

FINAL REPORT

ON

CATEGORIES OF AUTHORISATIONS



This study has been prepared by ETO for the Commission of the European Union.

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EXECUTIVE SUMMARY

1. Purpose of the study

The purpose of this study is to identify and analyse the different categories of authorisations established by NRAs for different operators/service providers, including the rights and obligations attached to each category, and in particular the impact of these different categories of authorisations on interconnection rights and obligations in CEPT countries. Within these areas, the study attempts to identify the features which are common to most licensing schemes.

The study has been prepared by ETO on behalf of ECTRA for the European Commission.

The starting point for the analysis presented in the study is that, even though the EU regulatory framework introduces certain distinctions between categories of market players (e.g. within the framework of the Licensing and Interconnection Directives), the legal categories of different market players are defined in greater detail by each national licensing regime, together with the rights and obligations attached to any licence.

The result of this is the existence of operators functioning under authorisations with different status (and hence different rights and obligations), granted by different European countries. This can have direct implications for the development of competition in the internal market for telecommunications and can make it very difficult, for example, for an operator with obligations to interconnect in one European country to recognise the status and therefore the rights to interconnect of an operator requesting interconnection on the basis of authorisation from another country.

This study aims therefore at analysing the implications of the above-mentioned differences for:

- the promotion of competition in the internal market for telecommunications;
- the conclusion of interconnection agreements between organisations operating under authorisations provided by different countries (cross-border interconnection).

2. Summary of the report

The report contains the following sections:

1. A presentation of the study (Chapter 1);
2. A presentation of information collected on categories of authorisations in European countries (Chapter 2).
3. Analysis and comparison of the national licensing regimes and related categories of authorisations as well as of the different sets of rights and obligations attached to authorisations (Chapter 3).
4. A presentation of the results of a survey carried out among the telecommunications industry on the effect of divergent categories of authorisations on competition in the internal market and on cross-border interconnection (Chapter 4).

5. Conclusions and proposals (Chapter 5) on:

- The relationship between divergent categories of authorisations and the promotion of competition in the internal market for telecommunications;
- The effect of divergent categories of authorisations on cross-border interconnection.

3. Scope and objectives of the analysis

Chapter 3 of this report contains the core of the study – the analysis of the regulatory data collected in Chapter 2.

Paragraph 3.1 briefly analyses and compares the general principles on which the different national licensing regimes are based and the way in which national regulators have segmented their licensing regimes into different categories of authorisations; paragraph 3.2 focuses on the different sets of rights and obligations attached as licensing conditions to the various categories of authorisations identified in the national licensing regimes analysed.

The countries analysed have been grouped into three different classes on the basis of the degree of segmentation of their licensing regimes into different categories of authorisations. Three different “models” of segmentation have been identified on the basis of the number of categories of authorisations found in each country in Chapter 2. There are countries with licensing regimes characterised by :

- “low level of segmentation into categories of authorisations”;
- “segmentation into categories of authorisations based on the distinction between infrastructure and services”;
- “high level of segmentation into categories of authorisations”.

This classification merely aims at demonstrating the existence of trends in the segmentation of the licensing regimes into categories of authorisations. There is no intention to demonstrate the existence of any relationship between the level of segmentation and the existence of a light or a burdensome sector-specific regulatory regime. The mere fact that regulators have foreseen many different categories of authorisations cannot be related to the degree of difficulty in obtaining an authorisation or to the number of licensing conditions to be respected.

Furthermore, the analysis of “national models” does not have the aim of verifying whether a certain model is more effective and efficient than another in promoting competition in the national market.

The analysis aims at demonstrating that:

- European countries currently define different categories of authorisations in their national licensing regimes;
- the same operator can be classified in different categories in different countries;
- the same operator, classified in different categories in different countries, might have some difficulties in providing the same service and in enjoying the same rights – interconnection in particular - when trying to operate in different countries;
- this could compromise the creation of a really competitive internal market for telecommunications.

4. Questionnaire addressed to the industry

The effect of diverging categories of authorisations on competition at the European level and on cross-border interconnection has been discussed with representatives of the telecommunications industry through a questionnaire sent by ETO to providers of telecommunications networks and services operating in the different EU countries.

Paragraph 4.2 of this report presents the respondents' answers with regard to the implications of the different categories of authorisations for the promotion of competition, while paragraphs 4.3 and 4.4 are focused, respectively, on the respondents' answers with regard to difficulties in cross-border interconnection and possible solutions to the difficulties in regulating cross-border interconnection.

The questionnaire to the industry shows that:

- one of the potential implications of different categories of authorisations among European countries is that the same operator may not be able to provide the exact same service, or even a consistent set of services, in each of the European countries where he is authorised to operate;
- national peculiarities may threaten the potential benefits of the single market for telecommunications, since an international operator needs to comply with many different national authorisation regimes.

From a previous consultation with the industry on the potential benefits of the creation of a One-Stop-Shopping procedure for all telecommunications services in Europe it appeared that:

- complete harmonisation of European authorisation regimes or a mutual recognition of authorisations among European countries could be the solution to ensure easy access to all European telecommunications markets.

The result of the questionnaire to the industry on the difficulties in negotiating/concluding cross-border interconnection agreements shows that:

- very few companies have to date negotiated/concluded cross-border interconnection agreements in Europe
- no particular difficulties have been signalled by the few companies involved in cross-border interconnection.

5. Conclusions and proposals

As a solution to the problem of facilitating operator-entry to national markets characterised by divergent categories of authorisations, neither harmonisation of licensing regimes nor mutual recognition of authorisations is likely to present opportunities for rapid or easy implementation.

With the aim of facilitating market access, CEPT and ETO have been working on the creation of databases on national regulatory regimes in their member countries and on developing and setting up One-Stop-Shopping procedures aimed at supporting telecommunications enterprises wishing to operate in more than one country.

Transparent information through databases and easy access to the markets are certainly helpful tools, but they are only the first steps towards the creation of a really competitive internal market for telecommunications, for which a more definite solution to the negative effects of divergent categories of authorisations is needed. The final step can be seen in a complete harmonisation of the national licensing regimes to the minimum possible level of segmentation into categories of authorisations and to the lowest level of sector-specific regulation.

The analysis conducted in this study and some provisional proposals on the potential effects of divergent categories of authorisations have been presented to and discussed with telecommunications operators, European Associations, industry and Administrations during a public Workshop held in Brussels.

The entire process has resulted in the following conclusions and proposals:

As a first step:

- **ETO and CEPT should continue to provide extensive regulatory databases aimed at providing a high level of transparency with regard to national licensing regimes;**
- **ETO and CEPT should expand the existing One Stop Shopping procedure to all telecommunications networks and services with the aim of facilitating access to the telecommunications markets in Europe.**

As a final goal, a higher level of harmonisation of the national regulatory regimes should be reached and the different national models should converge to the following:

1. **The segmentation of national regulation into different categories of authorisations should be extremely low and the use of individual licences very limited.**

The reduction of categories of authorisations to a minimum will become an even more pressing issue with the development of new technologies and the provision of new services and solutions, as part of the convergence process (voice over IP, for example), which will make it particularly difficult to use pre-determined categories.

The fragmentation of the licensing scheme into many different definitions of networks and services with their related licensing categories and corresponding conditions and procedures is in most cases the result of traditional and historical state-intervention and state-control over the telecommunications sector, considered to be characterised by activities of “prominent general interest”.

There are no reasons why historical and traditional views over

telecommunications should continue to prevail and influence the segmentation of the regulatory regime in the sector and the entry of new operators into the market.

The only reason for having a certain control over who is operating in the sector is when the operator in question needs individual rights for the use of scarce resources (frequencies, numbers, rights of way).

Therefore,

2. The only categories of authorisations to be identified and specifically regulated should be those involving the assignment of individual rights for the use of scarce resources (frequencies, numbers, rights of way, etc.). Individual licences may be issued to regulate these categories. When issued, such individual licences should state in a clear and comprehensive way the individual rights and obligations of the licence-holder.

All other networks and services not involving the use of scarce resources should be part of a broad all-inclusive category and be provided either without authorisation or on the basis of a general authorisation.

3. A regulatory model based on the minimum level of segmentation into categories of authorisations will also be characterised by requiring little or no information or documentation to be supplied before market entry, and by enabling relatively easy access to the market, at least in terms of licensing procedures and pre-conditions to be respected.

4. Telecommunications operators and service providers should be subject only to conditions related to those fields where expectations with regard to the ability of competition mechanisms are not high, e.g. operators with significant market power (and related interconnection issues), consumer protection and management of scarce resources.

With regard to the effect of divergent categories of authorisations on cross-border interconnection, the results of the questionnaire addressed to the industry included in Chapter 4 of this report have been analysed in parallel with the document of the ONP-Committee on "Cross-border Interconnection in the EU – application of Community law"; the Statement on "Cross-border Interconnection" by the ECTRA APRII Project Team; the Common Position on "Cross-border Interconnection" of the Independent Regulators Group; and ETP's opinion

that the problems operators had so far encountered with CBI are related more to the practical application of CBI than to formal questions regarding authorisation systems.

Concerning authorisation systems, however, the ETP is of the opinion that differences between a country characterised by a low level of segmentation into categories of authorisations and one with a high level of segmentation will very soon cause problems when an operator located in the first country wants to

terminate traffic at Interconnection Directive-conditions at a local switch in the second country.

The analysis conducted in this study and the results of the discussion during the public Workshop held in Brussels lead to the following conclusions with regard to the effect of divergent categories of authorisations on interconnection between organisations authorised to operate by different countries:

5. So far, there is no evidence that difficulties in cross-border interconnection arise from differences in categories of authorisations in EU member countries.

6. It is necessary to further investigate the following issues, strictly related to the provision of cross-border telecommunication services:

- a. Authorisations for landing submarine cables and related issues (Indefeasible Rights of Use, access to cable landing stations, back-hauls)¹**
- b. Authorisations for using earth station equipment.**

¹ Contacts have been established with Gerald Oberst who is conducting a study for the European Commission concerning "Submarine Cable landing rights in Member States and existing practices for provision of transmission capacity on international routes, including terrestrial circuits, submarine cables and satellite links" in order to co-ordinate the conclusions of that report with the conclusions of this report on "Categories of authorisations".

CHAPTER 1 -PRESENTATION OF THE STUDY

The EU regulatory framework introduces certain distinctions between categories of telecommunications market players, particularly within the framework of the Licensing Directive and the Interconnection Directive.

-Categories of authorisations in the framework of the Licensing Directive:

The Licensing Directive establishes a common framework for general authorisations and individual licences granted by Member States in the field of telecommunications and provides for the harmonisation of the procedures associated with the granting of authorisations/licences and the attached conditions. Within this harmonised framework for general authorisations and individual licences, Member States may define and grant different categories of authorisations based on categories of balanced rights and obligations, which are further defined by each national licensing regime.

The study provides the possibility of drawing up a summary and an analysis of the main licensing conditions (rights and obligations) found in the most significant categories of authorisations identified, in particular for the provision of public networks and voice telephony services.

The analysis and comparison of national specificities with regard to categories of authorisations will serve the purpose of identifying common practices and general trends and enable proposals for “codes of best practice” to be formulated within CEPT countries, to the extent that this proves feasible.

-Categories of authorisations in the framework of the Interconnection Directive

Apart from granting specific rights and obligations to operators with significant market power, the Interconnection Directive grants certain categories of organisation the right and obligation to negotiate interconnection with each other. The organisations concerned may be in the same Member State or in different Member States. There are four such categories of organisations, identified in Annex II of the Directive:

- 1) Fixed / Mobile public switched networks and/or services;
- 2) Providers of leased lines to users' premises;
- 3) Providers of international circuits (with third countries) with exclusive or special rights;
- 4) Providers of telecommunications services which do not have rights and obligations to negotiate interconnection in accordance with the Directive, but may be granted them under the national licensing scheme of a Member State.

Even if the list presented above provides for a common framework for European countries, the legal categories of different market players are defined in greater detail by each national licensing regime, together with the rights and obligations attached to any authorisation.

This holds particularly true for category (4) above. While for the first three categories of organisations identified in Annex II of the Interconnection Directive

it is always possible to refer to the common regulation included in the Directive itself, this 4th category allows Member States considerable discretion to give rights and obligations to interconnect to operators depending on national licensing rules. It can therefore be expected that, particularly in this category, different sets of rights and obligations will be applied to operators in different countries in accordance with the national licensing regimes. Moreover, European countries may have different interconnection terms and conditions depending on whether or not the interconnecting party owns and operates telecommunications infrastructures.

This report aims to study the potential implications of these differences for the promotion of competition in the European telecommunications market and, in particular, for interconnection between organisations operating under authorisations provided by different countries. This last case is often referred to as “cross-border interconnection”.²

² In the Working Document ONP-COM96-43, the Commission refers to cross-border interconnection as the situation where an organisation operating in Member State (X) may wish to interconnect with an organisation in Member State (Y) for the termination of traffic, but does not wish to provide public networks or services in Member State (Y), and therefore does not need to have an authorisation in Member State (Y)?

CHAPTER 2 - INFORMATION ON CATEGORIES OF AUTHORISATIONS IN EUROPEAN COUNTRIES

- Introduction

This Chapter aims at:

- a) identifying national licensing schemes in order to determine the different categories of operators and service providers defined by national licensing systems in CEPT countries;
- b) identifying rights and obligations included in the different categories of authorisations identified in point 1 above.

The collection of information necessary for the preparation of this Chapter was conducted through an analysis of the national telecommunications regulations (often secondary legislation) in European countries and through a questionnaire addressed to the members of the ECTRA Project Team on General Authorisations and Individual Licences (PTGAIL)³.

The aim was to collect the following information:

- the type of authorisation required for each category of operators and service providers defined by national licensing systems;
- a detailed description of the rights and obligations of each of the identified providers of telecommunications networks and services;
- in particular, a description of the interconnection rights and obligations of each of the identified providers of telecommunications networks and services, in accordance with national regulations and practice. The identified providers of telecommunications networks and services were then “categorised” in accordance with the categories of organisations identified in Annex II of the Interconnection Directive.

³ The following countries are represented in the ECTRA PTGAIL: Belgium, Denmark, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

2.1- Belgium

Category of operator		Type of authorisation	Category in Annex II Interconnect Directive	Rights and obligations
1	Providers of fixed public switched networks	Individual licence	CATEGORY 1	<ul style="list-style-type: none"> -rights of way -carrier selection code -CLI -reciprocity vis-à-vis non EU operators -rights of Belgacom RIO2 + mentioning the area concerned <p>See following pages for a complete list of rights and obligations</p>
2	Providers of mobile public switched networks: -type Mob2 -type GSM -type ERMES -type DCS 1800	Individual licence	CATEGORY 1	<ul style="list-style-type: none"> -rights of way -site sharing when no site is available in the particular area (only GSM and DCS1800) -approved terminal equipment -Belgacom RIO1 -interconnection rights with every PSTN, ISDN or mobile operator with SMP -right to lease lines from a leased lines operator with SMP
3	Providers of satellite public switched networks	Individual licence	CATEGORY 1	Experimental licence only. This licence does not mention any rights or obligations with regard to interconnection and competition.
4	Providers of voice telephony	Individual licence	CATEGORY 1	<ul style="list-style-type: none"> -only approved terminal equipment -reciprocity vis-à-vis non EU operators -rights of Belgacom RIO2 + mentioning the area concerned <p>See following pages for a complete list of rights and obligations</p>

Category of operator		Type of authorisation	Category in Annex II Interconnect Directive	Rights and obligations
5	Providers of mobile and personal telecommunications services -type Mob2 -type GSM -type ERMES -type DCS 1800	Individual licence	CATEGORY 1	See 2- above (Providers of mobile public switched networks) These kinds of licence are, so far, connected to a licence for the provision of mobile public switched networks (see 2- above)
6	Providers of other mobile communications services	Individual licence	CATEGORY 1	Regulation still in preparation
7	Providers of satellite communications services	Individual licence	CATEGORY 1	Regulation still in preparation
8	Providers of leased lines	Registration	CATEGORY 2	
9	Establishment and running of non-public telecommunications networks	Registration		

Rights and obligations of providers of fixed public switched networks

1. The operator is obliged to inform his customers of the obligation to use only approved equipment. *(Article 8 of the Proposal for a Royal Decree concerning Public Telecommunications Networks)*
2. The operator has to take all measures mentioned in the interconnection agreement in order to respect essential requirements, in particular
 - the security of the network
 - the integrity of the network
 - interoperability of services, in particular with a view to ensuring end-to-end quality in collaboration with the interconnected operators
 - data protection*(Article 9 of the Cahier des charges concerning Voice Telephony services)*
3. The operator has to respect the geographical coverage mentioned in the licence
(Article 10 of the Proposal for a Royal Decree concerning Public Telecommunications Networks)
4. The network needs to be available 24 hours out of 24, including Saturdays, Sundays and holidays and the operator has to take all necessary measures to ensure that level of availability and to remedy as soon as possible failures that could influence the quality and availability of services offered on his network. Moreover, the operator needs to take the necessary action to maintain and restore the access to his network in the event of interruption or failure in the infrastructure or in the event of *force majeure*.
(Article 11 of the Proposal for a Royal Decree concerning Public Telecommunications Networks)
5. Respect of relevant ONP, ETSI, CEN/Cenelec, ITU, ISO, IEC or national technical standards
(Article 13§1 of the Proposal for a Royal Decree concerning Public Telecommunications Networks)
6. The operator takes all necessary measures to realise the highest degree of reliability of communications with emergency services

Rights and obligations of providers of voice telephony

1. The operator is obliged to inform his customers of the obligation to use only approved equipment.
(Article 4 of the Cahier des charges concerning Voice Telephony services)
2. The operator has to take all measures mentioned in the interconnection agreement in order to respect essential requirements, in particular
 - interoperability of voice telephony services and end-to-end quality
 - dataprotection*(Article 5,§1 of the Cahier des charges concerning Voice Telephony services)*
3. The operator controlling the access to the end user needs to allow the setting up of the following communications:
 - communication with every user of another operator of voice telephony in Belgium or abroad

- communication with every user of a mobile telephone service offered to the public in Belgium or abroad
 - communications with every user of the service provided by the operator.
- These provisions are notwithstanding the possibilities of restricting the access to one of the voice telephony services concerned on demand of the user.

(Article 6,§1 of the Cahier des charges concerning Voice Telephony services)

4. The geographical coverage
(Article 6,§2 of the Cahier des charges concerning Voice Telephony services)
5. The operator has to offer possibilities for
 - DTMF/Dual Tone Multi Frequency dialing
 - itemised billing
 - selective call barring for outgoing calls*(Article 6,§3 of the Cahier des charges concerning Voice Telephony services)*
6. The service needs to be available 24 hours out of 24, including Saturday, Sunday and holidays.
(Article 7 of the Cahier des charges concerning Voice Telephony services)
7. The operator guarantees every person free of charge or for a price based on the net cost the right not to be included in the lists serving as a basis for directory services.
(Article 9,§2 of the Cahier des charges concerning Voice Telephony services)
8. The operator allows all end users to oppose calling line identification for each call separately or permanently. Derogation can be given on the basis of technical considerations.
(Article 9,§3 of the Cahier des charges concerning Voice Telephony services)
9. The operator needs to foresee the conditions for making an end to call deviation. Derogation can be given on the basis of technical considerations.
(Article 9,§4 of the Cahier des charges concerning Voice Telephony services)
10. In case of malicious calls, the operator identifies the number of the calling party on request of the customer who is the victim. He contacts the holder of that number and requests cessation of the malicious calls. If the malicious calls continue the client can lodge a complaint with the mediator services. If the mediator service accepts the complaint, the operator communicates the identity and the address of the holder of the number from which the malicious calls originate to the mediator service with the purpose of communicating it to the client.
(Article 9,§5 of the Cahier des charges concerning Voice Telephony services)
11. Operators provide publishers of directory services and the publisher of a universal directory service with data concerning the end users on the basis of reasonable, equitable and non-discriminatory technical, financial and commercial conditions
(Article 13 of the Cahier des charges concerning Voice Telephony services)

In accordance with Article 109[ter] of *Law of 21 March 1991 on the reform of certain economic public companies*,

- all organisations providing a public telecommunications network or telecommunications services offered to the public who in so doing control the

means of access to the end-user are obliged to negotiate interconnection with each other on demand.

The following are also subject to the same rights and obligations as above:

- operators providing leased lines
- operators who are authorised in a Member State to provide telecommunications circuits between the EU and third countries for which they have exclusive rights
- providers of voice telephony

2.2- Denmark

All telecommunications networks and services (excluding Premium Rate Services) may be provided under the conditions stipulated in the general class licence on the Provision of Telecommunications Networks and Services (Executive Order n. 857 of 7 December 1998), which covers voice telephony, satellite services, bearer data services and liberalised services other than voice telephony.

An individual licence granted by the National Telecom Agency is however required for the establishment and operation of public mobile communications networks and the provision of associated basic services, due to the use of scarce frequency resources.

Special terms for the provision of voice telephony services are the following:

1. Providers of voice telephony services shall ensure that it will be possible for all users connected to the service, via the service provided:
 - to get access to a national number information service, which has to contain all numbers from the Danish public numbering plan and to get access to foreign numbers;
 - to obtain access to the appointed Universal Service provider's text telephone service and the emergency call numbers of that service;
 - to make calls free of charge to the emergency call numbers 112 and 000.

The provider shall ensure that the emergency call is routed to the emergency centre covering the customer in question or that the call is routed according to special arrangements between the emergency authorities and the provider in question.

2. Providers of voice telephony services which are not public and which do not meet the requirements of point 1) above shall inform the users of the service in question about this.

Common terms for the provision of public telecommunications networks ("infrastructure") and services (including "voice telephony") are the following:

1. On request, providers of public telecommunications networks or services shall inform any person of the terms applicable to the provision, including notice of termination, quality, prices, delivery periods and any requirement for security to be provided.

2. On request, providers of public telecommunications networks or services shall inform any person of the extent to which it is possible via the network or services of the provider in question to communicate with end-users who are customers of other providers of telecommunications network or services, as well as prices and terms for this.
3. Information about conditions mentioned in 1) and 2) above shall be given to any customer at the latest in connection with the establishment of a customer agreement.
4. Providers of public telecommunications networks or services shall ensure that customers, subject to a notice corresponding as a minimum to the notice of termination under the relevant customer agreement plus 14 days, are informed of changes in the prices and terms applicable to the provision (cf. 1) and 2) above). However, changes of a purely favourable nature, e.g. general price reductions, may be introduced without prior notice.
5. On request, providers of public telecommunications networks or services shall give any person details of the interface specifications and any standards associated therewith or other specifications used in the network or service provided.
6. If a provider of a public telecommunications network or service specifies requirements for terminal equipment as a condition for access to, or use of the network or service of the provider in question, such requirements shall be publicly available, objective and non-discriminatory.
7. In connection with the provision of public telecommunications networks or services, providers shall ensure the following:
 - That prices for access to and use of public telecommunications networks or services are independent of the purpose for which the customer is using the networks or services in question, unless the purpose of application requires modified or supplementary services or facilities.
 - That prices for access to and use of public telecommunications networks or services are arranged in such a manner that the customer is not compelled to accept or pay for services, facilities or other offerings that are not necessary for the service requested.
 - That if customer agreements include conditions under which security has to be provided, there shall be open, objective and non-discriminatory criteria for making such a claim in relation to the customer.
 - That the end-user, at any time after six months, with a notice of no more than one month, can terminate the agreement without further costs, in spite of the fact that there is a direct or indirect binding of the customer for a longer time.

This last point shall only be applicable to customer agreements corresponding to consumer transactions, cf. section 4a of the Danish Sale of Goods Act.
8. Providers of public telecommunications networks or services shall ensure that the charging, billing and invoicing systems associated with the provision, as well as the provider's investigations and case administration in connection with complaints about bills, are certified according to the ISO-9002 standard or similar recognised standards.
9. In special cases, where the provisions in point (8) above are only limited in extent and where the costs of certifications must be regarded as disproportionately large, the National Telecom Agency may dispense with the requirement for certification.

10. In complaints cases where customers complain about non-observance of the provisions of Executive Order No.857 of 7 December 1998 or non-observance of agreed subscription or contract terms, including disputes about the usage of, or payment for telecommunications networks and services, providers of such telecommunications networks or services shall make a decision not later than three months after the date on which the complaint was lodged. If the consideration of such complaints implies that specific recording or monitoring of usage, billing, etc. is to be established for a certain period for the purpose of exposing possible causes of error, the time limit in question shall be extended to six months.
11. Providers of public telecommunications networks or services shall appoint a special internal investigation unit to make investigations and give opinions in connection with the consideration of complaints concerning the amount of the provider's bills.
12. Procedures etc. with regard to the activities mentioned in 11) above shall be ISO-9002 certified or certified according to similar standards.
13. In special cases, where the provision under 11) is only of a limited extent and where the costs of certifications must be regarded as disproportionately large, the National Telecom Agency may dispense with the requirement for certification.
14. Providers of telecommunications networks or services covering telephony, ISDN and mobile communications shall offer their customers the option of subscribing to the following supplementary services:
 - itemised billing
 - barring
 - billing control arrangement
 - current monitoring of fluctuations of bills
 - reference to a new number.

With respect to the procedures associated with assignments and administration of numbering, please refer to point 24 below.

15. Itemised billing, current monitoring of fluctuations of bills and the first 3 months of reference to a new number shall be offered free of charge.
16. As part of the customer agreement, providers, cf. point 14), shall offer access to current billing information, which means that the customer should have on-line access at any time via the telephone, at the normal tariff, to check the current balance of the amount he will be billed by the provider.
17. As a minimum, the current billing information referred to above shall be updated at intervals of 24 hours.
18. The provisions at 14), 15), 16) and 17) above shall not apply to customers connected to analogue exchanges established and put into service before 1 July 1996.
19. Itemised billing shall mean written specification of invoiced calls. As a minimum, such specification shall comprise the date, time, called number, call duration and price for the call. Calls which are free of charge to the calling customer shall not be specified on the bill. Call specifications made in connection with complaints cases shall be free of charge.
20. In connection with calls to the emergency service (112) it must not be possible to prevent calling line identification.

21. Calling line identification shall mean transmission of the calling party's number (the A-number) to the called party for the purpose of presentation to the called party.
22. Barring shall mean an exchange-based option of preventing outgoing calls generally or to certain destinations, and the option of cancelling such barring. Barring and cancellation of barring shall be activated by the customer using a PIN code.
Regardless of the barring, it has to be possible to call the emergency service (112) and calls via free carrier selection.
23. A billing control arrangement shall mean an exchange-based arrangement whereby the customer's telephone connection is barred to outgoing traffic not later than 24 hours after the time when the usage exceeds an amount agreed in advance between the provider and the customer. The barring shall be cancellable by the customer using a PIN code agreed in advance between the provider and the customer.
Regardless of the barring, it has to be possible to call the emergency service (112) and calls via free carrier selection.
24. Providers of public telecommunications networks or services for telephony, ISDN and mobile communications who have been assigned numbers or number series shall give customers connected to the telecommunications networks or services of the provider in question access to carrier pre-selection for the purpose of routing calls to the provider(s) of telecommunications networks or services of the customer's choice. This provision shall not apply to customers connected to analogue exchanges established and put into service before 1 July 1996. The legislation governing this area encompasses Act No.392 of 10 June 1997 on Assignment and Use of Numbering and Act No. 921 of 9 December 1998 on the National Telecom Agency's Administration of Numbering Resources as well as Act No. 934 concerning the Danish Numbering Plan. In addition to this, there are Executive Orders concerning related requirements: Executive Order No. 654 of 4 August 1998 on Free Carrier Selection and Number Portability (as changed by Executive Order 140 of 25 February 1998) and Executive Order No. 269 of 30 April 1998 on Number Portability.
In accordance with Executive Order 140 of 25 February 1998:
(1) End-users must have the possibility, not later than 1 July 1999, of retaining their subscriber numbers when changing between providers of public telecommunications networks or telecommunications services within the fields of telephony and ISDN, always provided that re-location does not take place simultaneously beyond the geographical area served by the exchange to which the end-user is connected before changing his address.

(2) End-users must have the possibility, not later than 1 January 2001, of retaining their subscriber numbers when changing between providers of public telecommunications networks or telecommunications services within the fields of telephony and ISDN and public mobile communications.

Rights and obligations concerning interconnection are not regulated in the class licence or in the mobile individual licences, but are regulated in the Act on Competitive Conditions and Interconnection in the Telecommunications Sector (n.467 of 12 June 1996, amended by Act n. 391 of 10 June 1997 and Act n. 470 of 1 July 1998)), and Executive Order on Interconnection Agreements in the Telecommunications Sector (Executive Order n. 861 of 4 December 1998).

In accordance with the regulation of interconnection referred to above, all providers of public telecommunications networks or telecommunications services have a right and an obligation to negotiate agreements on switched interconnection with each other for the purpose of ensuring mutual access to their telecommunications networks or telecommunications services. SMP operators shall meet all reasonable requests regarding switched interconnection, leased lines and service provision.

The aim of the Danish regulation of interconnection is to enable interconnection of as many telecommunications networks and telecommunications services as possible. All telecommunications networks and telecommunications services available to the public are eligible for inclusion in Annex II of the Interconnection Directive.

2.3- Finland

The provision of all telecommunications networks and services is subject to notification to the Ministry of Transport and Communications.

The establishment and provision of mobile public telecommunications networks is subject to an individual licence which shall be granted by the Ministry of Transport and Communications.

In accordance with the Telecommunications Market Act (TMA) (396/1997), a telecommunications operator shall ensure the interconnection of its telecommunications networks and telecommunications services with other telecommunications networks and telecommunications services in accordance with the following provisions:-

- The public telecommunications networks of telecommunications network operators complying with the essential requirements shall be interconnected, unless otherwise provided for by regulations. The interconnection shall be effected at the point indicated by the telecommunications operator requesting interconnection, unless otherwise provided for by the Ministry.
- The telecommunications networks shall be interconnected in accordance with their technical possibilities in the manner provided for in the Telecommunications Market Act as soon as possible after the request for interconnection has been presented.
- The telecommunications operator shall be liable to negotiate on the interconnection of the telecommunications networks and services of another telecommunications operator to its telecommunications networks and services.
- A telecommunications service operator shall not be liable to offer its telecommunications services in the telecommunications networks of all telecommunications network operators.

Since the above-mentioned provisions apply indifferently to all telecommunications operators, it can be concluded that in practice, the categorisation of operators given in Annex II of the Interconnection Directive does not apply to the Finnish regulatory regime. In terms of interconnection in fact, all categories of operators have the same rights and obligations and therefore

all telecommunications networks and telecommunications services available to the public are eligible for inclusion in Annex II of the Interconnection Directive.

Type of operators	Type of authorisation	Rights and obligations included in the authorisation
Mobile network operators	Individual licence	<p>The licence determines the operational area of the telecommunications operator.</p> <p>Conditions in accordance with the essential requirements may be attached to the licence.</p> <p>In addition to the above rights and obligations, those given in TMA and decisions of the Ministry of Transport and Communications apply. See the following pages for rights and obligations listed in the laws and decision.</p>
Any operator other than mobile network operators (service operator as well as network operator)	General authorisation with notification	<p>Since there is no authorisation there are no rights and obligations included in the authorisation. See the following pages for rights and obligations listed in the laws and decisions.</p>

The following pages list rights and obligations of operators *listed in laws and decisions*; these are *not* given in the authorisations.

Rights and obligations included in norms (laws and decisions), not in authorisations:

-Network or service operators, either mobile or fixed

Sections 8-15, 16-20 of TMA:
Obligations and rights of operators are given.

Section 8 of TMA:
Duties of telecommunications operators.

Section 10 of TMA:
The telecommunications operator is liable to negotiate on the interconnection of the telecommunications networks and services of another telecommunications operator to its telecommunications networks and services. A telecommunications operator with significant market power shall accept all reasonable interconnection requests unless otherwise provided for by regulations issued under section 11.

Section 14 of TMA:
A telecommunications operator has the right to disconnect a telecommunications network from the public telecommunications network and to close down the network termination points effected thereby if:

- 1) the telecommunications network causes danger or interference to public telecommunications services; or if
- 2) the telecommunications network is not made to comply with the technical requirements issued under section 37 in spite of an exhortation to that effect issued by the Telecommunications Administration Centre.

Section 15 of TMA:

Section 15 of TMA lists users' rights. Hence they are operators' obligations.

Section 17 of TMA:

Section 17 describes the users' telecommunications fees collected by operators. Operators have the right to determine telecommunications fees. The Ministry may give some guidelines, as described in that section.

Section 18 of TMA:

Section 18 describes the fees collected by operators from other operators. In some cases the fees must be non-discriminatory and reasonable with regard to the costs incurred through the provision, as described in the section.

Section 20 of TMA:

A telecommunications operator shall differentiate the business operations consisting of the provision of telecommunications network services and telecommunications services from each other as well as from its other business operations.

Section 51 of TMA:

Measures resulting from the termination of telecommunications operations.

Sections 9 and 10 of 424/1997:

Describes the identification information that operators can use in telephone bills

Sections 1-3 of 469/1997

Section 1 describes that identification information for billing needs to be stored for two months after expiration date of the corresponding bill. Sections 2-3 describe the charging of information inquiries.

Decisions 472/1997 and 1299/1997

These decisions describe how the differentiation of business operations consisting of the provision of telecommunications network services and telecommunications services should be made.

Decisions 475/1997 and 1318/1997:

These decisions contain the information, e.g., that switched data communications is not within the scope of application of the TMA. This excludes Internet Service Providers from the obligations and rights of telecommunications operators. However, ISPs may submit a "notification on telecommunications" to the Ministry and hence obtain rights and obligations of telecommunications operators.

Other types of telecommunications are also excluded from the scope of TMA, see section 3 of 1318/1997.

Decision 478/1997

Sections 3-18 of 478/1997 describe the general principles of the delivery terms of telecommunications services.

Decision 1300/1997:

Tariffs.

Decision 1393/1997:

Section 3:

- Right to obtain codes and subscriber numbers necessary for operations

- Right to continue use of the subscriber number that has previously been used

Section 5:

- Connecting the equipment of a telecommunications service operator to a public telecommunications network

Section 6:

- Interoperability of telecommunications services

Section 7:

- Right to disconnect equipment that causes danger or interference

Section 8:

- Obligation to interconnect telecommunications networks

Section 9:

- Operators shall agree on interconnection of telecommunications networks and services within a telecommunications area and of mobile networks and services.

Section 10:

A telecommunications operator with significant market power shall provide from all its subscriptions within a telecommunications area access to all the long-distance and international telecommunications services provided in the telecommunications area.

Sections 11-13

Interconnection rights and obligations

Section 15:

Telecommunications operators involved in interconnection have joint responsibility in arranging the interconnection.

Section 16:

Charges for interconnection in the case of an operator with significant market power

Section 17:

Rights and obligations in collecting telecommunications fees.

Section 19:

Interconnection information should be public and available.

Section 20:

Telecommunications ending in a local telecommunications service

Section 21:

Operators with significant market power shall offer household users preselection on call-by-call basis.

Section 22:

Describes how carrier pre-selection should be implemented.

Section 23:

Selection barring has to be equal with regard to all competing operators.

Section 24:

Obligation for operators to share traffic in which operator has not been selected.

Section 25:

A telecommunications operator with significant market power shall offer all telecommunications service operators interconnection under non-discriminatory terms and at a reasonable price in view of the costs.

-Network operators, either mobile or fixed

Section 9 of TMA:

Obligation to assign any free segment of the telecommunications network constructed for the provision of telecommunications services for the use of any other telecommunications service operator. This obligation does not apply to a network forming a part of and owned by the owner of real estate.

Section 10 of TMA:

The public telecommunications networks of telecommunications network operators complying with the essential requirements shall be interconnected. The telecommunications operator shall be liable to negotiate on the interconnection of the telecommunications networks and services of another telecommunications operator with his own telecommunications networks and services. A telecommunications operator with significant market power shall accept all reasonable interconnection requests.

Section 12 of TMA:

A telecommunications network to be connected to a public telecommunications network or to a subscription of a public telecommunications network shall meet the technical requirements set by the Telecommunications Administration Centre.

Section 13 of TMA:

The owner of a telecommunications network shall:

- 1) maintain its network referred to in section 12, paragraph 1 so that it complies with the requirements referred to in the section; as well as
- 2) keep and maintain the network drawings and other documents in accordance with provisions to be issued under section 37.

Section 19 of TMA:

The fee collected for the assignment of a telecommunications network referred to in section 9 by the owner or holder of the telecommunications network shall be reasonable and non-discriminatory for all telecommunications operators.

Chapter 8 of TMA:

The right to install a telecommunications cable may be based on a cable route plan drawn up by a telecommunications operator.

Section 51 of TMA:

A telecommunications network operator may not close a subscription transferred by it to another telecommunications operator or prevent the use of a leased line due to a delayed payment or a breach of contract before the Ministry has been notified of the measure intended.

Section 52 of TMA:

Telecommunications network operators shall supply information on the location of telecommunications cables free of charge.

Section 3 of 424/1997

The owner or holder of a telecommunications network shall not be have the liability to transfer referred to in section 9, paragraph 1 of the Telecommunications Market Act if the free segment of the telecommunications network constructed for the provision of telecommunications services is necessary for the reasonable present or future need of the owner or holder of the telecommunications network.

Section 6 of 424/1997

Before a telecommunications network operator undertakes measures referred to in section 32, paragraph 2 of the Telecommunications Market Act, the telecommunications network operator shall afford the owner or holder of a real estate possibility of performing the work himself within a reasonable period of time.

Paragraph 2 reserves the right to take urgent measures when necessary.

Section 7 of 424/1997

Telecommunications network operators shall arrange a telecommunications cable location service. After receiving a location inquiry, the telecommunications network operator shall ascertain the extent to which the work may endanger telecommunications cables and provide the party performing the work with information and instructions necessary for the protection of the cables.

Decision 474/1997:

The right of a telecommunications network operator to obtain facilities in accordance with section 8, paragraph 2, subparagraph 4 (cable channels and antenna placing) of the Telecommunications Market Act from another telecommunications operator.

Decision 1393/1997

Section 8: Obligation to interconnect telecommunications networks

- Fixed Network operators

Section 3 of 468/1997:

Access enquiry

Sections 4-12 of 468/1997:

Describes the rights and obligations of fixed network operators in leasing subscriber lines in fixed telecommunications networks to a telecommunications operator. The following points are described:

- Installation of cables and cable channels to a switching point
- Offering of subscriber lines
- Data security of the end-user
- Pricing of subscriber lines
- Restriction of telecommunications
- Delivery terms
- Contracts between parties
- Disputes
- Validity of contracts

Sections 3-6 of 470/1997:

Describe priority function.

- *Digital telephone exchanges shall be equipped with a priority function*
- Section 5 describes the use of the priority function.
- Section 6 describes compensation for costs related to the priority function.

Sections 3-5 of 471/1997

Describes what advanced facilities fixed networks should contain, information on access and usage of services, and publicity of information.

Decision 1301/1997

Telecommunications operators with significant market power, who provide leased lines for the users of public telecommunications networks shall each alone or by mutual agreement offer in their operating area at least the leased lines specified in section 3.

Decision 1393/1997:

Section 12:

Telecommunications to international telecommunications services shall be routed to a telecommunications operator engaged in international telecommunications through the long-distance telecommunications service indicated by that operator, unless otherwise agreed upon by the telecommunications operators.

Access to all local telecommunications services shall be arranged from all public international telecommunications services.

Section 14:

A telecommunications operator entitled to carry out international telecommunications in a Member State of the European Communities or in a State complying with the General Telecommunications Agreement of the World Trade Organization (WTO) may transmit telecommunications from international transmission lines directly to a national telecommunications network at the interconnection points of its choice and arrange the national transmission lines necessary for these telecommunications.

-Services operators (mobile or fixed)

A telecommunications service operator is not liable to offer its telecommunications services in the telecommunications networks of all telecommunications network operators

-Providers of leased lines to users premises

There are no specific rights or obligations of operators in this category; the rights and obligations listed above apply.

2.4- France

Category of operator		Type of authorisation	Category in Annex II of Interconnect Directive	Rights and obligations
1	Public network operators	Individual licence (issued by the telecom minister)	CATEGORY 2	See following pages for a complete list of rights and obligations
2	Public network operators providing public telephone services	Individual licence (issued by the telecom minister)	CATEGORY 1	As above
3	Operators of independent networks	Individual licence (issued by the ART)		An applicant for an authorisation for establishing an independent network can plan to connect that network to public open networks. In this case, the applicant should take all the necessary measures in order to ensure that the network remains "not open to the public".
4	Providers of a public telephone service	Individual licence (issued by the telecom minister)	CATEGORY 4	See following pages for a complete list of rights and obligations
5	Providers of public telecommunications services other than telephone services	General authorisation		
6	Providers of public telecommunications services other than telephone services using radio frequency spectrum on a new network or on a network using radio frequency spectrum allocated by a non-telecommunications authority	Individual licence		
7	Providers of public telecommunications services other than telephone services on a cable-TV network	General authorisation with notification		

Category of operator		Type of authorisation	Category in Annex II of Interconnect Directive	Rights and obligations
8	Operators establishing private networks	General authorisation		
9	Operators establishing pay phones not installed on the public highways	General authorisation		
10	Operators establishing local independent networks, other than radio networks, whose termination points are less than a certain distance apart	General authorisation		
11	Operators establishing low power, short range radio network infrastructure whose categories are determined jointly by the ministers for telecom, defence and interior	General authorisation		
12	Operators establishing radio network facilities which do not use an individual frequency assignm.	General authorisation		

Rights and obligations of public network operators

Licences shall be granted subject to compliance with the provisions contained in the schedule of conditions governing the following:

- a) the nature, characteristics, service coverage area and network extension schedule;
- b) the operating hours, quality and availability of the network and access conditions, particularly for public pay phones;
- c) the conditions of confidentiality and neutrality of the service with regard to the information transmitted;
- d) the standards and specifications for networks and services, particularly European standards when appropriate;
- e) the provisions required for the protection of the environment and for town and country planning objectives, including, where appropriate, conditions governing the occupation of the public domain and the sharing of facilities;
- f) provisions required in the interests of national defence and public security;
- g) the contribution of the operator to research and training in the field of telecommunications;
- h) the use of the radio spectrum, the fees related to this use and the costs of spectrum management and monitoring;
- i) the allocation of individual numbers or numbering ranges, fees due for the management and control of the numbering plan, under the conditions laid down in article L. 34-10;
- j) universal service obligations incumbent on the licence holder in accordance with articles L. 35-2 and L. 35-3, and with regard to the mandatory services set out in article L.35-5 ;
- k) the provision of the information required to establish and manage the universal directory referred to in article L. 35-4;
- l) the rights and obligations of the operator with regard to interconnection;
- m) the conditions necessary to ensure fair competition;
- n) the conditions necessary to ensure the equivalent treatment of international operators in accordance with the provisions included in the Telecommunications Act 1996;
- o) the conditions necessary to ensure the interoperability of services;
- p) the obligations incumbent upon the operator to allow the telecommunications regulatory authority to enforce the operator's schedule of conditions;
- q) fees payable for the grant, management and control of licences under the conditions stipulated in the Finance Act;
- r) the equal treatment and provision of information to users, particularly concerning the contractual conditions under which the service is provided, and allowing for compensation to the consumer in case of breach of the quality requirements specified in b).

Some of the above-mentioned articles are specified in predetermined clauses (Cf. Décret du 27 décembre 1996 relatif aux clauses types des cahiers des charges associés aux autorisations attribuées en application des articles L.33-1 et L.34-1). Moreover, the French Telecommunications Act includes other rights and obligations concerning interconnection (Art. L.34-8), and rights of way and servitude (Art. L.45 to L.48).

More precisely, the rights and obligations with regard to interconnection, rights of way and universal service are the following:

Right to be interconnected to public network operators and obligation to interconnect public network operators and providers of a public telephone service

Public network operators shall satisfy requests for interconnection from operators licensed in accordance with articles L.33-1 and L.33-1/L.34-1 in an objective, transparent and non-discriminatory manner.

Every interconnection agreement shall be sent to the French NRA. ART may be called on to settle disputes related to interconnection.

Public network operators considered as having significant market power (cf. Section 7 of article L.36-7) are required to publish the technical and pricing terms of their interconnection offer, with the prior approval of the French NRA.

The Decree of 3 March 1997 on Interconnection sets out the general conditions, particularly those relating to essential requirements and the pricing principles which interconnection agreements must satisfy.

Obligations to finance universal service

The costs attributable to universal service obligations shall be financed by public network operators and public telephone service providers. The French NRA (ART) calculates and proposes to the telecommunications minister the sum payable as the contribution to the funding of universal service obligations and supervises the corresponding financing mechanisms.

Rights of way and servitude

Operators licensed under article L.33-1 shall enjoy rights of way on carriageways in the public domain and easements on private properties.

Authorities leasing or managing the public domain, with the exception of carriageways, shall conclude conventions to provide access to their property with public network operators (licensed in application of article L.33-1) in a transparent and non-discriminatory manner and insofar as such occupation is not incompatible with the purpose of the property or with available capacity.

Rights and obligations of a provider of public telephone services

Authorisations shall be subject to compliance with the schedule of conditions concerning the points referred to above with regard to public networks, with the exception of e) and h).

More precisely, the rights and obligations with regard to interconnection and universal service are the following (this category has no rights of way or servitude):

Right to be interconnected to public network operators and obligation to interconnect public network operators and providers of a public telephone service

Public network operators shall satisfy requests for interconnection from operators licensed in accordance with articles L.34-1 in an objective, transparent and non-discriminatory manner.

Every interconnection agreement shall be sent to the French NRA. ART may be called on to settle disputes related to interconnection.

Public network operators considered as having significant market power (cf. Section 7 of article L.36-7) are required to publish the technical and pricing terms of their interconnection offer, with the prior approval of the French NRA.

The Decree of 3 March 1997 on Interconnection sets out the general conditions, particularly those relating to essential requirements and the pricing principles which interconnection agreements must satisfy.

Obligations to finance universal service

The costs attributable to universal service obligations shall be financed by public network operators and public telephone service providers. The French NRA (ART) calculates and proposes to the telecommunications minister the sum payable as the contribution to the funding of universal service obligations and supervises the corresponding financing mechanisms.

Providers of a public telephone service licensed under L.34-1 have been placed in CATEGORY 4 of Annex II of the Interconnection Directive because, even though providing publicly available telecommunications services, they do not control the means of access to a network termination point: they do not own or control any physical link to the end-users and they cannot change or withdraw any national number needed to access an end-user's network termination point (in the French numbering plan, the French NRA specified that the L.34-1 licensed operators could not attribute geographical numbers). As described in the French regulation, the L.34-1 licensed operators do have the right to negotiate interconnection to the L.33-1 licensed public network operators. Consequently, providers of telephone services to the public are an example of a category of operators which do not have rights to negotiate interconnection under the French licensing scheme but do not have them according to the Interconnection Directive.

Access to the network of operators considered as having significant market power

In accordance with article L.34-8(II), operators licensed in accordance with articles L.33-1 and L.34-1 which are considered as having significant market power shall provide users and suppliers of telecommunications services other than the public telephone services, with access to their network and to the audio-visual communication services (declared in application of article 43 of Law n.86-1067 of 30 September 1986) in an objective, transparent and non-discriminatory manner. They shall also satisfy requests from service providers and users for special access corresponding to unpublished technical and pricing conditions.

2.5- Germany

Category of operator		Type of authorisation	Category in Annex II of the Interconnect Directive	Rights and obligations
1	Anybody providing telecommunications services	Notification within one month of the start-up		
	Anybody operating transmission lines going beyond the limits of a property and used to provide telecommunications services for the public:			
2	Operators operating transmission lines for the provision of mobile radio services to the public	Individual licence (Class Licence 1 – Mobile Radio Licence)		See following pages for a complete list
3	Operators operating transmission lines for the provision of satellite services to the public	Individual licence (Class Licence 2 – Satellite Licence)		
4	Operators operating transmission lines for the provision of telecommunications services to the public whose provision is not covered by Licence Class 1 and 2	Individual licence (Class Licence 3)		
5	Providers of voice telephony on the basis of self-operated telecommunications networks	Individual licence (Class Licence 4 – <u>this class of licence does not include the right to operate transmission lines</u>)		
6	Providers of telecommunications services for which the number of licences may be limited due to frequency scarcity (e.g. GSM, DCS 1800, ERMES)	Individual licence: the NRA may hold an auction or competitive bidding		

The following is a list of legal requirements which have to be respected by the entity granted an authorisation.

Special attention is drawn to the following legal obligations and constraints:

1. Special obligations of dominant operators (see ETO study on “Regulating operators with significant market power”)

2. Telecommunications secrecy; safeguard of telecommunications systems:
Licensees are bound to preserve telecommunications secrecy and to safeguard their telecommunications systems. Special attention is drawn to the obligation to submit a security concept (§ 85 and 87 of the Telecommunications Act);

3. Restrictions of telecommunications secrecy:
With regard to this restriction, licensees are bound by the provisions of the Law restricting the Privacy of Post and Telecommunications, the Foreign Trade and Payment Act, the Code of Criminal Procedure, the Telecommunications Act and the Telecommunications Traffic Interception Ordinance.

4. Technical implementation of intercepts:
Special attention is drawn to the rulings on the technical implementation of intercepts (§ 88 of the Telecommunications Act);

5. Data protection; information request from security authorities:
With regard to the protection of personal data, licensees are subject to the provisions of the Telecommunications Act and the Data Protection Ordinance for Deutsche Telekom and, supplementing these, the provisions of the Federal Data Protection Act. Attention is drawn to the obligation to provide information to the security authorities as laid down in §90 of the Telecommunications Act.

6. Disaster and crisis planning:
Regarding the prevention of disaster and crisis, licensees are subject to the rulings of the Service Provision Act (PSTG);

7. Influence on other legal relationships:
Licences do not affect licensees' statutory obligations resulting in connection with their exercise of the licence from other legal relationships established under public or private law;

8. Transfer of licences and associated rights; changes in ownership structure:
Transfer of the licence shall be in written form and require prior written approval by the National Regulatory Authority.
The same applies when there is a change in the user of the frequencies assigned.
Any other licence transfer to a new holder or any change in ownership of the licensee or any permission to use the licence shall be notified to the National Regulatory Authority without undue delay.
The same applies when there is change in the user of frequencies assigned.

9. Attachment of collateral clauses after the licence has been granted:
To ensure the regulatory aim consisting of ensuring equal opportunity and workable competition in the telecommunications markets, in rural as well as urban areas, collateral clauses can be attached after the licence has been granted (§8 of the Telecommunications Act);

10. Frequencies:

Upon application, licensees will be assigned the frequencies they need to operate transmission lines to be realised by radio means, provided that these frequencies are allocated in the frequency usage plan for the intended use, are available and are compatible with other frequency usage (§47-49 of the Telecommunications Act);

11. Notification and reporting requirements:

Whosoever provides telecommunications services must undertake to notify the National Regulatory Authority, in writing, of the start-up, modification or termination of operation within one month of the same (§4 of the Telecommunications Act).

Whosoever provides telecommunications services is also obliged to provide the National Regulatory Authority, upon request, with the reports required to fulfil the reporting requirements in accordance with the EU regulations (§5 of the Telecommunications Act);

12. Structural separation and segregated accounting:

Undertakings with a dominant position in markets other than telecommunications shall carry on the commercial provision of telecommunications through one or more legally independent undertakings (structural separation).

13. Submission of general terms and conditions:

General terms and conditions for the licensed services must be submitted, in writing, to the National Regulatory Authority prior to their entry into force. The National Regulatory Authority is entitled to object to general terms and conditions within a period of four weeks after their submission (§23 of the Telecommunications Act);

14. Customer protection:

Regarding customer protection, reference is made to §41 of the Telecommunications Act which reads as follow:

For the special protection of users, consumers in particular, the Federal Government shall be empowered to issue framework provisions for the use of telecommunications services for the public.

In particular, regulations on the conclusion, subject and termination of agreements and on the rights and obligations of the contractual parties and all other parties engaged in telecommunications traffic may be laid down in such ordinance.

Specifically, regulations shall be issued with regard to:

- a-the liability of providers, damage claims and claims to cease and desist initiated by users;
- b-the unbundling of telecommunications services for the public in the licensed and non-licensed sector as well as the unbundling of these services in relation to each other;
- c-detailed conditions for the provision and use of general network access according to §35(1) of this Act; the conditions shall be based on objective criteria, shall be comprehensible and shall ensure equal access;
- d-how to refer to general terms and conditions and rates and the possibility of their incorporation;

e-information requirements;
 f-procedures and time-limits to be observed with regard to changes in offers;
 g-special requirements for billing and for rate level verification; and
 h-extra-judicial dispute settlement procedures.

15. Information requirements:

As far as it is necessary to fulfil the tasks provided for by the Telecommunications Act, the National Regulatory Authority may request information from companies and associations of companies engaged in telecommunications and arrange for audits by written order (§72 of the Telecommunications Act).

2.6- Greece

The Greek telecommunications regulatory framework is at the moment going through a transitional period towards the full liberalisation of the sector, which will take place on 31-12-2000.

Two draft Presidential Decrees, implementing the Licence and the Interconnection Directives respectively, are expected to be published soon. The definitions of categories of operators provided in these draft decrees are in accordance with Annex II of the Interconnection Directive.

2.7- Ireland

Operators providing public telecommunications networks or public telecommunication services must hold a licence issued by the Office of the Director of Telecommunications Regulation (the National Regulatory Authority).

Telecommunications services are defined in Irish law as "*...services whose provision consists wholly or partly in the transmission or routing of signals on a telecommunications network or both transmission or routing*".

Telecommunications networks are defined as "*...the transmission equipment and, where applicable, switching equipment and other resources which permit the conveyance of signals between the defined termination points by wire, by radio, by optical or other electromagnetic means*".

The Irish telecommunications licensing regime comprises 2 main types of licences, namely a General Telecommunications Licence and a Basic Telecommunication Licence.

A **General Licence** permits the licensee to provide telecommunications networks and services, including voice telephony, to the general public. Holders of such licences may apply for telephone numbers from the national numbering scheme. Individual licences are issued to each holder of a general licence.

A **Basic Licence** does not cover voice telephony and services involving numbers, and so is designed to meet the needs of specialised companies providing, for example, data, Internet and cable-based services.

A separate licensing scheme applies to operators providing mobile telephony services. Individual licences are issued to operators providing such services.

Operators providing the following categories of services are exempted from the requirement to hold a telecommunications licence:

- Services and networks for own use;
- Broadcasting where licensed under the Broadcasting Acts;
- Radio communications systems licensed under wireless telegraphy legislation;
- Cable television systems licensed under appropriate legislation.

Other licences that may be required

In addition to the telecommunications licensing regime, services using radio-based infrastructure are also required to be licensed under the Wireless Telegraphy Act, 1926.

Category of operator	Type of authorisation	Category in Annex II of the Interconnect Directive	Rights and obligations
Operators providing public telecommunications networks and/or services to the general public, including voice telephony services and/or services involving the allocation of telephone numbers from the national numbering scheme	Individual Licence	Category 1	Please see below.
Specialised services not involving voice telephony and/or where an allocation of numbers from the national numbering scheme is not required e.g. Internet, data services.	General Authorisation with notification	Category 1	Please see below.
Mobile telephony services and networks	Individual Licence	Category 1	Please see below.

Conditions applicable to licence holders

The main conditions are:

1. The licensee shall make contributions to assist in the funding of a Universal Service Obligation if required to do so;

2. The licensee shall safeguard the privacy and confidentiality of any telecommunications messages associated with its licensed services in accordance with relevant national and EU legislation;
3. The licensee shall comply with any directions issued by the National Regulatory Authority from time to time regarding emergency services and the provisions of licensed services in times of emergency;
4. The licensee shall implement appropriate procedures for the resolution of customer disputes and in relation to non-payment of bills and disconnection;
5. The licensee shall ensure that users have access to directory information services;
6. The licensee shall comply with the EC Interconnection Regulations;
7. Provisions relating to trench sharing when the licensee is carrying out work on public highways and in other public places;
8. The licensee shall comply with any directions issued by the National Regulatory Authority from time to time regarding quality of service indicators and measurement methods for basic telephony services and/or digital leased lines.

In addition, operators designated as having significant market power (SMP) in the fixed telephone network and services market must also comply with conditions relating to:

1. the provision of licensed services on a non-discriminatory basis to all persons requesting such services (including other licensed operators);
2. measures relating to retail prices to ensure that published prices, discount schemes and special offers introduced by the SMP operator are transparent and non-discriminatory; all prices are cost-oriented and that all special offers are objectively justifiable;
3. prohibition on cross-subsidisation;
4. measures relating to the maintenance of separate accounting records for the activities of individual business units;
5. the approval by the National Regulatory Authority of customer contracts;
6. measures relating to the EU Leased Lines Regulations;
7. selling practices;
8. measures to ensure that the SMP operator does not show undue preference to, or exercise unfair discrimination against any other licensed operator regarding the provision of licensed services or access to any telecommunications network.

Conditions applicable to holders of mobile telephony licences

The main conditions relate to:

1. measures to provide for interconnection with other networks;
2. quality of service and performance standards;
3. establishment of a directory enquiry service;
4. establishment of appropriate procedures for the resolution of disputes and complaints from customers;
5. measures to ensure that the equipment or systems used by the licensee are adequate to prevent, or if necessary, eliminate interference with other authorised radio systems;
6. measures relating to roaming capability;
7. roll out of services;
8. a requirement to give 2 years' notice of any proposal to cease the provision of mobile telephony services or any significant part of them.

2.8- Italy

Category of operator		Type of authorisation	Category in Annex II of the Interconnect Directive	Rights and obligations
1	Operators establishing and/or providing public telecommunications networks	Individual licence	CATEGORY 1	See following pages for a complete list
2	Providers of voice telephony (fixed)	Individual licence	CATEGORY 1	See following pages for a complete list
3	Providers of mobile and personal communications services	Individual licence	CATEGORY 1	????
4	Operators establishing a telecommunications network with the aim to provide voice telephony (fixed)	Only one individual licence is issued (instead of both 1 and 2 above)	CATEGORY 1	See following pages for a complete list
5	Providers intending to use networks already established by companies authorised to provide public utility services	Individual licence	CATEGORY 1	See following pages for a complete list
6	Operators establishing and/or providing satellite network services	Individual licence	CATEGORY 1	
7	Operators of cable-TV networks	Individual licence	CATEGORY 1	
8	Providers of leased lines: fixed and mobile networks and satellite services	Individual licence	CATEGORY 2	
9	Providers of international circuits: fixed and mobile networks and satellite services	Individual licence	CATEGORY 3	
10	Providers of Internet access	General authorisation with notification	CATEGORY 4	
11	Providers of voice to CUGs	General authorisation with notification	CATEGORY 4	

Category of operator		Type of authorisation	Category in Annex II of the Interconnect Directive	Rights and obligations
12	Providers of satellite communications services	General authorisation with notification	CATEGORY 4	
13	Providers of data services	General authorisation with notification	CATEGORY 4	
14	Carriers' carriers	General authorisation with notification	CATEGORY 4	
15	Call-back	General authorisation with notification	CATEGORY 4	
16	DECT provider	Individual licence	??	
17	Operator needing access to radio frequencies or specific numbers for the provision to the public of services different than 1,2,3,4,7 and 16 in this table	Individual licence	??	
18	Operators establishing a mobile telecommunications network with the aim of providing voice services	Two individual licences: one for establishing the network and one for providing the voice service	???	
19	Operators of private telecommunications networks	Concession for private use (regulated by the Postal Code)	????	
20	Telecoms services for which the number of licences may be limited due to frequency scarcity	Individual licence: the NRA may organise competitive bidding	???	

Rights and obligations of operators establishing and/or providing public telecommunications networks

The entity holding an **individual licence**, in accordance with conditions listed in DPR 17 September 97, n.318, Annex F (based on the Annex of the Licensing Directive), is obliged to:

- a- Respect essential requirements related to security of network operations, maintenance of network integrity, interoperability of services and data protection;
- b- Apply technical rules in accordance with Art. 14 paragraph 1 of DPR 17 September 97, n.318 (harmonised technical interface for the provision of an open network, for access to the network, for interconnection and for inter-functionality);
- c- Respect sanitary, environmental and town and country planning requirements with regard to installation of infrastructure and equipment, as well as the NRA's provisions related to plant sharing;
- d- Fix and publish, in accordance with Art. 10, paragraph 1 of DPR 17 September 97, n.318, the goals related to timing for provision and quality of service parameters, following the indications included in Annex H of DPR 17 September 97, n.318;
- e- Assure the establishment of management and control procedures of plants and equipment, as well as the recruitment of adequately qualified personnel in order to guarantee high quality provision to the advantage of users;
- f- Respect, with regard to relations with users, the provisions of Art. 16 of DPR 17 September 97, n.318, also in conformity with the regulation on personal data protection;
- g- Adopt and publish, on the basis of the Directive of the President of the Council of Ministers of 27 January 1994, the "charter of services", in accordance with Art. 10, paragraph 5 of DPR 17 September 97, n.318;
- h- Adopt the measures necessary to respect the provisions of DPR 17 September 97, n.318, Art. 15 (on data protection and protection of networks and communications privacy) and Laws 31 December 1996 n. 675 and 676 and DL 13 May 1998 n. 171;
- i- Negotiate, where applicable, interconnection with the organisations listed in DPR 17 September 97, n.318, Annex B (based on Annex II of the Interconnection Directive, listing the organisations with rights and obligations to negotiate interconnection with each other) and in accordance with Art. 4, paragraph 2 of the same decree;
- j- Accept, where applicable, the requests for interconnection from operators authorised in third countries which have ratified the agreements on the liberalisation of basic telecommunications within the WTO;
- k- Provide, where applicable, the specific information foreseen by the NRA with regard to interconnection agreements, in accordance with Art. 4, paragraph 6 of DPR 17 September 97, n.318;
- l- Provide the NRA with survey data on the quality of the provided services and any useful parameter in this regard, as well as elements of comparison with the previous semester (in accordance with Art. 10, paragraph 6 of DPR 17 September 97, n.318);
- m- Contribute to the funding of the costs of universal service provision on the basis of Art. 3, paragraphs 6-11-12 of DPR 17 September 97, n.318;
- n- Pay the fees, other than those foreseen for covering the expenses relating to the preliminary phase of the application for an individual licence, in accordance with Art.6, paragraphs 21-21 of DPR 17 September 97, n.318;
- o- Provide the services to be carried on following interception measures and requests for information from the competent legal authorities, within the time-limit technically necessary for their timely execution (in accordance with Art.7, paragraph 13 of DPR 17 September 97, n.318);

- p- Install network equipment in accordance with the rules on approval and certification in force;
- q- Provide, on the NRA's request, information and technical and administrative documentation necessary for the application of the DM 25 November 1997 on the procedures for the issue of individual licences;
- r- Contribute to the development of scientific and technical research, also with the aim of fostering training in the telecommunications field in accordance with the indications included in the specifications attached to the licence;
- s- Allow access to operator's plants and premises to the NRA's personnel and to other specifically designated persons in order to verify whether the operator is fulfilling the obligations in terms of public security requirements;
- t- Ensure that the equipment necessary to guarantee the security requirements and the investigations from the competent entities are prepared adequately and in time, taking into account technical innovations and the requirements of continued provision of appropriate services to the public;
- u- Communicate to the NRA the technical characteristics of new services offered to the public in order to ensure provision in accordance with point t-above and in order to make it possible to define any necessary modifications to these services, so that they can obligatorily be implemented by the telecommunications operator;
- v- Communicate to the NRA, at its request, the technical characteristics of plant and equipment used for the installation or provision of infrastructure and the provision of telecommunications services in order to enable the verifications mentioned in the above points to be made.

Rights and obligations of providers of voice telephony (fixed)

In the case of the provision of **voice telephony**, the holder of a licence, in addition to all the obligations listed above, is obliged to:

- a) Operate no discrimination in relation to the numbers used to provide access to the services of other telecommunications operators (in accordance with Art. 11, paragraph 3 of DPR 17 September 97, n.318);
- b) Provide free access to emergency services;
- c) Take into account the needs of the disabled in the case of provision and management of public pay phones;
- d) Guarantee geographical coverage as declared in the application form;
- e) Make available the subscriber telephone book, in accordance with Art.17, paragraphs 1 and 2 of DPR 17 September 97, n.318.

In accordance with Article 4 (2) of *Decree of 19 September 1997 n.318 regulating the implementation of telecommunications Community Directives*,

- Any telecommunications organisation belonging to the categories of Annex B of the same Decree, based in Italy or in another EU Member State, has the right and, if requested by other organisations belonging to the same categories, the obligation to negotiate interconnection with them with the aim of offering the authorised telecommunications services.

The organisations set out in Annex B of Decree of 19 September 1997 n.318 are those organisations providing users with switched and un-switched network capacity upon which the offer of telecommunications services depends.

Those organisations are:

- Organisations which provide fixed and/or mobile public telecommunications networks and publicly available telecommunications services, and which

control the means of access to one or more network termination points identified by one or more numbers in the national numbering plan.

- Organisations which provide leased lines.
- Organisations authorised, in Italy, to provide international telecommunications circuits between EU countries and non EU countries, for which purpose they have special rights.
- Organisations providing telecommunications services which are authorised to interconnect.

2.9- Luxembourg

In accordance with Article 7 (2) of the Telecommunications Act (*Loi du 21 mars 1997 sur les télécommunications*), the following networks and services are subject to a licence:

- a) The operation of a telecommunications network and the accompanying services, including the provision of fixed links and the telephony services (voice telephony and network – Licence A - *Règlement grand-ducal* of 22 December 1997 regulating the establishment and provision of fixed telecommunications networks and telephony services);
- b) The operation of a telecommunications network and the services which are strictly linked to it such as the provision of fixed links, excluding telephony services(network only – Licence B - *Règlement grand-ducal* of 22 December 1997 regulating the establishment and provision of fixed telecommunications networks);
- c) The operation of a telephony service, with the exclusion of the running of a telecommunications network (voice telephony only – Licence C –*Règlement grand-ducal* of 2 July regulating the provision of telephony services);
- d) The operation of a service of mobile communications, including the equipment and the related means necessary to put in place the radio part of the network and satellite communications (mobile – Licence D - *Règlement grand-ducal* of 25 April 1997 regulating the establishment and provision of networks for GSM and GSM/DCS 1800 services);
- e) The operation of a paging service, including the equipment and the related means necessary to put in place the radio part of the network.

In accordance with Article 12 of Telecommunications Act, all telecommunications services other than those subject to a licence are subject to a declaration (other services – Declaration/Notification).

The following tables summarise the categories of operators identified in the national regulation. The classification is also made in accordance with Annex II of the Interconnection Directive:

Category of operator		Type of authorisation	Category in Annex II of the Interconnect Directive	Rights and obligations
1	Organisations providing voice telephony and networks	Individual licence (Licence A)	CATEGORY 1, 2, 3, 4	Cf. Secondary legislation (<i>Règlement grand-ducal</i> of 22 December 1997 regulating the establishment and provision of fixed telecommunications networks and telephony service)- See following pages for a complete list-
2	Organisations providing networks only	Individual licence (Licence B)	CATEGORY 1, 2, 3	Cf. Secondary legislation (<i>Règlement grand-ducal</i> of 22 December 1997 regulating the establishment and provision of fixed telecommunications networks) - See following pages for a complete list-
3	Providers of voice telephony only	Individual licence (Licence C)	CATEGORY 1, 4	Cf. Secondary legislation (<i>Règlement grand-ducal</i> of 2 July regulating the provision of telephony services) -See following pages for a complete list-
4	Organisations providing mobile communications (included via satellite)	Individual licence (Licence D)	CATEGORY 1, 3, 4	Cf. Secondary legislation (<i>Règlement grand-ducal</i> of 25 April 1997 regulating the establishment and provision of networks for GSM and GSM/DCS 1800 services)
5	Organisations providing wireless communications (included via satellite)	Individual licence (Licence E)	CATEGORY 1, 3, 4	Secondary legislation not adopted yet
6	Providers of other services	General authorisation with registration (Declaration)	CATEGORY 1 & CATEGORY 4	Telecommunications Act <i>Titre II</i> section 2 articles 12 to 16 (<i>services subject to registration</i>) and, in particular, article 21 and subsequent articles with regard to interconnection

Rights and obligations of organisations providing voice telephony and networks (Licence A)

The granting of an individual licence for network & telephone services (Licence A) excludes the granting of licences for networks only (Licence B) and for telephone services only (Licence C).

-The licence establishes the following:

- a) the part of the national territory where the operator is authorised to establish and operate the telecommunications networks and provide the telephony service;
- b) the type of networks that the operator is authorised to establish (aerial or underground).

-At the request of the operator, the licence can authorise the offering of the following services:

- a) public pay-phones;
- b) telephone assistance service;
- c) telephone directory service.

-The operator cannot establish radio frequency connections without being expressly authorised by ILT to use frequencies.

-The licence is subject to a one-off fee to be paid by the operator for the right to establish a network and offer the service.

-The licence is subject to an annual fee to be paid by the operator for the management of the licence by ILT

-The minister, having consulted ILT, imposes on one or more of the operators identified on the basis of their importance on the market the obligation to provide a minimum set of fixed lines satisfying certain quality parameters determined by law. Such operators have to provide whosoever requests it with information on the following:

- a) technical characteristics of the offerings;
- b) applied tariffs;
- c) conditions of supply and use;
- d) conditions of connection of terminal equipment.

-The information related to the conditions of supply are the following:

- a) information regarding how to order the lines;
- b) the typical delay in supplying the lines to clients;
- c) the contractual period;
- d) reparation time;
- e) conditions of reimbursement in case of incorrect supply or interruption of lines.

-The conditions of connection of terminal equipment cannot be set in a way which would exclude the connection of terminal equipment agreed in another Member State.

-All providers of telecommunications networks offered to the public have the obligation to negotiate an interconnection agreement with all providers of networks on the basis of identical or similar licences. For this purpose, the operator has the obligation to provide whosoever supplies or intends to supply telecommunications networks and services at his request with all technical and

commercial information necessary for the negotiation and conclusion of the interconnection agreement.

- Those operators identified on the basis of their importance on the market have to respect interconnection obligations imposed on operators with significant market power

-ILT may authorise operators to refuse any non-reasonable request for interconnection, and in particular those requests which:

- a) are technically impossible to realise without causing prejudice to the quality of service;
- b) are inadequate with regard to the resources available to satisfy the request.

Specific provisions for providers of telephony services:

-Providers of the telephony service are obliged to respect the minimum conditions of quality of the service in accordance with quality parameters mentioned in the regulation .

-Providers of the telephony service are obliged to establish their own service quality goals and to publish them as well as the way they have been satisfied. These goals include:

- a) the telephony service quality criteria related to a number of parameters listed in the regulation;
- b) the number of public pay-phones installed (if applicable);
- c) the number of telephone directories distributed per year and the correctness of the information herein included (if applicable)
- d) the maximum delay in dealing with calls to the telephone assistance service (if applicable).

-The telephony service includes as a minimum the following elements:

- a) Dual Tone Multi-Frequency operation
- b) Tone dialling
- c) Itemised billing

-Those operators identified on the basis of their importance on the market have to respect obligations imposed on operators with significant market power

-When it is possible with regard to the networks to which the licensee's networks are interconnected, the licensee has to include in its offer the following services:

- a) access to free-phone numbers;
- b) "kiosk" billing
- c) call transfer
- d) automatic billing of the call at destination
- e) calling line identification
- f) access to assistance services and to directory services on the interconnected networks.

-The provider of the service is obliged to ensure its subscribers free access to emergency numbers.

-Other obligations included in Licence A include conditions related to:

- a) Terminal equipment;
- b) Telephone directories and numbering;
- c) Secrecy of communications and public security

Rights and obligations of organisations providing networks only (Licence B)

The granting of an individual licence for networks only (Licence B) excludes the granting of licences for networks & telephone services (Licence A) and for telephone services only (Licence C).

-The licence establishes the following:

- a) the part of the national territory where the operator is authorised to establish and operate the telecommunications networks;
- b) the type of networks that the operator is authorised to establish (aerial or underground).

-The operator cannot establish radio frequency connections without being expressly authorised by ILT to use frequencies

-The licence is subject to a one-off fee to be paid by the operator for the right to establish a network

-The licence is subject to an annual fee to be paid by the operator for the management of the licence by ILT

-The minister, having consulted ILT, imposes on one or more of the operators identified on the basis of their importance on the market the obligation to provide a minimum set of fixed lines satisfying certain quality parameters determined by law. Such operators have to provide whosoever requests it with information on the following:

- a) technical characteristics of the offerings;
- b) applied tariffs;
- c) conditions of supply and use;
- d) conditions of connection of terminal equipment.

-The information related to the conditions of supply includes the following:

- a) information regarding how to order the lines;
- b) the typical delay in supplying the lines to clients;
- c) the contractual period;
- d) reparation time;
- e) conditions of reimbursement in case of incorrect supply or interruption of lines.

-The conditions of connection of terminal equipment cannot be set in a way which would exclude the connection of terminal equipment agreed in another Member State.

-All providers of telecommunications networks offered to the public have the obligation to negotiate an interconnection agreement with all providers of networks on the basis of identical or similar licences.

- Those operators identified on the basis of their importance on the market have to respect interconnection obligations imposed on operators with significant market power

-ILT may authorise operators to refuse any non-reasonable request for interconnection, and in particular those requests which:

- a) are technically impossible to realise without causing prejudice to the quality of service;
- b) are inadequate with regard to the resources available to satisfy the request.

Other obligations included in Licence B include conditions related to:

- a) Terminal equipment;
- b) Secrecy of communications and public security

Rights and obligations of organisations providing voice only (Licence C)

The granting of an individual licence for telephony services only (Licence C) excludes the granting of licences for networks & telephony services (Licence A) and for networks only (Licence B).

-The licence establishes the part of the national territory where the operator is authorised to provide the telephony service;

-At the request of the operator, the licence can authorise the offering of the following services:

- a) public pay-phones;
- b) telephone assistance service;
- c) telephone directory service.

-The licence is subject to a one-off fee to be paid by the operator for the right to offer the service

-The licence is subject to an annual fee to be paid by the operator for the management of the licence by ILT

-The conclusion of any access agreement is free, but ILT may authorise those operators identified on the basis of their importance on the market to refuse any non-reasonable request for access, and in particular those requests which:

- a) are technically impossible to realise without causing prejudice to the quality of service;
- b) are inadequate with regard to the resources available to satisfy the request.

-Providers of the telephony service are obliged to respect the minimum conditions of quality of the service in accordance with quality parameters mentioned in the regulation .

-Providers of the telephony service are obliged to establish their own service quality goals and to publish them as well as the way they have been satisfied. These goals include:

- a) the telephony service quality criteria related to a number of parameters listed in the regulation;
- b) the number of public pay-phones installed (if applicable);
- c) the number of telephone directories distributed per year and the correctness of the information herein included (if applicable)
- d) the maximum delay in dealing with the calls to the telephone assistance service (if applicable).

-The telephony service includes as a minimum the following elements:

- a) Dual Tone Multi-Frequency operation
- b) Tone dialling
- c) Itemised billing

-Those operators identified on the basis of their importance on the market have to respect obligations imposed on operators with significant market power

-When it is possible with regard to the networks to which the licensee has access, the licensee has to include in its offer the following services:

- a) access to free-phone numbers;
- b) "kiosk" billing
- c) call transfer

- d) automatic billing of the call at destination
- e) calling line identification
- f) access to assistance services and to directory services on the interconnected networks.

-The provider of the service is obliged to ensure its subscribers free access to emergency numbers.

Other obligations included in Licence A include conditions related to:

- a) Terminal equipment;
- b) Telephone directories and numbering;
- c) Secrecy of communications and public security

2.10- Netherlands

In accordance with Article 6.1 of the Telecommunications Act (1998):

1. Providers of public telecommunications networks and public telecommunications services in the Netherlands, who thereby control the access of end-users to network termination points, shall provide for the interconnection of the telecommunication networks concerned in order to ensure that the users connected to them can communicate with one another reciprocally.
2. At the request of those who provide public telecommunications networks and public telecommunications services outside the Netherlands, and thereby control the access to network termination points of end-users, the providers referred to in paragraph 1 shall also provide for the interconnection of their telecommunications networks with the relevant foreign telecommunications networks in order to ensure that the users connected to those networks can communicate with one another reciprocally.

	Category of operator	Type of authorisation	Category in Annex II of the Interconnect Directive	Rights and obligations
1	Installation or provision of a public telecommunications network	Registration		Rights: <ul style="list-style-type: none"> ■ Interconnection ■ Installation, maintenance and clearance of cables in and on public land Obligations: <ul style="list-style-type: none"> ■ Provide Interconnection / Special Access ■ Ensure the possibility of tapping in order to maintain law and order ■ Ensure, in case of emergency situations or special circumstances regarding national security,

	Category of operator	Type of authorisation	Category in Annex II of the Interconnect Directive	Rights and obligations
				<p>the availability of telecommunications means and act according to the instructions given by the Minister</p> <ul style="list-style-type: none"> ■ Ensure the protection of personal data and privacy of subscribers to and users of the network ■ Provide information when required
2	Installation or provision of leased lines	Registration		<p>Rights:</p> <ul style="list-style-type: none"> ■ Interconnection ■ Installation, maintenance and clearance of cables in and on public land <p>Obligations:</p> <ul style="list-style-type: none"> ■ Ensure, in case of emergency situations or special circumstances regarding national security, the availability of telecommunications means and act according to the instructions given by the Minister ■ Provide information when required
3	Installation or provision of a broadcasting network	Registration		<p>Rights:</p> <ul style="list-style-type: none"> ■ Installation, maintenance and clearance of cables in and on public land <p>Obligations:</p> <ul style="list-style-type: none"> ■ Distribute a minimum package of programmes (exemption from this obligation can be obtained on request at OPTA) ■ Provide access to programme providers ■ Negotiate conditional access agreements ■ Provide information when required

	Category of operator	Type of authorisation	Category in Annex II of the Interconnect Directive	Rights and obligations
4	Provision of a public telecommunications service	Registration		<p>Rights:</p> <ul style="list-style-type: none"> ■ Interconnection / Special Access <p>Obligations:</p> <ul style="list-style-type: none"> ■ Provide Interconnection / Special Access ■ Number portability ■ Ensure the possibility of tapping in order to maintain law and order ■ Ensure, in case of emergency situations or special circumstances regarding national security, the availability of telecommunications means and act according to the instructions given by the Minister ■ Ensure the protection of personal data and privacy of subscribers to and users of the service ■ Join a disputes committee recognised by the government ■ Provide information when required
5	Provision of a conditional access system	Registration		<p>Obligations:</p> <ul style="list-style-type: none"> ■ Provide transcontrol to the cable network operator (partial control over the settop-box) ■ Provide information when required
6	Use of frequencies	Individual licence		<p>Obligations:</p> <ul style="list-style-type: none"> ■ Ensure the possibility of tapping in order to maintain law and order ■ Ensure, in case of emergency situations or special circumstances regarding national security, the availability of telecommunications means and act according to the instructions given by the Minister

1. Although the registration is mandatory, it is not a prerequisite to carry out telecommunications activities. The rights and obligations result from the activities themselves. The registration is used as an expedient to get a full overview of the telecommunications market in The Netherlands.
2. Defined ONP-obligations apply for providers of public telephone networks, public telephone services and providers of leased lines who are designated by OPTA as having significant power in the relevant market (which will be KPN until 2001).

2.11- Norway

The following categories of authorisations are in force in Norway:

-In accordance with Chapter 2 of the Telecommunications Act, any company enjoying a “strong market position” in public networks, leased lines and public telephony needs to have an individual licence. Together with the licence, the ministry can regulate through “conditions”.

-Providers of mobile telephony services with a “strong market position” need both a licence for the use of radio-frequencies and a licence for providing the service. Providers of mobile telephony services without a “strong market position” need a licence for the use of radio-frequencies and, for the provision of the service, a general authorisation with notification (“Registration” in the Norwegian regulatory regime).

-In accordance with Chapter 3 of the Telecommunications Act, providers of public networks and public services which are not subject to the individual licence regime of Chapter 2, are subject to a general authorisation with notification (“Registration” in the Norwegian regulatory regime).

-In accordance with Chapter 5 of the Telecommunications Act, the use of radio frequencies is subject to an authorisation (individual licence or general authorisation).

-In accordance with Chapter 6 of the Telecommunications Act, the provision of cable-TV services is subject to a general authorisation with notification (“Registration” in the Norwegian regulatory regime).

2.12- Portugal

A general authorisation with registration is required for the provision of those services and for the establishment of those telecommunications networks for which an individual license is not required.

An individual license is required for⁴:

⁴ According to nr 2 of article 4th of Decree-Law nr. 381-A/97, of December 30.

1. Provision of Fixed Telephone Service to the public⁵;
2. Establishment and exploitation of a public telecommunications network;
3. The granting of the right to use frequencies for the establishment of a network or the provision of a service;
4. Being subject to obligations of universal service provision, open network provision (ONP), interconnection or other obligations that are consequence of a Significant Market Power (SMP).

The following terms and conditions can be part of the license according to article 11th of Decree-Law nr. 381-A/97, of December 30:

- a) Network security and maintenance of network integrity;
- b) Services' interoperability;
- c) Data and communications protection;
- d) Effective and efficient use of granted frequencies;
- e) Respect for provisions in the fields of town planing and environment, patrimony, public and private domain;
- f) Effective and efficient use of the public numbering resources and respect for the National Numbering Plan;
- g) Universal service provision and contribution to the funding of universal service;
- h) Interconnection with other networks and / or services;
- i) Provision of the service with respect for predetermined quality level conditions;
- j) Open network provision;
- k) Instalment of call interception systems when legally authorised;
- l) Permission of access to facilities;
- m) Public offer of the service including non discriminatory pricing systems;
- n) Any other obligations imposed on providers of services subject to a general authorisation / registration⁶;
- o) Any other conditions imposed as consequence of the publishing of new approved regulations that might impose new demands not foreseen at the time of the granting of the licenses, in accordance with the principles of public interest and proportionality.

⁵ This service will be fully liberalised from January the 1st 2000. Nevertheless the ICP has already granted licenses for the provision of this service. They will only be in force from January 2000 on.

⁶ These obligations are stated on article 7th of D.L. nr. 381-A/97.

Besides those terms and conditions there are rights and obligations that are legally⁷, by way of article 26th of Decree-Law nr. 381-A/97, imposed on both the licensed and the registered entities:

- **Rights:**
 - a) To exercise its activity within the limits established by the license or registration;
 - b) To get interconnection⁸ with public telecommunication networks or services through the telecommunications basic network⁹ or through networks from operators with SMP;
 - c) To freely establish the prices to charge for the provision of the service.

- **Obligations:**
 - a) To respect the license or registration terms and limitations;
 - b) To comply with the legal dispositions applicable to the telecommunications sector;
 - c) To respect the applicable exploitation regulations;
 - d) To only use equipment approved by the competent authority;
 - e) To allow equipment control, to provide the information necessary for the *a posteriori* verification of the compliance with the terms of the license or registration, as well as send all the information needed for statistics, and guaranteeing the access to its facilities;
 - f) To promote any necessary corrections in view of the regular functioning of the facilities and the proper exercise of the activity;
 - g) To guarantee, in equal terms, the access to the services provided by means of the applicable charges.

The following table summarises networks and services for which an individual license is required.

It also includes services subject to other forms of authorisation for the access to the telecommunications market.

⁷ Unlike the terms and conditions these rights and obligations are **always** imposed on the licensees and entities subject to a general authorisation / registration regime.

⁸ Interconnection is regulated by D.L. nr. 415/98, of December 31.

⁹ The basic network is the state owned network that has been rented to the Portuguese incumbent operator, Portugal Telecom.

Category of operator		Type of Authorisation	Categories in annex II of the Interconnection Directive	Rights and obligations
1	Providers of Fixed Telephone Service	Individual License ¹⁰	Category 1	Article 26 th of D.L. 381-A/97 and any possible terms and conditions of article 11 th .
2	Providers of mobile services	Individual License ¹¹	Category 1	Article 26 th of D.L. 381-A/97 and any possible terms and conditions of article 11 th .
3	Providers of other services	General Authorisation / Registration	Category 4	Article 26 th of D.L. 381-A/97 and any possible terms and conditions of article 7 th . ¹²
4	Public networks ¹³	Individual license	Category 1 Category 2 ¹⁴	Article 26 th of D.L. 381-A/97 and any possible terms and conditions of article 11 th .
5	Private networks	Declaration to the NRA		Decree-Law nr. 290-C/99, of July 30 TH
6	Cable TV ¹⁵	Government Authorisation (following proposal from the NRA)		Decree-Law nr. 241/97, of July 18.

¹⁰ The granting of an IL does not preclude the need for registration.

¹¹ Because for the provision of the mobile services there is a need for the use of frequencies which are subject to an individual license in the terms of article 4th of D.L. 381-A/97.

¹² They are also subject to specific obligations stated in Decree-Law nr. 290-B/99, of July 30, which regulates the exploitation of public telecommunications services other than Fixed Telephone Services.

¹³ The public network license includes the right to lease circuits.

¹⁴ For the ones leasing lines. So far only the incumbent operator has provided this service.

Category of operator		Type of Authorisation	Categories in annex II of the Interconnection Directive	Rights and obligations
7	Access to frequencies	Individual License	Category 1 ¹⁶	Article 26 th of D.L. 381-A/97 and any possible terms and conditions of article 11 th .
8	Operators with SMP or with Universal Service, ONP or interconnection obligations	Individual License	Category 1	Article 26 th of D.L. 381-A/97 and any possible terms and conditions of article 11 th .

2.13- Spain

A general authorisation is required for the provision of those services and for the establishment and exploitation of those telecommunications networks for which an individual licence is not required.

An individual licence is required for:

1. Establishment or exploitation of private networks requiring the exclusive use of the public radio-electric domain¹⁷ and self-provision of telecommunications services, through the exploitation of these private networks;
2. Provision of services and establishment or exploitation of telecommunications public networks, offered to third parties. This individual licence is divided into the following categories:
 - **Licence type A:** Provision of fixed telephone service to the public, through the use of joint switch & transmission means and without having to respect the same rights and obligations of holders of licences type B or C in relation to the establishment or exploitation of the network.
 - **Licence type B1:** Provision of fixed telephone service to the public, through the establishment or exploitation of a fixed public telephone network. The exploitation of the network includes the right to provide leased lines.

¹⁵ According to the new legislation of Decree-Law nr. 290-A/99, of July 30, which regulates the exploitation of public networks, whenever cable TV operators use their network, or let other entities use it, for the provision of addressed services, they are obliged to require a license as public network operators, on the terms of Decree-Law nr. 381-A/97

¹⁶ When frequencies are destined for provision of public services or establishing public networks.

¹⁷ In this and in the following provisions, a network implies the use of the public radio-electric domain when it is technically impossible, in any way, to provide the service without the use of the public radio-electric domain.

- **Licence type B2:** Provision of mobile telephone service to the public, through the establishment or exploitation of a mobile public telephone network. These networks can be:
 - a. Terrestrial networks
 - b. Networks based on medium or low orbit satellites
- **Licence type C1:** Establishment and exploitation of a public network without the possibility of providing a public telephone service. In this case, the public network does not imply the use of the public radio-electric domain. The exploitation of the network includes the right to provide leased lines.
- **Licence type C2:** Establishment and exploitation of a public network without the possibility of providing a public telephone service. In this case, the public network implies the use of the public radio-electric domain. These networks can be:
 - a. Terrestrial networks
 - b. Networks based on satellites

The following obligations apply to holders of all categories of individual licences for the provision of services to the public or for the establishment or exploitation of public networks:

- Send to the Ministry of Development and to the NRA all information and documentation required;
- Guarantee subscribers and users their corresponding rights with regard to universal service and other obligations in the public interest;
- Guarantee price transparency and respect the requirements of accounting separation required by law;
- Respect provisions and technical specifications with regard to telecommunications equipment and apparatus and all technical requirements applicable to each specific case;
- Guarantee confidentiality of transmitted messages and communications secrecy;
- Adopt the measures necessary to protect data of a personal character;
- Respect provisions in the field of town planning and environment;
- Guarantee, when required, interoperability of services;
- Comply, when foreseen by regulation, with decisions taken by Authorities in the name of public interest, public security and national defence;
- Adopt the measures necessary to:
 1. Ensure the adequate functioning of their installations;
 2. Conveniently protect their installations;
 3. Be able to comply with all requirements regarding the national defence and public security which have been imposed by competent authorities.
- Refrain from anti-competitive behaviour in the telecommunications sector;
- Use effectively and efficiently the public numbering resources;
- Contribute to the funding of universal service in accordance with regulatory provisions;
- Ensure, when applicable, the free-of-charge routing of calls to the emergency services;
- Respect, when applicable, the general obligations imposed on providers of services subject to a general authorisation;
- Respect requirements and obligatory conditions in accordance with the Telecommunications Law, the Decree regulating individual licences, other applicable provisions and all obligations which the applicant has accepted to respect.

- Holders of individual licences shall pay the fees in accordance with the corresponding law provisions

The following table summarises networks and services for which an individual licence is required. The table also include rights and obligations which holders of individual licences have to respect in addition to the general obligations listed above and to certain specific obligations included in the decision granting the licence.

Category of operator		Type of authorisation	Category in Annex II of the Interconnect Directive	Rights and obligations
1	Private networks with use of public radio-electric domain and self-provision of telecommunications services	Individual licence		Not particularly relevant in the scope of this study which focuses on <u>public</u> voice telephony and infrastructure.
2	Provision of fixed telephone service to the public, through the use of joint switch & transmission means	Individual licence (type A licence)		<p>Rights of type A-licence holders:</p> <ol style="list-style-type: none"> 1. Right to be selected through a call-by-call procedure with a five or six digit selection code; 2. Right to interconnect the network bearing the service provision with public networks; 3. Possibility of installing public use terminals. <p>Obligations of type A-licence holder:</p> <ol style="list-style-type: none"> 1. Have one or more interconnection points corresponding to the province where they wish to provide the service; 2. Possibility to provide their subscribers with an access network through the renting of leased lines to public network operators; 3. No right to occupy public domain, private property or share infrastructure with other operators; 4. No obligations of extension and coverage of the service (this obligation apply to holder of licence type B and C) and therefore none of the corresponding rights; 5. When providing the service to their subscribers with direct access in the terms of 2. above, obligations 1. 2. 3. 4. of licences type-B and obligation 1. of licences type B1 are also applicable.
3	Fixed telephone service to the public + fixed public telephone network.	Individual licence (type B1 licence)		<p>General rights of type B-licence holders:</p> <ol style="list-style-type: none"> 1. Right to obtain from the NRA the assignment of the numbers required for providing the service or for establishing/exploiting the network; 2. Right to interconnect the network bearing the provision of the public telephone service with public networks;

Category of operator	Type of authorisation	Category in Annex II of the Interconnect Directive	Rights and obligations
			<p>3. Right to occupy, for the establishment or exploitation of the public networks, public or private property;</p> <p>4. Possibility of installing public use terminals.</p> <p>General obligations of type-B licence holders:</p> <ol style="list-style-type: none"> 1. Facilitate interconnection and access to their networks; 2. Provide the NRA with data on their subscribers in order to create a single telephone directory for each territorial area; 3. Guarantee, when required, network interconnection and service interoperability; 4. Establish the necessary procedure in order to guarantee the right of subscribers to keep their number; 5. When required from reasons of general interest or environment protection, share their infrastructure with other operators; 6. Comply with the obligations of coverage and extension of the services taken on; <p>If a type-B licence holder provides leased lines, the following obligations also apply:</p> <ol style="list-style-type: none"> 1. Make available to the public an offer of leased lines and present it to the General Secretariat for Communications and to the NRA one month before it becomes effective; 2. Conclude a contract with the users for the provision of the service; 3. Access to leased lines can be restricted only when required for respecting essential requirements. <p>Specific rights of type B1-licence holders:</p> <ol style="list-style-type: none"> 1. Right to be selected through the call-by-call procedure or through pre-selection; 2. Right to obtain carrier selection codes. <p>Specific obligations of type B1-licence holders:</p> <ol style="list-style-type: none"> 1. Provide their subscribers with a telephone directory established by themselves or by the operator with the obligation to do so;

Category of operator		Type of authorisation	Category in Annex II of the Interconnect Directive	Rights and obligations
				<ol style="list-style-type: none"> 2. If providing a <u>national</u> public telephone service, they shall establish an interconnection point per province within one year from starting to provide the service. 3. If providing the public telephone service in an area smaller than the entire national territory, they shall establish, from the moment of starting to provide the service, at least one interconnection point in each of the provinces where they intend to provide the service; 4. The network exploited on a national territorial area must be such that, within 2 years from granting the licence, at least 40% of its transmission means are owned or rented through a contract with a minimum of 5 years' validity. This percentage shall increase to 60% starting from the 3rd year. 5. For type B1-licence holders operating on an area smaller than the national one, the NRA will establish the specific requirements with regard to point 4. above;
4	Mobile telephone service to the public + mobile public telephone network.	Individual licence (type B2 licence)		<p>Rights of type B2-licence holders:</p> <ol style="list-style-type: none"> 1. Same rights listed in the box above as "General rights of type-B licence holders" 2. No right to occupy, for the establishment or exploitation of the public networks, public or private property for holders of type-B2 licences using networks based on medium and low orbit. <p>Obligations of type B2-licence holders:</p> <ul style="list-style-type: none"> - Same obligations listed in the box above as "General obligations of type-B licence holders" excluding 2 and 5 for holders of type-B2 licences using networks based on medium and low orbit.
5	Public networks without provision of the telephone service (no use of public radio-electric domain)	Individual licence (type C1 licence)		<p>General rights of type C-licence holders:</p> <ol style="list-style-type: none"> 1. Obtain the numbers required for the establishment or exploitation of the network and, if applicable, for the telecommunications services; 2. If exploiting a public network, the right to interconnect it, within the terms of the reference interconnection offer published by dominant operators; 3. When necessary for the establishment or exploitation of the network, the right to occupy private or public property.

Category of operator	Type of authorisation	Category in Annex II of the Interconnect Directive	Rights and obligations
			<p>General obligations of type C-Licence holders:</p> <ol style="list-style-type: none"> 1. Facilitate interconnection and access to their networks; 2. When required from reasons of general interest or environment protection, share their infrastructure with other operators; 3. Comply with the obligations of coverage and extension of the services taken on; 4. Guarantee, when required, interconnection of networks and service interoperability; <p>If a type-C licence holder provides leased lines, the following obligations also apply:</p> <ol style="list-style-type: none"> 1. Make available to the public an offer of leased lines and present it to the General Secretariat for Communications and to the NRA one month before it becomes effective; 2. Conclude a contract with the users for the provision of the service; 3. Access to leased lines can be restricted only when required for respecting essential requirements. <p>Specific obligations of type C1-Licence holders:</p> <ul style="list-style-type: none"> - The network of the licence holder must be such that, in the first two years from the granting of the licence, at least 40% of its transmission means are owned or rented through a contract with a minimum of 5 years' validity. This percentage shall increase to 60% starting from the 3rd year.
6	Public networks without provision of the telephone service (use of public radio-electric domain)	Individual licence (type C2 licence)	<p>Rights of type C2-licence holders:</p> <ul style="list-style-type: none"> - Same rights listed in the box above as "General rights of type-C licence holders". <p>Obligations of type C2-licence holders:</p> <ul style="list-style-type: none"> - Same obligations listed in the box above as "General obligations of type-C licence holders".

2.14- Sweden

The following tables summarise the categories of operators identified in the national regulation in accordance with Annex II of the Interconnection Directive:

Category of operator		Type of authorisation	Categories in Annex II of the Interconnection Directive	Rights and obligations
1	Providers of fixed voice services	a. Registration b. Individual licence (if activity of considerable extent)	CATEGORY 1	Reference to: -Telecommunications Act (See following pages for a complete list)
2	Providers of mobile telecommunications services	a. Registration b. Individual licence (if activity of considerable extent)	CATEGORY 1	Reference to: -Telecommunications Act (See following pages for a complete list)
3	Providers of leased lines	a. Registration b. Individual licence (if activity of considerable extent)	CATEGORY 2	Reference to: - Telecommunications Act; - Guidelines for telecom operators (See following pages for a complete list)
4	Other telecommunications services requiring allocation of capacity from the numbering plan for telephony	Registration		Reference to: - Telecommunications Act.

Rights and obligations attached to individual licences

Holders of licences for pursuing telecommunications activities may be subject to the following conditions:

1. to provide on certain conditions telephony services to a fixed termination point to anyone requesting such service,
2. to provide, having regard to available capacity and on certain conditions, network capacity to anyone so requesting,
3. to provide information about the owner of the activity,
4. to conduct the activity permanently and with good capacity and quality,
5. to publish on reasonable conditions in its own telephone directory information about individual telecommunications subscriptions at entities subject to

mandatory notification, to the extent that such information is not subject to obligation of confidentiality according to law, and

6. without special compensation, to maintain automatic telephones, to the extent which satisfies public needs with regard to numbers and geographical coverage.

The Government, or the supervisory authority if authorised by the Government shall make detailed regulations as to the manner in which licence conditions shall be satisfied.

A party granted a licence shall pursue the telecommunications activities so that decisions concerning secret telecommunications interception and secret telecommunications monitoring may be executed and so that the execution is not revealed.

A party providing telecommunications services or network capacity within a public telecommunications network shall satisfy reasonable demands on functionality and technical safety in the activity conducted.

The tariffs of a licence-holder for the use of telephony services between fixed termination points within a public telecommunications network and for the provision of network capacity within such a network shall be based on the costs of the licence-holder. Licence-holders shall keep the tariffs publicly available.

Rights and obligations attached to Registrations

A party conducting an activity which is subject to an obligation to give notice (Registration) may not, apart from usual commercial terms, make other demands for connection to a telecommunications network than those necessary to enable an interaction between telecommunications services or those needed in order to prevent damage being caused to the network or its users or disturbances being caused to the operation of the network.

A party conducting an activity which is subject to an obligation to give notice is liable

1. to conduct the activity on the preconditions arising by virtue of the international agreements to which Sweden has agreed,
2. to have regard, in conducting the activity, to the needs of persons with disabilities for special telecommunications services,
3. to contribute to enabling telecommunications messages to be conveyed to public emergency services,
4. to recognise the needs of the Swedish Total Defence of telecommunications in times of alert,
5. to submit annual reports on those parts of the activity which are subject to the obligation to give notice, following application of principles especially adapted to the activity, and to make such reports available to the supervisory authority or the party nominated by the authority.

6. to provide information, on reasonable terms, to any party who, for the purpose of providing enquiry services, so requests such information about the telephone subscription of a private individual or legal entity as is not subject to the obligation of confidentiality according to Section 25, first paragraph, item 1 of the Telecommunications Act,

7. to provide information, on reasonable terms, to the public about the telephone subscriptions of private individuals or legal entities with other parties subject to the obligation to give notice to the extent that they are not subject to an obligation of confidentiality according to law, and

8. to provide information about the activity for statistical purposes.

Rights and obligations of dominant operators

The Government, or the supervisory authority if authorised by the Government, may prescribe that a party holding a licence and possessing a dominant position in the Swedish market shall keep business accounts on a particular part of the activity affected by the licence separately from other activities.

Interconnection

A party supplying telecommunications services subject to an obligation to give notice (Registration), is liable on request to facilitate interconnection with any other party providing telecommunications services subject to the same notification obligation.

This also applies to a party which within a public telecommunications network provides other telecommunications services to an extent which, having regard to the area covered, number of users or other comparable circumstance is considerable.

The compensation for the provision of interconnection of telephony services delivered to a fixed termination point shall be fair and reasonable in relation to the performance costs. The same shall apply to interconnection of telephony services to a mobile termination point if this service is supplied by a party having significant power in the market for interconnection.

A party conducting interconnection shall give notice of those technical alterations to the network which affect interconnection to the supervisory authority in good time before implementation.

In addition to the above provisions, a party supplying telecommunications services subject to the obligation of Registration and which is notified as having significant market power, is liable

1. to meet every reasonable demand for access to the telecommunications network for the purpose of interconnection,
2. to publish tariffs for interconnection,
3. to offer equivalent terms to everybody who requests interconnection,

4. to provide, on request, all information necessary for agreements on interconnection,
5. to supply the supervisory authority with agreements concerning interconnection, and
6. in their accounts of the business, to keep revenue and expenditure related to interconnection separate from other activities.

(Items 2 and 6 do not apply to a party supplying mobile telecommunications services)

A party providing network capacity within a public telecommunications network is liable on request by another party providing such network capacity to cooperate in the interconnection of the telecommunications network with its telecommunications network in order to maintain permanent connection links in the networks.

2.15- Switzerland

In Switzerland, neither Voice Telephony, nor infrastructure are subject to a specific authorisation regime.

Telecommunications services in general can be subject to concession or to notification.

- Any party offering a telecommunications service and running independently a substantive part of the telecommunications installations offered for transmissions, is subject to a concession.
- Any party offering a telecommunications service of any kind needs to notify this to OFCOM.

“Running independently a substantive part of the telecommunications installations offered for transmissions” means that the service provider

- runs his transmission system with or without a switching system
- runs the physical access to the connection of the user
- offers transmission services to third parties.

The concession covers in fact a mixture of service and infrastructure. The service can be a voice service as well as any other service. No specific authorisation system for telecommunications infrastructure, however, exists. The Voice Telephony service, as defined in the Service Directive, can be subject either to a concession or to a notification, depending on whether the operator runs substantive transmission means. Voice Telephony is also part of what is defined as the Universal Service. For this a specific concession is, however, needed.

Category of operator		Type of authorisation	Category in Annex II of the Interconnect Directive	Rights and obligations
1	a) Providers of any telecommunications services to third parties involving extensive independent use of telecommunications installation used for transmission (Telecom Operators)	Individual licence	CATEGORY 1	
2	b) Anyone providing a telecommunications service in a way other than a) above (Service Providers)	Registration	CATEGORY 1	
3	Providers of any telecommunications services to third parties involving extensive independent use of telecommunications installation used for transmission (Leased Lines)	Individual Licence	CATEGORY 2	

Rights and obligations for “fixed public telephone service”/“infrastructure”:

number portability and carrier selection

- Providers of telecommunications services have to ensure number portability and the possibility for carrier selection for national and international connections.
(Article 28 of the Telecommunications Act of 30 April 1997)

Confidentiality of the communications

- It is forbidden for service providers of telecommunications services to give information to a third party concerning the communications of the users or to give anyone else the possibility to communicate such information to third parties.
(Article 43 of the Telecommunications Act of 30 April 1997)
- Personal data concerning subscribers may be treated by the service provider to the extent necessary for the establishment of the call and payment. These data must be kept for 6 months and provided to the authorities competent for the supervision of telecommunications if this is needed.
(Article 50, 1 of the Order concerning Telecommunications Services of 6 October 1997)
- Within the time limit within which bills can be contested, all operators must be able to provide a subscriber with the following information:
 - numbers of the called parties
 - date, hour and duration of the communications
 - fee for every communication
 (Article 45 of the Telecommunications Act and Article 50, 2 of the Order concerning Telecommunications Services of 6 October 1997)
- In the event that a subscriber reports in written form that he is a victim of abusive calls, the service provider must communicate the following information, as far as possible
 - date, hour and duration of the communications
 - number, name and address of the holder of the connection from where the communication was set up
 (Article 50, 3 of the Order concerning Telecommunications Services of 6 October 1997)
- If it is technically feasible, service providers have to offer the following possibilities to their subscribers, at a charge which represents only the administrative costs directly involved:
 - the possibility of eliminating the presentation of the calling-line identification on a call by call basis or permanently.
(Articles 28 and 46 of the Telecommunications Act and article 51 of the Order concerning Telecommunications Services of 6 October 1997)
 - the possibility to reject incoming calls where the presentation of the calling-line identification has been eliminated.
(Articles 28 and 46 of the Telecommunications Act and article 51 of the Order concerning Telecommunications Services of 6 October 1997)

- the possibility to eliminate the presentation of the identification of their line on the installation of the called party.
(Articles 28 and 46 of the Telecommunications Act and article 52 of the Order concerning Telecommunications Services of 6 October 1997)
- the possibility to stop automatic call forwarding to their terminal
(Articles 28 and 46 of the Telecommunications Act and article 53 of the Order concerning Telecommunications Services of 6 October 1997)
- The service provider needs to inform the subscribers of the possibilities mentioned above at the moment they subscribe.
(Articles 50, 52 and 53 of the Order concerning Telecommunications Services of 6 October 1997)
- The service provider needs to inform the subscribers of the risks related to the use of their services concerning listening-in and intrusion by non authorised persons.
(Article 55 of the Order concerning Telecommunications Services of 6 October 1997)

2.16 -United Kingdom

The Telecommunications Act 1984 makes it a criminal offence to run a telecommunication system without a licence. The Government only licences those who “run telecommunication systems”¹⁸; service providers who do not run any system do not require a licence. The term “run a system” does not refer to the day-to-day operation of a system; for example a facility management company might run a system under contract but it would not be the licensed entity. It refers rather to authority over the system, in particular to control over how the system is made up and how, and for what purposes, it is to be used. The person or body who runs a system need not own it; and while the person or body who pays for any public telecommunication services used in conjunction with a system will often be the person running the system, it will not necessarily be so.

The Telecommunications Act 1984 provides for two main categories of licences to be granted:

- a. **Class licences** (general authorisations), deemed to be granted to a “class of persons” normally with no fee or registration involved;
- b. **Individual licences.**

¹⁸ **“Telecommunication system”** means a system for the conveyance, through the agency of electric, magnetic, electro-magnetic, electro-chemical or electro-mechanical energy, of

- a. speech, music and other sounds;
- b. visual images;
- c. signals serving for the impartation (whether as between persons and persons, things and things or person and things) of any matter otherwise than in the form of sounds or visual images; or
- d. signals serving for the actuation or control of machinery or apparatus.

a. CLASS LICENCES

A Class Licence means that licensees need make no application and need pay no fee. They must however run their systems in such a way as to conform to the terms of the relevant licence.

The five main class licences are the following, that is to say-

- **SPL (Self Provision Licence):** covers telecommunication systems run for self-use, i.e. where services are not offered to third parties. There are no restrictions on the extent of telecommunications equipment for self-use which can be run both on and between premises under the SPL. All call traffic must originate or terminate with the licensee or a member of the licensee's group.
- **TSL (Telecommunications Services Licence):** a licence which permits any person to provide third parties with a wide range of telecommunications services (including one-end resale and international simple data resale, but not mobile), in accordance with the terms of the licence, provided that the Applicable Systems comprise apparatus situated in and linking up to no more than 20 separate sets of premises, where a single set of premises must be within a single contiguous boundary under a common management regime. International Simple Voice Resale is not covered by the TSL.
- **PMR (Private Mobile Radio) Class Licence:** permits a narrow range of mobile services, including the provision of automatic vehicle location systems, running PMR systems from a single base station (e.g. taxi firms) and small paging systems.
- **Satellite Service Class Licence:** allows the running of satellite transmit and/or receive terminals (of any kind, whether fixed, mobile or transportable) for the provision of a wide range of services, provided that the satellite transmitting and receiving terminals are not connected directly or indirectly to the PSN (Public Switched Network). However, if an earth station at the far end is authorised for connection to the PSN (e.g. through an individual licence which authorises connection to the PSN), it is possible to run a remote earth station under the Satellite Services Class Licence. Messages from a mobile or transportable (not fixed) earth station which are intended to be received by an overseas downlink connected to the PSN are also permitted under the Licence.
- **Cordless Class Licence:** a licence based on the TSL, which enables operators, using digital cordless technology based on the CT2 or DECT European standards, to run cordless systems for their business customers, within a 200 metres area, which can also be connected to the PSTN.

b. INDIVIDUAL LICENCES

A company proposing to run a system for the provision of services falling outside the various class licences needs to apply for an individual Telecommunications Act licence.

A special case of individual licence is the **PTO Licence** (Public Telecommunications Operator Licence). Holders of individual Telecommunications Act licences to which the conditions in Section 8 of the Act apply may be designated as Public Telecommunications Operators (PTO) by the Secretary of State under Section 9.1 of the Act. Such designation confers additional rights and imposes additional duties on the operator. (For the list of conditions imposed on PTOs, see paragraph below –Conditions applicable to licence holders).

The decision to designate a licensee as a PTO will be taken on a case-by-case basis. In general, however, the Government would expect to designate as PTOs licensees installing infrastructure to offer two-way services to a substantial class of customer and those installing long-distance networks.

International Simple Voice Resale (ISVR) enables operators to bypass the international PSTN by leasing circuits from a PTO and conveying two-way live speech calls to and from the PSTN at both ends. The conveyance therefore involves calls which have originated on the public switched network in one country, been conveyed over an international private leased circuit, have then broken out onto a public switched network in another country.

If a company proposes to provide ISVR services it would need to apply for a registration under the registrable ISVR licence which was issued on 31 December 1997. To apply for a registration under this licence, applicants need to complete an application form.

-Conditions applicable to licence holders

A licence granted under the provisions of the Telecommunications Act 1984 may include –

- a) such conditions (whether relating to the running of a telecommunication system to which the licence relates or otherwise) as appear to the Secretary of State or the Director General to be requisite or expedient having regard to the duties imposed on him by the Telecommunications Act;
- b) conditions requiring the rendering to the Secretary of State of a payment on the grant of the licence or payments during the currency of the licence or both of such amount or amounts as may be determined by or under the licence;
- c) conditions requiring any person who is authorised by the licence to run a telecommunications system to furnish to the Director General, in such a manner and at such times as he may reasonably require, such documents, accounts, estimates, returns or other information as he may require for the purpose of exercising the functions assigned or transferred to him by or under the Telecommunications Act 1994.

According to the DTI document containing *notes for the guidance of applicants for a licence to run a telecommunication system*, as a general rule specific service obligations are not imposed on new operators. Applicants proposing to offer an extensive service to the public using scarce resources e.g. radio spectrum, will however, normally, be required to roll out a network covering an area where a given percentage of the population live.

Individual licences for telephony services to the public normally contain conditions which require the licensee to provide, or arrange to be provided, directory enquiry services, free emergency call facilities and special arrangement for disabled people. Such licences are also subject to fair trading conditions to ensure that there is no undue discrimination or undue preference and that tariffs are published.

Other conditions, for example in respect of numbering and technical requirements are necessary on a similar basis to existing Public Telecommunications Operators (PTOs) and reflect the type of conditions which may be included in individual telecommunications pursuant to *Article 8* and the *Annex of the Licensing Directive*.

Details of the conditions to be found in the various types of licences can be obtained from Communication and Information Industries Directorate of DTI.

In accordance with *Section 8.1 of the Telecommunications Act 1984*,

Code Powers

Section 10 of the Telecommunications Act 1984 enables the Secretary of State to grant powers to individual licensees to facilitate the installation and maintenance of telecommunications systems. These “Code powers” are set out in *Schedule 2 of the Telecommunications Act 1984*. They confer rights to install and maintain apparatus in, over or under land and result in considerably simplified planning procedures, similar to those given to utilities. The powers can in general only be granted in respect of a licence to which certain obligations apply. These obligations are listed in *Section 8.1 of the Telecommunications Act 1984* and are the following:

- to provide such telecommunication services as are specified in the licence or are of a description so specified;
- to connect to any telecommunication system to which the licence relates, or permit the connection to any such system of, such other telecommunication systems and such apparatus as are specified in the licence or are of a description so specified;
- to permit the provision by means of any telecommunication system to which the licence relates of such services as are specified in the licence or are of a description so specified;
- not to show undue preference to, or to exercise undue discrimination against, particular persons or persons of any class or description (including in particular persons in rural areas) in respect of any service provided, connection made or permission given in pursuance of such conditions as are mentioned in the foregoing paragraphs (whether in respect of the charges or other terms or conditions applied otherwise); or
- to publish, in such a manner and at such times as are specified in the licence, a notice specifying, or specifying the method that is to be adopted for determining, the charges and other terms and conditions that are to be applicable to such services so provided, such connections so made and such permissions so given as are specified in the licence or are of a description so specified.

-Categories of authorisations in the framework of the Interconnection Directive

OFTEL has published a Consultation Document on “Rights and obligations to interconnect under the EU Interconnection Directive”. The document, together with a DTI consultative document on implementation of the Interconnection Directive, sets out the UK approach to the implementation of the Interconnection Directive and who should have interconnection rights and obligations under the Directive.

After discussing in detail, in the first part of the document, the requirements of the EC framework, OFTEL and DTI have concluded that, in order to be included in any of the 4 categories of Annex II, operators must fulfil all of the following pre-conditions¹⁹:

- They must be authorised to provide public telecommunications networks or publicly available telecommunications services;

¹⁹ The following text contains ample quotations of the OFTEL Consultation Document on “Rights and obligations to interconnect under the EU Interconnection Directive”- March 1998 -

- They must be providing publicly available Network Services (bearer services);
- They must be running a system with which to interconnect to others, which will comprise transmission and, where appropriate, switching (that is, the usual requirements for a system under the Telecommunications Act).

If an operator qualifies under these criteria, then to be included in Annex II the operator must also qualify under at least one of the 4 categories listed in Annex II. These are as follows:

Category 1

This includes all those Public Telecommunications Operators (PTOs) who have directly connected customers, access to whom is made via numbers from the national numbering plan. It will also include some non-PTO operators who similarly control access to customers via numbers, e.g. X25 data network operators, mobile data network operators, radio-paging operators and Public Access Mobile radio (PAMR) operators. Thus these operators will in future have obligations to interconnect with others as well as the rights to interconnect which they have now.

There are some networks, such as dial-up X25 networks and dial-up mobile data networks, where the network terminating point is not owned by the operator concerned, but the customer access is still uniquely controlled by the operator via the numbering plan. Dial-up access is therefore included in Category 1.

However, it is important to define the control exercised through the numbering plan. OFTEL and DTI therefore propose that consistent with the Notes to Annex II, Category 1 operators will be those directly allocated one or more unique numbers from the Specified Numbering Plan by OFTEL (or any successor Numbering Administrator). This is to ensure that Annex II rights cannot be gained solely by being made a sub-allocation of numbers by another operator, as for example occurs with premium rate service providers and some personal number service providers.

Category 2

This is intended to include operators who construct facilities to users' premises and through such facilities lease lines to the user. It does not include operators who resell others' leased lines. There are very few operators who qualify under Category 2 who are not already covered under Category 1, but there are a handful of operators providing infrastructure as 'Carriers' and who do not provide switched services. However, such operators must be selling leased circuits to users and not raw infrastructure, such as 'dark fibre.'

Category 3

In most Member States, the provision of international communications infrastructure is still limited to the incumbent PTT. The purpose of this category was to ensure that such operators, who possessed this special or exclusive right, could not restrict extra-Community access by virtue of their control of a bottleneck facility. However, in the UK, international facilities have now been completely liberalised and around 70 International Facilities Licences (IFL) have been granted. Hence no IFL operator can qualify under Category 3. This is addressed below in Category 4.

Category 4

This last category recognised that as a matter of fact, there would be a number of further operators in addition to those falling within Categories 1-3 which had rights to interconnection under national arrangements. In particular, the Commission recognised that, in the UK, some other Relevant Connectable Systems (RCS) had such rights.

Many respondents to the DTI consultative document suggested that Annex II operators should be limited to those constructing their own transmission infrastructure, in line with previous interconnect policies. Such an approach would be difficult to apply objectively. It would not be in line with the non-discriminatory approach which OFTEL and DTI are required to take in applying the Annex II criteria. Categories 1 to 3 of Annex II are non-discretionary and automatically include within them certain types of operator depending on the nature of the services they provide; some of these operators may well have chosen to buy leased lines rather than build their own infrastructure. In defining who should fall within category 4 of Annex II, a distinction should not be drawn which is not drawn in categories 1 to 3.

Since DTI/OFTTEL decided to consult further on the proposals set out in the initial DTI consultative document, the approach which has been adopted in the UK, pending the outcome of this consultation, has been to include all other operators who currently have RCS status in Category 4. However, the discriminatory basis on which RCS is defined makes it very difficult to meet the tests for objectivity and non-discrimination required by the Licensing Directive. It is therefore necessary to define Category 4 so as to provide an objective, transparent, and non-discriminatory definition of those who should have the rights and obligations of Article 4(1) of the Directive.

A number of issues were considered, which are illustrated and discussed in the OFTEL consultative document.

In conclusion, it was proposed that the following 4 types of operator should qualify under Category 4 of Annex II:

- **Type A**

It was noted above that no IFL operator qualifies under Category 3, because the UK has eliminated all special and exclusive rights in international infrastructure. Also, as many IFL operators do not have directly connected end-users, they do not qualify under Category 1 either. This could lead to a situation where UK IFL operators were disadvantaged compared with European operators who would qualify according to the way in which Annex II was implemented in their respective Member States. In addition, OFTEL considered that ISR (International Simple Resale) operators, who have been an important source of international competition in recent years and who have rights of interconnection, should not have these withdrawn at this stage, as long as they meet the minimum requirements for Annex II listed above. OFTEL therefore proposes that all operators who provide international circuits (i.e. who lease an IPLC, and provide the last point of connection within the UK mainland for outbound calls or the first for inbound calls and thus control access to international facilities) qualify for category 4. Those merely reselling ISR who do not control such access, do not qualify for this category.

- **Type B**

The predominant growth in public data services is now occurring via the Internet, which operates via a world-wide addressing scheme, which in turn depends on a world-wide numbering scheme (the 4 byte address under IP version 4). In order to preserve technological neutrality in the provision of UK data services, it is therefore proposed that operators providing publicly available Internet services, and controlling customers via the internationally recognised numbering and addressing plan, should be included in this category.

- **Type C**

Category 1 operators control the means of access to users via unique numbers identifying the network terminating point(s). In the UK, competition has promoted the emergence of operators providing personal numbering services, which by virtue of their individual licences have obtained RCS status. A number of these operators, and ISR operators too, are now additionally providing other forms of Number Translation Services (e.g. 0800). These services all depend on number translation to route calls to the required network terminating point, which will itself have a regular access number. It is therefore proposed that since such operators require interconnection with other PTOs to ensure that their customers can be obtained on those numbers by any customer connected to the PSTN, they should be included in this category. It is proposed that such operators would have to be granted numbers directly by OFTEL, (or any successor number administration organisation) and would not include those who merely seek a sub-allocation of numbers from an operator with rights to a direct numbering allocation from the numbering administrator. It is recognised that increasingly many number ranges will support number portability through individual allocation to end-users; therefore inclusion in Type C of Category 4 will depend on the operator demonstrating that it is a bona fide operator of number translation services and not a reseller or end-user.

- **Type D**

Category 2, as described above, includes those providing leased lines to users' premises. This is taken to include operators' premises too, as the Directive defines users to include anyone using or requesting publicly available telecommunications services. This would therefore mean that 'Carriers' providing leased circuits for or between other operators' sites would qualify under Category 2. However, some 'carriers' may be providing other important forms of 'transit' interconnection between other operators, such as PSTN (including 'targeted transit'), ATM based services and IP backbone service. To ensure technological neutrality in the provision of such carrier services, it is intended to include in this category any operator providing a publicly available switched or un-switched bearer service between public telecommunications networks.

The tables in the following pages summarise the categories of operators identified in the national regulation in accordance with Annex II of the Interconnection Directive:

CATEGORY 1 in Annex II of the Interconnection Directive		
Type of operators	Type of authorisation	Rights and obligations included in the authorisation
PTOs (including mobile, broadband, cable and local delivery licensees) with direct connected customers and SMP	Individual Licence	<ul style="list-style-type: none"> • To meet all reasonable requests for access to the network. • To adhere to the principle of non-discrimination and transparency in respect of interconnection • Charges for interconnection must be cost oriented • Separate accounts must be kept for interconnection activities <p>Only a sub-set of these apply to mobile operators</p>
<p>The following licensees:</p> <ul style="list-style-type: none"> • data network operators • mobile data network operators • radio-paging operators • PAMR operators • dial-up access operators, provided they have allocated one or more unique numbers from the numbering administrator 	Individual/ Class Licence	<ul style="list-style-type: none"> • Right to cost oriented interconnection rates • Obligations to interconnect

Category 2 in Annex II of the Interconnection Directive (Providers of leased lines to users premises):		
Type of operators	Type of authorisation	Rights and obligations included in the authorisation
Carriers and dark fibre providers: the list is currently unspecified		

Category 3 in Annex II of the Interconnection Directive Providers of international circuits (with third countries) with special or exclusive rights:		
Type of operators	Type of authorisation	Rights and obligations included in the authorisation
None Special rights for international operators were abolished in 1996	Not applicable	Not applicable

Category 4 in Annex II of the Interconnection Directive Providers of telecommunications services which do not have rights and obligations to negotiate interconnection in accordance with the Directive, but may be granted them under the national licensing scheme of a Member State:		
Type of operators	Type of authorisation	Rights and obligations included in the authorisation
<p>It is proposed to include under this category :</p> <ul style="list-style-type: none"> • operators who provide either international facilities or international simple resale (ISR) who provide international circuits • operators providing Internet services, and controlling customers via the internationally recognised numbering plan (the 4 byte address under IP version 4) • operators providing number translation services (NTS) • ATM based service providers and IP backbone service providers 	<p>Individual / Class Licence</p>	<ul style="list-style-type: none"> • Rights to cost oriented interconnection. • Obligations to interconnect. Optional inclusion in Annex II (can opt out by contacting OFTEL)

2.17 - Summary of information on categories of authorisations in European countries

CATEGORIES OF AUTHORISATIONS AND CORRESPONDING LICENSING REGIMES (IND LIC = Individual Licence; GEN AUTH = General Authorisation; NOT = General Authorisation with Notification)												
BE	Fix net	Mob net	Sat net	Voic tel	Mob serv	Sat serv	Leased lines	Priv net				
	<i>IND LIC</i>	<i>IND LIC</i>	<i>IND LIC</i>	<i>IND LIC</i>	<i>IND LIC</i>	<i>IND LIC</i>	<i>NOT</i>	<i>NOT</i>				
DE	Mob net	All telecommunications networks and services (excluded Premium Rate) may be provided under general conditions included in a Class Licence										
	<i>IND LIC</i>	<i>GENERAL AUTHORISATION</i>										
FIN	Mob net	Any operator other than mobile network operators										
	<i>IND LIC</i>	<i>NOTIFICATION</i>										
FRA	Pub net	Pub net + voic	Indip net	Voic	Non voice	Non voice on radio	Non voice on cable TV	Priv net	Pay phones	Local indep net	Low power short range	Radio with no individ frequency assignment
	<i>IND LIC (Ministry)</i>	<i>IND LIC (Ministry)</i>	<i>IND LIC (ART)</i>	<i>IND LIC (Ministry)</i>	<i>GEN AUTH</i>	<i>IND LIC</i>	<i>NOT</i>	<i>GEN AUTH</i>	<i>GEN AUTH</i>	<i>GEN AUTH</i>	<i>GEN AUTH</i>	<i>GEN AUTH</i>

CATEGORIES OF AUTHORISATIONS AND CORRESPONDING LICENSING REGIMES																		
(IND LIC = Individual Licence; GEN AUTH = General Authorisation; NOT = General Authorisation with Notification)																		
GE	Telecom serv	Mob net + services	Sat net + services	Net + services different than mob & sat	Voice	Services with limited n. of licences for frequency scarcity												
	<i>NOT</i>	<i>IND LIC (Class 1)</i>	<i>IND LIC (Class 2)</i>	<i>IND LIC (Class 3)</i>	<i>IND LIC (Class 4)</i>	<i>IND LIC (may be auction/compet. bidding)</i>												
IR	Voice + networks involving numbers		Non-voice and/or no need of number allocation		Mobile telephony & networks		Broadcasting (under Broadcast Act)		Radio-communication (under wireless telegraphy legislation)		Cable TV (under appropriate legislation)		Services & networks for own use					
	<i>IND LIC (Irish General Licence)</i>		<i>NOT (Irish Basic Licence)</i>		<i>IND LIC</i>		<i>Exempted from the requirement to hold a telecommunications licence</i>											
IT	Pub net	Voice	Mob ser	Fix net + voice	Use exist net	Sat net	Cabl TV net	Leas lines	Inter circu	Inter net acc	Cug	Sat serv	Data serv	Carrier Carrier	Call-back	DECT	Freq or numb for certain services	Priv net
	<i>IND LIC</i>	<i>IND LIC</i>	<i>IND LIC</i>	<i>IND LIC</i>	<i>IND LIC</i>	<i>IND LIC</i>	<i>IND LIC</i>	<i>IND LIC</i>	<i>IND LIC</i>	<i>NOT</i>	<i>NOT</i>	<i>NOT</i>	<i>NOT</i>	<i>NOT</i>	<i>NOT</i>	<i>IND LIC</i>	<i>IND LIC</i>	<i>CON CES</i>
LU	Net + voice		Network only		Voice only		Mobile commun		Other services									
	<i>IND LIC (type A)</i>		<i>IND LIC (type B)</i>		<i>IND LIC (type C)</i>		<i>IND LIC (type D)</i>		<i>NOT</i>									

CATEGORIES OF AUTHORISATIONS AND CORRESPONDING LICENSING REGIMES (IND LIC = Individual Licence; GEN AUTH = General Authorisation; NOT = General Authorisation with Notification)									
NET	Public net	Leased lines	Broadcast network	Public telecoms service	Conditional access system	Use of frequencies			
	<i>NOT</i>	<i>NOT</i>	<i>NOT</i>	<i>NOT</i>	<i>NOT</i>	<i>IND LIC</i>			
NO	Public networks	Voice	Leased Lines	Mobile services		Access to frequencies	Cable TV		
	<i>NOT IND LIC (if SMP)</i>	<i>NOT IND LIC (if SMP)</i>	<i>NOT IND LIC (if SMP)</i>	<i>IND LIC (frequency)+ NOT (services) or IND LIC (service if SMP)</i>		<i>IND LIC or GEN AUTH</i>	<i>NOT</i>		
PO	Fixed telephone	Mobile services	Other services	Pub net	Priv net	Cable TV	Access Frequ	SMP	
	IND LIC	IND LIC	GEN AUTH /NOT	IND LIC	NOT	GEN AUTH	IND LIC	IND LIC	
SP	Private networks	Voice only	Fixed network + voice	Mobile network + voice	Network only without radio	Network only with radio	Other services/ network		
	<i>IND LIC</i>	<i>IND LIC (Type A)</i>	<i>IND LIC (Type B1)</i>	<i>IND LIC (Type B2)</i>	<i>IND LIC (Type C1)</i>	<i>IND LIC (Type C2)</i>	<i>GEN AUTH</i>		

CATEGORIES OF AUTHORISATIONS AND CORRESPONDING LICENSING REGIMES (IND LIC = Individual Licence; GEN AUTH = General Authorisation; NOT = General Authorisation with Notification)												
SW	Fixed voice	Mobile services	Leased lines	Other services requiring number allocation								
	<i>NOT IND LIC (if considerable extent)</i>	<i>NOT IND LIC (if considerable extent)</i>	<i>NOT IND LIC (if considerable extent)</i>	<i>NOT</i>								
SWI	Telecoms services with extensive independent use of transmission means	Telecoms services provided in other way than previous box	Leased lines									
	<i>IND LIC</i>	<i>NOT</i>	<i>IND LIC</i>									
UK	PTOs	Data network	Mobile data network	Radio-paging	PAMR	Dial-up access	Carriers and dark fibres	International facilities or ISR	Internet services	Numbers Translation Services	ATM based and IP backbone services	
	<i>IND LIC</i>	<i>IND LIC/ GEN AUTH</i>	<i>IND LIC/ GEN AUTH</i>	<i>IND LIC/ GEN AUTH</i>	<i>IND LIC</i>	<i>IND LIC/ GEN AUTH</i>	<i>IND LIC/ GEN AUTH</i>	<i>IND LIC/ GEN AUTH</i>	<i>IND LIC/ GEN AUTH</i>	<i>IND LIC/ GEN AUTH</i>	<i>IND LIC/ GEN AUTH</i>	

CHAPTER 3 – ANALYSIS AND COMPARISON OF THE NATIONAL CATEGORIES OF AUTHORISATIONS

- Introduction

This Chapter aims at analysing and comparing the national specificities with regard to categories of authorisations (and related rights and obligations) described in Chapter 2, in order to identify common practices and general trends.

Paragraph 3.1 will briefly analyse and compare the general principles on which the different national licensing regimes are based and the way in which national regulators have segmented their licensing regimes into different categories of authorisations. The analysis and comparison in paragraph 3.2 will focus on the different sets of rights and obligations attached as licensing conditions to the various categories of authorisations identified in the national licensing regimes analysed.

3.1 – Analysis and comparison of national licensing regimes and related categories of authorisations

3.1.1 – Countries with a low level of segmentation into categories of authorisations

Denmark: The total liberalisation of the telecommunications sector in Denmark has been reached through the establishment of an entirely new regulatory framework aimed at ensuring effective and fair competition. The framework developed for the telecommunications sector, while aiming at promoting real competition, assumed that all users should have access to a number of basic services and took into consideration the ever-increasing needs of telecommunications users. The framework therefore had the objective of stimulating a varied range of offered services, in order to give all users the opportunity to choose among precisely tailored telecommunications services at the lowest possible price, thanks to real competition.

Subsequent amendments to the initial regulatory framework have been introduced with the aim of helping alternative providers and of strengthening the position of consumers (on issues related to complaints about bills, itemised billings, options to check current balances, maximum ceilings in usage, other barring facilities as well as requirements for certification and quality assurance of all systems, etc.).

As described in Chapter 2, all telecommunications networks and services may be provided under a general authorisation, excluding public mobile communications networks and services, which are subject to an individual licence due to the use of scarce frequency resources.

Finland: The telecommunications sector in Finland has been open to competition for many years and is regulated by a very light licensing regime mainly focused on controlling the use of scarce resources. All licensing conditions (rights and obligations) are published in laws and decisions.

As described in Chapter 2, all telecommunications networks and services may be provided under a general authorisation with notification, excluding public mobile communications networks which, are subject to an individual licence due to the use of scarce frequency resources.

Netherlands: The regulatory framework of the Dutch liberalised telecommunications sector includes, as essential aspects: the way in which access to the telecommunications market is regulated; the specific rules, governing competition, which apply in the telecommunications market to the behaviours of market parties; the way in which social constraints are reflected, including universal service provision, consumer protection and the specific aspects of national security and public order; the principle that specific telecommunications regulation should be kept to a minimum, leaving as much as possible to market development. With regard to this last point, the specific rules must be regarded as supplementary to general rules of competition to be applied temporarily until fully competitive conditions exist on the market.

As described in Chapter 2, all telecommunications networks and services may be provided under a general authorisation with notification, where the use of frequency is not involved. In case of use of frequency, an individual licence is required.

Norway: The Norwegian Telecommunications Act regulating the liberalised sector has the aims of promoting: the fulfilment of national needs for telecommunications and the efficient use of resources through effective competition; the nation-wide provision of basic telecommunications services on equal terms; technical quality and security; access to open telecommunications networks and services; the co-ordination of telecommunications services adapted to needs; consumer interests; protection of personal data and privacy.

As described in Chapter 2, companies enjoying strong market position or making use of frequency are subject to an individual licence. In all other cases, a general authorisation with notification is the applicable regime.

Sweden: The provisions of the Telecommunications Act aim at ensuring that private individuals, legal entities and public authorities have access to efficient telecommunications at the lowest possible cost to the national economy. As a means of achieving this aim, the regulation has the fundamental objective of creating the scope for maintaining efficient competition among all parts of the telecommunications sector.

Competition is therefore a principal means of achieving the objectives of the telecommunications policy and sector-specific regulation should be as light as possible, even if a strict specific regulation is necessary when regulating competition in a market with a dominant network operator.

Sweden has therefore chosen a very light licensing regime which foresees individual licences only when the activity is of a “considerable scope”. Otherwise, all other telecommunications activities fall under a general authorisation with notification.

Ireland: The Irish licensing regime appears to be quite simple and very transparent, with all licensing conditions published and clearly explained to the applicants.

Operators providing public telecommunications networks or public telecommunication services must hold a licence, but apart from voice telephony, which is always subject to an individual licence, the imposition of individual licences is related to the operation of networks/services involving the use of numbers or the use of frequency (mobile communications).

The following frame contains a summary of the main characteristics common to the regulatory regimes of the first group of countries identified in this study:

The sector-specific regulation is reduced to a minimum in order to leave ample space for the functioning of market and competition mechanisms. The regulators have chosen to intervene with direct sector-specific regulation only in those fields where the present expectations with regard to the functioning of competition mechanisms are not very high. Examples of these fields are: operators with significant market power (and related interconnection issues), consumer protection and management of scarce resources.

In these countries, the segmentation of national regulation into different categories of authorisations is extremely low and the use of individual licences is very limited.

3.1.2 – Countries with segmentation of categories of authorisations based on the distinction between infrastructure and services

Belgium: The Belgian telecommunications legislation tends to impose a quite considerable amount of sector-specific regulation on telecommunications operators. The licensing procedures are burdensome and imply a great amount of work for the applicants. In addition, some significant barriers to entry have been identified by operators in the regulatory framework.

The segmentation of the licensing regimes into different categories of authorisations is mainly based on separation between telecommunications services and public networks - separation which reaches a particular level of detail in identifying 6 different categories of individual licences on the basis of the transmission means used and the services provided on each of them (fixed networks & voice telephony; satellite networks & satellite services; mobile networks and mobile services). Private networks and leased lines form two further categories.

Germany: The general aims of the German Telecommunications Law are to promote competition through regulation of the telecommunications sector, to guarantee appropriate and adequate services throughout the country and to provide for frequency regulation.

The objectives of the German regulation are to safeguard the interest of the users in the field of telecommunications and radio-communications as well as to maintain telecommunications secrecy; to ensure equal opportunity and workable competition in the telecommunications markets; to ensure provision throughout the country of basic telecommunications services (universal service) at affordable prices; to promote telecommunications services in public institutions; to ensure effective, interference-free use of frequencies, due regard also being paid to broadcasting requirements; and to protect public safety interests.

The segmentation of the licensing regime into different categories of authorisations provides for a general authorisation with notification for any kind of telecommunications service and for distinct categories of individual licences for:

- the operation of transmission lines for the provision of satellite services;
- the operation of transmission lines for the provision of mobile services;
- the operation of transmission lines for the provision of services other than mobile or satellites.

A separate category of authorisation is identifiable in an individual licence for voice telephony.

Luxembourg: The telecommunications regulatory framework in force in Luxembourg provides for a clear differentiation between networks and services. The categories of authorisations used seem to reflect the history of liberalisation within the sector: “other liberalised services”, mobile communications, voice telephony, networks and finally, a combined category of network + voice.

The use of individual licences within the regulatory framework is quite considerable, since only the “other liberalised services” are subject to a general authorisation with notification while for all other categories an individual licence is required.

Spain: The Spanish licensing regimes present practically the same segmentation as the one described for Luxembourg in the above-paragraph, with an additional distinction within the category “networks” consisting in distinguishing between networks using public radio domain or not.

Also in this case, the use of individual licences within the regulatory framework is quite significant, since only those services and networks which are not subject to an individual licence are subject to a general authorisation. For all other categories an individual licence is required.

Private networks constitute an additional category, also subject to an individual licence.

The following frame contains a summary of the main characteristics common to the regulatory regimes of the second group of countries identified in this study:

The sector-specific regulation is relatively significant and not very much room is left for competition mechanisms. The regulators have chosen to promote competition through direct regulation of the telecommunications sector.

These countries present a medium level of segmentation of national regulation into different categories of authorisations and a relatively high use of individual licences. The licences cover the main telecommunications activities, with segmentation into different categories of authorisations based on the separation between telecommunications services and networks.

3.1.3 – Countries with a high level of segmentation into categories of authorisations

Italy: In accordance with the Italian regulatory regime, the installation, operation and provision of telecommunications networks as well as the provision of related services accessible to the public are activities of prominent general interest. Such activities have to be carried out on the basis of free competition and multiplicity of operators, respecting the principles of objectivity, transparency, non-discrimination and proportionality; respect of the obligations of universal service provision; consumer protection and users' freedom of choice among services provided by different operators; efficient use of resources; protection of fundamental rights and freedom, in particular with regard to personal data in the telecommunications sector.

The degree of segmentation of the regulation into categories of authorisations is extremely high in Italy. Up to 18 different categories have been identified in this study; some 11 or 12 of them are individual licences and the rest general authorisations with notification. The information to be provided to the NRA by the applicant in order both to be registered and to be authorised to provide the network or service represents a real burden, both in terms of amount and complexity. Some of the conditions attached to authorisations are probably unnecessary and can definitely be considered as obstacles and barriers to entry into the market.

The fragmentation of the licensing scheme into so many different definitions of networks and services, licensing conditions and regimes, rights and obligations, constraints and limitations, seems to be the fruit of an inextricable combination of a traditional amount of red tape and historical state-intervention in a sector considered to be characterised by activities of "prominent general interest".

France: The general aims of the French Telecommunications Law are to ensure the emergence of a fully competitive market, to give clear guidelines to market players, to enable the growing needs of consumers to be satisfied and to foster universal service.

The telecommunications sector has been reformed with the objectives of guaranteeing a high-quality public telecommunications service for all at an affordable price; of meeting the growing needs of consumers by diversifying available supply and guaranteeing easy access to telecommunications services; of creating an environment to foster the competitiveness of the telecommunications sector; of developing the competitiveness and the excellence of France Telecom; of instituting effective market regulation.

There is a rather high degree of segmentation of the regulation into categories of authorisations in France. Some 12 different categories have been identified in this study, five of which are individual licences while the others are general authorisations (only one of them with notification). The information to be provided by the applicants to the NRA in order to be authorised to provide the network or service can be considered of a significant amount and of a certain complexity. The conditions attached to the authorisations are burdensome and in some cases can constitute market entry barriers.

The fragmentation of the licensing scheme into many different definitions of networks and services with their related licensing conditions and procedures

seems to be the result of the traditional economical and political state-control over telecommunications in the country.

United Kingdom: In accordance with the Telecommunications Act 1984, a licence is required for the running of any telecommunication system, with certain limited exceptions. The Act provides for two main categories of licences to be granted: (1) class licences and (2) individual licences.

A class licence applies to all the persons of a pre-defined class, while individual licences may be granted to specific persons. A company proposing to run a system for the provision of services falling outside the various pre-defined class licences needs to apply for an individual Telecommunications Act licence.

Examples of individual licences are those granted to BT, to Mercury Communications, to the holders of cable television franchises and to paging operators.

The appropriate type and duration of individual licences for the services proposed and the details of their conditions and authorisations are discussed between the NRA and the applicant. The objective of the UK regulatory framework is to create, through individual licences and their related specific licensing conditions, an asymmetric regulation aiming at ensuring new entrants a level playing field and at preventing anti-competitive behaviour on the part of operators with significant market power. In accordance with these principles, certain conditions of the licence, or more rigorous application of these conditions, will be activated where the Director General of Telecommunications determines that a licensee has significant market power.

The segmentation of the regulatory framework into many different categories of authorisations reflects the general regulatory principles described above.

The UK individual licences are “tailor-made” licences where the definition of the services and the applicable licensing conditions are discussed between the NRA and the applicant. The information and the documents to be provided to the NRA by the applicant in order to be authorised to provide the service are also discussed in a flexible and interactive manner with the NRA on a case by case basis during the process aimed at “customising” the licence. The transparency of the information to be provided and the perceived flexibility of the NRA and of the licensing procedures makes market entry in the UK much easier than in other countries characterised by similar levels of segmentation of the regulation into categories of authorisations and similar use of individual licences.

The following frame contains a summary of the main characteristics common to the regulatory regimes of the third group of countries identified in this study:

The sector-specific regulation is relatively significant and very often the licence itself provides the regulation. Most of the rights and obligations imposed on operators are listed in their authorisations rather than in the general or sector-specific legislation.

These countries present a high level of segmentation of the national regulation into different categories of authorisations and a relatively high use of individual licences. The licences cover in practice all telecommunications activities, with a segmentation into different categories of authorisations based either on a traditional and historical high level of state-control over telecommunications (France and Italy) or on the need to impede anti-competitive behaviour on the part of the incumbent operator (the UK).

3.1.4 – Table of comparison

Use of individual licences	<i>High</i>		Belgium Germany Luxembourg Spain	Italy United Kingdom
	<i>Medium</i>	Ireland		France
	<i>None/Low</i>	Denmark Finland Norway Sweden Netherlands		
		<i>Low</i>	<i>Medium</i>	<i>High</i>
Level of segmentation				

As a summary of the analysis conducted in the previous paragraphs, the table presented above shows a correlation between the use of individual licences and the level of segmentation of the regulatory regime in force in a country.

- Countries with a low level of segmentation into categories of authorisations also present a very low use (or no use) of individual licences, the only exception being Ireland where the few categories of authorisations in force are almost all individual licences;
- Countries with a medium/high level of segmentation into categories of authorisations present a high use of individual licences, the only exception being France where more than 58% of the categories of authorisations imposed are general authorisations.

Some additional comments on the table above can be made on the basis of the results of another ETO study²⁰ which analyses, inter alia, the relation between the segmentation into categories of authorisations and the level and nature of the information requested from an applicant by the NRA before allowing market entry:-

- Countries with a low level of segmentation into categories of authorisations are also characterised by a low quantity of information and documents requested before market entry in order to identify the applicant and describe the nature and technical characteristics of the service.
The only exception in this group is Ireland, which imposes a relatively high level of information to be provided by the applicant, but for each single requirement the NRA provides substantial reasoning indicating to the applicants a sound purpose for which the information is required. This makes the entire licensing procedure more transparent and clear to the applicant.

It seems therefore possible to conclude that a low level of segmentation into categories of authorisations is associated in these countries with relatively easy access to the market, at least in terms of licensing procedures and conditions.

- Countries with a medium/high level of segmentation into categories of authorisations also present a high quantity of information and documents requested before market entry in order to identify the applicant and describe the nature and technical characteristics of the service.
Germany appears to be an exception in this group, since the quantity and nature of information/documents requested before market entry is not significantly high and therefore does not represent a barrier to entry. Other kinds of entry barriers have nevertheless been identified in Germany in the high fees and in difficulties with regard to interconnection (see Chapter 4 – Questionnaire to the industry).

The situation of the UK deserves a specific explanation. The high level of segmentation into categories of authorisations and the high use of individual licences along with a high quantity of information requested before market entry characterise Italy, Belgium, France, Spain and other countries of this group as countries where entry into the market is not very easy. The UK is an exception. Notwithstanding high segmentation, high use of individual licences and high quantity of information to be provided, the UK remains a country where the degree of difficulty in obtaining an authorisation is quite low. This is presumably due to a regulatory framework allowing the tailoring of transparent licences and licensing conditions to the specific requirements of an applicant.

It seems therefore possible to conclude that a high level of segmentation into categories of authorisations is associated in these countries (with the exception of Germany) with a high quantity of information and documents requested from the applicant in order to enter the market.

²⁰ “Information required for verification”, study prepared for the European Commission – DG XIII; Work Order n. 48466.

3.2 – Analysis and comparison of different sets of rights and obligations attached to authorisations

Chapter 2 of this report has identified the different sets of rights and obligations attached to the different categories of authorisations imposed on telecommunications operators in a certain number of European countries. In general, all countries impose on operators licensing conditions which are in conformity with the Annex of the Licensing Directive. However, as could be expected, different countries interpret each of the Licensing Directive conditions in different ways and give different emphasis to different sets of conditions depending on the licensing scheme and the categories of authorisations chosen by the regulators.

The aim of this section of the report is to provide a comparative overview of the licensing conditions identified in Chapter 2 in order to point out any existing general trend among the European countries examined.

Table 1, presented in the following two pages, shows the relative importance of certain licensing conditions in each national regulatory scheme.

Only those conditions which appear particularly relevant in each national regulation have been taken into consideration.

The analysis mainly refers to conditions related to the provision of voice and infrastructure.

Table 2 presents a synthesis of organisations with the right to interconnect according to national regulations.

In the tables, the countries have been grouped in accordance with the analysis made in paragraph 3.1, e.g. “Countries with a low level of segmentation into categories of authorisations”, “Countries with segmentation of categories of authorisations based on the distinction between infrastructure and services” and “Countries with a high level of segmentation into categories of authorisations”.

● = Relevant condition mentioned in many detailed provisions
○ = Relevant condition mentioned in very few provisions only

◐ = Relevant condition mentioned in a certain number of provisions

Table 1: Relative importance of certain licensing conditions in each national regulatory scheme

CONDITIONS	<i>Low level of segmentation</i>						<i>Segmentation based on networks/services</i>				<i>High level of segmentation</i>			
	COUNTRIES	DK	FI	IR	NE	NO	SW	BE	GE	LU	SP	FR	IT	UK
essential requirements							◐				○		◐	
information reasonably required for verification				○	○	●		○			○	○	○	○
anti-competitive behaviour											○	○	○	○
effective and efficient use of numbering capacity											○		○	
protection of users and subscribers:	●	●	◐	◐	●		◐	●			○	○		
-standard subscriber contract	●							●			○			
-detailed and accurate billing	●	●				◐	○		○					
-procedure for the settlement of disputes	●		○	○				○						
-info on access conditions	●					●		○						
financial contribution to universal service														
customer database						◐	◐				○	○		○
emergency services	○		○			◐	○		○	○			○	○
arrangement for disabled people	●					○							○	○
interconnection and interoperability	●	●	○	●	●	●	●	●	○	●	●	○	○	○
allocation of numbering rights	○	●									○	○		○

COUNTRIES	<i>Low level of segmentation</i>						<i>Segmentation based on networks/services</i>				<i>High level of segmentation</i>		
	DK	FI	IR	NE	NO	SW	BE	GE	LU	SP	FR	IT	UK
effective use and efficient management of radio frequencies	○							○	○		○		○
environmental and specific town and country planning										○	○	○	
maximum duration													
provision of universal service obligations	○		○							○	○	○	
significant market power ownership	●	●	◐	◐	●	●		◐	○		○	○	
quality, availability and permanence of a service or network			○	◐	●	◐	●	○	○		○	◐	
provision of leased lines		○								○			
use of approved equipment	○	○					●		○	○		○	
respect of standards	○						○			○	○	○	
provisions on CLI	○						○						
carrier selection	◐	◐								○			
secrecy/confidentiality of communications			○					●	○	○	○	○	
national defence and public security	●							◐	○	○	◐	◐	
contribution to research											○	○	
data protection	●						○	●		○		○	

From analysis of the table presented in the previous pages, it is possible to draw the following conclusions:

- ◆ In countries characterised by a low level of segmentation into categories of authorisations and by a light licensing regime where the level of sector-specific regulation leaves ample space for competition mechanisms, operators are subject to general requirements like consumer protection, emergency services, data protection, management of scarce resources, interoperability of services. Particular emphasis is given to conditions related to the regulation of operators with significant market power.
- ◆ In countries like France, Italy, Spain²¹ and the UK, which present a high level of segmentation into categories of authorisations and a high degree of recourse to individual licences as a regulatory means, operators are subject to fair trading conditions and have to respect conditions related to the provision of information to the NRA. Particular emphasis is also given to the regulation of operators with significant market power and to interconnection matters. There are in fact many other licensing conditions which appear to be relevant in the regulatory scheme of these countries, with no particular emphasis on a specific issue. It can be concluded that the common trend of this group consists of imposing on operators a wide range of the licensing conditions foreseen in the Annex of the Licensing Directive.
- ◆ The third group of countries examined, i.e. “Countries with segmentation of categories of authorisations based on the distinction between infrastructure and services”, presents a common emphasis on quality, availability and permanence of networks and services and on interoperability and interconnection. There is no other particularly evident common trend in terms of licensing conditions which can be identified.

²¹ In accordance with the analysis made in paragraph 3.1, Spain should be grouped among “Countries with segmentation of categories of authorisations based on the distinction between infrastructure and services”, but in relation to the kind of licensing conditions imposed it is now grouped among “Countries with a high level of segmentation into categories of authorisations”.

Table 2: Organisations with the right to interconnect according to national regulations

COUNTRIES	ORGANISATIONS WITH RIGHT TO INTERCONNECT
Denmark	All operators
Finland	All operators
Ireland	All licensees can be classified in category 4 of the Annex of the Interconnection Directive
Netherlands	All operators registered in the list of operators having the right to interconnect (the list is published by the NRA)
Norway	All operators (all registered and licensed operators)
Sweden	All operators (all licensed and notified operators)
Belgium	All organisations notified from the NRA to the Commission in accordance with the Interconnection Directive
Germany	All licensed operators
Luxembourg	Holders of individual licences
Spain	All operators with individual licences, i.e.: <ul style="list-style-type: none"> • Type A: fixed public voice service operators • Type B: fixed (B1) and mobile (B2) public voice network operators • Type C: fixed (C1) and mobile or satellite (C2) public infrastructure operators.
France	Operators with L34.1 licence and operators with L33.1 and L.34.1 licence [Public Network Operators (L.33-1 only) Public Network Operators and Public Telephony Service Provider Licences (L.33-1 and L34.1)]
Italy	Holders of individual licences
UK	With references to the 4 categories of the Interconnection Directive: <p>Category 1:</p> <ul style="list-style-type: none"> • PTOs (including mobile, broadband, cable and local delivery licensees) • data network operators • mobile data network operators • radio-paging operators •PAMR operators • dial-up access operators, provided they have allocated one or more unique numbers from the numbering administrator. <p>Category 2: Carriers and dark fibre providers</p> <p>Category 3: None.</p> <p>Category 4:</p> <ul style="list-style-type: none"> • operators providing international facilities, or international simple resale (ISR) operators providing international circuits • operators providing Internet services, and controlling customers via the internationally recognised numbering plan (the 4 byte address under IP version 4) • operators providing number translation services (NTS) • ATM-based service providers and IP backbone service providers.

A cross-reference between **Table 2** above and the table presented in Chapter 2 as “Summary of information on categories of authorisations in European countries” results in the following **Table 3** which shows (in grey) which categories of operators have the right to interconnect.

The grey cells in the table indicate organisations with the right to interconnect (in accordance with Annex II of the Interconnection Directive).
The white cells indicate those organisations which do not have the right to interconnect.

CATEGORIES OF OPERATORS AND CORRESPONDING CATEGORIES OF AUTHORISATIONS												
BE	Fix net	Mob net	Sat net	Voic tel	Mob serv	Sat serv	Leased lines	Priv net				
	<i>IND LIC</i>	<i>IND LIC</i>	<i>IND LIC</i>	<i>IND LIC</i>	<i>IND LIC</i>	<i>IND LIC</i>	<i>NOT</i>	<i>REG</i>				
All organisations notified from the NRA to the Commission in accordance with the Interconnection Directive												
DE	Mob net	All telecommunications networks and services (excluded Premium Rate) may be provided under general conditions included in a Class Licence										
	<i>IND LIC</i>	<i>GENERAL AUTHORISATION</i>										
FIN	Mob net	Any operator other than mobile network operators										
	<i>IND LIC</i>	<i>NOTIFICATION</i>										
FRA	Pub net	Pub net + voic	Indip net	Voic	Non voice	Non voice on radio	Non voice on cable TV	Priv net	Pay phones	Local indep net	Low power short range	Radio with no individ frequency assignment
	<i>IND LIC (Ministry)</i>	<i>IND LIC (Ministry)</i>	<i>IND LIC (ART)</i>	<i>IND LIC (Ministry)</i>	<i>GEN AUTH</i>	<i>IND LIC</i>	<i>NOT</i>	<i>GEN AUTH</i>	<i>GEN AUTH</i>	<i>GEN AUTH</i>	<i>GEN AUTH</i>	<i>GEN AUTH</i>

CATEGORIES OF OPERATORS AND CORRESPONDING CATEGORIES OF AUTHORISATIONS																		
GE	Telecom serv	Mob net + services	Sat net + services	Net + services different than mob & sat			Voice	Services with limited no. of licences for frequency scarcity										
	<i>NOT</i>	<i>IND LIC (Class 1)</i>	<i>IND LIC (Class 2)</i>	<i>IND LIC (Class 3)</i>			<i>IND LIC (Class 4)</i>	<i>IND LIC (may be auction/compet. bidding)</i>										
IR	Voice + networks involving numbers		Non-voice and/or no need of number allocation		Mobile telephony & networks		Broadcasting (under Broadcast Act)	Radio-communication (under wireless telegraphy legislation)		Cable TV (under appropriate legislation)		Services & networks for own use						
	<i>IND LIC (Irish General Licence)</i>		<i>NOT (Irish Basic Licence)</i>		<i>IND LIC</i>		<i>Exempted from the requirement to hold a telecommunications licence</i>											
IT	Pub net	Voice	Mob ser	Fix net + voice	Use exist net	Sat net	Cabl TV net	Leas lines	Inter circu	Inter net acc	Cug	Sat serv	Data serv	Carrier Carrier	Call-back	DECT	Freq or numb for certain services	Priv net
	<i>IND LIC</i>	<i>IND LIC</i>	<i>IND LIC</i>	<i>IND LIC</i>	<i>IND LIC</i>	<i>IND LIC</i>	<i>IND LIC</i>	<i>IND LIC</i>	<i>IND LIC</i>	<i>NOT</i>	<i>NOT</i>	<i>NOT</i>	<i>NOT</i>	<i>NOT</i>	<i>NOT</i>	<i>IND LIC</i>	<i>IND LIC</i>	<i>CON CES</i>
LU	Net + voice		Network only		Voice only		Mobile commun		Other services									
	<i>IND LIC (type A)</i>		<i>IND LIC (type B)</i>		<i>IND LIC (type C)</i>		<i>IND LIC (type D)</i>		<i>NOT</i>									

CATEGORIES OF OPERATORS AND CORRESPONDING CATEGORIES OF AUTHORISATIONS								
NET	Public net	Leased lines	Broadcast network	Public telecoms service	Conditional access system	Use of frequencies		
	<i>NOT</i>	<i>NOT</i>	<i>NOT</i>	<i>NOT</i>	<i>NOT</i>	<i>IND LIC</i>		
All operators registered in the list of operators having the right to interconnect (the list is published by the NRA)								
NO	Public networks	Voice	Leased Lines	Mobile services		Access to frequencies	Cable TV	
	<i>NOT IND LIC (if SMP)</i>	<i>NOT IND LIC (if SMP)</i>	<i>NOT IND LIC (if SMP)</i>	<i>IND LIC (frequency)+ NOT (services) or IND LIC (service if SMP)</i>		<i>IND LIC or GEN AUTH</i>	<i>NOT</i>	
SP	Private networks	Voice only	Fixed network + voice	Mobile network + voice	Network only without radio	Network only with radio	Other services/ network	
	<i>IND LIC</i>	<i>IND LIC (Type A)</i>	<i>IND LIC (Type B1)</i>	<i>IND LIC (Type B2)</i>	<i>IND LIC (Type C1)</i>	<i>IND LIC (Type C2)</i>	<i>GEN AUTH</i>	

CATEGORIES OF OPERATORS AND CORRESPONDING CATEGORIES OF AUTHORISATIONS												
SW	Fixed voice		Mobile services		Leased lines		Other services requiring number allocation					
	<i>NOT IND LIC (if considerable extent)</i>		<i>NOT IND LIC (if considerable extent)</i>		<i>NOT IND LIC (if considerable extent)</i>		<i>NOT</i>					
UK	PTOs	Data network	Mobile data network	Radio-paging	PAMR	Dial-up access	Carriers and dark fibres	International facilities or ISR	Internet services	Numbers Translation Services	ATM based and IP backbone services	
	<i>IND LIC</i>	<i>IND LIC/ GEN AUTH</i>	<i>IND LIC/ GEN AUTH</i>	<i>IND LIC/ GEN AUTH</i>	<i>IND LIC/ GEN AUTH</i>	<i>IND LIC/ GEN AUTH</i>	<i>IND LIC/ GEN AUTH</i>	<i>IND LIC/ GEN AUTH</i>	<i>IND LIC/ GEN AUTH</i>	<i>IND LIC/ GEN AUTH</i>	<i>IND LIC/ GEN AUTH</i>	

As explained before in this report, Article 4(1) and Annex II of the Interconnection Directive identifies categories of organisation that have rights and obligations to negotiate interconnection. Category 4 of Annex II gives Member States the flexibility to extend such rights and obligations to other organisations providing telecommunications services, in accordance with relevant national licensing / authorisation schemes. As a consequence, one of the assumptions on which this study was based was that the range of organisations with rights and obligations to negotiate interconnection might be different in different Member States.

The table above confirms this assumption: the grey cells in the table (operators with right to interconnect) are not all the same in all countries. For example, a carrier's carrier in Italy does not have the right to interconnect, while the same category of operator would have the right to interconnect in countries like Denmark, Finland or Norway (other examples can be found directly by looking at the table).

The consequences of these national differences in the situation where the organisations that interconnect are in different countries and operate under authorisations granted by different countries (cross-border interconnection) are examined in the following Chapters 4 and 5.

CHAPTER 4 – QUESTIONNAIRE ADDRESSED TO THE INDUSTRY

- Introduction

according to the terms of the Work Order signed with the European Commission (see Annex 1), the effects of diverging categories of authorisations on competition and on interconnection between organisations operating under authorisations granted by different countries were to be discussed in detail with representatives of the telecommunications industry.

In March 1999, ETO consulted, via a questionnaire, some 180 providers of telecommunications networks and services operating in the different EU countries in order to provide an assessment of the diverging categories of authorisations on cross-border interconnection. Annex 2 includes a copy of the document sent out.

A second part of the questionnaire was aimed at providing an assessment of the different national authorisation regimes. This issue is within the scope of another ETO study: "Information for verification" and the results of the second part of the survey are included in that study.

As mentioned in the letter accompanying the questionnaire, all information provided by respondents has been treated as confidential by ETO. The following conclusions of the survey are therefore presented in an abstract and anonymous way.

Paragraph 4.1 comments on the significance of the results of the consultation. The following paragraph, 4.2, reports on respondents' answers with regard to the implications of the different rights and obligations for the promotion of competition, paragraphs 4.3 and 4.4 are dedicated respectively to respondents' answers with regard to difficulties in cross-border interconnection and possible solutions to the difficulties in regulating cross-border interconnection,.

4.1 – Significance of the survey sample

From around 180 questionnaires sent out, ETO received only 12 replies. The following tables 1 and 2 provide further details on the profile of the respondents.

Because of the low number of replies, the result of the consultation could not be considered as significant, but it was nevertheless considered as a first approach towards the industry and a starting point for preparing the provisional proposals which have subsequently been discussed at a public Workshop held in Brussels.

Table 1- Countries where respondents to the ETO consultation are operational

	AT	BE	DK	ES	FR	FL	GE	GR	IE	IT	LU	NL	NO	PT	SE	CH	UK
No of companies providing services in the country	2	3	3	2	3	2	3	1	2	3	3	3	4	1	4	3	3

Table 2- Activity of the respondents to the ETO consultation

Telecommunication activity	Number of operators / service providers
Mobile sector	
GSM/DCS1800	4
Paging network/service	2
Mobile data	2
Private mobile radio/private business radio	1
Airtime-reseller	0
Satellite sector	
V-SAT	3
SNG	1
S-PCS	0
Mobile satellite networks and services	1
Others(DVB-MPEG, capacity wholesale)	1
Fixed infrastructure	
Alternative infrastructure (railway, electricity)	6
Leased lines	5
Public telecommunications network	2
Local loop	1
Fixed services	
Value added services/ voice to CUG	6
Premium rate/shared revenue	5
Internet access provider	7
Bearer data services	5
Public voice telephony	7
Others	1

4.2- Implications of different rights and obligations for the promotion of competition

- a) Even though the EU regulatory framework introduces certain distinctions between categories of market players (e.g. within the framework of the Interconnection Directive), the legal categories of different market players are further defined by each national licensing regime, together with the rights and obligations attached to any licence.

The questionnaire asked the respondents to give their opinion (or to refer to their actual experience) on what are the potential implications of the above-mentioned differences for the promotion of competition at the European level.

Three companies had comments on this subject.

- ◆ The first company said that the potential implications of different categories of licence at the European level can create delays in the development of international services in the

field of building networks, offering leased lines services and realisation of interoperability of mobile services.

- ◆ A second company answered that an operator licensed in several Member States may not be able to provide a consistent set of services/the same service in each of the States. This means that consumers may be denied benefits potentially arising from economies of scale/centralised or replicated approaches to service delivery etc. Differences create unnecessary (increased) costs because of the need for country-specific administrative/reporting/compliance systems. Differences necessitate new learning curves in each country, adding up to unnecessary cost and delay in the introduction of the service.

- ◆ A third respondent said that telecom customers, technology and services are transnational by their very nature. So, it is certainly far from satisfactory that national borders within the EU remain so prominent in the telecom sector. The potential benefits of a true single market for telecom services are severely hampered by the diverging national licensing regimes and by the mere fact that trans-border service provisioning requires a number of national authorisations as well as the establishment of as many national legal entities.
 As a case in point, this company is currently deploying a fibre-optic cable ring across a number of EU Member States. In the opinion of the respondent, establishment and operation in this context would have been drastically simplified if the authorisation in one Member State could be easily extended across all other Member States (in a similar way to the application of the "Cassis de Dijon" principle for trade in goods) and if there were provisions for a single legal entity managing the entire operation (such as the proposed European Company, "Societas Europeas").
 The licensing procedure should be easy for applicants seeking a licence, so that they can take into consideration the current situation in the markets. In Finland the allocation of licences has been made very simple and flexible for operators, which is vital in order to promote a competitive market environment. Also, pricing of licences can have significant effects on companies setting up their infrastructure and services. In Finland licences are free of charge, which has positive effects on the market situation. Also, it has been made very easy for companies to start their business or establish business operations in Finland.
 The rules in Sweden require only notification to the regulator of operators with a business which is not of significant scale. Thus most operators are not subject to any licensing regime. This has promoted a quite rapid increase in competition.
 An overly ambitious and detailed regulatory system built on the EU framework can effectively be a barrier, if it provides for national peculiarities.

- b) Some countries impose on licence holders specific conditions that do not appear in other countries' regulation. This can have a significant effect on the promotion of competition by delaying or even impeding newcomers' entry into a certain market.

The questionnaire included a table presenting some examples of such country-specific conditions and asked the potential respondents to answer as to how they would evaluate the effect of these conditions on the promotion of an even level of competition among European countries²².

The following scale from 1 to 4 was proposed for use in answering:

1. The condition does not have any effect on the promotion of competition.

²² Respondents were invited to answer this question on the basis of their actual experience or on the basis of their perceptions of the possible effect of the listed conditions on competition.

2. The condition can impede the entrance into the market of smaller operators
3. The condition can delay newcomers' entry into the market
4. The conditions can be seen as a detrimental barrier to entry, favouring the existing national dominant operator

The following table summarises the answers given by 12 companies:

Specific licensing conditions	Number of 1s, 2s, 3s and 4s given to each item by the 12 respondents:			
	1	2	3	4
In BELGIUM , public network licences can only be granted to operators committing themselves to investing FB 400million or to rolling out 500 km of infrastructure.	1/12	3/12	4/12	6/12
In BELGIUM , applicants for individual licences must include a certain percentage of expenditure on R&D in their business plan.	1/12	6/12	4/12	4/12
In FRANCE , individual licences for public networks and voice telephony involve the obligation to allocate a certain percentage of investment to R&D in the telecommunications sector.	1/12	6/12	4/12	4/12
In GERMANY , operators of telecommunications systems subject to a licence have the obligation to draw up a security concept. This concept must contain specific determinations in order to achieve standard security, to assess residual risks and to describe interface management.	4/12	5/12	2/12	2/12
In ITALY , when obtaining an individual licence, the operator is obliged to provide a performance bond (bank guarantee).	3/12	7/12	2/12	1/12
In ITALY , individual licence holders have to contribute to the development of scientific and technical research.	1/12	4/12	4/12	3/12
In LUXEMBOURG , the general procedure is not fully transparent since licence conditions set in individual licences are considered as confidential and therefore not published.	1/12	1/12	6/12	4/12
In SPAIN , an interconnection point in each province where entrants intend to provide voice telephony services is required.	0/12	1/12	3/12	9/12

From the table above, some concern is apparent in relation to the imposition, in some countries, of licensing conditions which discriminate against different market players, especially new entrants.

A large majority of the respondents feel that the condition imposed in Belgium on public network operators (invest FB 400million or to roll out 500 km of infrastructure) can be seen as a detrimental barrier to entry, favouring the existing national dominant operator.

The obligation for telecommunications operators to include a certain percentage of expenditure on R&D in their business plans (Belgium and France) is seen as a condition which discriminates against different market players, especially smaller new entrants.

The obligation to draw up a security concept imposed in Germany on operators of telecommunications systems subject to a licence does not seem to have particular negative effects on the promotion of competition, even though several respondents felt that it could impede the entrance into the market of smaller operators.

In Italy, the obligation imposed on individual licence holders to provide a performance bond (bank guarantee) is seen by a great majority of respondents as a serious barrier to entry into the market for smaller operators, while the obligation to contribute to the development of scientific and technical research is seen as discriminatory against different market players, delaying newcomers' entry into the market and impeding the entrance of smaller operators.

In Luxembourg, the general lack of transparency in the licensing procedures is seen by the majority of respondents as delaying newcomers' entry into the market and by some of the respondents as a detrimental barrier to entry favouring, the existing national dominant operator.

Almost all respondents have judged as a detrimental barrier to entry, favouring the existing national dominant operator, the condition imposed in Spain requiring an interconnection point in each province where entrants intend to provide voice telephony services.

Respondents to the ETO questionnaire were also asked to list any other example they had encountered of conditions which might have a negative effect on the promotion of competition. The following is a list of examples signalled.

- Unreasonable and unjustifiably high licence fees are seen by 4 respondents as conditions having a negative effect on the promotion of competition (France and Germany have been mentioned as concrete cases). Two of the respondents see this as a condition which can impede the entrance into the market of smaller operators; one as a condition which can delay newcomers' entry into the market; one as a detrimental barrier to entry, favouring the existing national dominant operator
- In Luxembourg, all changes in tariffs, both up and down, have to be approved by the regulatory body 2 months before entering into force (normally, changes in tariff as promotional means are included as well). This condition has been signalled by a respondent as having a negative effect on the promotion of competition.
- Unreasonable and unjustifiable obligations to contribute to Universal Service are seen by one respondent as a detrimental barrier to entry, favouring the existing national dominant operator.
- The allocation of digits for Carrier Selection to substantial investors (France) is seen by one respondent as a detrimental barrier to entry, favouring the existing national dominant operator.
- The interconnection arrangement proposed in Germany, involving points of interconnection and differential charges, is also seen by one respondent as a detrimental barrier to entry, favouring the existing national dominant operator
- The obligation, imposed in Switzerland, to guarantee terms and conditions of employment customary for the sector is seen by one respondent as a relatively vague condition which can impede the entrance into the market of smaller operators.

4.3 - Difficulties in cross-border interconnection

The respondents were asked to answer on whether they had ever encountered any difficulties in negotiating/concluding cross-border interconnection agreements as a result of differences between authorisation regimes (in particular, differences in the rights and obligations attached to authorisations).

The following scale from 1 to 6 was proposed for use in replying:

1. We have never negotiated/concluded cross-border interconnection agreements.
2. No, we have never encountered any difficulties in negotiating/concluding cross-border interconnection agreements as a result of differences between authorisation regimes.
3. Minor difficulties have been encountered, but they have been easily solved.
4. Yes, some difficulties have been encountered, but they have been solved without the intervention of the regulator.

5. Yes, some difficulties have been encountered, but they have been solved thanks to the intervention of the regulator.
6. Yes, enormous difficulties have been encountered because it is very difficult to ascertain rights and obligations applicable to organisations requesting/offering cross-border interconnection.

Only 3 of the 12 responding companies had negotiated/concluded cross-border interconnection agreements.

- ◆ One of the 3 companies answered that they had encountered enormous difficulties when trying to reach a cross-border interconnection agreement in Spain because it is very difficult to ascertain rights and obligations applicable to organisations requesting/offering cross-border interconnection in that country.
- ◆ A second company responded that they had never encountered any difficulties in negotiating/concluding cross-border interconnection agreements as a result of differences between authorisation regimes in any of the countries where they operate (as a cross-reference with the previous answer: this second company does not operate in Spain).
- ◆ Finally, the last of the 3 companies involved in cross-border interconnection agreements said that they found few difficulties in cross-border interconnection in Europe nowadays. In the opinion of the respondent, the only area of real controversy in Europe concerns the “tromboning” of mobile traffic to other countries in order to by-pass high domestic mobile termination rates. Attempts on the part of Belgacom to impose differential inbound termination rates as part of its RIO for 1999 were abandoned quickly. Deutsche Telekom appear to be about to resurrect this concept, but the respondent does not believe that termination rates which seek to discriminate between countries of origin will be sustainable. The real controversy arises in relation to rates which attempt to distinguish between mobile and fixed terminations. The respondent believes that the way for the European Commission and the European NRAs to address this issue is to ensure that mobile termination rates within each country are cost-based.

4.4 – Possible solutions to the difficulties in regulating cross-border interconnection

The respondents were asked to say which solution, out of a list of suggested solutions, they thought would help in ascertaining rights and obligations with regard to interconnection when an operator requests/offers cross-border interconnection.

Nine companies gave a full reply to this question. Their answers cover all of the suggested solutions.

- ◆ One company said that if an operator wants to check the status of another operator with regard to interconnection rights, he only needs to refer to the list of the “entities entitled to interconnect” that the Commission is committed to publish regularly in accordance with the Interconnection Directive.

- ◆ One company said that the industry itself should try to develop a transparent procedure in order to establish very quickly the status of an operator with regard to interconnection rights.
- ◆ One company said that the solution to the potential problems arising with regard to cross-border interconnection would be a complete harmonisation of categories of authorisations, and related rights and obligations, among European countries.
- ◆ Six of the nine companies answering the question believe that in order to solve the potential difficulties in cross-border interconnection all providers of telecommunications networks or services should have the right and the obligation to interconnect, under commercial terms.

One of these six companies added that there should be a mandatory obligation that incumbent operators with significant market power should interconnect in accordance with their RIO, and with recourse to the NRA for dispute resolution if the negotiation has not been concluded within 3 months.

With particular reference to the situation in Spain, the respondent added that the absolute pre-condition for successful cross-border interconnection is that the regulatory regime of Member State A acknowledges the rights of licensed operators from another Member State B to directly interconnect with the incumbent, or any other licensed operator in Member State A without the need for the operator requesting cross-border interconnection to hold a licence in Member State A. Furthermore, Member State A must be prepared, as required by EU law, to oblige the incumbent to make interconnection available within a reasonable time, and at cost-oriented rates.

This company has experienced, in the first half of 1998, that although it was a fully licensed national and international operator notified in accordance with Annex II, the Spanish incumbent operator Telefonica refused it cross-border interconnection. The Spanish NRA CMT was not prepared to intervene.

CHAPTER 5 – CONCLUSIONS

5.1 – Relationship between the categorisation of authorisations and the promotion of competition

The issues considered in this study arise from the fact that within the harmonised framework for general authorisations and individual licences established by the EC liberalisation package, Member States may define and grant different categories of authorisations based on categories of balanced rights and obligations, which are further defined by each national licensing regime. It is not only the categories of authorisations and the related licensing conditions which are defined at a national level and often differ from country to country, however; the actual procedures for obtaining licences or authorisations also vary according to country.

This process of defining at national level the categories of market players and the related licensing conditions and procedures has been taking place in many European countries in recent years and its effects have become particularly evident after the full opening to competition of telecommunications markets in the EU on 1.1.98.

The prerequisite for market access in different European countries is thus compliance with a variety of national regulatory conditions. This can have a significant effect on the promotion of competition by delaying or even impeding newcomers' entry into a certain national market, especially if they are small operators. In certain cases, difficult and burdensome licensing procedures and conditions can even be seen as a detrimental barrier to entry, operating in favour of the existing national dominant operator.

From the analysis of the different categories of authorisations presented in this study and from a first questionnaire to the industry it has become apparent that:

- one of the potential implications of having different categories of authorisations in different European countries could be identified as the fact that the same operator may not be able to provide the exact same service, or even a consistent set of services, in each of the European countries where he is authorised to operate. The consequences of such a situation would be detrimental to consumers, who would not benefit from technical, financial and marketing economies of scale in the provision of the service.
- national peculiarities may threaten the potential benefits of the single market for telecommunications, since an international operator needs to comply with many different national authorisation regimes in order to provide the same service in different countries.
This could also create delays in developing services and in establishing networks characterised by an international dimension.

From a previous consultation with the industry on the potential benefits of the creation of a One-Stop-Shopping procedure for all telecommunications services in Europe it appeared that:

- complete harmonisation of European authorisation regimes or mutual recognition of authorisations among European countries are seen by many telecommunications operators as solutions which could ensure easy access to all European telecommunications markets.

At the moment, under present circumstances, harmonisation of licensing regimes or mutual recognition of authorisations seem to be very difficult to implement, due to the reluctance of a majority of national regulators.

Procedures aiming to facilitate the obtaining of permission to enter a national market, and to ensure availability of and easy access to information on national regulatory regimes, seem to be, at least at the moment, the most practical and feasible way of helping telecommunications operators and service providers when they lose their way in the jungle of networks and services definitions, regulatory decrees, licensing conditions and regimes, rights and obligations, constraints and limitations involved in the provision of the service, and all the considerable amount of red tape involved in the process of overcoming entry barriers.

With the aim of facilitating market access, CEPT and ETO have been working on the creation of databases on national regulatory regimes in their member countries and in developing and setting up One-Stop-Shopping procedures aimed at supporting telecommunications enterprises wishing to operate in more than one country.

Telecommunications regulatory databases provide telecommunications operators with transparent information on national regulatory regimes and related rights and obligations, while the One-Stop-Shopping procedure facilitates access to the different national markets. Transparent information and easy access to the markets are certainly helpful tools, but they are only the first steps towards the creation of a really competitive internal market for telecommunications, for which a more definite solution to the negative effects of divergent categories of authorisations is needed. The final step can be seen in a complete harmonisation of the national licensing regimes to the minimum possible level of segmentation into categories of authorisations and to the lowest level of sector-specific regulation.

The analysis conducted in this study and some provisional proposals on the potential effects of diverging categories of authorisations have been presented to and discussed with telecommunications operators, European Associations, industry and Administrations during a public Workshop held in Brussels.

The entire process has resulted in the following conclusions and proposals:

As a first step:

- **ETO and CEPT should continue to provide extensive regulatory databases aimed at providing a high level of transparency with regard to national licensing regimes;**
- **ETO and CEPT should expand the existing One Stop Shopping procedure to all telecommunications networks and services with the aim of facilitating access to the telecommunications markets in Europe.**

As a final goal, a higher level of harmonisation of the national regulatory regimes should be reached and the different national models should converge to the following:

- 1. The segmentation of national regulation into different categories of authorisations should be extremely low and the use of individual licences very limited.**

The reduction of categories of authorisations to a minimum will become an even more pressing issue with the development of new technologies and the provision of new services and solutions, as part of the convergence process (voice over IP, for example), which will make it particularly difficult to use pre-determined categories.

The fragmentation of the licensing scheme into many different definitions of networks and services with their related licensing categories and corresponding conditions and procedures is in most cases the result of traditional and historical state-intervention and state-control over the telecommunications sector, considered to be characterised by activities of “prominent general interest”.

There are no reasons why historical and traditional views over telecommunications should continue to prevail and influence the segmentation of the regulatory regime in the sector and the entry of new operators into the market.

The only reason for maintaining a system of control on who is operating in the sector is when the operator in question needs individual rights for the use of scarce resources (frequencies, numbers, rights of way).

Therefore,

- 2. The only categories of authorisations to be identified and specifically regulated should be those involving the assignment of individual rights for the use of scarce resources (frequencies, numbers, rights of way, etc.). Individual licences may be issued to regulate these categories. When issued, such individual licences should state in a clear and comprehensive way the individual rights and obligations of the licence-holder.**
- All other networks and services not involving the use of scarce resources should be part of a broader all-comprehensive category and be provided either without authorisation or on the basis of a general authorisation.**

- 3. A regulatory model based on the minimum level of segmentation into categories of authorisations will also be characterised by requiring little or no information or documentation to be supplied before market entry, and by enabling relatively easy access to the market, at least in terms of licensing procedures and pre-conditions to respected.**

- 4. Telecommunications operators and service providers should be subject only to conditions related to those fields where the expectations with regard to the ability of competition mechanisms are not very high, e.g. operators with significant market power (and related interconnection issues), consumer protection and management of scarce resources.**

5.2 – The effect of diverging categories of authorisations on interconnection between organisations authorised to operate by different countries

The results of the questionnaire to the industry included in Chapter 4 of this report showed that:-

- only 3 of the 12 responding companies have negotiated/concluded cross-border interconnection agreements
- no particular difficulties related to differences in categories of authorisations have been signalled by the few companies involved in cross-border interconnection.

These results have to be analysed in parallel with the following background documents and statements of position:

1. The document of the **ONP-Committee** on “Cross-border Interconnection in the EU – application of Community law”, stating, inter alia, that:
 - existing network operators can deliver traffic to other Member States without needing authorisations in the destination Member State, or needing to be established in the destination Member State.....
Authorisations may however be required, e.g. authorisations for landing submarine cables or for using satellite earth station equipment, insofar as they are in accordance with Community law and follow the principle of proportionality.
2. The Statement on “Cross-border Interconnection” by the **ECTRA APRII Project Team** stating, inter alia, that:
 - The evidence so far is that the demand for cross-border interconnection is still very low as the incumbents prefer to continue to send their intra-EU traffic via the existing correspondent arrangements and as new operators concentrate on establishing themselves in their own country before setting up facilities in other countries.
 - Recognising the importance of cross-border interconnection, the project team believes that it is appropriate to identify the facilities which will be required by new entrants to facilitate the provision of cross border telecommunication services. They are:
 - (i) Indefeasible Rights of Use (IRUs-capacity within cables);
 - (ii) Access to cable landing stations (i.e. where the international cable lands in the second country); and
 - (iii) Backhaul (the leased line from the cable landing station to the second operator=s switch or point of interconnection).

3. The Common Position on “Cross-border Interconnection” of the **Independent Regulators Group** stating, inter alia, that:
 - The vast majority of cross-border traffic is still routed through the accounting rate system (even if there are no artificial barriers to the development of alternative cross-border methods)
 - Up to now, incumbents in most Member States have received few requests to provide cross-border termination at national rates to Annex 2 operators of other Member States
 - More commonly, new operators are setting up metropolitan area networks in key business centres and linking them together, thus taking advantage of national interconnection rates at the same terms as domestic operators. They are not, then, simply terminating calls in foreign states, but originating them too.
 - Generally, no immediate joint intervention is required by NRAs, but the position should be looked at again in the near future.

4. The fact that within the **ETP** the Cross Border Interconnection (CBI)-question was brought up for three reasons:
 - I- Some operators wanted a clarification of the regulatory conditions attached to intra-EU CBI such as:
 - Is an SMP-operator obliged to provide transmission capacity from the 'border' (and how is 'border' defined) on the Interconnection Directive-conditions or on Leased Lines-conditions or at commercially agreed prices?
 - Does an SMP-operator have to give access to sea-cable landing stations as part of an Interconnection offer?
 - Does an SMP operator have to give access on Interconnection Directive-conditions to sea-cables and on what conditions?
 - If an SMP operator is requested to terminate international traffic at a local switch, how should costs be shared if the switch needed to be up-graded?

 - II- Some operators were concerned that a number of CBI requests should be dealt with by the requesting party and in particular by the NRAs (in case of disagreement) without a proper understanding of some technical/operational issues (ETP has listed 26 concrete cases) which are not unsolvable but which may need some work and may imply some additional costs.

 - III- Some operators felt that their obvious right to terminate traffic on Interconnection Directive-conditions in EU countries others than the one where they are located (and licensed) was not accepted e.g. because of different licensing requirements (typical case: two tier band for IC-prices depending on licence category).
This has been considered by the Commission to be a serious issue and DGXIII has in the ONP Committee tried to form a picture of the situation. However, it has been difficult to find any complaints (apart from one)

With regard to the ETP position, it can be concluded that the problems operators had so far encountered with CBI are related more to the practical application of CBI than to formal questions regarding authorisation systems. Concerning authorisation systems, however, the ETP is of the opinion that differences between a country characterised by a low level of segmentation into categories of authorisations and one with a high level of segmentation will very soon cause problems when an operator located in the first country wants to terminate traffic on Interconnection Directive-conditions at a local switch in the second country.

The analysis conducted in this study and the results of the discussion during the public Workshop held in Brussels led to the following conclusions with regard to the effect of divergent categories of authorisations on interconnection between organisations authorised to operate by different countries:

5. So far, there is no evidence that difficulties in cross-border interconnection arise from differences in categories of authorisations at the EU level.

6. It is necessary to further investigate the following issue, strictly related to the provision of cross-border telecommunication services:

a. Authorisations for landing submarine cables and related issues (Indefeasible Rights of Use, access to cable landing stations, back-hauls)²³

b. Authorisations for using earth station equipment.

²³ Contacts have been established with Gerald Oberst who is conducting a study for the European Commission concerning "Submarine Cable landing rights in Member States and existing practices for provision of transmission capacity on international routes, including terrestrial circuits, submarine cables and satellite links" in order to co-ordinate the conclusions of that report with the conclusions of this report on "Categories of authorisations".

ANNEX 1 – WORKORDER ON “CATEGORIES OF AUTHORISATIONS” SIGNED BY ETO WITH THE EUROPEAN COMMISSION

1. Subject: Categories of authorisations

2. Purpose

To identify and analyse the different categories of authorisations established by NRAs for different operators/service providers, including the rights and obligations attached to each category, and in particular the impact of these different categories of authorisations on interconnection rights and obligations in CEPT countries. In these areas, to identify the features which are common to most licensing schemes.

3. Background and justification

Even though the EU regulatory framework introduces certain distinctions between categories of market players (e.g. within the framework of the Interconnection Directive), the legal categories of different market players are being further defined by each national licensing regime, together with the rights and obligations attached to any licence.

This process of drawing at the national level such categories of market players is now taking place in many European countries, especially in view of the preparation for the full opening to competition of telecommunications markets within the EU by 1.1.98 (with some Member States enjoying deferent periods).

It can be expected that different sets of rights and obligations will be applied to operators in different CEPT countries in accordance with the national licensing regimes.

ETO should study the potential implications of these differences for competition and, in particular, for interconnection between organisations operating under authorisations provided by different countries.

This study also provides the possibility of drawing a summary of the main licensing conditions found in the most significant types of licences, in particular for the provision of public networks and voice telephony services.

4. Work requirements

1. to identify and analyse national licensing schemes in order to determine the different categories of operators and service providers defined by national licensing systems in CEPT countries.
2. to identify and analyse rights and obligations included in the different categories of authorisations identified in point 1 above, in particular with regard to :

- interconnection; in this field, to study how the existence of diverging categories of authorisations (with non-uniform rights and obligations) in CEPT countries can effect interconnection between organisations operating under authorisations provided by different countries;
 - the provision of public networks and voice telephony services, for which the study should provide a synthesis of the different conditions and, if relevant, procedures, found in national regimes.
 - examining the relationship between the categorisation of authorisations and the promotion of competition.
3. to analyse and compare national specificities with regard to categories of authorisations in order to identify common practices and general trends and, if feasible, propose “codes of best practice” within CEPT countries

5. Methodology

1. For the collection of information on “categories of authorisations” ETO will use as much as possible information available in national secondary legislation of CEPT countries. ETO will collect the missing information through questionnaires which will be sent to NRAs in CEPT countries.
2. The information received will be completed with interviews with some NRAs and, if necessary, with operators and service providers.
3. A first interim report, consisting of a description of the national situations based on the information collected and potential problems, will be drafted by ETO.
4. The effect of diverging categories of authorisations on interconnection between organisations operating under authorisations granted by different countries will be discussed in detail with representatives of the telecommunications industry.
5. A second interim report will be drafted by ETO. This second interim report should deal with all work requirements mentioned above and will also be used as a basis for the workshop mentioned below.
6. The results of the ETO study will be presented in a workshop organised with the support of the EC in order to obtain comments from the industry on ETO’s analysis of the effect of diverging categories of authorisations in particular on interconnection between organisations operating under authorisations granted by different countries, and on ETO’s proposal for a “code of best practice”, if any. Comments from the industry will be included in the final report.

6. Execution and manpower

Two interim reports and one final report shall be delivered.

The first interim report shall be delivered during the course of the work, containing information on categories of authorisations in a significant number of CEPT countries (July 1998).

The second interim report shall contain the draft findings and proposals as they will be submitted to the industry for comments (February 1999).

The final report on this work requirement will be made available in April 1999 and will include the view of the industry on the findings and proposals presented in the second interim report as well as any comments individual CEPT members have on the findings and proposals presented in the final report (April 1999).

All reports shall be available in the draft form one month before a liaison meeting at which the results will be discussed and approval can be given for their release.

The Commission shall receive three copies of the interim reports, while the final report shall be made available in 15 bound copies, one unbound copy and one on floppy disk in word for windows format. Graphics shall be made available on separate hard copies.

It is expected that this task can be accomplished in 13 man-months of effort at the expert level

The cost of a man-month is 15,000 ECUs; therefore, the total cost of the study is 195,000 ECUs.

ANNEX 2 – QUESTIONNAIRE ADDRESSED TO THE INDUSTRY

Copenhagen, 26 February 1999

Dear Sir, Dear Madam,

The European Telecommunications Office (ETO) is currently conducting two studies for the European Commission concerning respectively “Information for Verification” and “Categories of Authorisations”.

The aim of the first study is to identify and analyse the information requested by NRAs from operators and service providers in order to grant the right of access to the market or to verify compliance with licensing conditions after market entry.

The purpose of the second study is to “identify and analyse the different national categories of authorisations established by NRAs (including the attached rights and obligations) and in particular the implications of these different categories for cross-border interconnection and for the promotion of competition.”

From analysis of particular national legislation and licensing practices, a wide range of approaches has become evident. It is clear that liberalisation is not synonymous with deregulation nor with harmonisation. An essential part of both studies is therefore an evaluation of the effect on competition of the different approaches taken by NRAs. Do these regimes foster competition, are the procedures light, clear and consistent, are licences delivered quickly and with reasonable costs? With this letter, ETO would like to take the opportunity to collect first-hand information on the opinions of operators and service providers as to their experiences of distinct national licensing regimes. The questions below aim at gaining insight into whether you would assess the authorisation schemes imposed as light and fostering adequate competition or on the contrary as unnecessarily burdensome and negatively affecting your business.

For your convenience, the questions are also available in an electronic form on our website (<http://www.eto.dk>). ETO would very much appreciate receiving the answers **before 15 March 1999**.

Your opinions will be integrated into the reports in a way that safeguards anonymity. The completed studies will be presented later this year during a workshop to a wide forum of representatives of the Commission, the industry, national administrations and of professional interest groups. Companies interested in receiving an invitation can indicate this at the end of the question list. An executive summary will be made available on our web site.

Yours sincerely,

Laura Pontiggia
Licensing Expert
Work Order n. 48463

Ann Vandebroucke
Licensing Expert
Categories of authorisations
©European Commission

26 October 1999

Consultation of the telecommunications sector concerning national authorisations

The questions are structured as follows:

Structure

- A- Identification
- B- Categories of authorisations
- C- Information requested for market access
- D- Information requested for market surveillance

ETO would be grateful if you could return the form by **15 March 1999** to

ETO
Laura Pontiggia - Ann Vandembroucke
Strandboulevarden 92, 5th floor
2100 Copenhagen
Tel 00 45 35 43 80 05
Fax 00 45 35 43 60 05

The document is also available in electronic form. You can access it by entering
<http://www.eto.dk/consultation>.
Replies in electronic form are very welcome.

Information will be treated confidentially by ETO. The experiences mentioned will be taken into account in the report in a general way, without referring to individual companies.

A / Identification

Name of the Company :
 Address :
 Person to contact :
 Telephone number :
 Fax number :
 e-mail address :

Please place a cross against the telecom activities your company operates:

Mobile sector

- GSM/DCS-1800
- Paging network/service
- Mobile data
- Private mobile radio/private business radio
- Airtime reselling
- Others (please specify)

Satellite sector

- V-SAT
- SNG
- S-PCS
- Mobile satellite networks and services
- Others (please specify)

Fixed infrastructure

- Alternative infrastructure (e.g railway, electricity company...)
- Leased lines
- Public telecommunications network
- Others (please specify)

Fixed Services

- Value added services (including voice to closed user groups)
- Premium rate services (shared revenue services)
- Internet access provider
- Bearer data services
- Public voice telephony
- Other (please specify)

Please specify in which countries you provide services/networks

- Austria Belgium Denmark Germany France Finland Greece Ireland
- Italy Luxembourg Netherlands Portugal Spain Sweden UK Switzerland
- Norway Other countries (please specify)

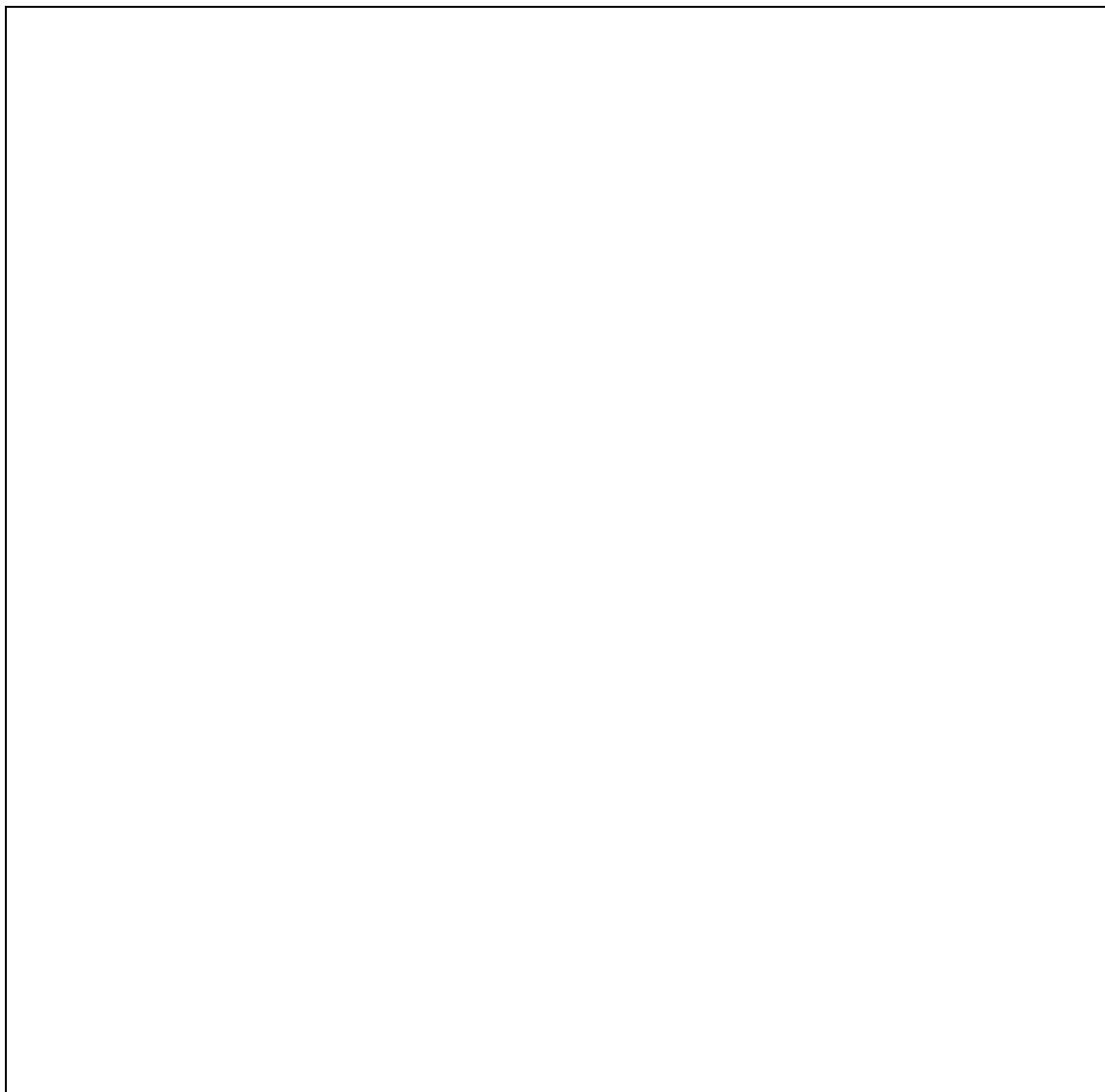
B/ CATEGORIES OF AUTHORISATIONS

**B 1) IMPLICATIONS OF DIFFERENT RIGHTS AND OBLIGATIONS FOR THE
PROMOTION OF COMPETITION**

Even though the EU regulatory framework introduces certain distinctions between categories of market players (e.g. within the framework of the Interconnection Directive), the legal categories of different market players are being further defined by each national licensing regime, together with the rights and obligations attached to any licence.

This process of drawing at the national level such categories of market players has taken place in many European countries in the preparation for the full opening to competition of telecommunications markets within the EU by 1.1.98. Different sets of rights and obligations apply to operators in different CEPT countries in accordance with the national licensing regimes.

- *In your opinion (or experience), what are the potential implications of these differences for the promotion of competition?*



- **Some countries impose on licence holders specific conditions that do not appear in other countries' regulation. This can have a significant effect on the promotion of competition by delaying or even impeding newcomers' entry into a certain market. The table below presents some examples of such country-specific conditions. How would you evaluate the effect of these conditions on the promotion of an even level of competition among European countries? (You are invited to answer this question on the basis of your actual experience or on the basis of your perceptions of the possible effect of the listed conditions on competition).**

Please use the following scale from 1 to 4:

1. The condition does not have any effect on the promotion of competition.
2. The condition can impede the entrance into the market of smaller operators

- 3. The condition can delay newcomers' entry into the market
- 4. The conditions can be seen as a detrimental barrier to entry favouring the existing national dominant operator

Specific licensing conditions	Rating effect on competition ⇒ ↓
In BELGIUM , public network licences can only be granted to operators committing themselves to investing FB 400million or to rolling out 500 km of infrastructure.	
In BELGIUM , applicants for individual licences must include a certain percentage of expenditure in R&D in their business plan.	
In FRANCE , individual licences for public networks and voice telephony involve the obligation to allocate a certain percentage of investment to R&D in the telecommunications sector.	
In GERMANY , operators of telecommunications systems subject to a licence have the obligation to draw up a security concept. This concept must contain specific determinations in order to achieve a standard security, to assess residual risks and to describe interface management.	
In ITALY , when obtaining an individual licence, the operator is obliged to provide a performance bond (bank guarantee).	
In ITALY , individual licence holders have to contribute to the development of scientific and technical research.	
In LUXEMBOURG , the general procedure is not fully transparent since licence conditions set in individual licence are considered as confidential and therefore not published.	
In SPAIN , an interconnection point in each province where entrants intend to provide voice telephony services is required.	
Other examples (Please describe below examples you might have encountered):	

B 2) DIFFICULTIES IN CROSS-BORDER INTERCONNECTION

Have you ever encountered any difficulties in negotiating/concluding cross-border interconnection agreements as a result of differences between authorisations regimes (in particular, differences in the rights and obligations attached to authorisations)?

Please use the following scale from 1 to 6:

1. We have never negotiated/concluded cross-border interconnection agreements.
2. No, we have never encountered any difficulties in negotiating/concluding cross-border interconnection agreements as a result of differences between authorisations regimes.
3. Minor difficulties have been encountered, but they have been easily solved.
4. Yes, some difficulties have been encountered, but they have been solved without the intervention of the regulator.
5. Yes, some difficulties have been encountered, but they have been solved thanks to the intervention of the regulator.
6. Yes, enormous difficulties have been encountered because it is very difficult to ascertain rights and obligations applicable to organisations requesting/offering cross-border interconnection.

Service/network/re-sources	Austria	Belgium	Denmark	Germany	France	Finland	Greece	Ireland	Italy	Luxembourg	Netherlands	Portugal	Spain	Sweden	UK	Switzerland	Norway	Other(specify)
<i>public voice telephony</i>																		
<i>public infrastructure</i>																		
<i>mobile licences</i>																		
<i>frequency assignment</i>																		
<i>number assignment</i>																		
<i>others (please specify)</i>																		

B 3) POSSIBLE SOLUTIONS TO THE DIFFICULTIES IN REGULATING CROSS-BORDER INTERCONNECTION

Which of the following solutions do you think would help in ascertaining rights and obligations with regard to interconnection of an operator requesting/offering cross-border interconnection?

Please use the following scale:

1. If an operator wants to check the status of another operator with regard to interconnection rights, he only needs to refer to the list of the “entities entitled to interconnect” that the Commission will regularly publish in accordance with the Interconnection Directive.
2. The industry itself should try to develop a transparent procedure in order to establish very quickly the status of an operator with regard to interconnection rights.
3. A complete harmonisation of categories of authorisations, and related rights and obligations, among European countries.
4. All providers of telecommunications networks or services should have the right and the obligation to interconnect, under commercial terms.

Service/network/re-sources	<i>Austria</i>	<i>Belgium</i>	<i>Denmark</i>	<i>Germany</i>	<i>France</i>	<i>Finland</i>	<i>Greece</i>	<i>Ireland</i>	<i>Italy</i>	<i>Luxembourg</i>	<i>Netherlands</i>	<i>Portugal</i>	<i>Spain</i>	<i>Sweden</i>	<i>UK</i>	<i>Switzerland</i>	<i>Norway</i>
<i>public voice telephony</i>																	
<i>public infrastructure</i>																	
<i>mobile licences</i>																	
<i>frequency assignment</i>																	
<i>number assignment</i>																	
<i>others (please specify)</i>																	

C/ INFORMATION REQUESTED BY ADMINISTRATIONS FOR MARKET ACCESS

C 1) CLARITY ABOUT WHAT INFORMATION NEEDS TO BE PROVIDED

How would you assess the difficulty of finding out what information an NRA needs exactly from you when you apply for a licence, want to register a service or network or ask for assignment of numbers or frequencies? Please fill in the table below using the following scale of 1 to 3 .

- 1 The requirements for entering the market are clear.
The information to be provided is described in a sufficiently clear, complete and precise way so that the application can be filed at once and further assistance from the administration or specialised employee or consultants is not necessary.
- 2 Entering the market is possible but requires research and is time consuming.
The information to be provided is described in an incomplete, imprecise or difficult way so that it is advisable to make a draft application and discuss this with the administration. Entrusting the task to a specialised employee or consultant is an advantage.
- 3 Entering the market is extremely difficult.
A complete file cannot be composed because it remains unclear what information needs to be provided even after the administration has been consulted.

Service/network/re-sources	Austria	Belgium	Denmark	Germany	France	Finland	Greece	Ireland	Italy	Luxembourg	Netherlands	Portugal	Spain	Sweden	UK	Switzerland	Norway	Other (specify)
<i>public voice telephony</i>																		
<i>public infrastructure</i>																		
<i>mobile licences</i>																		
<i>frequency assignment</i>																		
<i>number assignment</i>																		
<i>others (please specify)</i>																		

C 2) QUANTITY AND NATURE OF INFORMATION REQUESTED

How would you assess the amount as well as the nature of information and documents requested in order to be granted a licence, to register a service/network or to be assigned numbers or frequencies?

Please fill in the table using the following scales for the categories relevant for your company :

- R** The information/documentation requested is **reasonable**.
- M** **Too much** information/documentation is requested
- C** What is requested is of a **too complex nature** (e.g. business plans, technical plans)
- M+C**. **Too much** information/documentation of a **too complex nature** is requested.

Service/network/re-sources	Austria	Belgium	Denmark	Germany	France	Finland	Greece	Ireland	Italy	Luxembourg	Netherlands	Portugal	Spain	Sweden	UK	Switzerland	Norway	Other(specify)
<i>public voice telephony</i>																		
<i>public infrastructure</i>																		
<i>mobile licences</i>																		
<i>frequency assignment</i>																		
<i>number assignment</i>																		
<i>others (please specify)</i>																		

C 3) FLEXIBILITY OF THE ADMINISTRATION

How would you assess the attitude of the national administration when treating applications for services, networks or resources?

Please fill in the table using the following scale of 1 to 3.

1. Applications are treated with **flexibility** and rules are interpreted broadly **without unnecessarily delays** to the granting of licences or assignment of frequencies/numbers.
2. Applications are treated in a **neutral**, bureaucratic **routine**.
3. Applications are treated in a **rigid** way and you feel that the interpretation of the rules **unnecessarily delayed** the granting or licences or assignment of frequencies/numbers.

Service/network/resources	Austria	Belgium	Denmark	Germany	France	Finland	Greece	Ireland	Italy	Luxembourg	Netherlands	Portugal	Spain	Sweden	UK	Switzerland	Norway	Other(specify)
<i>public voice telephony</i>																		
<i>public infrastructure</i>																		
<i>mobile licences</i>																		
<i>frequency assignment</i>																		
<i>number assignment</i>																		
<i>others (please specify)</i>																		

C 4) BURDENS ON MARKET ACCESS AND REASONS FOR DELAY

Have you ever experienced market entry being seriously burdened or delayed due to one or more of the reasons listed below? If so, please fill in the table using the number corresponding to your case.

- 1 The legal framework was not completed
- 2 Your case was the first of its sort the administration had to handle and interpretation of the legal framework took time
- 3 It was very difficult to find out how to apply
- 4 No reply or late reply from the administration to questions from your part
- 5 Formalities and additional documents were required (e.g. stamps, certified copies)
- 6 The licence needed approval or signature by a political entity (e.g. the Minister)
- 7 Problems having to deal with the language of the relevant country
- 8 No frequencies or numbers available
- 9 Too lengthy frequency co-ordination procedures
- 10 Excessive fees
- 11 Others (please specify)

Service/network/resources	<i>Austria</i>	<i>Belgium</i>	<i>Denmark</i>	<i>Germany</i>	<i>France</i>	<i>Finland</i>	<i>Greece</i>	<i>Ireland</i>	<i>Italy</i>	<i>Luxembourg</i>	<i>Netherlands</i>	<i>Portugal</i>	<i>Spain</i>	<i>Sweden</i>	<i>UK</i>	<i>Switzerland</i>	<i>Norway</i>	<i>Other(specify)</i>
<i>public voice telephony</i>																		
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<i>others (please specify)</i>																		

D/ MARKET SURVEILLANCE

With a growing number of operators in the market and the implementation of lighter general authorisation regimes, the verification of compliance with the telecommunications legislation and rules of fair competition is more and more a question of surveying the activities of the operators active on the market rather than screening prior to the market entry.

The following questions aim at learning about your assessment of the methods used to verify whether operators active on the market are complying with the licensing conditions or conditions for use of resources imposed by general authorisation or individual licence. ETO is also interested in suggestions on how to improve verification, if necessary.

D 1) MARKET PARTIES SUBJECT TO SURVEILLANCE

It is common in the EU that NRAs impose different methods of verification according to market share, activity in the market, the use of resources or the status of having specific obligations. Operators with significant market power, providing Public Networks or Voice Telephony, using numbers or frequencies as well as those with universal service obligations are generally more subject to control than others.

From the perspective of the experiences your company had, do you perceive this differentiation as proportionate and justifiable or does it discriminate against some market parties? Please specify the reasons for your observations and if possible, propose which market parties should be subject to more verification and which to less. Please specify the country and service/network/resource involved.

D 2) METHODS USED FOR SURVEILLANCE

Countries use a wide range of methods to control compliance with licensing conditions. These can take the form of random visits by the NRA, obligations to submit reports, regular interviews or specific questions after complaints.

**From the perspective of the experiences your company had, please assess the efficiency of the methods used to perform verification. Does the NRA have the skills and manpower to perform the verification? Does the verification target the right conditions? Are the criteria used justified? Is it clear what is expected of you? Is the procedure a formality or a burden?
Please specify the country and service/network/resource involved.**

D 3) EFFECTIVE CONSEQUENCE OF THE INVESTIGATION

**From the perspective of the experiences your company had, how do you perceive the effect of verification: does the NRA have power and will to take action? Would it be advisable to publish the results of the survey of all market parties in a comparable way?
Please specify the country and service/network/resource involved.**