the binding terms, conditions and prices appropriate for the agreements. Also, 3 dispute resolution procedures were concluded among the GSM operators regarding interconnection access determining the binding terms, conditions and prices appropriate for the agreements.

Table 5.6 Dispute Settlement Procedures Executed within 2006

Parties Having Dispute	Number
Türk Telekom – LDTS Operator	5
Türk Telekom – ISP Operator	2
Türk Telekom – GSM Operator	3
GSM Operator – GSM Operator	3

5.4.3. Number Assignment

5.4.3.1. Number Portability

During 2006, considerable amount of works have been conducted with respect to number portability, which is defined as for a subscriber, changing operator, address

or service type without changing his/her subscriber number. Number Portability Ordinance was published on February 1, 2007.

5.4.3.2. Number Assignments

Type-based number assignments performed in 2006 are given below. As result of these assignments 68.371,72 YTL numbering charge was recorded as revenue for the Treasury.

5.4.3.2.1. Short Codes and Access Numbers with Area Code 811

In telecommunications sector, numbers are regarded as scarce resources and this feature is more important for short codes because of the limited allocation capacity. The numbers that are withdrawn the services given over these numbers and the owners of the numbers take part in the following table.

Table 5.7 Numbers Withdrawn and the Services Given over Them

Short Number	Service	Ex-owner
115	Operator Assistance for International Calls	TTAŞ
117	Dial-up Access to Directory Service	TTAŞ
131	Operator Assistance for National Telephone Calls	TTAŞ
134	Absent Subscriber Service	TTAŞ
135	Wake-up	TTAŞ
161	Customer Care Service	TTAŞ
166	Tale & Music	TTAŞ
122	Fault Repair Payphone	TTAŞ
123	Fault Repair Telex	TTAŞ
124	Fault Repair Data	TTAŞ
145	TTNET	TTAŞ
146	Internet Dial Tone	TTAŞ
168	Coded Call	TTAŞ
170	Tourism Call Center	Ministry of Tourism
174	Security	Ministry of Interior
176	Noise	Province

Besides, the short code 168, withdrawn from Türk Telekom, was allocated to the Turkish Red Crescent society, the association works for the public benefit, for the call center which will be set up to give service among all over the country on the subjects in the function area and to provide easily accessible services to the people calling the blood centers.

During 2006, 63 additional access numbers with area code 811 were assigned to Long Distance Telephony Service (LDTS) operators which submitted applications. And from 17 May 2004, when the first authorization for LDTS was made, totally 353 access numbers were assigned.

5.4.3.2.2. NSPC and ISPC

During 2006, 2 NSPCs and 4 ISPCs were assigned to LDTS operators.

5.4.4. Regulations Ensuring Competition

5.4.4.1. Market Analyses and Significant Market Power

Since the acceptance of Common Regulatory Framework for Electronic Communications Networks and Services (Framework Directive), European Union's approach related with the ex-ante regulations in telecommunications sector has changed and brought the requirement of market analyses concept which was performed in the ex-post regulations in the scope of Competition Laws before.

The commission made the member states obliged to adopt the Framework Directive into their national legal base and to complete the analyses related with the projected markets until 24 July 2003.

There are three basic methodological steps in this process which are:

i. Definition of related markets

ii. Definition of operators which have Significant Market Power (SMP) in the related markets
iii. Remedies to be applied an operators having SMP to increase the level of competition

Related markets are defined by studying supply and demand substitution in the scope of product market and geographical market concepts. According to the Framework Directive, the job of defining the related geographical markets is in the responsibility of Regulatory Authorities. Article 15 of Framework Directive states that Commission and Regulatory Authorities should define the related markets convenient with Competition Rules. This approach aims to shed light on the process of how the level of substitutability of product or service will be defined and how the competition concepts will be applied in the telecommunications sector. In its recommendation, Commission states the role and the application of two concepts one of which is demand elasticity and the other is supply elasticity. The demand elasticity means the sensitivity of demand to the changes in price of the product/service or the income of consumer or the prices of other products while the supply elasticity means the sensitivity of supply to the changes in the prices.

18 Markets are defined in two captions which are retail markets and wholesale markets in the Recommendation of Commission at 11 February 2003 according to the concepts of supply and demand elasticity.

The relevant markets defined by Commission are stated below:

Relevant Markets in Retail Level

i. Access to the public telephone network at a fixed location for residential customers
ii. Access to the public telephone network at a fixed location for non-residential customers
iii. Publicly available local and/or national telephone services provided at a fixed location for residential customers

iv. Publicly available local/or national telephone services provided at fixed location for residential customers
v. Publicly available international telephone services provided at a fixed location for non-residential customers
vi. The minimum set of leased lines (comprising the specified types of leased lines up to and including 2Mb/sec).

Relevant Markets in Wholesale Level

i. Call origination on the public telephone network provided at a fixed location
ii. Call termination on public telephone networks provided a fixed location
iii. Transit services in the fixed public telephone network
iv. Wholesale unbundled access (including shared access) to local loops and sub loops for the purpose of providing broadband and voice services
v. Wholesale broadband access including bit-stream access
vi. Wholesale terminating segments of leased lines
vii. Wholesale trunk segments of leased lines
viii. Access and call origination on public mobile telephone networks
ix. Voice call termination on individual mobile networks
x. The wholesale national markets for international roaming on public mobile networks
xi. Broadcasting transmission services, to deliver broadcast content to end users

Market structure, market behaviors, market performance and etc are focused and the competition level of market is investigated while analyzing the level of competition in these markets. With the new regulatory framework, the concepts of significant market power and dominant position are joined and they started to be used interchangeably. While analyzing the competition level and defining the operators having SMP, come criteria like market share, total size of operator, control of infrastructures that cannot be duplicated easily, technological advantages, technological superiority, low or zero countervailing buying power, easy and privileged access to financial resources and capital markets, product/service differentiation (e.g. combined products and services), economies of scale and scope,

vertical integration, an advanced distribution and sale network, lack of potential competition, obstacles in front of expansion and etc. are taken into consideration.

If SMP exists in the relevant market then at least one of the remedies stated below shall be applied on the operator having SMP:

i. Transparency
ii. Equal treatment
iii. Accounting separation
iv. Providing access
v. Price control and cost accounting

With the new approach, it is possible to use least intervening of existing tools on operators having SMP in related markets to increase the level of competition instead of standard automatic obligations. When this situation is examined from the perspective of our country, according to the Communique Related with Methods and Determination on Defining the Operators Having Significant Market Power. Telecommunications Boards decides whether the operators performing business in the related market have SMP or not by using the criteria below:

i. Market Share
ii. Power to influence market conditions
iii. Relationship between sales and market share
iv. Power to control access devices to last consumer
v. Power to access financial resources
vi. Experience on its products and service in the market

In the process of defining operator(s) having SMP, it is targeted to impose predefined obligations on operators. It is expected to prevent operators having SMP to abuse their sector powers on potential or real new entrants by using this approach.

In this context, reports about determination of operator with significant market power related with fixed networks was approved with the Board Decision on 21. 02.2006 and Number of 2006/DK-10/142. In accordance with Article 6 and 7 of the

Communique, Türk Telekom is determined as an operator with significant market power in the markets below:

Relevant Markets in Retail Level

i. Access to the public telephone network at a fixed location
ii. Publicly available local, national and international telephone services provided at a fixed location (involving the calling to non-geographical numbers and mobile numbers)
iii. The minimum set of leased lines (comprising the specified types of leased lines up to and including 2Mb/sec.).

Relevant Markets in Wholesale Level

i. Call origination on the public telephone network provided at a fixed location
ii. Call termination on public telephone networks provided at a fixed location
iii. Transit services in the fixed public telephone network
iv. Wholesale unbundled access (including shared access) to local loops and sub loops for the purpose of providing broadband and voice services
v. Wholesale broadband access including bit-stream access
vi. Wholesale terminating segments of leased lines
vii. Wholesale trunk segment of leased lines

5.4.4.2. The Regulation on Principles and Procedures for Identification of the Operators with Significant Market Power

With the 2002 Common Regulatory Framework for Electronic Communications Networks and Services, significant market power and dominant position concepts are joined and they started to be used in the same meanings. The need for enhancing the competition level in related markets that identified in EU regulations and defining operators that have SMP and identifying the obligations of SMP operators creates the necessity revision of The Communique on Principles and Procedures for Identification of the Operators with Significant Market Power and The Communique on Principles and Procedures for Identification of the Operators with Dominant

Position that published in 03.06.2003 dated and 25127 numbered Official Gazette. The said Communiques regulate the significant market power and dominant position concepts as different terms and also bring the operators the obligations automatically.

In Turkish telecommunications sector, satisfying the level of competition in methods of developing effectiveness, economic, technical and historical characteristics of related markets and the effects of SMP operators in the market conditions and obligations may be differentiated between the operators that have significant market power in the said markets in order to enhance competition and also to secure accordance of regulations with EU legislation and also in order to set the frame of the competition, the Regulation on Principles and Procedures for Identification of the Operators with Significant Market Power (SMP) is prepared. The said regulation sets out the significant market power and dominant position concepts in the same meanings coherently with the EU legislation and also clarifies that Authority shall make market analysis studies and consequently to these analyses shall define SMP operators and shall bring obligations to these operators.

After the Regulation on Principles and Procedures for Identification of the Operators with SMP was being issued, the Communique on Principles and Procedures for Identification of the Operators with SMP and Communique on Principles and Procedures for Identification of the Operators with Dominant Position was abolished.

The Regulation on Principles and Procedures for Identification of the Operators with SMP applies to the operators acting in telecommunications sector. The said Regulation, is to prescribe principles and procedures for market analysis in the relevant markets in order to ensure effective competition environment in the telecommunications sector for determining operators having significant market power that may be the subject to the regulations and obligations.

The Regulation on Principles and Procedures for Identification of the Operators with SMP, sets out that Authority can make analyses as to determine operators with SMP

in relevant market. Market analyses related with relevant market defined by Authority shall be done again at the latest within three years.

Within the provisions of the Regulation on Principles and Procedures for Identification of the Operators with SMP, Authority shall impose to SMP operators' obligations depicted below:

i. Transparency obligation
ii. Publication and reference access and interconnection offers obligation
iii. Non-discrimination obligation
iv. Accounting separation obligation
v. Subject to tariff regulation obligation
vi. Cost accounting obligation

The regulation is also coherent with EU regulations in this context.

Within the context of the Regulation on Principles and Procedures for Identification of the Operators with SMP, if one or more undertakings are assessed to have significant market power in a relevant market, it is accepted that there is lack of competition in that market. The Regulation sets out that while determining operator with SMP in a relevant market, market shares of the operators are considered as primary criteria. The determination of the market shares of the operators will be made upon characteristic properties of the relevant market; data like income, subscriber number, user number, traffic volume, transmission capacity and transmission line number, are used as long as they are appropriate and available. Assessing significant market power in related market, below criteria may be used in addition to market shares of the operators:

i. Control of infrastructure not easily duplicated
ii. Technological advantages or superiority
iii. Lack of countervailing buying power
iv. Easy or privileged access to capital markets/financial resources
v. Product and/or service diversification
vi. Economies of scale
vii. Economies of scope

viii. Vertical integration
ix. Highly developed distribution and sales network
x. Lack of potential competition
xi. Barriers to expansion

The criteria depicted below may be used when assessing whether an operator is in a joint dominant position with other operators in the context of Regulation:

i. Maturity of the market
ii. Stagnant or moderate growth on the demand side
iii. Low elasticity of demand
iv. Homogenous products/services
v. Similar cost structures
vi. Similar market shares
vii. Lack of technical innovation and mature technology
viii. Absence of excess capacity
ix. High barriers to entry
x. Lack of countervailing buying power
xi. Lack of potential competition
xii. Informal and formal links between undertakings
xiii. Retaliatory mechanisms
xiv. Lack or reduced scope for price competition

The Regulation on Principles and Procedures for Identification of the Operators with SMP sets out that in the case when operators do not fulfill their obligations pecuniary penalties shall be imposed.

5.4.4.3. Billing Services

Article 15 of Ordinance on the Consumer Rights in the Telecommunications Sector which was published in Official Gazette No. 25678 dated 22 December 2004:
"Fixed or mobile network operators which have billing information about subscribers and other operators giving services to subscribers to these networks may make

agreements in order to prevent subscribers receiving more than one bill, without additional costs to subscribers"

> *"In case of a disagreement between parties, Board may bring billing obligations to network operators having significant market power in exchange of an applicable charge, provided that it does not bring additional costs to subscribers."*
>
> *According to this provision, demands of some B Type Long Distance Telephony Service Operators (LDTS) were considered and Telecommunications Authority started to study so as to impose billing obligation to Türk Telekom by the first quarter of 2006.*

As a result of the study, it was understood that billing agreement would make B Type LDTS business to be applicable and it would prevent the probability of consumers receiving more than one bill. Moreover, it is understood that B Type LDTS operators wanted to purchase billing services (bill publishing, distribution and collection) from Türk Telekom. After then, formal correspondences were done with the related parties and Finance Ministry. The Draft document prepared as a result of the correspondences and related study was published in the web so as to receive related parties opinion about the document, in accordance with Board Decision No. 2006/DK-10/425 date 12 July 2006. After receiving related parties opinions, draft document was revised and final version was created. Finally, "Principles and Procedures for billing obligation related with the calls which are done by carrier selection per call method" was adopted with Board Decision No.2006/613 dated 2 October 2006 and billing obligation was imposed for Türk Telekom.

5.4.5. E-Signature Regulations

Electronic Signature Act was published in the Official Gazette dated 15 January 2004 and entered into force in 23 July 2004. By virtue of this Act, Telecommunications Authority is given the duty of preparing and publishing secondary legislations and supervision of electronic certificate service providers. As a result; "Ordinance on Certificate Financial Liability Insurance" was published in

Official Gazette No.25665 dated 26 August 2004, "Ordinance on the Procedures and Principles Pertaining to the Implementation of Electronic Signature Law" and "Communique on Process and Technical Criteria Regarding Electronic Signatures" were published in Official Gazette No. 25692 dated 06.01.2005.

They have been changed Article 10 of the Ordinance and published in Official Gazette No. 26070 dated 04.02.2006 and Article 8 of the Appendix 1 of the Ordinance and published in Official Gazette No. 26070 dated 04.02.2006 and it has been changed Article 21 of the Ordinance and published in Official Gazette No.26322 dated 17.10.2006.

It has been changed Article 6 of the Communique and published in Official Gazette No. 26056 dated January 21, 2006. It has been changed Article 11 (a) of the Communique and published in Official Gazette No. 26204 dated 20.06.2006 and added temporary article.

Also, there were two ruling published by the Board of the Authority about the fees of the qualified electronic certificate, time stamping and related services and specified the Procedures and Principals of the Formats for Secured Electronic Signature.

5.4.6. Rights of Way Regulation

Rights of way means the use of the property under ownership of natural persons, private legal entities or public organizations or establishments by telecommunications operators offering public service, so as to install any equipment such as posts, antennas, cables, etc. and perform their maintenance and repair, in order to be able to provide such service.

The "Regulation Regarding the Rights of Way in Execution of Telecommunication Services" came into force by issued Official Gazette dated 02.05.2006 and numbered 26156.

5.4.7. Tariff Ordinance

In the current regulatory framework of telecommunications in Turkey, Tariff Ordinance is the basis for price regulation on telecommunications services' prices. Pursuant to the provisions of Tariff Ordinance, the tariffs of operators with significant market power and/or legal or de facto monopoly are audited and approved by the Telecommunications Authority. As indicated in details above, the Telecommunications Authority has performed this function with regards to service and infrastructure providers in fixed telephony lines, mobile telecommunications services, internet connection and data transmission services. In this respect, main operators in mobile telecommunications sectors have been requested to exercise accounting separation and cost accounting system for fair pricing of services such as interconnection.

Operators with significant market power have been also required to offer standard reference tariffs for interconnection and unbundling access to local loops. Furthermore, operators with significant market power have been identified and market analyses have been conducted to create a more competitive and efficient industry. The stated measures have been taken to prevent practices of unfair competition and inefficient functioning of the telecommunications sector. B

5.5. *COMMISSION OF EUROPEAN COMMUNITIES'* PROGRESS ANALYSIS OF THE TURKISH COMMUNICATIONS SECTOR

As a *Communication from the Commission to the European Parliament and the Council, the Commission of European Communities* issued a *Commission Staff Working Document,* named *"Turkey 2009 Progress Report" in 14th of October, 2009.* The report includes some assessments with respect to the regulatory and executive promotion realized in the telecommunication sectors in Turkey.

The Information and Communication Technologies Authority's issue of an amending regulation on radio and telecommunication terminal equipment and communiqué

regarding publication of technical characteristics for interfaces and publication of harmonized standards on the same subject were mentioned in the report. Adoption of Electronic Communications Law no: 5809 in November 2008 was also pointed out and regarded as an important step toward aligning Turkey's regulatory framework with the EU *acquis* especially with respect to the authorization rules and the tasks of the regulator. The Telecommunications Authority's adoption of By-Laws, which ensures further alignment with the electronic communications *acquis* and the amendments to the law were emphasized as factors having potential to generate the conditions for competition on the fixed telephony market.

The developments in the mobile market were also mentioned in the Report. First of all it was indicated that the penetration rate of mobile subscribers reached at 89% by the end of August 2009 and additional private investments were made in the mobile network infrastructure. Then, the 30% decline in interconnection charges and movement of 6.2 million numbers by August 2009 following the introduction of number portability in November 2008 were stated as two significant developments. Introduction of number portability for the fixed telephony market in September 2009 was regarded as a further step toward alignment with EU *acquis.*

It was criticized in the Progress Report that the Electronic Communications Law is not in line with the *acquis*. The provisions on universal service obligations and the scope of authorization rules were indicated as two issues which were not in conformity to current concession agreements. Nonetheless, the Significant Market Player regime (SMP) and market analysis procedures were deemed as lacking a sound legal basis in the Electronic Communications Law.

Some issues in the fixed telephony and internet broadband markets were also mentioned in the Turkey Progress Report. Numbering plans and interconnection rates were criticized in this respect. Interconnection conditions in voice and broadband markets were indicated as two aspects which should have been improved. Furthermore, the task sharing between the Telecommunications Authority and the Competition Authority was deemed as needing clarification. Cost accounting and

accounting separation by dominant operators were reported as two incomplete area of enforcement. Finally, high taxation on communication services was pointed out as a matter needed to be improved.

Another point of critics stated in the Turkey Progress Report 2009 is related to *information society services*. Even though the legal framework of Turkey is generally evaluated as well aligned with the *acquis* on network obligations and cybercrime, Turkey's legislation on e-commerce and the Electronic Signature Directive was deemed not in line with the *acquis.* The report argues that there is a need for stronger guarantees of respect of freedom of expression with respect to access to the Internet by pointing out the fact that some websites are frequently blocked by court order. Some of censorship policies and implementations, which raise critics and public concerns, are shortly indicated below.

5.6. INTERNET CENSORSHIP IN TURKEY

Prior to discussing the current situation of control over the access to the Internet it would be useful to shortly review the historical development of the Internet and current Internet penetration rate in Turkey.

5.6.1. The Evolution of the Internet in Turkey

As indicated above, the postal and telecommunications services were supplied by the Post, Telegraph, and Telephone (PTT) company, which was a state economic enterprise under the control of the Ministry of Transport and Telecommunications by 1994. In 1994, however, the Parliament passed a law (law number 4000) that separated the post and telecommunications functions, incorporating the telecommunications division as Türk Telekom, a joint stock company 100 percent owned by the government. Türk Telekom launched its operations in 1995 as the sole telecom operator, owning the whole telecommunications infrastructure including conventional telephone lines, satellite communications, cable TV lines, submarine lines and the Internet backbone. Türk Telekom had the right to license private

companies to provide services or to develop infrastructure (Wolcott and Goodman, 2000: 24). On September 28, 1995, Türk Telekom declared a tender for the creation of a main Internet infrastructure for Turkey. An auction arranged in October and November, and the winner was declared at the annual Internet conference on November 16, 1995 (Aybar, 2001: 14). Among four bidders, the consortium of GlobalOne, Satko, and METU was the winner, with an offer of 70.2 percent. The Internet backbone that was conducted by GlobalOne was called TURNET. The TURNET contract was signed on March 1, 1996, for a seven-year term. Each year, Türk Telekom's share was to increase, reaching 79.6% at the end of the seventh year. The consortium initially invested $1.5 million. TURNET began offering service in October 1996 and provided the foundation for private, commercial Internet service providers (ISPs). The creation of TURNET and a competitive ISP market led to a dramatic expansion of Internet usage in Turkey. During the first two years of TURNET operation the number of ISPs increased by 600 percent. Between 1996 and 2002, the number of Internet users in Turkey grew by approximately 800 percent, reaching over 2.3 percent of the population by 2002.

According to the data published by InternetWorldStats for 31 March 2009, the Internet penetration rate in Turkey is 35% with approximately 26.5 million Internet users and 4.554.000 broadband subscribers. With these statistics Turkey is among the second group of countries, so called "Intermediately Internet Penetrated Countries". The first group of countries, "Most highly penetrated Countries and Territories", is those with Internet penetration rate over 50%, the second group countries with medium penetration rates between 23.8% and 50%, the third group of countries, named "Low Internet Penetration Countries", consists of 120 countries, and finally the fourth group of countries with no Internet penetration includes 20 countries (InternetWorldStats.com; last visited 30.10.2009).

As briefly stated the 2009 Progress Report of the EU Commission, the tax over the Internet services has been currently decreased from 15% to 5% (Commission of European Communities, 2009: 52).

5.6.2. The Censorship and Banning Websites

In Turkey, censorship on the Internet contents has generally occurred in forms of banning websites whose contents have been judged as "improper" and/or "illegal". In many cases, censorship decision on the websites is taken by a court and the decision is executed by the Telecommunication Communication Authority (TİB).

A number of websites with varying popularity have been subject to censorship in Turkey since the beginning of 2007. The government of Turkey has blocked access to the worldwide popular video-upload site *youtube.com* with the following statement: "Access to www.youtube.com site has been suspended in accordance with decision no: 2007/384 dated 06.03.2007 of İstanbul First Criminal Peace Court". Two days later, the ban was removed after widespread public protests. But the same site was banned again on 12th of March 2008 with the decision 2008/251, which was then soon lifted. But successive court decisions have made the site banned again. From the beginning of 2007 to present, more than 800 minor and major websites were/have been banned.

Turkey has a new governmental association recently established just for Internet control and censorship without prior court judgment as it was before. According to the 5651st Law of Turkish Penal Code, which was enacted on 23rd of May 2007, all media including websites directing people to suicide, child abuse, drug, pornography, prostitution, insulting and gambling are banned. Turkish The Information and Communication Technologies Authority also has a website for public reports. Upon the reasons stated above, 1.475 web sites were banned by the Telecommunications Authority or by court decisions up to the end of 2008 (Bayzan, 2009: 385-386).

5.7. TAX BURDEN ON THE TELECOMMUNICATIONS SECTOR

The tax burden over the telecommunication services is an important legal and financial issue in front of the sector's development. The major taxes applied to the telecommunications sector in Turkey can be categorized into two groups; *relative*

taxes and *lump sum taxes*. The relative taxes consist of various taxes such as *Value-Added Tax (VAT)*, *Special Communications Tax*, *Treasury Share*, and *Contribution to The Information and Communication Technologies Authority* and constitute a significant proportion of the tax burden on the telecommunications sector in Turkey. The other main group of taxes on telecommunications sector is *Lump Sum Taxes.* Lump Sum Taxes consist of *Stamp Tax, License Fees* and *Usage Fees*.

Table 5.8: The tax rates on the Telecommunications Sector in Turkey

Wireless License Fee	10
Wireless Usage Fee	10
Special Communication Tax –New Activation	26
Special Communication Tax	%25
Treasury Share	%15
Contribution to the Telecommunications Authority	%0.35
VAT	%18
Stamp Tax	%0.75

Main taxes on telecommunications services have significantly higher rates when compared to those in developing countries. The combined cost of *special communications tax* and *value-added tax (VAT)* is approximately 58% whereas its average is approximately 17.1% in fifty developing countries.

5.8. CONCLUSION

Turkey has shown important promotion in the way to conform to the EU acquis in the field of electronic communications and information technologies. Huge investments were made in fixed and mobile network infrastructure and the penetration rate of mobile subscribers reached 89% by August 2009. As of the second quarter of 2009, the number of broadband subscribers reached 6.2 million.

The legal infrastructure has been developed so as to be aligned with the current EU acquis of telecommunications sector. Despite of the impressive progress in regulatory infrastructure, there are still some problems. In order to create more competitive fixed telephone and the Internet/broadband markets, further promotion with respect to enactment and implementation of secondary legislation are needed. "The Information and Communication Technologıes Authority" may take more responsibility in implementation of ordinances and by-laws to create a more competitive and liberal telecommunications market.

6. CONCLUSION

By the early 1980s, telecommunications in almost each EU country was dominated by state-owned monopolies, which had exclusive and special rights. But economic concerns such as inefficient function of markets led countries to regulate their telecommunications sector, to privatize their public monopolies, and to gradually liberalize all their telecommunications infrastructure and services. Regulations played a significant role in stated transition of European telecommunication sectors.

The objective of the regulations in the EU telecommunications sector was liberalization that opens up national markets to competition by eliminating monopoly rights granted by Member States. Liberalization without privatization had been expected to result in the state's dual role: both a regulator and an incumbent. So regulations and privatization took place before liberalization. The regulation of the telecommunications sector throughout the EU had two dimensions: liberalization and harmonization.

The liberalization efforts had three main pillars; the first is removal of exclusive rights early granted, independent regulatory authorities within a common regulatory framework, and dependency on competition policy tools. Four regulatory models have been developed whilst regulating and liberalizing the European telecommunications sector. The starting model characterized with one monopoly service and infrastructure provider lasted till 1990 and replaced with the Regulatory Model of 1987 Green Paper, which requiring preservation of network integrity, liberalization of telecommunications services except public voice telephony, harmonization of standards through the EU, utilization of Open Network Service (ONP) regulating monopoly infrastructure providers and competitive service providers, liberalization of terminal equipment market, and distinction of operational and regulatory functions of PTOs. The Second Phase of Liberalization Efforts beginning with 1987 Green Paper left the telecommunications sector partially liberalized and partially under monopoly.

The Transitional Model of 1992 Review and the 1994 Green Paper took place between 1996 and 1998 and was relied on propositions of the Commission Review of 2002 such as full liberalization of voice communications, liberalization of alternative infrastructure for self-provision of services, and liberalization of cable TV networks for provision of liberalized services. Finally, the Fully Liberalized Model took place in 1998 by bringing liberalization of all telecommunication services and infrastructure, establishment of a common framework for interconnection of services and networks, approximation of general and individual licensing regimes, implementation of a specific cost accounting system by TOs to evaluate cost of interconnection, distinction of regulatory and operational functions of TOs, independence of National Regulatory Authorities towards both TO and the State, continuity, quality and affordability of universal services, and establishment of sound competition rules.

Turkey, who started full membership negotiations with the EU, began to transform its telecommunications sector in order to be in conformity with the regulatory framework of the EU. In this respect Turkey has launched efforts to adopt Chapter 19 of the EU acquis, which refers to the telecommunications sector. In compliance with efforts to conform to the EU laws, a series of regulations has been formulated, the Telecommunications Authority was established as an independent licensing authority in May 2001 and the special and exclusive rights of Turk Telecom, the old PTO of Turkey, were ended by the end of 2003. In December 2005, 55% of the Turk Telecom was privatized and the State control over the sector was ended.

Detailed analysis of regulations reveals some drawbacks. For example, contrary to the general approach in favour of competitive services, Turk Telecom is still very dominant in the short distance fixed line services segment. The local fixed line market was closed to competition until September 2009, and the company has a dominant position in broadband internet services whilst the fixed line monopoly of Turk Telekom ended at the first day of 2004, licenses for long distance service providers and the incumbent on interconnection charges was solved by July 2006.

Number portability was introduced in mobile phone sector in November 2008 and in fixed line telephony market in September 2009. A sum of 6.2 million numbers was ported in the mobile phone markets by August 2009.

Following the opinion of the Turkish Competition Authority prior to privatization, Cable TV infrastructure was not sold in the privatization of Turk Telecom and it is still under the control of the state. In recent times, the Cable TV network have served as an Internet service provider and launched digitalization of its network. In the near future, IP TV broadcasting will be started over the Cable TV Network. Despite of these developments, the Cable TV is not being operated as a real competitor. Turk Telecom's share in broadband network market still accounts for approximately 95%.

The censorship on the Internet is still a critical issue of freedom of expression in telecommunications sector. Even though the majority of initial censorship applications were based on relevant court decisions, most of the current ones were only based on control of the Telecommunications Authority without prior court decision. Even though main reasons for first censorship implementation were directing people to suicide, child abuse, drug, pornography, prostitution, insulting and gambling, following implementation has also included websites evaluated as "politically improper".

The Electronic Communications Law of 5809, which was adopted in November 2008, is an important milestone of efforts to align Turkey's regulatory framework with the EU acquis particularly with respect to the authorization rules and the tasks of the regulator. The new Electronic Communications Law empowers the NRA for all ex-ante and ex-post regulations and limits the powers of Competition Authority. The The Information and Communication Technologies Authority adopted By-Laws for further alignment with the electronic communications acquis. However, the The Information and Communication Technologies Authority's speed and commitment in adopting and implementing secondary legislation is still subject to critics.

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