

FINAL REPORT
INFORMATION REQUIRED
FOR VERIFICATION



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

The report does not necessarily reflect the views of the Commission, nor does the Commission accept responsibility for the accuracy of the information contained herein.

© European Commission

Work order nr 48466
Date: October 1999
Author: Ann Vandenbroucke

This study has been prepared by ETO on behalf of ECTRA.

The report does not necessarily reflect the views of ECTRA, nor do ECTRA members accept responsibility for the accuracy of the information contained herein.

Table of contents

EXECUTIVE SUMMARY	7
1 -INTRODUCTION	15
1.1 Presentation of the study.....	15
1.2 Methodology and time schedule	17
2 – INFORMATION TO BE PROVIDED BEFORE MARKET ENTRY	19
2.1 Interrelations between the provision of information and the licensing regime.....	19
2.2 Categories of individual licence or notification regimes.....	20
2.3 Information requested from applicants for the provision of services over fixed networks other than Public Voice Telephony and transmission means	24
2.4 Information requested from applicants for the provision of Public Voice Telephony and transmission means	28
2.5 Information requested from applicants for the provision of mobile services.....	39
3 INFORMATION TO BE PROVIDED IN ORDER TO BE GRANTED THE RIGHT TO USE FREQUENCIES	47
3.1 Interrelations between the licensing of frequencies and the licensing of services and networks	48
3.2 General information requested for frequency assignment	51
3.3 Information requested in case of frequency co-ordination	52
4 INFORMATION REQUIRED IN ORDER TO BE GRANTED THE RIGHT TO USE NUMBERS	55
4.2 Interrelation between granting the right to use numbers and licensing of services and networks	55
4.2 Information requested.....	56
5. INFORMATION FOR “A POSTERIORI” VERIFICATION.....	61
5.1 Market Parties obliged to provide the information	61
5.2 Information requested.....	62
5.3 Legal basis, method and formalities used in different countries	68
6. SURVEY OF RESULTS OF CONSULTATION OF INDUSTRY	71

6.1 General overview of responses to the consultation	71
6.2 Information requested by administrations for market access	72
6.2.1 Clarity about what information needs to be provided	73
6.2.2 Quantity and nature of information requested.....	74
6.2.3 Flexibility of the administration	75
6.2.4 Information for verification as a burden on market access.....	77
6.3 Information requested for market surveillance.....	80
6.3.1 Market parties subject to surveillance	80
6.3.2 Methods used for surveillance.....	80
6.3.3 Effective follow-up of the investigation.....	81
 7. ANALYSIS.....	 83
7.1 Information requested before market entry.....	84
7.1.1 General observation	92
7.1.2 Common practices.....	92
7.1.3 Licensing conditions which were subject to strongly divergent interpretations.....	94
7.2 Conclusions from the consultation with industry	96
7.2.1 Information requested before market access	96
7.2.2 Information requested for market surveillance.....	98
 8 CONCLUSIONS AND PROPOSALS	 101
Annexes.....	109
Annex 1 Work order signed by ETO with the European Commission	111
Annex 2: Questionnaire sent to all ECTRA countries.....	113
Annex 3: Questionnaire used to consult the telecommunications sector	121
Annex 4: List of abbreviations used to indicate countries.....	135
Annex 5: Description of different kinds of numbers.....	137

Overview of tables

Table 1 Characteristics of different licensing regimes in terms of obligations to provide information.	20
Table 2 Overview of national licensing categories having individual licence or notification as a regime	22
Table 3 Overview of information requested for services over the fixed network (other than provision of Public Voice Telephony and transmission means) subject to an individual licence or notification procedure.	25
Table 4 Summary of total number of subjects to provide information on and the number of specific documents to be added for services other than Public Voice Telephony and transmission means	28
Table 5 Overview of information requested for obtaining individual licence or notifying Public Voice Telephony and/or Infrastructure licences	30
Table 6 Comparison of the scope of licences for operators of mobile systems	40
Table 7 Information to be given by the applicant to qualify for participation in the selection of mobile operators	42
Table 8 Information to be given by the applicant in order to win selection	43
Table 9 Overview of the total number of selection and qualification criteria	45
Table 10 Interrelation between the licensing of services/networks and the assignment of numbers	56
Table 11 Information to be provided as request for assignment or reservation of numbers	56
Table 12 Categories of operators and service providers subject to 'a posteriori' verification	61
Table 13 Countries where respondents to the ETO consultation are operational	72
Table 14 Activity of respondents to the ETO consultation	72
Table 15 Relation licensing regime – transparency of information to be provided	74
Table 16 Assessment of the quality and nature of information requirements for Public Voice Telephony and Infrastructure licences.	75
Table 17 Relation licensing regime – flexibility of the administration	76
Table 18 Relation between Licensing conditions and the information requested prior to market entry for Public Voice Telephony and Infrastructure.	85
Table 19 Relation between segmentation of categories of authorisations and information requested	95
Table 20 Number of requirements concerning the "competence of the applicant" in different countries.	95
Table 21 Additional documents requested from applicants	96
Table 22 Summary of the evaluation by industry respondents of the information requested before market access	97

EXECUTIVE SUMMARY

Purpose of the study

The purpose of this study is to identify and analyse the information that NRAs in CEPT/ECTRA countries require from operators and service providers in order to verify compliance with licensing conditions both for individual licensing regimes and for general authorisations. Interrelated with the licensing regime is the timing for verification of compliance with licence conditions. It can be organised before market entry (*a priori verification* in the case of individual licences) or while the service is already operational on the market (*a posteriori verification* in all cases). Both *a priori* and *a posteriori* verification will be considered in this study.

Background and justification

Notwithstanding the implementation of the Licensing Directive, the information required for the purpose of verification of compliance with licensing conditions by NRAs varies from country to country. This is the natural consequence of the differences in categories of authorisations and of the differences in licensing conditions imposed in the Member States. This variation might, however, create barriers to a fully competitive market. The provision of services provided in more than one country could especially be effected by divergence which results in duplication of work, time consuming research to collect information as well as a multitude of procedures to be followed, documents to be provided and instances to be contacted.

Verification executed before market entry, in particular, could have a restrictive or delaying effect.

On the other hand it must be recognised that monitoring operational market parties and effective enforcement of the telecommunications legislation is a demanding task for NRAs. A correct balance has to be struck between a light regime for market access and adequate measures for verifying compliance of existing operators and service providers.

Although the obligation to provide information may be burdensome and time consuming for market players, information is of prime importance for the NRA as well as the market players. This is due to the fact that the obligation to provide information is not only related to the verification of compliance with licensing conditions but is also to a high degree interrelated with the purpose of investigating the evolution of the market. For these reasons, "information required for verification" is an important means of maintaining adequate telecommunications legislation and enforcing non-discriminatory and proportionate application of the telecommunications legislation.

Structure of the study

The study is based on extensive information collected from ECTRA members. This country related information is structured in 4 sections as follows:

- Information to be provided in order to be granted access to the market (section 2)
- Information to be provided in order to be granted access to resources – frequencies (section 3) and numbers (section 4)
- Information to be provided by providers of operational services and networks (section 5).

As ETO had already proposed a harmonised list of conditions to be applied for market access for mobile services and other services than Public Voice Telephony and Infrastructure, the focus of the analysis will be on obligations for information provision for the latter services.

Section 6 gives a survey of the results of a consultation with some 180 telecommunications companies. This consultation had as purpose to identify concrete practices regarding obligations to provide information perceived as having a negative influence on competition in the telecommunications market. This also meets the wishes of the Commission formulated in a reaction to the First Interim Report

The results of the country-related information on Public Voice Telephony and Infrastructure and the consultation of industry were used in section 7 to analyse trends, divergences and practices with a negative influence on competition. The analysis resulted in the definition of the scope for proposals.

Conclusions and proposals are set out in detail in section 8. The proposals also take into account the results of a workshop organised on 20 September 1999 and where ETO presented the results and draft proposals from this study to telecommunications operators, service providers, European Associations, industry and administrations. As it appears from the summary, there was general support for the proposals.

Findings

From the analysis of the country-related information it appeared that:

- in particular Public Voice Telephony and Infrastructure are in a majority of countries subject to the provision of information before market entry
- the information requirements are extremely divergent, with only a minor proportion of the details being required in 3 countries or more
- there is a clear correlation between the level of segmentation into different categories of authorisations and the quantity of information requested in order to describe the nature and technical realisation of the service or the network
- the broadest interpretation was given to the verification before market entry of the following issues:
 - identification of the applicant
 - information on the service
 - technical description of the service
 - competence of the applicant
 - additional documents
- the request for information can be extremely complex (e.g. business plans) and extensive
- countries are still in the process of implementing procedures for the monitoring and surveillance of the market

From the analysis of the consultation with industry it appeared that:

- countries with light licensing regimes receive a more positive evaluation in terms of
 - transparency of the information to be provided
 - quantity and nature of the information requested
 - flexibility of the administration

- except for one country, the objectives for the information requested are unclear. There appears a lack of motivation and an absence of a clear link between regulatory objectives, licensing conditions and information requested as a pre-condition for market access
- in general, constraints and delays in market entry were encountered due to
 - late implementation of the legal framework
 - inexperience of the regulator
- further constraints encountered in particular countries were
 - excessive fees
 - requests for additional documents and formalities
 - requirement for signature of the licence by a political entity

It is clear that the categories of licensing conditions mentioned in the Annex of the Licensing Directive are formulated in a broad sense and have been given a widely divergent interpretations by different countries. These divergences can be explained by different reasons.

A first reason is that countries emphasise different licensing conditions. Environmental concerns, consumer protection or data-protection, safeguarding network security or provisions for users with special needs are more of an issue in certain countries than in others, as a consequence of over-all policy objectives.

Horizontal national regulation can be a second reason. Requirements concerning legal interception or requests for certified copies or documents are good examples of this.

A certain amount of information is also needed to ascertain that market players are given the appropriate rights and obligations and are put into a correct licensing category. This segmentation into categories of authorisations is done in divergent ways. In some countries it is based on a layer model, distinguishing between services and networks while others make distinctions on the basis of the position on the market and still others consider the use of resources. The kind of information requested to identify the correct licensing category results therefore in a heterogeneous list of requests for information.

The market situation can also cause differences in licensing conditions to be verified *a priori*. In countries where alternative infrastructure such as CATV networks are to a major extent owned by the historical telecommunications operator, specific safeguard clauses aiming at avoiding cross-subsidisation can be imposed and verified before market entry.

There appears to be a multitude of legitimate reasons for countries to apply specific licensing practices which are in turn reflected in their heterogeneity in the information requested before market entry. The mere fact that a specific kind of information is only requested in one country is not a sufficient reason to consider it as an unreasonable request.

The lack of coherence between countries has therefore as a consequence that it is not feasible to drawing a maximum list of reasonable required information to be requested before market entry which is more concise than the Annex of the Licensing Directive.

It is, however, beyond doubt that there is a case for reducing the negative effects of the lack of coherence between national practices in terms of information requested before market entry. As a concise maximum list appears not feasible, the most pragmatic way forward is to make proposals with the aim of

- reducing the divergences in the fields where they are most apparent

- remedying each of the problems which the telecommunications sector frequently faces regarding information for verification
- giving input for an alternative approach with a view towards the revision of the Licensing Directive.

Proposals

From the findings of the country-related information, there appeared to be scope for proposals aiming at affecting positively

- the transparency of the licensing framework
- the proportionality of the information requested in order to obtain market access
- coherence between the approaches of different countries
- delays in market access.

Pursuant to these objectives, ETO recommends the following:

As a general remark it is useful to bear in mind that in a fully liberalised environment

- **cases where market entry is made subject to *a-priori* provision of information should be limited to a minimum**
- **where information is requested prior to market entry, this should focus on clear objectives which are of prime importance to the NRA; it should not be an instrument to verify compliance with the full set of obligations imposed on an operator or service provider or a means to obtain extensive information on the evolution of the market and technologies.**

ETO therefore proposes that a clear separation is made between the objectives of collection of information for the following three independent functions:

- 1. access of new entrants to the market**
- 2. verification of compliance with the full set of obligations imposed on an operator or service provider**
- 3. obtaining extensive information on the evolution of the market and of technologies.**

The last two objectives should be pursued by independent measures not related to information sought in the context of market access.

1. ETO recommends that NRAs take steps

1. to remedy immediately the negative effects on potential applicants of requests for very detailed and diverse information entailing time-consuming research . This can be achieved by collaborating with ETO to provide full and reliable information on national requirements
 - in a comparable form
 - via easily accessible electronic means
 - free of charge
 - in English.
2. to remedy the negative effects of the multitude of national procedures to be followed and instances to be contacted by creating a single contact point in the framework of a comprehensive One-Stop-Shopping (OSS) Procedure, if this appears feasible as a result of the current investigations in process in two Special Investigation Groups (SIGs) working within the CEPT framework¹
3. to review as a final step principles for an alternative approach to the licensing of market access which will allow for more convergence between licensing conditions and which will aim at mutual recognition of licences.

The following proposals seem useful in the spirit of the alternative approach to the licensing of market access mentioned before :

2. ETO recommends that in order to make market access easier, quicker and more transparent, distinctions should be made only between a limited number of clearly recognisable licensing categories as proposed in the ETO study on categories of authorisations.

Nature of requested information

3. ETO is of the opinion that information should only be requested before market entry in the following cases:

- where the number of operators is limited due to scarcity of resources
- where the operator needs individual rights such as the assignment of numbers/frequencies or rights of way
- where the operator holds facilities which cannot be readily duplicated by competitors

The information requested should aim primarily at granting individual rights to the use of scarce resources (i.e. numbers, frequencies and rights of way). Individual licences should state in full the individual rights and obligations of the licensee.

¹ The ECTRA plenary meeting in June 1998 set up two working groups: one on OSS for Satellites (OSS-Sat) and one on a comprehensive OSS (OSS-C). On the basis of reports of these working groups, the ECTRA and ERC plenaries approved recommendation regarding the establishment of a comprehensive database. The work on the development of an electronic application form is ongoing in the OSS-sat group.

It is further recommended that verification before market entry aims at verifying that there is no reason to refuse the licence rather than compliance with the full set of obligations. In particular verification of the competence of the applicant should not be an objective to be pursued in an extensive way before market entry.

From the conclusions of consultation of the telecommunications industry, there appears to be scope for proposals aiming to promote:

- reduction of costs and delays for entering the market, in particular those related to
 - requests for additional documents
 - requests for too complex and/or too extensive information
 - delays resulting from the signature of a licence by a political authority
- competition in general
- efficient monitoring of evolution on the telecommunications market

Pursuant to these objectives, ETO recommends the following:

4. ETO recommends that requiring additional documents such as certified copies or commitments to pay fees should generally be avoided.

Furthermore no telecommunications-specific requirements should be imposed for aspects which are regulated sufficiently in general legislation (e.g. fraud with signature, interconnection regulation).

5. ETO recommends that NRAs make a clear formulation of their regulatory objectives and establish a clear link between these regulatory objectives, licensing conditions and information requested as a pre-condition for market access.

This approach would prevent five major problems, i.e:

- **requests for too extensive information resulting in overloaded administrations and applicants**
- **requests for too complex information resulting in lack of skilled staff to assess the information or resistance to give commercially sensitive information**
- **perception of inflexibility of the administration**
- **perception of lack of skilled personnel in the administration**
- **non-transparency of the legislation and procedure**

6 In addition to the provisions of the revised ONP Framework Directive concerning the independence of the national regulatory authority in the case where a Member State continues to retain ownership or a significant degree of control of organisations providing telecommunications networks and/or services, countries should consider, where possible, making market entry subject to a simple administrative decision within the sole competence and responsibility of the daily management of the independent regulator.

7. It would evidently be useful to develop a reliable statistical instrument. This should allow NRAs

to monitor in an objective way

- **the market behaviour of dominant operators and operators designated as having significant market power (SMP)**
- **the extent to which licensing conditions are observed by different kinds of players**

and to gather objective, reliable data in support of

- **appropriate action against infringement of licensing conditions**
- **reviewing or adopting the regulatory framework**
- **information to be provided to consumers**

1 -INTRODUCTION

1.1 Presentation of the study

This study will identify and analyse the information that NRAs in CEPT/ECTRA countries require from operators and service providers in order to verify compliance with licensing conditions.

Work Requirement

The terms of the work requirement are the following:

1. to identify and analyse the information required by the NRAs from operators and service providers to fulfil reporting duties in order to verify compliance with licensing conditions in general authorisations as well as individual licences; in doing so,
2. to identify and analyse how operators and service providers have to provide the information required in practice.
3. to propose a detailed, maximum list of information which may be requested by NRAs for each category of licence, if feasible.

Background and purpose

In a liberalised environment, verification of compliance with licensing conditions is in the interests of both the market players and the regulators. It is an important means to maintain and enforce the non-discriminatory, transparent and proportionate application of the telecommunications legislation, safeguarding in this way fair competition in the market.

Verification of compliance with licence conditions can be organised before market entry (*a priori verification*) or while the service is already operational on the market (*a posteriori verification*).

The timing of verification is closely linked to the licensing regime. Operators and service providers operating under the terms of an individual licence or notification need to provide information both before they enter the market and while they are operational. For a wide variety of services the verification of compliance with the licensing conditions has been transferred entirely from the moment of market entry to the stage where the service has already become operational. This is due to the increasing implementation of class licence or total exemption from licence, in conformity with the Licensing Directive.

Verification executed only "*a posteriori*" evidently takes away a restriction on market access for operators and service providers. On the other hand it must be recognised that this method is more difficult to manage in an efficient and non-discriminatory way as regulators might not have a clear overview of the operators on the market and need to check matters which are not regulated in great detail (e.g. fair competition). This task is therefore more demanding for NRAs and less transparent for market parties. In choosing between maintaining early verification at the moment of market entry and reducing verification to those services and networks which are operational, it is therefore necessary to strike a balance between stimulating the market by implementing a light regime for market access and effective enforcement of the telecommunications legislation.

Elements influencing this balance are:

- the category of service (e.g. voice telephony, premium rate service, provider of capacity, internet provider...),
- the importance of the operator on the market (e.g. operators with significant market power, operators dominant in a certain area for a certain service, operators having a high turnover...) or
- the right to use scarce resources (numbers, frequencies, access to public land)

⇒ It is therefore of interest to describe, analyse and compare what methods of verification are used by NRAs in different countries (*a priori* or *a posteriori*) and what different kinds of services and/or operators are distinguished.

The obligation to provide information may be burdensome for market players.

A priori verification can for example significantly delay market entry. One reason for such delay could be the extensive amount of information and documents requested. The production of some kinds of information (such as business plans according to parameters set out by NRAs) also requires extensive investment of time and man-power. Furthermore, legislation and application forms which are too general or unclear in their formulation might force applicants to put considerable effort into finding out what detailed documentation is actually needed. An example to the extreme of a condition formulated in such general terms would be: “*Demonstrate compliance with the Telecommunications Act*”.

⇒ In order to assess the burden on market players in the case of verification before market access, the level and nature of information requested will be studied, as well as how easy it is for applicants to establish in detail how to provide this information.

Provision of a posteriori information can be burdensome for operators for reasons which are identical to those applying in the case of *a priori verification*. The questions formulated in the previous paragraph are therefore also relevant in this case. There are other additional aspects which are also worth investigating, however.

The *a posteriori* control of operation services or networks involves first of all more licensing conditions and more services. There are more services involved because, as was mentioned before, in the case of class licence or notification verification only takes place for services in operation. It involves more licensing conditions because certain conditions (e.g. quality of service, roll-out) are impossible to verify before commercial operation has begun.

Secondly, the organisation of verification *a posteriori* can take various forms. While licensing of market entry is typically organised through administrative guidelines and the processing of completed application forms, formalities involved with providing information *a posteriori* can take the form of random visits by the NRA, specific questions, interviews, reporting duties etc. An analysis of this issue is timely at this stage, about a year after full liberalisation, where NRAs are confronted with the issue of organising *a posteriori* control.

⇒ In the case of verification *a posteriori*, analysis will be made (in addition to examination of questions also relevant to *a priori* verification) of what extra licensing conditions and categories of services are subject to this kind of verification as well as the alternative methods used to organise it in different countries.

Finally, the obligation to provide information is not only related to the verification of compliance with licensing conditions. It is also to a high degree interrelated with the purpose of investigating the evolution of the market. This study will therefore try to indicate to what extent the requests for information from NRAs relate directly to the verification of licensing conditions and to what extent they serve the purpose of keeping in touch with the trends on the market.

Scope and structure of the study

In the framework of this study, "Licensing conditions" have been interpreted in the broad sense, including all conditions mentioned in the Licensing Directive.

These conditions can be attached to individual licences, class licence, general telecommunications legislation or other legislation such as trade regulation, data protection laws, consumer protection codes etc. As ETO is an ECTRA organisation, the main focus will be on authorisations and legislation within the competence of NRAs.

The information collected is structured in 4 sections as follows:

- Information to be provided in order to be granted access to the market (section 2)
- Information to be provided in order to be granted access to resources – frequencies (section 3) and numbers (section 4)
- Information to be provided by providers of operational services and networks (section 5).

Section 6 gives a survey of the results of a consultation with some 180 telecommunications companies. This consultation had as purpose to identify concrete practices regarding obligations to provide information perceived as having a negative influence on competition in the telecommunications market.

The results of the country related information and the consultation of industry were used in section 7 to analyse trends, divergences and practices with a negative influence on competition. The analysis resulted in the definition of the scope for proposals.

These proposals should aim at effecting positively

- the transparency of the licensing framework,
- the coherence between the approaches of different countries,
- costs and delays for entering the market and
- the promotion of competition in general.

Section 8 includes conclusions and proposals.

1.2 Methodology and time schedule

The section concerning the information to be provided before market entry is based on the contributions of countries to different ETO databases covering services within the scope of the One-Stop-shopping (value added services and bearer data services), Voice Telephony and infrastructure.

The collection of information concerning the verification of licensing conditions *a posteriori* as well as information related to frequency matters was carried out by means of a questionnaire, analysis of elements of national legislation and direct contact with NRAs.

The questionnaire sent out in August 1998 to all 43 CEPT countries is included in annex 2.

A fully completed questionnaire provides a detailed overview of

- the timing countries use for verification (before and/or after market entry)
- which licensing conditions are subject to verification
- which operators or licensing categories are subject to verification
- at what intervals information has to be provided
- what formalities are involved for the operator providing information.

In March 1999, ETO consulted some 180 providers of telecommunications networks and services operating in the different EU countries in order to get an assessment of the different national authorisation regimes. Annex 3 includes a copy of the document send out. Questions relevant to this study concerned:

- clarity about what information needs to be provided
- quantity and nature of the information requested
- the flexibility of the administration
- burdens on market access and reasons for delay
- market parties subject to surveillance
- methods used for market surveillance
- effective consequence given to the investigation.

This second interim report, including draft proposals, has been made available to ECTRA members for comments and corrections in July 1999. The report and the comments received by ECTRA members have been discussed with the European Commission in the beginning of July. In September, a workshop has been organised where the results were presented to the telecommunications operators, service providers, European Associations, industry and administrations. The results of the discussion arising during the workshop have been used by ETO for drafting the final report.

2 – INFORMATION TO BE PROVIDED BEFORE MARKET ENTRY

As was stated in section 1 above, the obligation to provide information is closely interrelated with the licensing regime.

It is therefore logical to start by defining the different licensing regimes in terms of characteristics concerning information provision.

On the basis of this, a description will be given in section 2.2 of which categories of services, networks and/or operators are subject to *a priori* verification.

For each of these different categories sections 2.3 to 2.6 will give details concerning:

- the kind of information requested
- the exact method of provision of this information
- the degree of transparency for the applicant concerning the exact details to be provided

2.1 Interrelations between the provision of information and the licensing regime

Section 2.2 of the Licensing Directive includes the conditions pursuant to the “provision of information reasonably required for the verification of compliance with applicable conditions” among those licensing conditions which may be attached to all authorisations. The licensing conditions referred to can therefore be stated in general legislation (telecommunications specific or not), class licences or individual licences.

Further consideration will be given here as to how the organisation of verification of licensing conditions is interrelated with the licensing regime.

The licensing directive distinguishes between individual licences and general authorisations. The latter may be accompanied by a notification. Countries are, however, free to apply a lighter regulatory system and to exempt a service from any form of licence or to apply a free regime, in which case the service can be performed without being subject to any form of specific regulation.

The following table compares the characteristics of these four licensing regimes in terms of differences relating to the provision of information to the NRA. The comparison includes in particular:

- the action to be taken by the potential service provider or operator in order to be granted the right to access the market;
- the kind of reply the NRA supplies to the applicant
- if verification *a posteriori* is a second check or the only one
- in what legal form the licensing conditions are prescribed

Table 1 Characteristics of different licensing regimes in terms of obligations to provide information.

	individual licence	general authorisation (with notification)	general authorisation (without notification)	free regime or exemption from authorisation
right to access the market subject to explicit <i>a priori</i> application?	yes	yes	no	no
form of reply from NRA to application	explicit	implicit or none	none	none
verification <i>a posteriori</i>	2 nd verification	first or 2 nd verification if any	only verification if any	none
legal form of licensing conditions	indiv lic, gen auth	gen auth	gen auth	gen auth if exists

The two licensing regimes requiring verification prior to market entry are individual licence and notification.

The distinction between them is that in the case of an individual licence the undertaking is not entitled to operate the service until it has received the positive decision by the NRA. Notification on the other hand implies that, after receiving the information, the NRA registers the service but does not usually send an explicit reply. The service can be started immediately or after a short delay in which the NRA can object to the provision. In other words, the decision of the NRA is given implicitly.

2.2 Categories of individual licence or notification regimes

From analysis of national telecommunications legislation, the following categories of individual licences or notification can be distinguished:

- Public Voice Telephony
- Transmission means (or infrastructure)
- liberalised services other than Public Voice Telephony and Transmission means
- Mobile Communications
- Operators with certain minimum presence on the market

Some countries have specific individual categories of individual licences or notifications. These cases are grouped in the last column of the following table.

The scope of the report has been limited to terrestrial fixed and mobile systems. The analysis of the information to be provided in the case of satellite systems is included in two studies ETO delivered earlier to the Commission.²

² Satellite PCS, delivered in April 1996 and Satellite Networks and Services, delivered in February 1998

The services or applications included under a certain category can vary from country to country. For example, depending on the national definitions, a particular service might be considered Public Voice Telephony in one country while another country would treat it as another liberalised service. Furthermore, as a result of the practical application of criteria to distinguish different national licensing categories, what could seem to be a similar application from the consumers' point of view could be subject to different licensing regimes in one and the same country, depending on the way the service is commercialised or technically set up. A carriers' carrier who advertises his service through calling cards, for example, might need a licence for public voice telephony while other methods of commercialising the same service are accepted under a free regime.

ETO is currently preparing a specific report on the different categories of national authorisations and the rights and obligations related to those distinct categories.³ This study will therefore not elaborate further on the parameters countries use for deciding whether an application, service or network belongs to a particular category. The current study will instead focus on the consequences of the categorisation in terms of the resulting burden of provision of information required by the NRA.

³ Work requirement No 48465 annexed to Framework Contract No 48262 concerning "Categories of Authorisations".

Table 2 Overview of national licensing categories having individual licence or notification as a regime

N	<i>notification</i>	G	<i>general authorisation (without notification)</i>
IL	<i>individual licence</i>	E	<i>exemption of licence or notification</i>
F	<i>free regime</i>	n.a	<i>not applicable</i>

	voice telephony	public networks	other fixed services	mobile services	Operators with presence on market	specific categorie
AU	IL		IL	N	n.a.	
BE	IL	IL	N	IL	n.a.	4
DE	IL	IL	N	IL	n.a.	n.a.
DK	G	G	G N for premium rate services	IL	n.a.	n.a.
ES	IL	IL	?	IL	n.a.	
FR	IL	IL	G	IL	n.a.	5
FL	N	N	N or E ⁶	IL	n.a.	n.a.
GR	Jan 2001	Jan 2001	N	IL	n.a.	n.a.
IE	IL	IL ⁷	I	IL	n.a.	n.a.
IT	IL	I	N	IL	n.a.	n.a.
LU	IL	I	N	IL	n.a.	n.a.
NL	F ⁸	F	F	IL	n.a.	n.a.
PT	Jan 2000	Jan 2000		IL	n.a.	n.a.
SE	N or IL ref column 5	N or IL ref column 5	F if numbers required: N or IL ref column 5	N or IL ref column 5	a licence is required instead of a notification when the operator is considered significant regarding the area of distribution, the number of users or other similar factors	services requiring numbers (see column 1)
UK	IL	IL	G	IL		9
CZ	IL	IL	IL, N or G ¹⁰			
CH	IL (see last column)		N or E (see last column)		11	12
NO	IL or N see column 5	IL or N see column 5	N or E	IL	IL for providers of Voice Telephony and infrastructure with SMP	

⁴ The establishment and running of non-public telecommunications networks is subject to a declaration procedure.

⁵ The following categories of licences are specific for France:

Individual licence for the establishment of independent networks; individual licence for public telecommunications services using radio spectrum issued by authorities other than ART; notification for the provision of telecommunications services other than the telephony service, over networks established in accordance with the Broadcasting Act.

For the different categories the following sections, 2.3 to 2.5 will give details concerning:

- the kind of information requested
- the exact way this information should be provided
- the transparency for the applicant concerning the exact details required.

⁶ Section 5 of the Telecommunications Market Act stipulates that “The Ministry shall discharge telecommunications from the liability to notify in accordance with paragraph 1 if the maintenance of the notification procedure of such telecommunications no longer is necessary for the attainment of the purposes of this Act referred to in section 1”.

⁷ Under the Postal and Telecommunications Service Act of 1993, in Ireland, all provision of telecommunications services and networks to the public is subject to a licence. A “General Telecommunications Licence” is issued under section 111 (2) of the 1983 Act to provide telecom networks and services to the public where these require the allocation to users of numbers from the national numbering plan while a “Basic Telecommunications Licence” permits the holder to provide other licensable services and networks to the public under section 111 (3) of the same act.

⁸ At the moment, no particular licensing regime applies. Under the new Telecommunications Act, notification will be required.

⁹ The following categories of licences are specific for the UK:

General authorisations: Self Provision Licence, Telecommunications Services Licence, Private Mobile radio Class Licence, Satellite Services Class Licence; cordless Class Licence

Individual Licence: International Simple Resale; Personal Numbering; PTO licence (major or minor)

¹⁰ In Czech Republic a general authorisation with notification is required for internet access providers; general authorisation without notification is applicable to fax services.

¹¹ In Switzerland article. 4 of the Telecommunications Law of 30 April 1997 defines the following categories of licences:

1 Anyone providing a telecommunications service involving extensive independent use of telecommunications installations used for transmission must have a licence.

2 Anyone providing a telecommunications service in any other way must notify the Federal Office for Communications (the Office) accordingly.

3 The Federal Council may provide for exceptions, in particular for telecommunications services of limited economic and technical scope.

¹² Provision of Universal Service is subject to a specific individual licence.

2.3 Information requested from applicants for the provision of services over fixed networks other than Public Voice Telephony and transmission means

This category covers a wide range of applications varying from bearer data services, over voice to closed user groups, premium rate services and virtual private networks to value added services such as calling cards, videoconferencing etc.

From table 3 it appears that the following national licensing regimes are applied for this kind of service:

Regime	No. of countries	countries
free regime/exemption	4	FL ¹³ , SE, CH ¹⁴
general authorisation without notification	4	DK (except premium rate services), FR, UK, NO, CZ ¹⁵
general authorisation with notification	11	AU, BE, DE, ES, DK (only for premium rate), FL ¹⁶ , GR, IT, LU, NL, PO, CH ¹⁷ , CZ ¹⁸
individual licence	2	IE, HU, CZ

General authorisation appears to be the most common procedure. In eleven of the countries included in this study, notification is required, at least in some cases. Ireland and Hungary are the only countries which apply an individual licence. Sweden, France, UK and Sweden never require information before market access while Finland, Denmark and Switzerland apply a notification procedure rather exceptionally. For Finland and Switzerland, notification applies when the services are economically or technically important while in Denmark only premium rate services are subject to this procedure. In the Netherlands the registration is no pre-condition to market access.

The following table will review the information that needs to be provided in the different countries applying individual licence or notification. The information is based on the ETO database supporting the OSS procedure. This database does not include information related to Austria.

The countries applying a free regime or general authorisation without notification require no information before market access and are therefore not considered in the table.

¹³ In Finland, these services are in principle subject to notification. In practice the majority has been exempted from notification on the basis of section 5 of the Telecommunications Markets Act

¹⁴ These services are exempted from notification if they have a limited economic and technical scope

¹⁵ In Czech Republic this regime is applicable to fax services only

¹⁶ In Finland, these services are in principle subject to notification. In practice the majority has been exempted from notification on the basis of section 5 of the Telecommunications Markets Act.

¹⁷ See previous footnote

¹⁸ In Czech Republic this regime is applicable to internet access providers.

Table 3 Overview of information requested for services over the fixed network (other than provision of Public Voice Telephony and transmission means) subject to an individual licence or notification procedure.

Subjects mentioned in normal font refer to information which can be simply stated

The subjects mentioned in italics refer to information requiring a separate or specific document to be added

	AU	BE	CH	DE	DK	ES	FL	GR	HU	IE	IT	LU	NW	PT	SE	CZ
IDENTIFICATION OF THE APPLICANT																
name, address, tel. number		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
person to contact		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
business registration:		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
<i>number of documents to be added¹⁹</i>		1	0	0	0	3	1	?	0	0	2	0	0	4	0	1
<i>proof of power of attorney if applicant is represented by a third person</i>		X				X		X						X		X
OWNERSHIP																
Clarification of ownership structure							X								X	
<i>proof of having a national subsidiary</i>									X	X						
INFORMATION CONCERNING THE SERVICE																
general description of the service		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
<i>financial plan</i>							X							X		
<i>business plan</i>								X ²⁰								X ²¹

¹⁹ These documents can be Business Registration, extract from the Trade Register, a Commercial Register Certificate Registration by the Register Court, an Incorporation Certificate, Deed of Partnership, Deed of Association or entrepreneurial certificate

²⁰ In Greece a business plan is needed for 3 years

²¹ In Czech Republic, a business plan should cover 5 years.

Subjects mentioned in normal font refer to information which can be simply stated

The subjects mentioned in italics refer to information requiring a separate or specific document to be added

	AU	BE	CH	DE	DK	ES	FL	GR	HU	IE	IT	LU	NW	PT	SE	CZ
description of staff														X		X
tariffs or tariff principles		X			X			X								
description of content					X											X
national category of premium rate service					X											
indicate if service is exclusively provided by automatic machine					X											
indicate if user terminal differs from fixed telephone or mobile phone					X											
description of closed user group		X						X			X					X
<i>details of members of CUG</i>		X						X								
Geographical availability/coverage		X	X					X			X			X		X
DESCRIPTION OF SWITCHING AND TRANSMISSION MEANS																
PSTN or leased lines		X						X			X					X
capacity of leased lines		X						X	X		X					
name of leased line provider			X					X								
<i>network plan to be added</i>		X	X			X		X		X				X		
<i>Documents to be added</i>								1								
Connection to other systems		X						X			X					X
Connections of leased line network to PSTN		X						X			X					
location of central switch		X	X								X			X		X
location of control centres		X	X								X			X		X
type approval numbers of equipment						X					X			X		
PAYMENT OF FEES																
proof that fees have been paid		?				X										
INTEROPERABILITY																
terminal equipment that can be used		X				X					X			X		

Subjects mentioned in normal font refer to information which can be simply stated

The subjects mentioned in italics refer to information requiring a separate or specific document to be added

	AU	BE	CH	DE	DK	ES	FL	GR	HU	IE	IT	LU	NW	PT	SE	CZ
VARIOUS DOCUMENTS TO BE PROVIDED																
<i>Certificate delivered by accountant</i>														X		
<i>Certificate delivered by tax authority</i>						X								X		
<i>Certificate delivered by social security</i>						X								X		
<i>anti-mafia certificate</i>											X					
<i>Provision of a certain type of stamp</i>											X					
<i>Declaration of intent to respect legislation</i>								X			X					

It appears that the amount as well as the kind of information to be provided differ substantially among the different countries. The following table summarises the total number of subjects on which information has to be provided and the number of specific documents to be submitted. It must be observed that France, Norway and UK require no information before market entry. Information regarding Austria was not available.

Table 4 Summary of total number of subjects to provide information on and the number of specific documents to be added for services other than Public Voice Telephony and transmission means

	AU	BE	CH	DE	DK	ES	FL	GR	HU	IE	IT	LU	NO	PT	SE	CZ
Total number of subjects on which information has to be provided	?	17	9	9	9	11	6	17	7	6	17	4	17	4	4	11
Total number of specific documents to be added	?	4	1	0	0	7	1	3	2	2	5	0	0	9	0	2

2.4 Information requested from applicants for the provision of Public Voice Telephony and transmission means

This section is based on the collection of information ETO carried out in order to build a database on the licensing of Voice Telephony and Infrastructure, following a work requirement from ECTRA. Details are included on all EEA countries where these services are liberalised, except for Austria, Finland and Spain.

From table 2 it appears that the following national licensing regimes are applied for this kind of service:

Regime	No. of countries	Countries
free regime/exemption	0	
general authorisation without notification	1	DK
general authorisation with notification	3	FL, NL, SE and NO (depending on the significance of the operator)
individual licence	11	AU (if operator is also responsible for transmission means), BE, CH (if providers of the service run independently a substantive part of the transmission means), DE, ES, FR, IE, IT, LUX, NO and SE (depending on the significance of the operator), UK, CZ
exclusive rights or monopoly	3	GR, PT, CZ ²²

The only country where Voice Telephony and provision of transmission means is never subject to any formalities before entering the market is Denmark.

²² In Czech Republic the incumbent public telecommunication operator – SPT Telecom- has exclusive rights for national and international service of public voice telephony until 2000. Based on selection, the Czech Telecommunication Office has issued several licences for provision of local telephone services in selected areas. Until the end of the year 2000, no other licence for public telephone operators will be issued.

In Austria and Switzerland, the licence covers a mixture of service and infrastructure. The Voice Telephony service, as defined in the Service Directive, can be subject either to an individual licence or to a notification, depending on whether the operator runs substantive transmission capacity.

Voice Telephony and infrastructure in Norway and Sweden are subject to notification or individual licence. The latter is requested in Sweden from operators regarded as “considerable” with respect to the area of distribution, number of users or other similar factors. The notion “considerable” should not be confused with “Significant Market Power”. SMP is determined on the basis of 25% market share while operators regarded as having “considerable” activity typically have a market share of 10-15% (never less than 5%). In Norway only operators with SMP (25% market share) are subject to individual licence.

The Netherlands and Finland use a notification procedure. In the Netherlands this procedure is not a pre-condition to market access.

The other countries (Belgium, Germany, France, Italy, Luxembourg and UK) distinguish between individual licences for Voice Telephony and Infrastructure. The information to be provided, however, is not significantly different. Therefore, both are treated together. Where differences in information provision exist these are indicated.

The following categories of information will be distinguished:

- identification of the applicant
- applicants qualification
- ownership
- structural separation
- information concerning the service
- technical description (switching, transmission, interconnection)
- frequencies
- numbers
- essential requirements
- information important for specific obligations
- payment of fees
- interoperability
- rights of way
- miscellaneous
- various document to be provided

The information is based on the ETO database for licensing Voice Telephony and Infrastructure for the following countries: Belgium, Denmark, Germany, France, Italy and Luxembourg. For Ireland, Netherlands, Norway, Spain and Sweden the information has been added on the basis of an analysis of relevant legislation and application forms. Greece and Portugal have not liberalised the service at the moment. No information was available for Austria and Finland. Czech Republic added information on the basis of the first interim report.

Table 5 Overview of information requested for obtaining individual licence or notifying Public Voice Telephony and/or Infrastructure licences

Subjects mentioned in normal font refer to information which can be simply stated
The subjects mentioned in italics refer to information requiring a separate or specific document to be added

“VT” and “I” refer to information only required respectively from providers of Public Voice Telephony and Infrastructure. The UK requests specific information from operators with “PTO” status.

	BE	CH	DE	ES	FR	IT	IE	LU	NL ²³	NO	SE	UK ²⁴	CZ
IDENTIFICATION OF THE APPLICANT													
Name, address, tel. number	X	X	X	X	X	X	X	X	X	X	X	X	X
Billing address		X						X	X				
Person to contact	X	X ²⁵	X		X		X	X	X	X	X		X
Head office					X								
Name, address where operations in country applied for will take place	X						X						X
Legal form of the company	X		X	X	X	X	X	X				X	X
Registration number				X			X						
Details of the directors							X					X	
Proposed management structure												X	
Partnerships and alliances in telecom	X				X	X	X						X
Partners in development and supply										X			
Other licences obtained in other countries, markets served and number of clients						X				X		X ²⁶	
Licences already held					X		X						
<i>Earlier licences to provide the service in order to be relinquished</i>													
Penalties imposed under national telecom Act					X								
Other activities for which special or exclusive rights have been given	X												
<i>Certificate of nationality</i>						X							
<i>Business registration:</i>	X		X	X	X			X	X		X		X
<i>Power of attorney if legal representative</i>				X									
<i>proof of registration in the country</i>				X									

²³ In the Netherlands registration is not a pre-condition for market access.

²⁴ DTI has no wish to constrain the information that applicants for a licence may provide. However, essential details in a typical application are stated in the document: “notes for the guidance of applicants for a licence to run a telecommunications system”. The list is not exhaustive and applicants may wish to provide more information and may be asked to do so in the course of consideration of the application. Distinction will be made between information for a “typical non-PTO licence” and what an applicant for a PTO licence needs to provide.

²⁵ Two contact persons have to be named; a technical contact person and an administrative one.

²⁶ This information, except for the number of clients, also has to be given for the UK itself

APPLICANT'S QUALIFICATION													
	BE	CH	DE	ES	FR	IT	IE	LU	NL	NO	SE	UK	CZ
Knowledge, experience, skills	X		X	X	X		X	X					X
knowledge of the development of the relevant national and European market	X												X
perspective concerning technical and commercial innovation	X												
<i>proof of experience of competing on a liberalised market</i>	X			X ²⁷									
<i>proof of previous experience (setting up and operating similar systems)</i>	X		X	X ²⁸				X					
<i>proof of specialised knowledge</i>			X										
Proof of "permanent business" ²⁹ • either minimum investment • or minimum length links	X												
Resumé of careers of key staff members to show technical competence and experience												X	
Financial/economical solvability				X									
Financial reliability												X	X
<i>Evidence of financial guarantees</i>			X ³⁰		X ³¹			X				X	
<i>Evidence of reliability</i>			X ³²										X
<i>proof of company's capital (paid up)</i>						X		X					
<i>last two year's budget</i> ³³													

²⁷ For Spain this is information to be provided, not an additional document

²⁸ For Spain no additional document has to be provided

²⁹ In order to be considered as "permanent" the business plan should foresee for the first three years in:
• either an investment of minimum 400 million BF in transmission and switching equipment in Belgium
• or the building out of at least 500 kilometer of links in Belgium

If the applicant can, however, prove that the network for which he applies for an individual licence offers the possibility to serve 50% of the residential customers in the zone covered by the network, the conditions for investment are fixed at 200 million BFr in a period of five years.

³⁰ For Germany this could be written promises from the parent company, from other related undertakings or from credit institutions to provide finance. Mere declarations of intent or expressions of endeavour are not acceptable as financing warrantees.

³¹ In France a commitment letter from the parent company and financial statement from the company providing funding needs to be added, as well as letters of intent from financial institutions in the event of a loan or from a supplier in the case of supplier credit.

³² In Germany the applicant must state in particular, whether, in the last five years:
• a telecommunications licence has been withdrawn
• conditions have been imposed on account of failing to honour obligations from a telecommunications licence
• legal proceedings have been taken against the applicant or one of the parties named below, for violation of telecommunications secrecy or data protection laws
• proceeding in any of the above cases are pending in relation to the applicant or to a related undertaking under the Law against Restraints of Competition.

³³ In the case of a newly created company, the last two years' budgets of the controlling shareholders need to be supplied..

APPLICANT'S QUALIFICATION													
	BE	CH	DE	ES	FR	IT	IE	LU	NL	NO	SE	UK	CZ
<i>last two year's balance sheets and income statements</i>					X								
Technical ability		X			X	X						X	X
Participation in research and training programmes in telecom sector						X							
Participation in definition of technical rules in appointed international organisations													
plan of investment in research and development							X						

OWNERSHIP													
	BE	CH	DE	ES	FR	IT	IE	LU	NL	NO	SE	UK	CZ
composition of capital	X			X				X					X
composition of shareholders/ownership percentage			X	X	X	X	SMP					X	X
clarification of ownership structure /participation interests/identity	X	X ³⁴	X	X		X						X	X
control and decision making	X												
<i>proof of having a national subsidiary</i>													X

STRUCTURAL SEPARATION – AVOIDANCE OF CROSS SUBSIDISATION													
	BE	CH	DE	ES	FR	IT	IE	LU	NL	NO	SE	UK	CZ
evidence that undertaking has no SMP			X										
details on other trading activities in and outside telecom and arrangements to avoid cross-subsidisation ³⁵													

INFORMATION CONCERNING THE SERVICE													
	BE	CH	DE	ES	FR	IT	IE	LU	NL	NO	SE	UK	CZ
general, functional description of the service	X	X	X	X		X	X		X	X	X	X	X
public character of the service									X				
description of facilities offered		X ³⁶						X ³⁷	X				
kind of leased lines offered		X					SMP						

³⁴ This only needs to be indicated for services requiring frequencies

³⁵ More in particular avoidance of cross-subsidisation between the following is envisaged: wholesale and retail activities, telecommunications and non-telecommunications activities, telecommunications equipment production or supply and other telecommunications activities

³⁶ A full list of facilities, covering one and a half pages, is included in the application form. Applicants only need to mark those offered.

³⁷ The legislation enumerates the different facilities (e.g DTMF, detailed billing, free access to emergency numbers, number portability, transfer of calls, CLI ...)

INFORMATION CONCERNING THE SERVICE													
	BE	CH	DE	ES	FR	IT	IE	LU	NL	NO	SE	UK	CZ
details on wholesale terms for providers without interconnecting networks							SMP						
standards applied		X			X								
marketing/commercial strategy				X								X	
customer care policy				X									
model contract with clients				X									
<i>Marketing plan</i>	X												
Information to understand the economic assumptions of the project		X			X								X
<i>Financial plan / investment plan</i>			X ³⁸		X ³⁹	X							X
<i>Business plan</i>	X ⁴⁰			X ⁴¹			X ⁴²	X ⁴³					X
Investments	X				X							X	X
Investment in fixed assets and infrastructure				X									
Prospects concerning balance sheets	X				X ⁴⁴								X
certain categories of operating costs	X				X								X
Revenue	X											X	X
income statement					X								X
Accounts for profit and loss	X				X								X
Analysis of yearly and accumulated cash-flow	X				X								X
period to realise profitability	X											X	
Ratios	X												
Indicators of profitability	X												
Solvency and liquidity				X									
Analysis of sensitivity of business plan	X												
Influence of changes in the market on the business plan	X												
warrants in case of non-respect of investments				X									

³⁸ The reference period is 5 years

³⁹ The applicant needs to add an electronic copy of investment plan, network costs, income statement and financial plan. The form of the table and the different factors to be taken into account are defined in a very detailed way. The plans need to cover 5 years.

⁴⁰ The business plan needs to cover 10 years. The following aspects are required to be described in a very detailed way: the different parameters for which the evolution according to the business plan needs to be compared as well as the financial assumptions and different parameters to calculate profitability, ratios, cash flow, operating costs etc.

⁴¹ The business plan has to cover the full period for which the licence has been granted with minimum 4 years and more details on the first two years

⁴² A high level business plan needs to be provided. The plan should outline any major assumptions used and should cover a period of a least three years. The information should include:

- source of funding, debt levels, equity and independent confirmation as appropriate
- market forecasts

⁴³ The reference period is 5 years

⁴⁴ In France the balance sheets should concern the company as a whole, not only the project realised in France. The information to be provided is described in a detailed way.

INFORMATION CONCERNING THE SERVICE													
	BE	CH	DE	ES	FR	IT	IE	LU	NL	NO	SE	UK	CZ
forecast regarding the market to be served (preset goals and forecast)						X							
planned starting date	X		X	X	X							X	
timing for execution of activity						X		I					
Commercial development of the future market ⁴⁵	X												
<i>Prognoses concerning number of subscribers</i>	X											X	X
<i>Prognoses concerning use of VT</i>	X												
<i>Elasticity of the market</i>	VT												
<i>Segmentation of the market</i>	X							X					
human resources													
Organigram	X ⁴⁶				X ⁴⁷								
Estimate of employment created	X												
quality of the service	X	X ⁴⁸			X		X	X				X	X
plan of recruitment						X							
tariffs	X						SMP	X					X
formulas for tariffs of basic services	VT												X
calculation of tariff basket	VT												
intentions concerning promotions/discounts													
tariffs for supplementary services	VT												
maximum tariffs	I												
pricing structure				X									
<i>planned publication of tariffs</i>									X				
<i>copy of general contractual conditions with consumers</i>				X			X	X					X
<i>copy of Code of Practice in relation to consumers</i>							X						
strategy for distribution of the service													
selection of distribution channels	VT							X					
role of service providers	VT							X					
<i>copy of type contract with service provider</i>	VT							X					
description of measures to ensure that service provider is reliable	VT												
description of consumer protection in case of financial difficulty of applicant								X					

⁴⁵ The manner in which this information has to be provided is described in an extremely detailed way. The form (curve, diagram...), the calculation method as well as the different hypothesis are pre-defined.

⁴⁶ This item includes the following details: organigram, evolution of directly employed staff, description of human resources which associates could make available, estimate for future human resources and procedures for recruitment, programmes for training, proof of capability

⁴⁷ For new operators only, details of the organisation and qualification of personnel are required

⁴⁸ Part of the technical planning concerns indicators that legal obligations will be observed. Monitoring of the traffic and guaranteeing the establishment of end to end connection are part of this.

INFORMATION CONCERNING THE SERVICE													
	BE	CH	DE	ES	FR	IT	IE	LU	NL	NO	SE	UK	CZ
coverage	X ⁴⁹			X ⁵⁰									
schedule for roll-out	X				I								X
Geographical availability/coverage <i>diagram of geographical extent</i>	X	X	X		X	X		X ⁵¹		X		X	X
Coverage in terms of population			X			VT		I		X			X
turnover for all operations											X		X
turnover for operations subject to notification											X		
details on cost accounting system allowing for unbundled interconnection charges							SMP						

TECHNICAL DESCRIPTION (SWITCHING, TRANSMISSION, INTERCONNECTION)													
	BE	CH	DE	ES	FR	IT	IE	LU	NL	NO	SE	UK	CZ
Networks to be used/ transmission, switching, access envisaged	VT ⁵²	X			X	VT						X	X
third party networks to be used				X									
network bearers		X										PT O	X
owner of the network		X											X
supplier of equipment	X											PT O	
Compression ratios of transmission equipment												PT O	
method of selection supplier, procedure to verify that supplier will comply with technical prescriptions	X												
specify where service is accessible and which destinations are covered				X	X								X
<i>maps showing physical and virtual network components per region, department or town at different stages</i>					I ⁵³				X				
<i>Diagram of network architecture showing how subscribers are connected</i>					I								
Dimensioning of the network	X				X								
topology/architecture of the network				X									
Foreseen interconnection	X	X			X	X						X	X

⁴⁹ It is not specified whether this is coverage in terms of population or in terms of geographical coverage. For Voice Telephony, the foreseen coverage needs to be given after 1, 2 and 3 years. For Public Telecommunications Networks, this is after 2, 3, 4 and 5 years.

⁵⁰ This is part of the technical plan of installation

⁵¹ The legislation specifies that for the licensing of infrastructure this needs to be done using a map with scale 1/100.000

⁵² In Belgium, distinction must be made when applying between own transmission means, the transmission network used from Belgacom and the transmission network used from alternative infrastructure providers.

⁵³ These plans must include the operator's transmission links (leased dark fibre or the operator's own dark fibre, radio relay links, satellite links), leased lines from other operators, switches, points of interconnection (multiplexers, earth stations...).

TECHNICAL DESCRIPTION (SWITCHING, TRANSMISSION, INTERCONNECTION)													
	BE	CH	DE	ES	FR	IT	IE	LU	NL	NO	SE	UK	CZ
Location												X	
other operators involved												X	
Protocols		X						X				X	
Description of technical interfaces	X	X						X		X		X	
Measures to realise optimal interoperability	X												
human resources	X												
<i>copy of the draft interconnection agreement</i>								X					X ⁵⁴
Composition of the network	X					I	X					X	X
plan of installation						I							
technology to be used in different parts of network + future evolution				X									
details of development + forecast of growth				X									
alternative access needed				X									
spare capacity				X									
Equipment to be used + tech spec	X			X		I		X ⁵⁵				X	
capacity of lines rented or installed								I					
source and availability of the system												X	
<i>Diagram showing the conveyance of messages from beginning to end</i>												X ⁵⁶	
Maintenance and technical management	X												

FREQUENCIES													
	BE	CH	DE	ES	FR	IT	IE	LU	NL	NO	SE	UK	CZ
Frequencies to be used (number of channels and band)	I	X				X		I				X	X
Transmission capacity		X											
Clarification of extent to which radio links form part of the plans							X				X	X	
position reached prior with regulator responsible for frequencies												X ⁵⁷	
request for frequency assignments							X	I					X
<i>copy of radio licences held</i>							X						
<i>frequency plan</i>				X									

⁵⁴ In Czech Republic the final Interconnection agreement has to be added

⁵⁵ Type approval numbers are requested for the switching equipment

⁵⁶ Though the applicant's system may only represent a small part of the overall network, it is important for the UK licensing authority to know where the applicant's system fits into the chain of conveyance of a call and what the applicant's system does with the call

⁵⁷ In the UK it is not possible to take forward applications for a Telecommunications Act licence which also require a Wireless Telegraphy Act licence if suitable spectrum is not available. In certain circumstances, if spectrum is very limited, the issuing of both licences may be subject to a competitive process.

NUMBERS													
	BE	CH	DE	FR	ES	IT	IE	LU	NL	NO	SE	UK	CZ
Numbers to be used		X				X		X	X				X
Integration in the existing numbering plan and future evolution of needs	X												X
<i>Copy of application for numbers</i>							X						

ESSENTIAL REQUIREMENTS													
	BE	CH	DE	ES	FR	IT	IE	LU	NL	NO	SE	UK	CZ
Timetable for security concept ⁵⁸			X										X
Timetable for technical implementation of intercept technology			X										
Organisational plan regarding data protection and secrecy		X											X
Environmental plan													
plan to reduce damage to public domain to a minimum				X									
means to remedy damage				X									
Dataprotection													
security of datatransmission				X									
confidentiality of communications				X									
confidentiality of information stored				X									
Contingency plans for system failure												X	
access to public emergency services		X					X					PTO	X
network resilience				X								PTO	

INFORMATION IMPORTANT FOR SPECIFIC OBLIGATIONS													
	BE	CH	DE	ES	FR	IT	IE	LU	NL	NO	SE	UK	CZ
Directory inquiry services							X					PTO	X
Apparatus for the handicapped												PTO	
public call box services												PTO	X
details of offer of public call boxes							X						
details of any Code of Practice to ensure fair marketing practices							SM P						
details of measures adopted to ensure transparent publication of conditions and prices							SM P						

⁵⁸ The security concept is defined in §87 of the Telecommunications Act. It should set out:

1. which telecommunications systems will be used and which telecommunications services will be commercially provided,
2. what hazards must be expected, and
3. which technical precautions or other protection measures have been taken or are planned so as to meet the obligations according to the previous paragraph.

The obligations mentioned there are the appropriate technical precautions or other measures with regard to telecommunications and data processing systems operated for the commercial provision of telecommunications systems in order to protect:

1. telecommunications secrecy and personal data,
2. programme-controlled telecommunications and data processing systems against unauthorised access,
3. systems against functional disruption resulting in considerable harm to telecommunications networks, and
4. telecommunications and data processing systems against external attack and the effect of natural disaster.

PAYMENT OF FEES													
	BE	CH	DE	ES	FR	IT	IE	LU	NL	NO	SE	UK	CZ
proof that fees have been paid	X					X							
Possibility to ask for provision		X											

INTEROPERABILITY													
	BE	CH	DE	ES	FR	IT	IE	LU	NL	NO	SE	UK	CZ
terminal equipment that can be used					I								
Subscriber connection, access arrangements					I							PTO	X

RIGHTS OF WAY													
	BE	CH	DE	ES	FR	IT	IE	LU	NL	NO	SE	UK	CZ
use of public domain					I								X
well argued case to obtain these rights												X ⁵⁹	
Justification for environmental disruption												X	
external construction practices												PTO	
Community liaison												PTO	
forecast of necessary rights of way				X									
<i>declaration asking occupation of public and private propriety and acceptance of corresponding obligations</i>				X									

MISCELLANEOUS INFORMATION													
	BE	CH	DE	ES	FR	IT	IE	LU	NL	NO	SE	UK	CZ
Measures related to consumer protection	X												
assistance to clients	X												
billing	X												
20 page summary of dossier	X												
measures in interest of state security									X				
measures to respect working conditions		X											

⁵⁹The granting of rights of way (called Code Powers) is normally only given to applicants seeking to be Public Telecommunications Operators (PTO's) under Section 9 of the Telecommunications Act.

VARIOUS DOCUMENTS TO BE PROVIDED													
	BE	CH	DE	ES	FR	IT	IE	LU	NL	NO	SE	UK	CZ
<i>Document stating if applicant accepts or refuses to appeal to the chamber for interconnection, special access and shared usage</i>	X												
<i>anti-mafia certificate</i>						X							
<i>Commitment to pay further fees</i>						X		X					
<i>Certificate proving that company's administrators have not been sentenced to imprisonment for a crime of intention for more than 6 months</i>						X							
<i>indicate if a licence has ever been recalled, restrictions imposed due to non-respect of the licence, conviction on basis of telecom, competition or labour law or if similar procedures are ongoing</i>		X											
<i>Commitment to carry on capital investment, if foreseen</i>						X							
<i>Assurance of functional and structural compatibility to use already installed alternative infrastructure</i>						I							
<i>self declaration to respect legislation/licence conditions</i>				X		X			X				
<i>copy of Reference Interconnection Offer</i>							SM P						
<i>last adopted annual report</i>											X		
<i>certificate of compliance with social security and tax obligations</i>				X									
<i>declaration to respect national jurisdiction</i>				X									
<i>declaration of no prohibition to sign a contract with public administration</i>				X ⁶⁰									

2.5 Information requested from applicants for the provision of mobile services

From table 2 it appears that in all countries mobile communications are subject to an individual licence. The information required for the provision of mobile services is quite distinct from what was found for fixed services. The two main reasons for this are that

- the assignment of frequencies changes the scope and form of the individual licence, requiring specific information, in particular technical information concerning the use of frequencies
- scarcity of frequencies requires NRAs to limit the number of individual licences and to organise selection procedures, and this changes the purpose of the information from ensuring that the operator is qualified to forming a basis for selection of the operator.

⁶⁰ This is only required from operators having public service obligations

Scope and form of the individual licence.

From a previous ETO study concerning mobile communications⁶¹ it appeared that the right to use frequencies and other individual rights and obligations is in most countries granted in one single licence. Some countries, however, issue separate “radio licences”.

The following table summarises

- how many licences are required from an operator in order to provide mobile services
- what rights are covered by the licence(s)
- particular attachments to the licence for the use of frequencies.

The countries included in this section are those which made information available for the ETO study on mobile communications. No detailed information is available on Austria, Greece, Ireland, Italy and Spain.

Table 6 Comparison of the scope of licences for operators of mobile systems

	B E	D K	D E	F L	F R	G R	I E	I T	N L	N O	P O	S E	U K	C Z
number of licences required	1	1	1	1	1	2	*	2	1	2	1	1*	2	1*
Network														
setting up of the network	X	X		X	X	X	X	X	X				X	X
operation of the network	X	X	X		X	X	X	X	X			X	X	X
Services							X							
provision of services		X				X	X	X	X		X	X	X	X
Right to use frequencies														
part of the network or service licence	X	X	X		X						X			
supplementary administrative document		X	X	X	X							X		X
separate decree									X					
separate licence						X	X						X	

* In Sweden, major operators with a market share of 5-10% need a service licence according to the Telecom Act of 1997.

* In Ireland and Czech Republic, the mobile network is subject to one individual licence, completed with various radio licences.

In all countries, the assignment of frequencies involves a specific document, which can be an integrated part of the licence or a completely separate document.

The supplementing of the licence with an administrative document governing detailed technical frequency aspects, such as the outgoing power of the base stations, the allocated channels and the location of the base stations, allows the necessary flexibility for building out the network. Moreover, in certain countries frequency assignment is based on a Radio Communications Act which is not incorporated in the Telecommunications Act. The responsibility for frequency assignment may also remain with a separate entity.

⁶¹ Workorder 48373 Harmonising Licensing Conditions for Mobile Communications, final report August 1998

In chapter 3, consideration will be given to what specific information NRAs require for drawing up these specific documents and in general for granting the right to use frequencies, also for applications other than mobile services.

Selection procedures

A particular feature of the procedure for mobile communications is that the information provided aims not only at verification of the qualification of the operator but also at constituting a bid for selection as the winner of the licence. While for qualification it is sufficient to comply with a minimum level, applicants have to try to perform better than competitors on the selection criteria.

The selection procedure is directly decisive for the selection criteria and therefore for the information to be provided. In **an auction procedure** the bidder's ability to pay is the crucial selection criterion. In a **comparative bidding procedure** a wide range of criteria may be used.

The following two tables, taken from the report on Mobile Communications, give an overview of the different criteria used in comparative bidding procedures.

Table 7 Information to be given by the applicant to qualify for participation in the selection of mobile operators

	Tot	BE	DE	DK	FI	FR	LU	NL	NO	PO	SW	UK	CZ
financial basis/resources	6	X			X			X	X		X		X
coverage and expansion rate	1	X		X									X
technical and operational knowledge and expertise	5	X						X		X	X		X
financial and commercial feasibility	6	X		X					X	X	X		X
general management of the project	1	X											
compliance with telecom regulation	2				X			X					
availability of frequencies	1				X								
competitive aspects of activities as manufacturer of systems technology	1		X										
registered for the purpose of maintaining a trade activity and in Register of Collective Persons	3							X		X			X
absence of debt to the state	1									X			
approved account system	1									X			
Maximum of 25% non-Community capital ⁶²	1									X			
Number of criteria		4	1	2	3	0	0	3	3	6	4	0	

⁶² This criterion no longer exists since the entry into force of the new Telecommunications Act in August 1997

Table 8 Information to be given by the applicant in order to win selection

	Tot	BE ⁶³	DE	DK	FI	FR	LU	NL	NO	PO	SW	UK	CZ
commercial aspects													
tariffs/cost efficiency /price structure	7	31%		X			X	X	X	X	X		X
efficiency, development of the market	5			X	X	X				X		X	X
satisfaction of end user/services in accordance with reasonable needs of users of telecommunications	3				X	X							X
relation price/quality	1					X							
effective distribution channels/ expertise related to launching the appropriate services on the market/ marketing capabilities	4		X			X	X			X			X
contribution to panEuropean service	2					X					X		
credibility of commercial or marketing hypothesis	2					X	X						
competence in mobile market	2			X									X
development of the mobile telephony market and integration with other telecom networks	1								X				
financial aspects													
financial capability	4			X			X			X		X	X
credibility of business plan	5		X	X			X		X				X
amount willing to pay for concession	1	49%											
amount prepared to invest	2									X		X	X
technical aspects													
coverage (geographically or in terms of population)	7	20%		X			X		X	X	X	X	X
timing of roll-out	8					X	X				X	X	X
Provision of services in certain specific areas	2		X										X

⁶³ The percentages refer only to GSM. For DCS-1800 licences all criteria had a weight of 33 1/3%

	Tot	BE ⁶³	DE	DK	FI	FR	LU	NL	NO	PO	SW	UK	CZ
technical experience	4			X			X	X		X			X
quality of the service	5			X	X			X		X			X
quality of the network	4							X	X	X			X
technical viability	3						X					X	X
range or quality of services/ development of VAS, technically advanced services	8			X	X	X		X	X	X	X		X
functionally reliable and secure services	1				X								
efficient use of frequencies	7			X		X		X	X	X	X	X	X
best promotion of efficiency of the telecommunications market	1				X								
expertise for setting up the network	2		X							X			
systems increasing voice quality	1										X		
technologies permitting international roaming	1										X		
widely accepted technologies	1										X		
<i>others</i>													
structure, size, organisation of the undertaking	2					X							X
employment	3					X	X						X
competitive aspects	4		X		X					X		X	X
absence of direct or indirect participation of PTS in capital	1									X			
qualifications exceeding the criteria for qualification	2						X	X					
innovation and development	1									X			
quality of bidding on use of DCS-1800	1						X						
previous experience in the field	2								X			X	

The following four criteria are used in some countries as qualification conditions and in others as selection criteria:

- financial basis/resources
- technical and operational knowledge
- financial and commercial feasibility
- coverage and expansion rate.

In Portugal, Norway and the Netherlands, financial aspects are only part of the qualification phase and not of the selection process. Commercial aspects are not a selection element in Portugal or the UK. Technical criteria are present in all countries.

The most widespread selection criteria (found in at least 5 countries) are:

- the tariffs, price structure
- coverage (in terms of population or geographically)
- time for roll-out
- quality and range of services
- efficient use of frequencies
- financial capability and credibility of the business plan.

From the table below, it appears that the total number of criteria taken into account for selecting the winners varies between 1 and 9. However, countries without a qualification phase are likely to check the financial and commercial credibility of the candidates during the selection process. If the number of qualification and selection criteria are taken into account, the total number varies between 6 and 13, leaving aside Italy where the total number of criteria is 21.

Table 9 Overview of the total number of selection and qualification criteria

	B E	D K	FI	F R	G R	IT	N L	N O	P O	SE	U K	L U
Total number of qualification criteria	5	2	3	11	1	13	3	9	6	4 ⁶⁴	9	9
Total number of selection criteria	3	10	7		5	8	5	3	17	9		
total number of criteria	8	12	10	11	6	21	8	12	23	13	9	9

⁶⁴ The qualification criterion of max 25% foreign capital, which existed at the moment the licences were granted, is no longer present in the new Telecommunications Act.

3 INFORMATION TO BE PROVIDED IN ORDER TO BE GRANTED THE RIGHT TO USE FREQUENCIES

As was set out in the previous section, the granting of the right to use frequencies requires a specific set of information.

Different frequency classes can be distinguished:

- frequencies requiring co-ordination
administrations are required to co-ordinate with the other administrations affected before a station is put into service
- preferential frequencies
administrations concerned may assign these frequencies without prior co-ordination, on the basis of bi- or multilateral agreements
- shared frequencies⁶⁵
may be shared, without prior co-ordination, on the basis of bi- or multilateral agreements
- frequencies for planned radio communications networks
administration must co-ordinate these frequencies with a view to the subsequent introduction of coherent radiocommunications networks
- frequencies used on the basis of geographical network plans
frequencies used, in the countries concerned on the basis of a geographical network plan prepared and adopted in advance, taking into account the technical characteristics set out in that plan.

The information to be provided varies according to whether there is need for

- a licence and frequency assignment
- site clearance
process of investigating if the assignment of a particular frequency (or power output) at a particular site would cause interference to other users of the radio spectrum
- international frequency co-ordination.

Although according to article 24 of the ITU Radio Regulations⁶⁶, all radio transmitters are in principle subject to a licence, many CEPT countries exempted end user terminals for public mobile communications systems (such as NMT, GSM and DCS-1800) from licensing on the basis of CEPT recommendations. Other equipment and applications which are commonly exempted from licences are low power devices, short range applications and radio equipment arranged for reception.

⁶⁵ this is based on the definition from the Vienna Agreement. Recommendation T/R 25-08 uses the following different description: *In frontier areas, common frequencies may be shared between certain users in adjacent countries in order to make the most effective use of the frequency spectrum. Such shared frequencies shall be frequencies assigned in a particular region to users with similar traffic conditions and using comparable equipment. The number of stations per channel should be co-ordinated between the Administrations concerned.*"

⁶⁶ No transmission station may be established or operated by a private person or by any enterprise without a licence issued in an appropriate form in conformity with these regulations by the Government of the country to which the station in question is subject.

Operators of public mobile communication systems and fixed links, on the other hand, need to apply for a licence under the terms of article 24 of the ITU Regulations. As set out in section 2.5 this licence is often integrated with the network or service licence imposed on behalf of Telecommunications Acts.

Section 3.1 will evaluate the interrelation between the licensing procedure for frequencies and the licensing procedure for services and networks

Following that, in section 3.2, a description will be given of what countries require in general as information. Section 3.3 describes what specific provisions there are in relation to frequency co-ordination. No harmonised co-ordination procedure exists at the moment, although there are a number of bi- or multilateral agreements. For this study the provisions of CEPT Recommendation T/R 25-08 and the Vienna Agreement⁶⁷ have been analysed.

3.1 Interrelations between the licensing of frequencies and the licensing of services and networks

The following aspects will be considered:

1. which authority or authorities must be contacted for the right to use frequencies?
2. is a proof of availability of frequencies a prerequisite to obtain a service or network licence?

Both questions are relevant to the evaluation of possible reasons for delay in the granting of licences for telecommunications services and networks.

If a different authority is responsible for frequency management, an applicant could be confronted with a situation where the precise competence or responsibility of each of these bodies was not clear, or where there were differences in vision or interpretation of applicable procedures and legislation.

Frequency co-ordination can extend time limits for granting a licence by several months. If the termination of this process is a prerequisite to start the application process to obtain a service or network licence, market access is considerably delayed.

Austria:

1. The amount of frequency spectrum usable by an operator of a mobile telephone network and the conditions of usage are laid down by the Telecommunications Administration. The Regulatory Authority (Telecom Control GmbH) is responsible for granting the service licence.

In accordance with the Austrian Telecommunications Law an operating licence for the operation of the base stations has to be granted by the regional Telecommunications Authority.

⁶⁷ Agreement between the Telecommunications authorities of Belgium, the Federal Republic of Germany, France, Italy, Croatia, Lithuania, Luxembourg, the Netherlands, Austria, Poland, Switzerland, the Slovak Republic, Slovenia, the Czech Republic and Hungary on the coordination of frequencies between 29.7 and 960 MHz for fixed and land mobile services, Vienna 1993

Belgium

1. The Belgian Institute for Postal Services and Telecommunications is responsible for all licences required
2. After checking by the legal department to see whether the candidate fulfils the necessary general and legal requirements (according to the Law on Telecommunications of December 1997), the request for the licence is transferred to the frequency management department.

Denmark

1. NTA is the body in charge of frequency management and of the control of the use of frequencies
2. Denmark applies a free regime to all services except mobile communications. In that case, all aspects of the licensing process are interrelated

Finland

1. not available
2. For Private land mobile radio networks, the customer first sends in a radio network pl. an. TAC checks the plan and assigns suitable frequencies. After this the customer sends in an application for a licence to use radio equipment, including technical data, and TAC grants the licence including technical requirements. For public land mobile networks the granting of frequency licences is related to the granting of operating licences by the Ministry. For fixed links, the customer sends in an application format on the basis of which TAC assigns frequencies.

Germany

1. Under section 47 (1) sentence 1 of the Telecommunications Act, each frequency usage requires prior assignment by the Regulatory Authority for Telecommunications and Post
2. When the licensee is absolutely reliant on frequency assignment (not being able to use cable, for instance, which is the case with mobile radio licences) a proof a availability of spectrum is a prerequisite. When the licensee is not absolutely reliant on frequencies the licence can be granted separate from the frequencies.

Frequency regulation is based on Sections 44 ff on the TKG and the detailing ordinances. Section 44 of the TKG provides for a table of frequency allocations and a frequency usage plan to be drawn up.

Provision is made in Section 45 of the TKG for allocation of the table of frequency allocations and for the related detailed ordinance. Bands are allocated in the table to the individual radio services and other applications of electromagnetic waves (section 45 (2) sentence 1 of the TKG).

Section 46 of the TKG addresses the frequency usage plan and empowers the federal government to issue the related detailing ordinance. The usage plan contains the further allocation of the bands to the individual usage along with the determinations on these usage (section 45 (2) sentence 1 of the TKG).

Frequency assignment is dealt with in Section 47 of the TKG which also authorises the related ordinance. Frequencies are assigned in accordance with Section 4 of the

draft frequency assignment ordinance which sets forth the general requirements. Section 4 Frequencies (1) sentence 1 reads as follows:

Frequencies shall be assigned when

1. they have been entered in the usage plan for the usage envisaged;
2. they are available, and
3. compatibility with other usage has been established.

The availability of frequencies is therefore a vital prerequisite for frequency assignment.

Sweden

1. PTS is responsible for licensing of telecom activities and granting licences for radio transmitters

UK

1. The Radio Agency, an executive body of the DTI is the body in charge of frequency management, the licensing and control of the use of frequencies under the Wireless Telecommunications Act 1949.
2. In the UK it is not possible to accept forward applications for a Telecommunications Act licence which also require a Wireless Telegraphy Act licence if suitable spectrum is not available.

CZ

1. The Czech Telecommunication Office is responsible for all kinds of licences (excluding licences for broadcasting of radio and television programmes by terrestrial transmitters, satellites and cable television). The Frequency Spectrum management Department of CTO assigns frequencies for private land mobile/fixed networks and issues licences for operation of these networks. Service licences for public mobile communications systems and for PA?R networks are issued by the Department for Regulation, Tariffs and Charges of the CTO.
2. Confirmation of availability of frequencies from the Frequency Spectrum Management Department is necessary for the obtaining of service licences.

3.2 General information requested for frequency assignment

	BE	DE	FL	FR	IT	LU	NL	NO	SE	⁶⁸ CZ
justification for request	X						X			
planned date of operation							X	X		X
class of service			X				X	X		X
<i>proof that applicant has passed prescribed tests</i>		X					X ⁶⁹			
geographical coordinates of station	X	X	X				X	X		X
planned frequency band			X				X	X		X
planned frequency separation			X				X			X
power levels	X	X					X	X		X
mode of operation (eg duplex)			X				X	X		X
type of signalling			X				X			
characteristics of equipment	X	X					X	X		X
<i>type approval certificates</i>	X	X								X
<i>proof of use of approved quality management system</i>		X					X ⁷⁰			
supplier of equipment			X				X	X		X
antenna type	X						X			X
antenna height	X	X	X				X	X		X
directivity of antenna		X	X				X	X		X
polarisation							X	X		X
antenna gain			X				X			X
antenna cable type, length, attenuation			X							
occupation of the frequencies	X									X
specification of the network	X						X ⁷¹			
<i>references to ETSI standards</i>	X						X			
geographical extent of application area/planned service range		X	X				X	X		X
means of control of base station			X							X
connection to telephone network			X				X			X
number of mobile stations							X	X		
channel number								X		

⁶⁸ For the UK the information required could depend on the service to be licensed. Different clauses of licence are available for different services (e.g. private business radio or fixed link). The licence application form is tailored to meet the requirements of each service.

⁶⁹ for maritime and radio-amateurs licences

⁷⁰ for public networks

⁷¹ for public networks

3.3 Information requested in case of frequency co-ordination

As set out in the introduction, frequency co-ordination is currently based on a number of bi- or multilateral agreements. For this study the provisions of CEPT Recommendation T/R 25-08 and the Vienna Agreement⁷² have been analysed.

The Vienna agreement seems an appropriate basis for analysing information required to perform frequency co-ordination because it

- covers a broad range of frequencies⁷³,
- covers fixed services as well as mobile services,
- can be used for fixed and mobile services in other frequency bands,
- can be used for other services in the defined frequency bands
- can be used for all services in the bands 1350-2690 MHz.
- is signed by 15 CEPT countries⁷⁴.

Currently the Working Group FM of the European Radiocommunications Committee is studying the possibility of amending Recommendation T/R 25-08 with a view to aligning it with the text of the Vienna Agreement.

On the basis of the Vienna Agreement, the following information is requested in case of frequency co-ordination:

- country
- name of station
- planned frequencies (transmitting and receiving frequency of the base station)
- frequency category
(*preferential frequencies, frequencies requiring co-ordination, frequencies belonging to a geographical network, frequencies intended for a planned radiocommunications network, shared frequencies*)
- coverage area of the entire radiocommunications network
- class of the station
(*base station, coast station, land station, port station, land station established solely for safety of life, mobile station with a radius of service area of 0 km, fixed station, land mobile station, radio-locations mobile station, ship station, nature of service, station open to official correspondence exclusively, station open to public correspondence, station open to limited public correspondence, station open exclusively to correspondence of a private agency, station open exclusively to operational traffic of the service concerned*)
- category of users
(*airport services, railway (excluding mountain railways), diplomatic corps, mountain railways, production- transport and distribution of energy (water, gas, electricity), fire services, military (mainly for internal use), radio relay networks, local call,*

⁷² Agreement between the Telecommunications authorities of Belgium, the Federal Republic of Germany, France, Italy, Croatia, Lithuania, Luxembourg, the Netherlands, Austria, Poland, Switzerland, the Slovak Republic, Slovenia, the Czech Republic and Hungary on the coordination of frequencies between 29.7 and 960 MHz for fixed and land mobile services, Vienna 1993

⁷³ 29.7-47 MHz, 68-74.8 MHz, 75.2-87.5 MHz, 146-149.9 MHz, 150.05-174 MHz, 406.1-430 MHz, 440-470 MHz, 862-960 MHz.

⁷⁴ Belgium, the Federal Republic of Germany, France, Italy, Croatia, Lithuania, Luxembourg, the Netherlands, Austria, Poland, Switzerland, the Slovak Republic, Slovenia, the Czech Republic and Hungary

demonstration, public transport, subscriber installations, public mobile services, stand-by links, navigation (in ports, on the Rhine, etc), tests and research, not allocated, public security services, entries not falling within the categories on the list (cordless microphones etc), ancillary broadcasting services (studio, news reporting), rescue services, other services provided by telecommunications administrations, industrial operators, road traffic services, taxi and care hire firms, other private services, reserved specific applications-not allocated, other private multiple-use networks)

- geographical coordinates of the station or centre of the service area
- radius of the service area of the base station
- height of the station site above sea level
- designation of emission
- maximum radiated power of the station
- type of reference antenna
- azimuth of maximum radiation
- elevation angle of main radiation
- polarisation
- gain of the receiver antenna in direction of 9A and 9B
- height of antenna above ground
- type of antenna (horizontal and vertical)
- transmitted frequency of the corresponding receiving station or reception frequency
- status of co-ordination
(e.g. for information, request for agreement, agreement without reservation, agreed subject to operational tests to show that co-existence is possible, agreement on non-interference basis....)
- date of co-ordination request
- final date of achieving co-ordination

4 INFORMATION REQUIRED IN ORDER TO BE GRANTED THE RIGHT TO USE NUMBERS

While historically the management of national plans for numbering, naming and addressing was assumed by the incumbent PTO, this responsibility remains now in most EU countries with an independent regulator for the main categories of numbers⁷⁵.

The independent regulators in Belgium, Denmark, France, Finland, Germany, Italy, The Netherlands, Sweden and Switzerland have started recently to develop the management of these national plans.

In reply to the questionnaire the following countries provided information: Belgium, Switzerland, Denmark, France, Finland, Netherlands and UK. Germany, Italy and Sweden did not provide sufficiently detailed information in order to be included in this section.

Other countries like Austria, Ireland, Luxembourg, Portugal and UK are in the process of elaborating relevant legislation.

The term “number” can cover different categories. In annex 5 these different categories are described.

4.2 Interrelation between granting the right to use numbers and licensing of services and networks

In analogy with the analysis of the procedure to be granted the right to use frequencies, the following aspects will be considered:

1. which authority or authorities must be contacted for the right to use numbers?
2. is a proof of availability of numbers a prerequisite to obtain a service or network licence or, alternatively, do you need a service or network licence or notification before applying for numbers?

Both questions are relevant to evaluate possible reasons for delay in market entry.

If a different authority is responsible for the management of numbers, an applicant could be confronted with unclarities concening the precise competence or responsibility of each of these bodies or with differences in vision or interpretation of applicable procedures and legislation.

Further, running two applications in parallel is more time efficient than running them consecutively.

⁷⁵ See the Final Report on Harmonised National Numbering Conventions, ETO, 23 October 1997, and the First Interim Report on Harmonised National Conventions for Naming and Addressing, ETO, to be issued in October 1998.

Table 10 Interrelation between the licensing of services/networks and the assignment of numbers

	BE	CH	DK	FR	FL	NL	SW	CZ
numbers managed and granted by entity distinct from NRA	no	no	no	no	yes	no	no	no
service/network notification/licence prerequisite to obtain numbers	for geographical numbers	no	no		yes	no		yes
procedure for grant of numbers and service/network notification/licence combined						no	yes	

4.2 Information requested

Table 11 Information to be provided as request for assignment or reservation of numbers

	BE	CH	DK	FR	FL	NL	UK	CZ
identification of the applicant								
name, address, telephone...	X	X	X	X	X	X	X	X
<i>proof that signatory can legally represent the company</i>	X					X		X
contact person	X	X	X		X	X	X	X
billing address		X	X			X		X
legitimation/business registration	X			X	X	X	X	
qualification of the applicant								
mention of failure or seizure						X		
guarantees on financial capabilities						Y ⁷⁶		
knowledge and experience concerning marketing						Y		
knowledge and experience concerning technical system	X					Y		
reference to authorisations granted or applied for				X				
reservation or assignment		X ⁷⁷				X		
description of earlier reserved numbers				X		X	X	
period assignment wanted for								
information on numbers								
amount of numbers needed	X	X	X	X	X	X	X	X
first, second priority or no preference	X	X	X		X	X	X	

⁷⁶ This includes an estimation of the necessary capital for the extension of the technical system and a description of the financing. The latter includes information on own resources, loans from mother company, other loans and proof of this.

⁷⁷ The reservation does not create any rights for the applicant. It is only intended to be a help for planning purposes for OFCOM.

	BE	CH	DK	FR	FL	NL	UK	CZ
justification of preference			X	X		X	X ⁷⁸	
justification of need per zone at different intervals	X		X					
justification, indication that no viable alternative exists	AC, NSPC		X ⁷⁹					
technical information/information on routeing and network								
detailed description of technical infrastructure (network elements, function and interrelation)	X			X		Y		
description of the capacity and capabilities of the technical system	X					Y		
description of technical part which is already in service						Y		
implementation plan for technical part which is not in service						Y		
physical address of signalling point	NSPC ISPC		X			NSPC ISPC		NSPC ISPC
routeing principles applied	X							
rules for secondary assignment	X							
dialling sequence	AC							
numbering zone where service will be offered/geographical coverage	AC	X	X				X	
unique signalling point identity	NSPC ISPC					NSPC ISPC		NSPC ISPC
nature of use in the network	NSPC ISPC					NSPC ISPC		NSPC ISPC
manufacturer of signalling point	NSPC ISPC					NSPC ISPC		NSPC ISPC
<i>statement that relevant ETSI and ITU-T Q standards are observed</i>	NSPC ISPC		X					
Commercial information								
marketing strategy (distribution channels, promotion, pricing)						Y	X	
expected demand for the service in the planned zone			X			Y	X	
commercial prospects (market segment, expected calls/year)	AC					Y		
kind of service offered to end user	AC	X ⁸⁰				X ⁸¹	X	
commercial name of the service		X					X	
expected calling minutes per month at different intervals						short numb		

⁷⁸ Where only one choice of number block is given and the operator does not want any other block.

⁷⁹ Only if the application proves difficult in relation to the national numbering plan

⁸⁰ A prospect used for publicity purposes can be sufficient

⁸¹ In the Netherlands, a detailed description is asked for. It should be indicated for shared revenue and premium rate numbers the amount of numbers which aim at prolonging the call, the amount of numbers used for services which have elements of an erotic, sexual or pornographic nature, the amount of numbers intended for entertainment.

	BE	CH	DK	FR	FL	NL	UK	CZ
usage and usage conditions			X					
expected calls per hour in peak at different intervals						short numb		
number of subscribers at different intervals in the future		X ⁸²	X					
date of taking into service	NSPC ISPC	X				X	X	X
justification for method and timing of taking numbers into service						X		X
identity of at least one national signalling relation	NSPC ISPC							NSPC ISPC
estimate of the technical and commercial risks						Y		

The indication "Y" in the Netherlands refers to numbers different from service numbers. This includes telephone or ISDN numbers, telex, packed and circuit switched data services.

Belgium

Different application forms exist for geographical numbers, non-geographical numbers, access codes, NSPC's and ISPC's. Information which is requested for all categories of numbers are indicated with X. Where information is only requested for one or several of these categories, the table refers to the specific categorie(s).

Denmark

Denmark has no application forms. The information to be provided is the same basic information for all kinds of numbers. For the assignment of numbers and addresses besides the ones in the national numbering plan, technical information is required.

Germany

The Regulatory Authority for Telecommunications and Post is the responsible authority for the assignment of numbers.

No examination of whether there are sufficient numbers available in certain areas is made when a licence is applied for nor would the non-availability of numbers constitute a reason for denying a licence. Under Section 43 (1) of the TKG the Regulatory Authority is obliged, however, to structure the numbering space in such a way that it can satisfy the requirements of users, service providers and network operators at all times.

With some types of numbers it is necessary to stipulate a licence prior to number allocation. Hence a licence must be applied for and granted before an application for number allocation can be made. In individual cases, however, it is possible to apply for numbers when the licensing process is already underway, so that all the requirements for number allocation can be checked and the numbers allocated straightaway if the licence application is successful.

Finland

In Finland the application is generally a free form written application sent by letter, fax or e-mail. All the applications are discussed in the advisory national numbering team where three main operator groups, users and TAC are represented.

⁸² The intervals are 12 months and 36 months

Nation wide portable numbers are treated specially because these can be assigned to individual users as well as to companies. The information in the table is based on the application form designed for these numbers.

Netherlands

Netherlands has two specific application forms: one for service numbers (freephone, shared revenue and premium rate) and a second one for telephone or ISDN numbers (different from service numbers) as well as telex and packed and circuit switched data services. Applicants can opt to ask for reservation of numbers rather than assignment. The information to be provided is similar in both cases.

The form concerning service numbers includes specific questions related to applicants for short numbers.

Czech Republic

The Czech Telecommunications Office (CTO), Department for Regulation, Tariffs and Charges must be contacted for the right to use numbers.

Applicants have to submit a special application for the right to use numbers after granting the service licence. Service licence is issued by the same department with regard to availability of numbers.

5. INFORMATION FOR “A POSTERIORI” VERIFICATION

The information for this section was collected by a questionnaire sent out to all CETP-countries in August 1998. The following countries provided useful replies in writing or by means of interviews: Belgium, Germany, Denmark, Finland, France, Luxembourg, Moldavia, Netherlands, Norway, Sweden and UK.

5.1 Market Parties obliged to provide the information

The following table reviews the different categories of operators and service providers which NRAs distinguish between for verification.

Table 12 Categories of operators and service providers subject to ‘a posteriori’ verification

	BE	DK	FL	FR	GE	LU	M O	NL	NO	SE	UK
all operators/service providers	X		X		X	X	X	X		X	X
market share											
operators having SMP	X		X	X		X		X	X	X	X
operators regarded as “considerable” on the market (without having SMP)										X	?
Activity											
all subject to licence				X		X				X	
all subject to notification				X				X		X	
providers of public voice	X		X					X	X		
providers of public infrastructure/ leased lines	X							X			
providers of public networks and services								X	X		
mobile operators	X					X		X		X	
use of resources											
operators using frequencies				X		X					
operators using numbers								X			
specific obligations											
operators having universal service obligation	X			X				X		X	
historic incumbent operator				X			X	X	X	X	

5.2 Information requested

Key:

VT	Public Voice Telephony	PI	Public Infrastructure
NF	notified operator	lic	operator subject to a licence
MT	Moldavia Telephone	BT	British Telecom
SMP	operator having significant market power		
USO	operator having universal service obligation		

italic script refers to information to be provided only on request

Accessibility of the network

	BE	GE	DK	FL	FR	LU	M O	NL	NO	SE	UK
non-discrimination of service providers											
type contracts with service providers	VT PN				<i>VT</i> <i>PI</i>		MT	<i>SMP</i>		NF Lic	
characteristics for connection to the network including details on interfaces								<i>SMP</i>			
prohibition on undue preference and undue discrimination								<i>SMP</i>			<i>all</i>
agreements on special network access		SM P									

Commercial/financial information

	BE	DE	DK	FL	FR	LU	M O	NL	NO	SE	UK
market position											
yearly turnover or gross income	VT PI					lic		<i>VT</i> <i>PI</i>		not lic	
traffic	VT PI				VT PI		MT	<i>VT</i> <i>PI</i>	VT	lic	
market share	VT PI						all	<i>VT</i> <i>PI</i>			all
revenue								<i>VT</i> <i>PI</i>			all
geographical and product market											
number of subscribers								<i>VT</i> <i>PI</i>	VT		
trading conditions									VT PI		
number of lines per category of transmission capacity								<i>PI</i>	PI		
capacity (bits/s)								<i>PI</i>	PI		
technical competence	VT PI					lic	all				

	BE	DE	DK	FL	FR	LU	M O	NL	NO	SE	UK
managerial competence/staff	VT PI					lic				not lic	
modifications in ownership	VT PI	lic				lic			PS PI		
modification in capital and voting rights/members of administrative council					VT PI						<i>all</i>
price regulation/price cap						lic					
tariffs and tariff structure	VT PI SMP	SMP						<i>VT PI</i>		Telia	BT
principles, assessments, data underlying pricing and discount schemes						SM P			SM P		
present accounts according to defined calculation and allocation methods									SM P		
contribution to research and development						lic					
amount	VT PI										
institutions											
coverage and roll-out obligations		mo b ⁸³					all	<i>GS M ER ME S DC S</i>	mo b		
geographical plans	VT PI					lic					
number of customers by postcode											mo b
means of commercialising the service											
contract with dealers	VT PI										
change in overall offer of services					VT PI						
offer of innovative services						all					

⁸³ In the case of digital cellular mobile licences only

	BE	DE	DK	FL	FR	LU	M O	NL	NO	SE	UK
quality of the service		PI VT 84			VT PI			GS M ER ME S	SM P		
average duration of failure						lic					
ensuring fair competition											
report on main categories of cost and rules used for cost allocations				SM p ⁸⁵				SM P			
report on separate accounts for other activities under special or exclusive rights								VT SM P PI			

Dataprotection

	BE	DE	DK	FL	FR	LU	M O	NL	NO	SE	UK
Calling Line Identification	VT								VT		
voluntary code of conduct								VT			all
Customer data base information necessary for provision of universal directory information	VT	VT				all		VT	Tel eno r		
Integrity of data transmitted	VT PI							VT	VT		
Unwanted calls								VT	VT		

Environmental concerns /town and country planning/rights of way

	BE	DE	DK	FL	FR	LU	M O	NL	NO	SE	UK
use of public land						all					
conventions concluded for occupation of public land (except routes)					VT PI						
facility sharing						SM P					

⁸⁴ Dominant providers of Voice Telephony have to establish quality parameters. These include a fault rate per access line per year. Providers of voice telephony not having a dominant position must establish these quality targets 18 months after startup at the latest and provide them to the Regulatory Authority upon request.

⁸⁵ This information is requested annually by means of a form from SMP operators in the fixed telecommunications networks of local telecommunications.

	BE	DE	DK	FL	FR	LU	MO	NL	NO	SE	UK
concluded contracts					VT PI						
collocation		SMP				SMP		SM P	PI		
information for mediation if negotiations fail after 2 months				all							

Information in relation to the consumer

	BE	DE	DK	FL	FR	LU	MO	NL	NO	SE	UK
equal treatment of users											
general conditions in the contract with consumers	VT PI				VT PI	lic	all				
copy of contract with clients					VT PI						
special arrangements for disabled people							MT		Telenor		
information to provide to consumers	VT										
place where this info is available							all	all			
notice of changes in conditions, tariffs, quality, availability					VT PI	lic					
report changes to system for metering duration of telephone calls									VT		
consumer complaints											
information on procedure complaints							all		Telenor, mob		
details on complaints							all		VT		
code of practice for Consumer Affairs								VT PI mob		US O, mob	

Interconnection

	BE	DE	DK	FL	FR	LU	MO	NL	NO	SE	UK
non-discriminatory offer											
copy of concluded interconnection agreement	VT PI	SMP			VT PI	SMP		VT	PI		SMP
copy of interconnection agreement before entry into force				SMP							

	BE	DE	DK	FL	FR	LU	M O	NL	NO	SE	UK
transparency											
make public reference interconnection offer	SMP					SM P	MT	<i>SM P</i>	SMP		SMP
changes in RIO, before implementation		SM P		SM P		SM P					
make public interconnection tariffs		SM P						<i>SM P</i>	SMP		SMP
publication and notification of interfaces								<i>SM P</i>			VT PI mob
cost accounting system	SMP										
description of accounting system				SM P		SM P		<i>SM P</i>			
separation of operational activities				SM P		SM P					

Technical information

	BE	DE	DK	FL	FR	LU	M O	N L	NO	SE	UK
quality of service parameters							all				BT
average duration of failures							MT		<i>PI PS</i>		
availability of the service							all				
measures for network security						lic					
specifications for networks											
reference offer											
efficient use of frequencies									mob		
figures on channel loading							all				X
frequency/spectrum use figures											X
qualitative and quantitative use of frequencies					VT PI						
efficient use of numbers											
qualitative and quantitative use of numbers					VT PI						
provision of emergency services									<i>PS PI</i>		

Universal service

	BE	DK	FL	FR	LU	M O	NL	NO	SE	UK
delivery of mandatory services	USO					MT				BT
cost of universal service					SM P	MT				
management of directory services										
info to calculate contribution to US fund				VT PI						

Other information

	BE	DE	DK	FL	FR	LU	M O	NL	NO	SE	UK
designation of contact person for relations with the NRA	VT PI	lic				all					
changes which might influence the licence category	all	all									
composition of closed user group	CU G										
connections to PSTN											
info needed in framework of conciliation procedure				VT PI							
mutual recognition of foreign operators											
contracts with foreign operators				VT PI							
accounting rates for international business											X

5.3 Legal basis, method and formalities used in different countries

Belgium

According to Article 75 of the Telecommunications Act, BIPT is charged with control and verification of all provisions contained in the Act. Royal Decrees regarding Public Voice Telephony and Infrastructure set out in further detail the information requested.

A particularity is that each provider of Public Voice Telephony should provide the Institute with a free sample of his services.

Denmark

Article 13 of the Act on Universal Service Obligations and Certain Consumer Interests within the Telecommunications Sector, states that the Minister of Research and Information Technology may lay down more specific rules on the provision of telecommunications networks and services available to the public, to cater for interests such as the need to ensure basic consumer rights in connection with the establishment of agreements for delivery of telecommunications networks and services etc. The Minister of Research and Telecommunications may lay down rules on how providers of public telecommunications networks and services should deal with complaints from customers, including rules prescribing that such complaints should be investigated by a special internal investigation unit.

Rules laid down pursuant to the above may include provisions to cater for the need of informing users of telecommunications services about the terms for access to the service; including information about the price, the quality and delivery time for the service. Similar rules may be laid down for telecommunications networks and services not available to the public. The regulations may include requirements for certification of charging, billing, invoicing, complaints and investigation systems as well as quality requirements for such systems.

The rules mentioned above are laid down in Executive Order on the Provision of Telecommunications Networks and Services. Article 18.1 states that NTA may require a provider of a telecommunications network or service to give all information deemed necessary for the administration of the Order.

NTA obtains the information necessary from the provider mainly by letter.

The special licences for Tele Denmark and the mobile operators (NMT, GSM and DCS) include specific reporting duties.

France

ART is at the moment preparing an executive order on the basis of article 34-4 of the "*Code des postes et télécommunications*". This article states that the Minister of Telecommunications as well as the Chairman of the Telecommunications Regulatory Authority may collect from private individuals and corporate entities which operate telecommunications services any information or document required to ensure that they respect the principles concerning the fulfilment of public service and universal service obligations as well as the conditions and criteria applied in the licensing of services and networks.

At the moment, licensees have to provide the information required by *decree 96-1175 of 27 December 1996 concerning type clauses for the authorisation granted to providers of licence category L 33-1* (establishment and operation of public networks) and *L 34-1* (the provision of a public telephone service).

Clauses p) and h) relate respectively to the figures concerning the financial, commercial and technical operation of the network or service and the use of the frequencies attributed. **Clause m)** contains conditions to ensure fair competition and is imposed on licensees enjoying government subsidies, a monopoly or a dominant position on the market. It concerns in particular:

- transparency of accounts and commercial activity,
- separation of activities,
- the use of resources and information which is common to more activities and services,
- transparency and non-discrimination in relation to other entities of the same group.

Clause r) relates to equal and fair treatment of consumers.

For each item of information to be provided to the administration in order to observe clause p), it is stipulated whether the licensee should provide the information automatically on a regular basis or only in response to a reasoned request.

Finland

According to section 40 of the Telecommunications Market Act, MTC and TAC have the right to obtain from all operators, owners and holders of telecommunications networks as well as from telecommunications contractors all information on their operations carried out under the Act for the purpose of general supervision and promotion of telecommunications.

Usually there are no formalities; the administration writes a letter or calls. However, there is a form to provide economic information necessary to approve the cost accounting system and ownership.

Netherlands

Article 2.3 of the new Telecommunications Act foresees that operators subject to notification should immediately inform the NRA of changes, which influence the notification. The NRA has the authority to demand information based upon article 18.3 of the new Telecommunications Act.

Norway

The information requirements are described in the Royal Decree of 5 December 1997 concerning *Regulations on Public Telecommunications Networks and Public Telecommunications Services*. Section 2 stipulates what information providers of access to public telecommunications networks, of public telephony services and transmission capacity shall give to NPT on a yearly basis. Section 3 specifies specific requirements for operators having SMP. Furthermore, controls can be carried out according to section 5. The legislation also foresees a legal basis for establishing guidelines for methods of registration and reporting information on quality of service requirements.

A specific requirement concerns the evidence that the metering system as the basis for invoicing public telephony services is designed for uniform metering (section 2-6).

In the same Decree, it is stipulated that providers of access to public telecommunications networks and public telecommunications services shall facilitate and ensure statutory access to information about customers and telecommunications traffic. For that purpose, these providers shall give “*supervisory personnel unimpeded access, as well as procuring the information and documentation needed to carry out supervision*” (section 5-1).

The legislation foresees for different aspects that the provider needs to make information available on a regular basis to the public. This is the case for e.g. quality of service parameters, offers of access to public telecommunications networks, terms for offers of transmission capacity and standard agreements.

Finally the individual licences of Telenor and mobile operators (GSM and DCS) include specific reporting obligations.

Sweden

Section 31 of the Telecommunications Act entitles the NRA to request for the purpose of supervision

1. to receive upon request the information and documents needed
2. to obtain access to such areas and premises and other spaces, with the exception of dwellings, where activities subject to the Act are carried on.

Section 32 specifies that in exercising supervision the supervisory authority shall devote special attention to the concluding of agreements on interconnection, the granting of access to network capacity and the use of number resources according to the numbering plan.

In practice, licence holders and more important notified operators in Sweden are visited yearly by the NRA for an interview. Economic information concerning prices and general conditions is invited by letter. Regular checks (once or twice a year) are carried out to verify quality of service parameters. Tests are carried out to verify efficient use of frequencies. The licence class and the fees to be paid depend on the position on the market and the turnover. This information is requested from all operators once a year.

Czech Republic

Service/network providers and public broadcasters including internet providers are obliged according to the general legislation on statistics, to complete statistical sheets in a proportional way according to their importance. The sheets are sent twice a year by the CTO to be completed by fixed deadlines.

All providers who have been given individual licences and have SMP are obliged to submit *audited annual reports* and *balance sheets* and *profit and loss statements*

Other important information required by the CTO e.g from the incumbent PTO are:

- plan of measurement and observing figures of development and quality (the interval is 90 days after the licence approval)
- plans of development of network and services
- billing service
- time plan of service introduction
- analysis of complaints solution
- general conditions of provided services
- internal rules of subscribers' data protection
- plans for operation in emergency cases
- cost accounting system including method

6. SURVEY OF RESULTS OF CONSULTATION OF INDUSTRY

From the description in sections 2 to 5, a wide range of approaches became evident. It is clear that liberalisation is not synonymous with deregulation nor with harmonisation. It is therefore of interest to evaluate the effect on competition of the different approaches taken by NRAs and to collect first-hand information on the opinions of operators and service providers as to their experience of distinct licensing regimes.

In March 1999, ETO consulted some 180 providers of telecommunications networks and services operating in the different EU countries in order to obtain an assessment of the different national authorisation regimes. Annexe 3 includes a copy of the document sent out. Questions relevant to the current study concern:

- clarity about what information needs to be provided
- quantity and nature of the information requested
- the flexibility of the administration
- burdens on market access and reasons for delay
- market parties subject to surveillance
- methods used for market surveillance
- effective follow-up given to the results of an investigation.

Part of the questionnaire related to cross-border interconnection. This is of relevance to another ETO study: "Categories of authorisations". A survey of the opinions given on cross border interconnection is included in that study.

As was mentioned in the accompanying letter, all the information provided has been treated in a confidential way by ETO. The assessment in this section is therefore necessarily of an abstract and anonymous character.

Section 6.1 will comment on the significance of the results of the consultation.

The following sections, 6.2 and 6.3, will be dedicated respectively to the assessment of operators' experience with conditions for market access and their opinions about how NRAs conduct market surveillance.

6.1 General overview of responses to the consultation

Of the ca. 180 questionnaires sent out, 12 elicited a reply. The following tables 13 and 14 provide more detail on the profile of the respondents.

It appears that a majority of the companies which replied were active in more than one domain and some in more than one country. Some larger companies compiled experiences from their different associates or allies. In total the respondents represent the full range of telecommunications activities and operations throughout the EU countries. The result of the consultation can therefore be considered as representative for the licensing of Public Voice Telephony and Public Infrastructure. Concerning the assignment of frequencies and numbers, however, the total information collected is not sufficient to draw general conclusions for each individual country nor to allow for a cross-country comparison. For this reason, the assessment of the results will focus on the licensing of Public Voice Telephony and Infrastructure. Where relevant, observations concerning the right to use resources will be added.

Table 13 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 14 Activity of respondents to the ETO consultation

Telecom activity	Number of operators / service providers
Mobile sector	
GSM/DCS1800	4
paging network/service	2
mobile data	2
private mob. radio/private business radio	1
airtime-reseller	
Satellite sector	
V-SAT	3
SNG	1
S-PCS	
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

6.2 Information requested by administrations for market access

The questionnaire contained four questions related to the conditions for market access. These questions aimed at an assessment of

- how difficult it is for applicants to find out exactly what information to give the NRA
- the amount and the complexity of the information and documentation requested
- the attitude of the administration when treating the application
- the nature of burden which applying for a licence represents

In the following sections 6.2.1 to 6.2.4 the results of each of the questions will be represented and analysed.

6.2.1 Clarity about what information needs to be provided

The following question was asked: “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?”

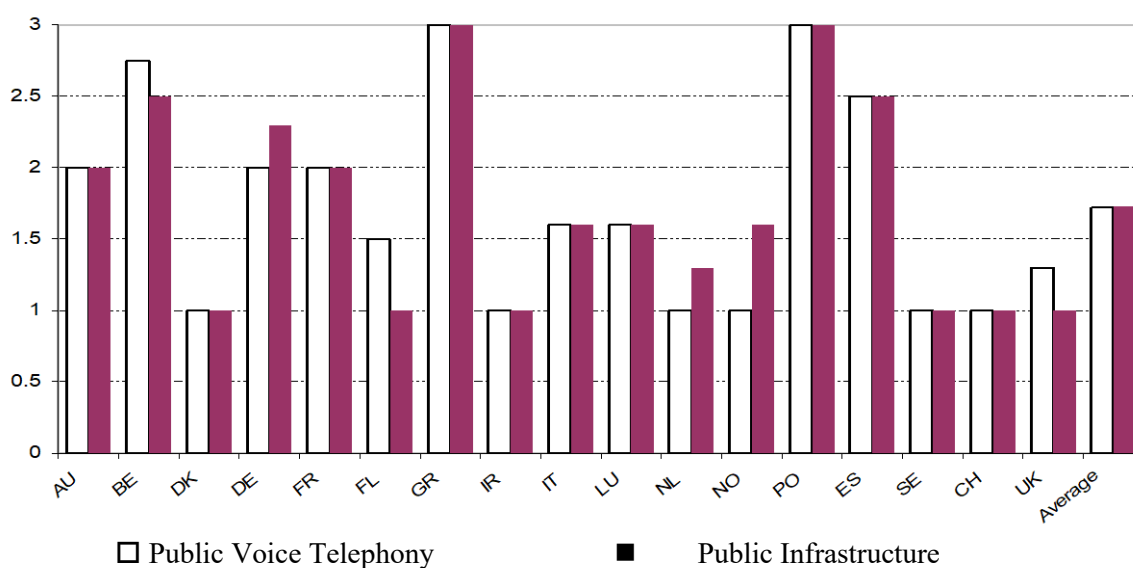
Respondents were asked to use the following scale:

1. The requirements for entering the market are clear.
2. Entering the market is possible but requires research and is time consuming.
3. Entering the market is extremely difficult

They were also requested to distinguish between the Public Voice, Public Infrastructure, Mobile Communications, frequencies and numbers.

The following chart reviews the results for the licensing of Public Voice Telephony (V) and Infrastructure (I).

Chart 1 Assessment of the clarity of information requirements for Public Voice Telephony and Infrastructure licences.



It became apparent from section 2.4 that the information for Public Voice Telephony and for Public Infrastructure is not significantly different. It is therefore not surprising that in the majority of the countries, the transparency of the requirements to obtain access to the market for Public Voice Telephony Services is judged equal to those for Public infrastructure. In Germany, the Netherlands and Norway, requirements for Public Infrastructure are perceived as slightly less clear than those for Public Voice Telephony Services. In Belgium and UK the reverse is true.

Countries where there is full transparency include Denmark, Finland, Ireland, Netherlands, Norway, Sweden, Switzerland and UK

It was judged that in Austria, Germany, France, Italy and Luxembourg accessing the market requires research and is hence time consuming.

Finding out how to enter the market in Belgium, Greece, Portugal and Spain appears to be extremely difficult. Portugal and Greece have not fully liberalised

The following table relates the results of the questionnaire to the licensing regime.

Table 15 Relation licensing regime – transparency of information to be provided

	general authorisation without notification	general authorisation with notification	individual licence	not fully liberalised
fully transparent	DK	FL, NL, SE, NO	IE, UK, CH	
research required			AU, DE, FR, IT, LU	
not transparent			BE, ES	GR, PO

It appears that light licensing regimes (free regime or general authorisation with or without notification) are judged as more transparent. This applies in particular to the Nordic countries.

Applying for an individual licence obviously requires more investigation. The appraisal for Austria, Germany, France, Italy and Luxembourg is in line with this. It is, however, striking that three countries (UK, Switzerland and Ireland) are judged to apply an individual licensing regime in a fully transparent way.

Finally, the exact information requested for Belgium, Spain, Greece and Portugal is perceived as difficult to access.

6.2.2 Quantity and nature of information requested.

The following question was asked: *“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?”*

Respondents were requested to use the following scale :

- L** A lot of information/documentation is requested
- C** What is requested is of a **complex nature** (e.g. business plans, technical plans)
- L+C.** A lot of information/documentation of a **complex nature** is required.
- OK** The amount of information/documentation required is **reasonable** and **not of a complex nature**.

The table below reviews the results for the licensing of Public Voice Telephony and Infrastructure

Table 16 Assessment of the quality and nature of information requirements for Public Voice Telephony and Infrastructure licences.

	A U	B E	D K	D E	F R	FL	G R	IR	IT	L U	N L	N O	P O	ES	SE	C H	U K
R	X		X	X	X	X	X	X		X	X	X			X		X
C																	
M									X					X		X	X
M/ C		X		X	X					X			X	X			

In most countries, applicants find the information requested reasonable both in terms of complexity and quantity.

Italy and Switzerland are thought to ask for too much information while the regimes in Belgium, Greece and Portugal are found too complex and too heavy.

For Germany, France, Luxembourg, Spain and UK the assessment varied. For Spain, respondents agreed to the fact that too much information is requested. One considered it also too complex.

In relation to Germany, France and Luxembourg the assessments covered a full range: "reasonable" as well as "too much" and "too complex". In UK the licensing of Infrastructure was judged to require too much information by one respondent while for Voice there was unanimity on "reasonable". There were unfortunately not enough replies to form a basis for analysis of these views. The difference did not relate clearly to the nationality, size or activity of the companies.

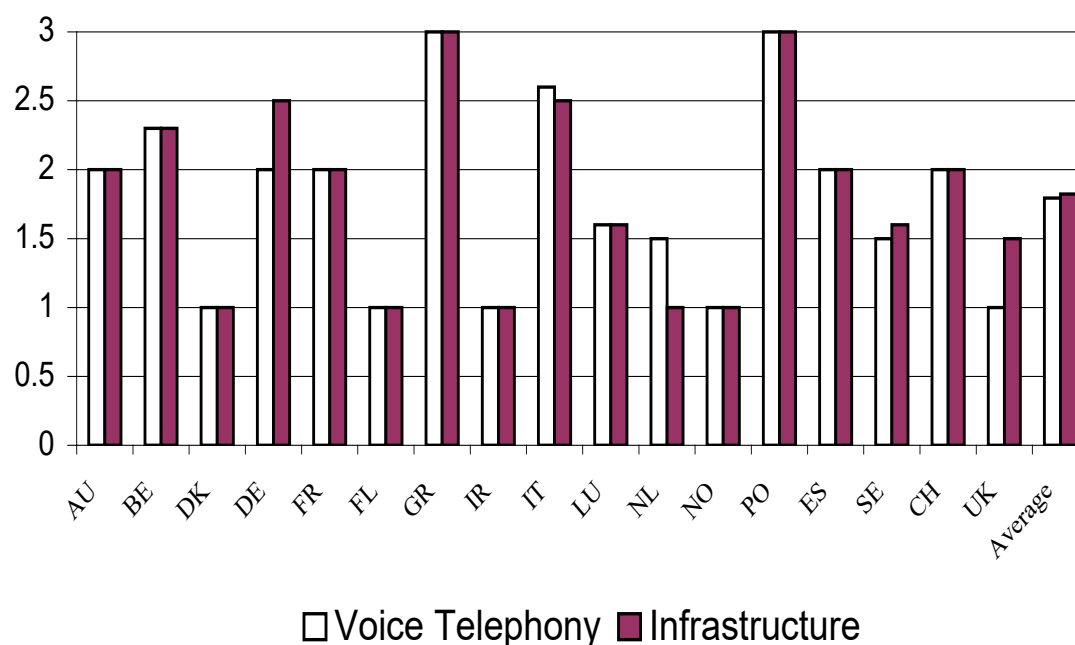
6.2.3 Flexibility of the administration

In order to assess the attitude of the national administration when treating applications, the following scale from 1 to 3 was proposed:

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. *Applicants are treated in a neutral, bureaucratic way*
3. *Applicants are treated in a rigid way and feel that the interpretation of the rules unnecessarily delayed the granting of licences or assignment of frequencies/numbers.*

The table below reviews the results concerning Public Voice Telephony and Infrastructure. There was not enough information to make a similar overview for numbers and frequencies.

Chart 2 Assessment of flexibility of administrations.



The attitude of the administrations of Denmark, Finland, Ireland, The Netherlands, Norway, Sweden and UK was assessed as flexible. Applicants felt treated in a neutral way in Austria, France, Luxembourg, Spain and Switzerland. Negative influence on market entry was felt in Belgium, Germany, Greece, Italy and Portugal.

The following table relates the assessment of the attitude of the administration to the licensing regime.

Table 17 Relation licensing regime – flexibility of the administration

	general authorisation without notification	general authorisation with notification	individual licence	not fully liberalised
flexible	DK	FL, NL (infr), NO	IE, UK (voice)	
neutral		NL (voice), SE	AU, DE (voice), CH, ES, FR, LU, UK (Inf)	
rigid			BE, DE (Infr), IT	GR, PO

Lighter licensing regimes are associated with commitment to an easily accessible market. Most applicants for individual licences are treated in a neutral way but in five countries bureaucracy influences the market negatively.

The following section will analyse further burdens on market access.

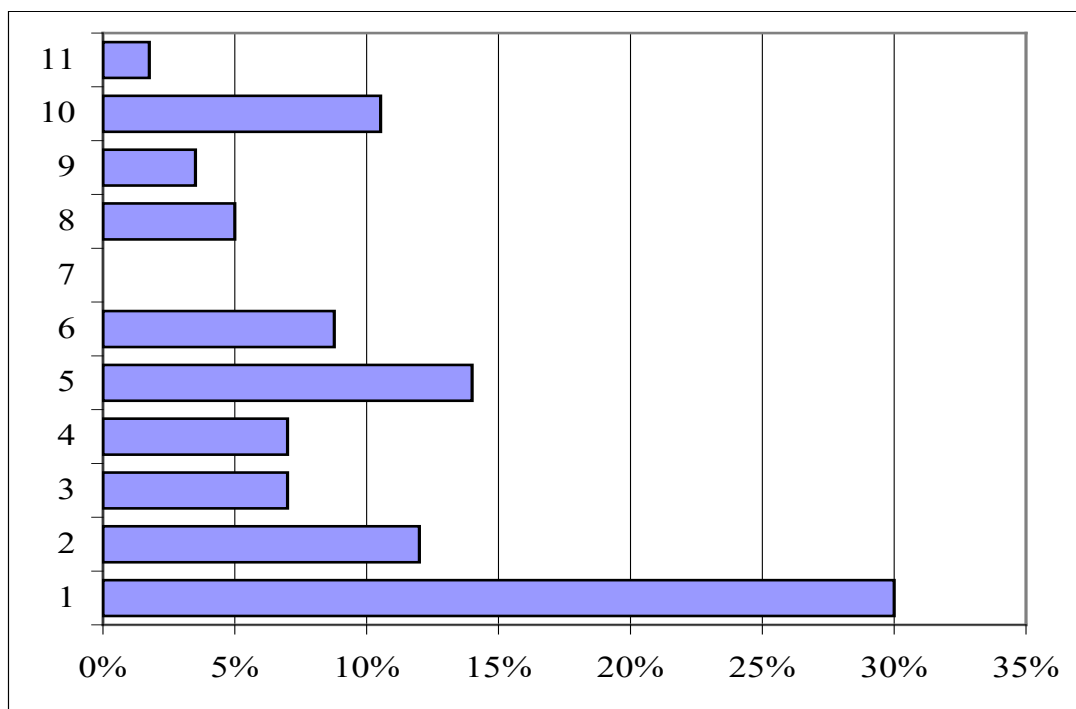
6.2.4 Information for verification as a burden on market access.

The questionnaire listed the following potential reasons for delay or burdens on market access related to “information for verification”.

- 1 *legal framework not completed*
- 2 *your case was the first of its sort*
- 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 *additional formalities and documents*
- 6 *approval or signature by political entity*
- 7 *language problems*
- 8 *no frequencies or numbers available*
- 9 *lengthy frequency co-ordination procedure*
- 10 *excessive fees*
- 11 *other*

Operators were able, if they wished, to cite more than one reason causing difficult market access. Taking into account all countries, services and resources, in total 57 difficulties were pointed out, spread over the eleven categories as shown below.

chart 3 : Reasons for delay in market access related to information for verification



The chart shows that the most frequently invoked cause for delay is “incomplete legal framework”. It can be assumed that this will disappear over time. It is, however, clear that there is a time gap between the theoretical date of liberalisation of services by European directives and the practical implementation by Member States.

Second in frequency of occurrence is “formalities and additional documents”. As such, e.g. stamps and certified copies seem only a light burden. These requirements, however, are often not mentioned in the telecommunications legislation and applicants therefore find out about them only at the point in time when they are convinced that they have presented a complete file. Furthermore, it can be difficult to obtain such additional documents from national administrations, other than the NRA, especially for foreign companies without a local presence. Therefore, the accumulation of what appear at first sight to be minor administrative formalities can result in annoying and time consuming requirements which in the end delay market access.

Lack of experience of the administration and excessive fees were found nearly equally burdensome (12 and 11% of the cases).

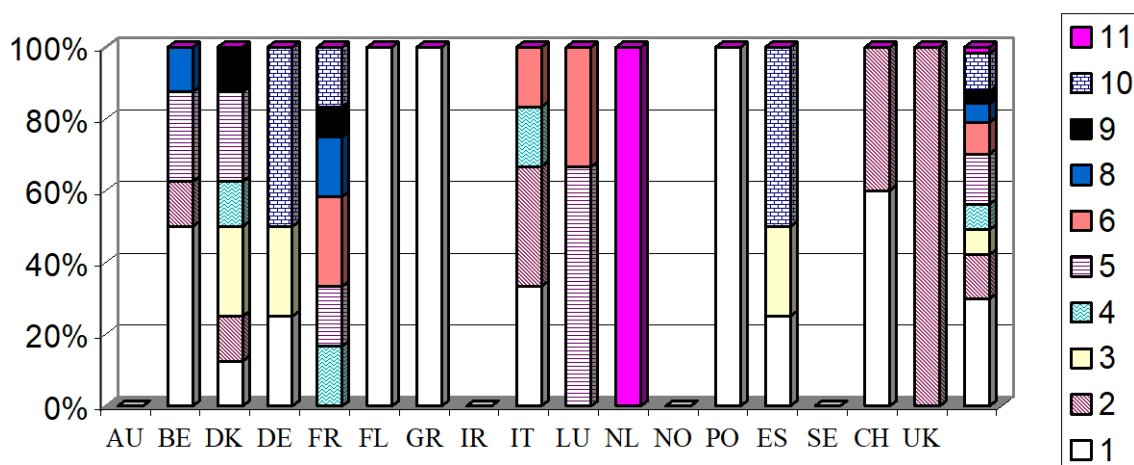
In 9% of the cases, the reason was found to be the need for approval or signature by a political entity. The formal head of quite a large number of NRAs is still the Minister responsible for telecommunications. In most European countries the State is moreover still shareholder of the incumbent operator. Where the same Minister is head of the NRA and responsible for controlling the state’s stake in the incumbent operator, delays in granting authorisations to newcomers can give rise to concern regarding the necessary independence of the NRA when issuing licences.

The attitude of the administration was also experienced as a considerable negative influence; 7% of the cases related to lack of transparency and an equal amount to late responses or failure to respond to questions.

Problems related to resources (frequencies and numbers) were mentioned in a minority of the cases.

It is also of interest to evaluate how different types of burdens were encountered in different countries. The following chart reviews how the difficulties appearing in each country relate to the eleven different categories. It must be observed that the number of replies received varies a great deal per country. It is therefore not possible to draw conclusions as to whether one or another market is relatively more accessible. It is only possible to provide some indications as to the different kinds of problems signalled in the responses.

Chart 4 Burdens involved in access to the market encountered in different countries



In Austria, Ireland and Sweden the responding operators met no barriers to entry. The Netherlands can be added to this series because the “other barrier” described by one operator does not relate directly to information for verification. All these countries were assessed as open and flexible in the previous questions concerning the transparency of the regime, the complexity of the information requested and the flexibility of the administration.

In Belgium, Denmark, Germany, France, Italy and Spain, however, several different obstacles occurred. Except for Denmark, these are countries where the previous answers suggested an administrative approach and a heavier procedure. For Denmark it must be made clear that all barriers encountered relate to the use of frequencies and/or the licensing of the mobile sector. For Voice and Infrastructure, the class licence regime obviously caused no delays in entry to the market.

It is striking that incomplete legal frameworks and inexperience among the regulators are rather general problems. Excessive fees appear in Germany, France and Spain only. In a study ETO is carrying out on this specific issue, it became clear that indeed the fees in those countries are significantly higher than is the case in others. It is an important finding that operators consider the level of fees to be a barrier to entry.

Finally, delays are experienced in France, Italy and Luxembourg due to the requirement for approval or signature of the licence by a political entity. In all three cases there is a close relation between the NRA and the Minister on the one hand and the Minister and the incumbent operator on the other hand.

6.3 Information requested for market surveillance

The questionnaire included three open questions related to information requested for market surveillance. These questions aimed at collecting information concerning experience with and opinions about:

- the differentiation made between market parties subject to surveillance
- methods used for surveillance
- effective follow-up of results of an investigation

Only about half of the respondents filled in this section of the questionnaire and the comments were in the majority of the cases not extensive. Consequently, no general conclusions can be drawn. However, some tendencies appeared clearly.

6.3.1 Market parties subject to surveillance

It could be concluded from the country-related information described in section 5.1 that the information requested “a posteriori” varies considerably across the market parties. In general public operators and in particular operators having significant market power are requested to provide far more information and are subject to more regular scrutiny.

As can be expected, the new entrants find this differentiation proportionate and justifiable; traditional operators advocate a non-discriminatory approach, unrelated to market position.

Some individual comments are worth noting :

- frustration was expressed regarding the fact that providers which are incumbents in their home country are subject to the same conditions for verification as a small new entrant not having SMP in any country
- mobile operators found the verification fair because it is based on the commitments taken on when bidding for the licence
- it was demanded by an international operator that the standards for ensuring non-discrimination, cross-subsidisation and fair treatment should be even across national boundaries

6.3.2 Methods used for surveillance

From the country analysis in section 5.3 it appeared that 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.

A recurring comment in the consultation with industry was that the regulators are perceived as inexperienced, having insufficient skilled personnel and lacking both the necessary resources and an appropriate degree of commitment to a competitive market in order to perform objective verification and surveillance of important licensing conditions.

In particular the verification of the incumbent’s tariffs, accounting separation and cost related prices identified as problematic. An incumbent found the verification procedure burdensome; newcomers argued for imposing more continuous and more visible control of these issues but only on the incumbent. An international operator argued that excessive reporting duties and obligations to publish prices for newcomers add unnecessary costs and reduced their ability to differentiate offers. In practice this would be to the advantage of the SMP operator.

The following interesting individual comments were also made:

- in countries with individual licences or registration it was felt that the operator put all effort into verification before market entry so that no time or resources were left for *a posteriori* verification
- one operator expressed a preference for continuous follow-up of commercial practices of the incumbent rather than random checks
- one incumbent found surveillance burdensome, in particular “in the economical area”
- one operator was of the opinion that, leaving aside the incumbent operator, surveillance on the basis of general competition law should be the rule.

6.3.3 Effective follow-up of the investigation

Companies were asked how they perceived the effect of verification. Does the NRA have the 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?

Confirming the results of the previous question, in general, companies did not find NRA’s to be diligent or skilled in enforcing licensing conditions. The procedures for investigation are found non-transparent and this results in a feeling of uncertainty about non-discriminatory treatment of the different market parties. Furthermore, the legislation in some cases does not allow for rapid action to stop or remedy infringement of licensing conditions.

More than one operator urged the development of cost models against which to assess the incumbent’s retail prices or tailor-made offers and in-depth investigation of the commercial practices of the incumbent.

Several new operators showed low enthusiasm or even reluctance to make public the results of the verification procedure, except for the information related to the incumbent. Reasons given were:

- disclosure of information about pricing policies applied by newcomers is detrimental for them and gives an advantage to the SMP operator
- the development of the market is such that access to the local loop constitutes a bottleneck controlled by the historic operator; therefore newcomers should not be burdened and all attention should be directed towards the SMP operator

Particular comments were the following:

- for one country it was observed that the power of the NRA was undermined by failure of separation between the operational and regulatory tasks of the Minister
- it was reported that the NRA of another country managed effective proportionality between the reporting and disclosure requirements placed on the various market players
- many licensing obligations are perceived as bureaucratic and serving little public purpose, or as being unenforceable in practice
- one operator expressed a strong concern about the development of comparable quality of service measures; in particular those mentioned in the Voice Telephony Directive are believed to be costly to implement while providing little benefit to the user

- the practice for verification of market behaviour is developing in some countries on an *ad hoc* basis and publication of guidelines on what might be anti-competitive behaviour would improve the level of confidence for all market parties

7. ANALYSIS

The previous sections 2 to 4 describe in a detailed way what precise information administrations request in support of an application for the right to provide value added services (section 2.4), Public Voice Telephony and Infrastructure (section 2.4), mobile services (section 2.5) as well as the right to use frequencies (section 3) and numbers (section 4). Details of information requested with the objective of market surveillance form the subject of section 5.

It must be observed that ETO has already formulated recommendations on the subject of information for verification for various kinds of services. This refers in particular to previous studies related to the harmonisation of licensing conditions for Bearer Data Services⁸⁶, Other liberalised services⁸⁷ and Mobile Communications⁸⁸. The results of these studies which have implications on the provision of information will be taken into account when drafting the proposals for the current study.

The analysis in this section 7 will focus mainly on the information requested regarding Public Voice Telephony and Infrastructure.

It is of interest to analyse the detailed information further in order to identify the general tendencies in EU countries and specific characteristics found in particular countries. This analysis will be based on the categories of licensing conditions mentioned in the Annex of the Licensing Directive. This approach allows for evaluation of the coherence between different countries on the one hand and identification of licensing conditions which were formulated broadly in the Annex and have resulted in strongly diverging interpretations. The results of this comparison are of interest for the process of formulating proposals aiming at easing the provision of trans-European services and networks. This kind of operation can be seriously burdened just by the effects of differences between national requirements. Divergence as such results in duplication of work, time consuming research to collect information as well as a multitude of procedures to be followed, documents to be provided and instances to be contacted.

Besides identifying models within national information requirements, it is worthwhile to pinpoint concrete practices having a negative influence on competition in the telecommunications market. This takes into account the wish of the Commission to evaluate regarding the practice of a priori request for information "*the extent to which this practice is likely to affect the ability of an operator or service provider to obtain a licence or an authorisation*". The results of the consultation of industry, described in section 6, revealed some clear examples. Conclusions on this will be drawn in section 7.2.

The results of both parts of the analysis (trends and specific characteristics together with concrete practices mentioned by industry) will be used to define the scope for proposals. These should aim at affecting positively the transparency of the licensing framework, the coherence between the approaches of different countries, costs and delays for entering the market and the promotion of competition in general.

⁸⁶ Work Order nr. 48 265 ETO report on "Fixed Packet-or Circuit Switched Data Services offered to the Public."

⁸⁷ Work Order nr. 48 266 ETO report on "Fixed Telecommunications Services other than Voice Telephony, Telex and Bearer Data Services"

⁸⁸ Work Order nr. 48 373 ETO report on "Licensing Conditions for Mobile Communications"

7.1 Information requested before market entry

As was set out in the introduction, an analysis will be presented in the following table of how the information requested from operators seeking licences to provide Public Voice Telephony and/or Public infrastructure relate to the conditions contained in the Annex of the Licensing Directive. The aim is first to identify common trends and more importantly to discover those conditions of the Licensing Directive, which have resulted in strongly diverging interpretations in the different countries.

The table is based on the information collected in section 2.4. The first column refers to the condition as mentioned in the Annex of the Licensing Directive. The second column refers to the information request as found in the legislation or application form for Public Voice Telephony and/or Infrastructure. The last column quantifies in how many countries the requirement exists. A total of twelve countries is considered, including Denmark, which has in fact no requirements prior to market entry. In Greece and Portugal these services are not liberalised. Austria, Finland and Spain did not make any information available.

On lines similar to those used in previous tables, text in italics refers to pieces of documentation which have to be added (certified copies, stamps...) while normal text indicates the kind of information to be filled out.

Table 18 Relation between Licensing conditions and the information requested prior to market entry for Public Voice Telephony and Infrastructure.

LICENSING DIRECTIVE	NATIONAL CONDITIONS	NR (on 14)	COMMENT
<i>ALL AUTHORISATIONS:</i>			
essential requirements <i>(see also environmental concerns, town and country planning and access to emergency services-</i>	timetable for submission of security concept timetable for implementation of legal intercept organisation plan regarding data protection contingency plans network resilience	1 2 1 2 1	Legitimate reason for divergence in licensing conditions; information should, however, be required a posteriori not before market entry
information reasonably required for the verification of compliance with applicable conditions and for statistical purposes	Identification of the applicant name, address, tel number billing address person to contact head office address of operation in country of origin legal form of the company details of the directors proposed managerial structure partnerships and alliances in telecom partners in development and supply other licences in other countries licences held penalties under national telecom Act activities under special/exclusive rights <i>certificate of nationality</i> <i>business registration</i> registration number power of attorney	13 3 10 1 2 9 2 1 5 1 3 2 1 1 1 8 1 1	Identification mutual recognition of this information should be possible

	<p>Information concerning the service</p> <p>general, functional description</p> <p>public character of the service</p> <p>description of facilities offered</p> <p>leased lines offered</p> <p>wholesale terms for providers without interconnected networks</p> <p>standards applied</p> <p>summary of marketing/commercial strategy</p> <p><i>marketing plan</i></p> <p>economic assumptions of the project</p> <p><i>financial plan/investment plan</i></p> <p><i>business plan (14 different parameters in all)</i></p> <p>forecast regarding the market</p> <p>planned date for start</p> <p>timing for execution of activity</p> <p>commercial development of future market</p> <p>organigram</p> <p>estimate of employment created</p> <p>quality of the service</p> <p>plan of recruitment</p> <p>tariffs (5 different parameters in all)</p> <p><i>general conditions for consumers</i></p> <p><i>code of practice in relation to consumers</i></p> <p>strategy for distribution (5 different parameters)</p> <p><i>type contract with service providers</i></p> <p>coverage</p> <p>schedule for roll-out</p> <p>geographical availability</p> <p><i>diagram of geographical extent</i></p> <p>coverage in terms of population</p> <p>turnover for all operations</p>	<p>11</p> <p>1</p> <p>3</p> <p>2</p> <p>1</p> <p>2</p> <p></p> <p>2</p> <p>3</p> <p>4</p> <p>3</p> <p>1</p> <p>4</p> <p>2</p> <p>1</p> <p>2</p> <p>1</p> <p>6</p> <p>1</p> <p>3</p> <p>2</p> <p>1</p> <p>2</p> <p>2</p> <p>1</p> <p>2</p> <p>9</p> <p>3</p> <p>1</p> <p>1</p>	<p>Information concerning the service</p> <p>Technical information</p> <p>This kind of information is interrelated with the national categories of authorisations. It has as a primary goal to inform the NRA of the nature of the service and to make it possibly to verify the service is placed in the correct category.</p> <p>It is therefore of interest to examine further whether there is a correlation between the segmentation into different kinds of national categories and the amount of information requested. Segmentation in a large number of national categories might entail the need for a substantial amount of information which is not needed in countries with a low degree of segmentation. (see section 7.1.3)</p> <p>Furthermore, some information required in particular countries seems excessive for the purpose of granting market entry (e.g employment created) and complex (e.g business plans). Although it is of interest for NRAs to dispose of information regarding the evolution of the market and technologies, this can be pursued by other means than the licensing of market access.</p> <p>There is therefore scope for general recommendations regarding the justifiable objectives for the collection of information by NRAs and the timing or methodology to do so.</p>
--	--	---	--

LICENSING DIRECTIVE	NATIONAL CONDITIONS	NR (on 14)	COMMENT
	Technical description		
	network to be used, transmission, switching envisaged	6	
	third party network to be used	1	
	network bearers	3	
	supplier of equipment	2	
	compression ratios	1	
	method of selection for supplier	1	
	accessibility of the service	1	
	<i>map with network components per region, department or town at different stages</i>	2	
	<i>diagram showing connection of subscribers</i>	1	
	dimensioning of the network	2	
	topology-architecture of the network	1	
	foreseen interconnection	6	
	location	1	
	other operators involved	1	
	protocols	3	
	description of technical interfaces	5	
	measures to realise minimum interoperability	1	
	human resources	1	
	<i>copy of draft interconnection agreements</i>	2	
	composition of the network	5	
	plan of installation	1	
	technology used in different parts of the network + growth	1	
	alternative access needed	1	
	spare capacity	1	
	equipment to be used/specifications	5	
	capacity of leased lines	1	
	source/availability of the system	1	
	<i>diagram with conveyance of messages</i>	1	
	maintenance and technical management	1	

LICENSING DIRECTIVE	NATIONAL CONDITIONS	NR (on 14)	COMMENT
prevention of anti-competitive behaviour, including tariffs	measures to ensure publication of conditions and prices structural separation/avoidance cross subsidisation evidence that undertaking has no SMP arrangements to avoid cross-subsidisation measures for transparent publication of conditions and prices	1 1 1 1	legitimate reason for divergence in licensing conditions and requesting information before market entry
effective and efficient use of the numbering capacity.	numbers to be used integration in existing numbering plans <i>copy of application for numbers</i>	5 1 1	legitimate reason for divergence in licensing conditions and requesting information before market entry
protection of users and subscribers:	tariffs (5 different parameters in all) assistance to clients	3 1	legitimate reason for divergence in licensing conditions. Information can, however, be requesting information outside the context of market entry
-standard subscriber contract	<i>general conditions for consumers</i> <i>code of practice in relation to consumers</i> customer care policy	3 1 1	
-detailed and accurate billing	billing	1	
-procedure for the settlement of disputes		1	
-info on access conditions			
financial contribution to universal service			
customer database for directory services	directory inquiry services	3	legitimate reason for divergence in licensing conditions. Information can, however, be requesting information outside the context of market entry
emergency services	access to public emergency services	4	
arrangements for disabled people	apparatus suitable for disabled people	1	
interconnection and interoperability	terminal equipment that can be used subscriber connection, access arrangements cost accounting system allowing unbundled intercon charges	1 1 1	
<i>INDIVIDUAL LICENCES:</i>			

LICENSING DIRECTIVE	NATIONAL CONDITIONS	NR (on 14)	COMMENT
allocation of numbering rights	<i>(see effective and efficient use of numbers)</i>		
effective use and efficient management of radio frequencies	<i>copy of radio licences held</i> frequencies to be used transmission capacity extent to which radio forms part of the plans position reached with regulator responsible for radio request for frequency assignment copy of radio licence held	1 6 1 3 1 1 1	legitimate reason for divergence in licensing conditions and requesting information before market entry
environmental and specific town and country planning	use of public domain well argued case to obtain rights justification for environmental disruption external construction practices liaison with communes environmental plan <i>specific declaration</i> forecast	1 1 2 1 1 1 1 1	legitimate reason for divergence in licensing conditions and requesting information before market entry
maximum duration			
provision of universal service obligations			
significant market power	turnover in order to determine SMP Code of practice to ensure fair marketing practices	1 1	legitimate reason for divergence in licensing conditions and requesting information before market entry
ownership	composition of capital shareholders/ownership percentage ownership structure/participation interests control and decision making proof of having a national subsidiary	4 7 7 1 1	legitimate reason for divergence in licensing conditions and requesting information before market entry

LICENSING DIRECTIVE	NATIONAL CONDITIONS	NR (on 14)	COMMENT
quality, availability and permanence of a service or network, including financial, managerial and technical competence of the applicant	Qualification of the applicant		In a competitive market this is not longer a reason for imposing licensing conditions which are to be checked before market entry
	knowledge, experience, skills	5	
	knowledge development nat & EU market	7	
	perspective on innovation	1	
	<i>experience of competing on liberalised market</i>	2	
	<i>previous experience with similar systems</i>	4	
	minimum investment or deployment	1	
	resumé of careers of key staff	1	
	financial reliability	1	
	financial solvability	4	
	<i>financial guarantees</i>	1	
	<i>evidence of reliability</i>	1	
	<i>proof of paid up capital</i>	2	
	<i>balance sheets for last two years</i>	1	
technical ability	5		
participation in research and training	1		
participation in standardisation	1		
plan of investment in R&D	1		
provision of leased lines			
<i>OTHERS</i>			
fees	proof that fees have been paid	2	
	possibility to ask for a provision	1	
state security	measures in the interest of state security	1	
social requirements	measures to respect working conditions	1	

LICENSING DIRECTIVE	NATIONAL CONDITIONS	NR (on 14)	COMMENT
various documents	<i>anti-mafia certificate</i>	1	This kind of requirements are in some cases the result of horizontal legislation (e.g anti-mafia certificate); in other cases there seems to be an overlap with general legislation (e.g commitment to pay fees)
	<i>commitment to pay further fees</i>	1	
	<i>document stating acceptance or refusal for recourse to the chamber for interconnection</i>	1	
	<i>certificate proving that the company's administrators have not been sentenced to imprisonment for a crime of intention for more than 6 months</i>	1	It appeared from the consultation with the industry that the provision of additional documents is perceived as burdensome.
	<i>indicate if a licence has ever been recalled or restrictions imposed due to non-respect of the licence, conviction on basis of telecom competition or labour law or ongoing process</i>	1	There appears therefore to be a scope for a recommendation to lighten the procedure for market access in this respect.
	<i>commitment to carry on capital investment</i>	1	
	<i>assurance of compatibility to use already installed alternative infrastructure</i>	1	
	<i>self declaration to respect the legislation/licence</i>	3	
	<i>copy of reference interconnection offer</i>	1	
	<i>last adopted annual report</i>	1	
	<i>certificate of compliance with social security and tax obligations</i>	1	
	<i>declaration to respect national jurisdiction</i>	1	
	<i>declaration of no prohibition to sign a contract with public administration</i>	1	

7.1.1 General observation

A first finding is that virtually every licensing condition which can be imposed by general or individual licences results somehow in an obligation to provide information before market access. The spirit of the licensing Directive was, however, to be a maximum list of conditions to be imposed on operators or service providers and it was not intended as a guide including topics for which *a-priori* verification was deemed recommendable. There is therefore a case for recommending overall lighter licensing regimes.

7.1.2 Common practices

Listing the information requests found in at least 3 countries gives the following result:

Information reasonably required for the verification of compliance with applicable conditions:

- name, address, telephone number of the applicant
- person to contact
- legal form of the company
- partnerships and alliances in telecommunications
- other licences in other countries
- business registration*

- general, functional description of the service
- planned date for starting operation
- quality of the service
- tariffs
- geographical availability
- foreseen interconnection
- protocols
- description of technical interfaces
- composition of the network
- specifications of the network equipment to be used

emergency service

- realisation of access to emergency services

ownership

- shareholder/ownership percentage
- ownership structure/participation interests

quality of the service

- knowledge, experience, skills
- previous experience with similar systems*
- financial guarantees*
- technical ability

The number of information requirements found in at least three countries is only a minor portion of the total amount. This demonstrates that the categories of licensing conditions mentioned in the Annex of the Licensing Directive are formulated in a broad sense and have been given a largely divergent interpretation by different countries. This divergence can be explained by different reasons.

First of all, countries emphasise different licensing conditions. Environmental concerns, consumer protection or data-protection, safeguarding network security or provisions for users with special needs are more of an issue in certain countries than in others as a consequence of over-all policy objectives. Horizontal national regulation can be a second reason. Requirements concerning legal interception or requests for certified copies or documents are good examples of this. A certain amount of information is also needed to ascertain that market players are given the appropriate rights and obligations and are put into a correct licensing category. This segmentation into categories of authorisations is done in a divergent way. In some countries it is based on a layer model, distinguishing between services and networks, others make distinctions on the basis of the position on the market and still others consider the use of resources. The kind of information requested to identify the correct licensing category results therefore in a heterogeneous list of request for information. The market situation can also cause differences in licensing conditions to be verified a priori. In countries where alternative infrastructure such as CATV networks are to a major extent owned by the historical telecommunications operator, specific safeguard clauses aiming at avoiding cross-subsidisation can be imposed and verified before market entry.

There appears to be a multitude of legitimate reasons for countries to apply specific licensing practices which at their turn reflect in heterogeneity of the information requested before market entry. The mere fact that a specific kind of information is only requested in one country is not a sufficient reason to consider it as an unreasonable request. The lack of coherence between countries has therefore as a consequence that it is not feasible to draw a maximum list of reasonable required information to be requested before market entry which is more concise than the Annex of the Licensing Directive.

It is, however, undoubted that there is a case for reducing the negative effects of the lack of coherence between national practices in terms of information requested before market entry. As a concise maximum list appears not feasible, the most pragmatic way forward is to make proposals with the aim to

- reduce the divergence in the fields where they are most apparent
- remedy to each of the problems the telecommunications sector is frequently facing regarding information for verification
- give input for an alternative approach in view of the revision of the Licensing Directive.

It will be examined in the following section which licensing conditions received a strongly divergent interpretation and what the reasons for this might be.

7.1.3 Licensing conditions which were subject to strongly divergent interpretations

From the analysis in the previous table it appears that the broadest interpretation was given to “information reasonably required for the verification of compliance with applicable conditions and for statistical purposes” and “competence of the applicant”. Furthermore, it is demonstrated that a considerable amount of additional documents are requested in a number of countries. In order to recommend a more convergent approach, for each of these three conditions the reasons underlying the differences will now be examined.

Information reasonably required for the verification of compliance with applicable conditions

It must be observed that information requested for statistical purposes is not covered by the scope of this study and this aspect is therefore given no further consideration. The heading “information reasonably required for the verification of compliance with applicable conditions” covers requests concerning

- the identification of the applicant
- information on the service
- the technical description of the service.

This information has the primarily purpose of informing the NRA about the identity of the applicant and the nature of the service which will be provided. The service description and the technical description should allow the NRA to verify that the service is placed in the correct licensing category and as a consequence is allocated a correct set of rights and obligations, including the relevant fee as well as appropriate interconnection rights and obligations.

It is likely that the countries with a high number of distinct licensing categories, substantial differentiation between the fees or rights and obligations of different market players will request more extensive and substantial information concerning the nature of the activity and the technical realisation of it. The following table confirms this hypothesis.

In another ETO study⁸⁹ Belgium, France, Germany, Italy, Luxembourg, Spain and UK were identified as countries with a high degree of segmentation between licences. In these countries (except from Germany), a high level of detail is required compared to countries such as Denmark, Norway, Sweden and Netherlands with a low level of segmentation into categories of authorisations. At first sight Ireland, which has also been identified as a country with a low number of distinct categories of authorisation, imposes a relatively high level for information. This is, however, entirely due to details concerning the identity of the applicant; if only “technical description” and “information on the service” are considered there is as in relation the same low level of detail as for the other countries with a restricted number of categories of authorisations.

⁸⁹ Categories of Authorisations, Work Order 48463

Table 19 Relation between segmentation of categories of authorisations and information requested

COUNTRIES CONDITIONS	low level of segmentation						medium/high level of segmentation					
	DK	IE	NL	SE	NO	CH	BE	FR	GE	IT	LU	UK
identification of the applicant												
<i>different kinds of information</i>	0	8	1	2	4	3	6	7	3	4	4	5
<i>different kinds of documents</i>	0			1		1	1	1	1	1	1	
information on the service												
<i>different kinds of information</i>	0	2	3	3	2	7	24	12	4	6	5	8
<i>different kinds of documents</i>		3			1		1	1	1		3	1
specific info for VT										1		
<i>specific info for Infrastructure</i>							8		1			
<i>specific info for SMP operators</i>		4					1					
technical description												
<i>different kinds of information</i>	0	1	0	1		7	9	4		1	4	10
<i>different kinds of documents</i>										1		
<i>specific info for VT</i>							1					
<i>specific info for Infrastructure</i>								2		3	1	
<i>specific info for PTO</i>												3
Total												
<i>different kinds of information</i>	0	15	4	6	6	17	49	25	8	15	14	26
<i>different kinds of documents</i>	0	3	0	0	0	1	1	2	2	2	4	0

Finding: There appears to be a correlation between the level of segmentation into different categories of authorisations and the quantity of information requested in order to describe the nature and technical realisation of the service or the network.

Competence of the applicant

As shown in the previous table, a second category with large divergence between countries is “competence of the applicant”

Table 20 Number of requirements concerning the “competence of the applicant” in different countries.

COUNTRIES CONDITIONS	BE	DK	FR	GE	IE	IT	LU	NL	SE	UK	CH	NO
competence of the applicant												
<i>different kinds of information</i>	6	0	2	3	1	2	2	0	0	0	1	0
<i>different kinds of documents</i>			2	2		1	2					

Finding: It appears from table 20 that this is mainly due to particular requirements in Belgium, France, Germany, Italy and Luxembourg.

Additional documents

As shown below, it is common practice to require from applicants documents such as certified copies of the statutes of the company, mandates to sign on behalf of the company or commitment to pay the fee or respect the legislation. Copies of the reference interconnection offer, type contracts with service providers and standard conditions for consumers are other examples of documents to be added. Some countries (in particular Italy) have non-telecom specific requirements (e.g. a certain stamp and anti-mafia certificate).

Table 21 Additional documents requested from applicants

COUNTRIES	BE	DK	FR	GE	IE	IT	LU	NL	SE	UK	CH	NO
CONDITIONS												
documents related to the identity or the applicant or the description of the service	0	3	0	0	0	1	1	2	2	2	4	0
documents sustaining the competence of the applicant	0	0	2	2	0	1	2	0	0	0	0	0
Additional documents	2	0	0	0	0	6	1	0	0	0	1	0

Finding : While generally not perceived as particularly burdensome by the NRA, the accumulation of additional documents such as stamps and certified copies can be burdensome for applicants especially if they have no local presence in the country. Moreover, these documents could have as a purpose the verification of compliance with general legislation (e.g. absence of debt to the state, information on convictions) or to certify the truthfulness of other information (e.g. certified copy of statutes).

7.2 Conclusions from the consultation with industry

In the section 7.1 above, the precise information requested by administrations in support of an application for the right to provide Public Voice Telephony and Infrastructure were analysed and certain common practices and specificities were revealed.

The purpose of this section is to identify from the consultation of industry (described in section 6) clear examples of practices having a negative influence on competition in the telecommunications market both regarding information requested before market access and information requested for market surveillance.

7.2.1 Information requested before market access

The following table summarises the findings of sections 6.2.1 to 6.2.3 comprising

- transparency of the information to be provided
- quantity and nature of the information requested
- flexibility of the administration

The results apply to the licensing of Public Voice Telephony and Infrastructure.

Table 22 Summary of the evaluation by industry respondents of the information requested before market access

	☺ positive evaluation						☹ neutral evaluation						☹ negative evaluation				
	gen auth	notification				individual licence										not lib	
	DK	FL	NL	SE	NO	AU	BE	CH	DE	ES	FR	IE	IT	LU	UK	GR	PT
transparency	☺	☺	☺	☺	☺	☹	☹	☺	☹	☹	☹	☺	☹	☹	☺	☹	☹
quantity/nature	☺	☺	☺	☺	☺	☺	☹	☹	☺	☹	☺	☺	☹	☺	☺	☺	☹
flexibility	☺	☺	☹	☹	☺	☹	☹	☹	☹	☹	☹	☺	☹	☹	☺	☹	☹

It is not surprising that the lightest licensing regimes received over-all the most positive evaluation.

Within the countries applying an individual licence, only Austria and Ireland were given a positive or neutral evaluation under all three categories. Ireland was the only country for which the information requirements for individual licences were assessed unanimously as reasonable both in terms of quantity and nature. A reason for this might be that, although the application form does not differ significantly from the other countries, it is the only country where for each single requirement the administration provides substantial reasoning. This reasoning indicates to applicants that all requirements serve a sound purpose. Moreover, in the guidance a checklist clarifies what issues are of capital importance for the administration. During the workshop there will be discussion of whether this is the real and main reason for the positive assessment.

Conclusion

A solution should be given to the following problems encountered by the telecommunications sector

- request for too extensive information resulting in overloaded applicants
- request for too complex information resulting in danger of having to give commercially sensitive information

Some administrative practices were found burdensome for operators and service providers. Spread over nearly all EU countries, the problems which occurred most were

- late implementation of the legal framework and
- inexperience of the regulator.

Further constraints encountered in particular countries were:

- excessive fees
- requests for additional documents and formalities
- requirement for signature of the licence by a political entity.

Conclusion

The question of excessive fees will be addressed in another ETO study⁹⁰.

The burden of additional documents and formalities was also revealed in the country-analysis.

Concerning the requirement for signature of the licence by a political entity it is a fact that delays in granting authorisations to newcomers can give rise to concern regarding the necessary independence of the NRA. This is particularly the case where the same Minister is head of the NRA and responsible for controlling the state's stake in the incumbent operator.

There is a scope for remedying these constraints encountered by the industry.

7.2.2 Information requested for market surveillance

Recurrent doubts were expressed concerning the qualification and commitment of the NRA to perform an adequate verification of compliance with licensing conditions.

Newcomers were generally of the opinion that the surveillance activity should focus on the incumbent operator and they showed a high level of concern about the verification of the incumbents obligations in the field of accounting separation and cost related prices. Operators having SMP on the other hand favour an approach unrelated to market position.

Newcomers were further not enthusiastic about publication of the results of the verification procedure, except for the information related to the incumbent.

It can be concluded that NRAs are only now in the process of organising market surveillance after having concentrated first on the implementation of a licensing framework and conditions for market access.

Industry would see an advantage in NRAs concentrating on the following

- a continuous follow-up of the market behaviour of influential operators (incumbent operators and operators having SMP)
- a transparent, non-bureaucratic procedure serving clear objective policy goals
- achieving a balance between reporting obligations and disclosure requirements
- guidelines on what might be considered anti-competitive behaviour
- the development of a cost model against which to assess the retail prices of the incumbent operator.

⁹⁰ Work order 48464 ETO study on "Fees for licensing telecommunications services and networks"

It appears that a large number of countries have until now focused on issuing licences before market entry rather than on monitoring the market or the verification of compliance with licensing conditions *a posteriori*. Even in countries with light licensing regimes for market access (e.g. class licence) market surveillance and in particular statistical instruments are often not well developed. Such instruments might ease conditions for provision of information before market access.

In a multi-operator environment market, usually dominated by a historical operator, market surveillance is highly important. It allows the regulator to verify whether the aims of creating more competition and ensuring fair competition are being realised and to monitor the extent to which licensing conditions are observed by different kinds of players in an objective way. Reliable data on market development and on the performance level of different operators concerning certain licensing conditions are the most objective source of information for appropriate action. Furthermore, this data should allow the NRA to keep up to date what is happening in the market and would provide useful input to shape regulatory policy. Finally, in an era of deregulation, the role of telecom authorities is changing towards taking action to a greater extent on the part of consumers, including providing consumers with information on the market.

Conclusion

It appears therefore worthwhile to propose the development of a statistical instrument for monitoring the effects of telecom regulation and its consequences in terms of fair competition and consumer interests.

8 CONCLUSIONS AND PROPOSALS

Section 7 above contained an analysis of common practices and specific characteristics found in different EU countries regarding the information to be provided in support of an application to provide Public Voice Telephony and Infrastructure. Furthermore, conclusions were drawn from the consultation of industry on the practices of national administrations concerning information for verification. On the basis of this analysis the scope for proposals was identified.

From the findings of the country-related information, there appeared to be scope for proposals aiming at affecting positively

- the transparency of the licensing framework
- the proportionality of the information requested in order to obtain market access
- coherence between the approaches of different countries.

The findings and proposals were presented to telecommunications operators, service providers, European Associations, industry and administrations during a workshop held in Brussels on 20 September. The main observations made on that occasion will be summarised at the end of this section, after the proposals.

General observation

From section 7.1.1 it appeared that licensing of Public Voice Telephony and Infrastructure is in a number of countries subject to extensive regulation and entails applicants providing substantial quantities of information before market access.

As a general remark it is useful to bear in mind that in a fully liberalised environment

- **cases where market entry is made subject to *a-priori* provision of information should be limited to a minimum**
- **where information is requested prior to market entry, this should focus on clear objectives which are of prime importance to the NRA; it should not be an instrument to verify compliance with the full set of obligations imposed on an operator or service provider or a means to obtain extensive information on the evolution of the market and technologies.**

ETO therefore proposes that a clear separation is made between the objectives of collection of information for the following three independent functions:

- 1. access of new entrants to the market**
- 2. verification of compliance with the full set of obligations imposed on an operator or service provider**
- 3. obtaining extensive information on the evolution of the market and of technologies.**

The last two objectives should be pursued by independent measures not related to information sought in the context of market access.

Common practices

From the analysis of the detailed information requested in at least 3 countries, it became apparent that national practices had few elements in common. There appear to be a multitude of legitimate reasons for countries to apply specific licensing practices which are in turn reflected in their heterogeneity in the information requested before market entry. The mere fact that a specific kind of information is only requested in one country is not a sufficient reason to consider it as an unreasonable request.

The lack of coherence between countries has therefore as a consequence that it is not feasible to draw up a maximum list of reasonable required information to be requested before market entry which is more concise than the Annex of the Licensing Directive.

It is, however, beyond doubt that there is a case for reducing the negative effects of the lack of coherence between national practices in terms of information requested before market entry. The most pragmatic way forward is a three step approach as follows:

1. ETO recommends that NRAs take steps

- 1. to remedy immediately the negative effects on potential applicants of requests for very detailed and diverse information entailing time-consuming research. This can be achieved by collaborating with ETO to provide full and reliable information on national requirements**
 - in a comparable form
 - via easily accessible electronic means
 - free of charge
 - in English.
- 2. to remedy the negative effects of the multitude of national procedures to be followed and instances to be contacted by creating a single contact point in the framework of a comprehensive One-Stop-Shopping (OSS) Procedure, if this appears feasible as a result of the current investigations in two Special Investigation Groups (SIGs) working within the CEPT framework⁹¹**
- 3. to review as a final step principles for an alternative approach to the licensing of market access which will allow for more convergence between licensing conditions and which will aim at mutual recognition of licences.**

In order to achieve this final step, the aspects which were subject to the most divergent approach were analysed, as well as the underlying reasons. These aspects were:

- information reasonably required for the verification of compliance with applicable conditions; more specifically
 - the identification of the applicant
 - information on the service
 - technical description of the service
- competence of the applicant
- additional documents.

Information on the service

This information aims usually to place the applicant in the correct licensing category. Not surprisingly there appears to be a clear correlation between the level of segmentation into different categories of authorisations and the quantity of information requested in order to describe the nature and technical realisation of the service or the network

2. ETO recommends that in order to make market access easier, quicker and more transparent, distinctions should be made only between a limited number of clearly recognisable licensing categories as proposed in the ETO study on categories of authorisations.

Nature of information requested

3. ETO is of the opinion that information should only be requested before market entry in the following cases:

⁹¹ The ECTRA plenary meeting in June 1998 set up two working groups: one on OSS for Satellites (OSS-Sat) and one on a comprehensive OSS (OSS-C). On the basis of reports of these working groups, the ECTRA and ERC plenaries approved recommendation regarding the establishment of a comprehensive database. The work on the development of an electronic application form is ongoing in the OSS-sat group.

- where the number of operators is limited due to scarcity of resources
- where the operator needs individual rights such as the assignment of numbers/frequencies or rights of way
- where the operator holds facilities which cannot be readily duplicated by competitors

The information requested should aim primarily at granting individual rights to the use of scarce resources (i.e. numbers, frequencies and rights of way). Individual licences should state in full the individual rights and obligations of the licensee. It is further recommended that verification before market entry aims at verifying that there is no reason to refuse the licence rather than compliance with the full set of obligations. In particular verification of the competence of the applicant should not be an objective to be pursued in an extensive way before market entry.

Additional documents

While generally not perceived as particularly burdensome by the NRA, the accumulation of additional documents requested, such as stamps and certified copies, is perceived by applicants as burdensome; especially if the applicants have no local presence in the country. These documents may have as a purpose the verification of compliance with general legislation (e.g. absence of debt to the state, information on convictions) or to certify the truthfulness of other information (e.g. certified copy of statutes). In such cases the information requested in the context of the licensing application procedure is superfluous.

- 4. ETO is of the opinion that requiring additional documents such as certified copies or commitments to pay fees should generally be avoided.**

Furthermore, no telecommunications-specific requirements should be imposed for aspects which are regulated sufficiently in general legislation (e.g fraud with signature/interconnection regulation).

From the conclusions of consultation with the telecommunications industry, there appears to be scope for proposals aiming to promote:

- a reduction of costs and delays for entering the market, in particular those related to
 - requests for additional documents
 - requests for too complex and/or too extensive information
 - delays resulting from the signature of a licence by a political authority
- competition in general
- efficient monitoring of evolution on the telecommunications market

In the case of individual licensing regimes problems were brought to light regarding

- transparency of the information to be provided
- quality and nature of the information requested
- flexibility of the administration

It was furthermore striking that a positive assessment was given to a country where for each single requirement the administration supplied substantial reasoning for the request.

5. ETO therefore recommends that NRAs make a clear formulation of their regulatory objectives and establish a clear link between these regulatory objectives, licensing conditions and information requested as a pre-condition for market access.

This approach would prevent five major problems, i.e:

- **requests for too extensive information resulting in overloaded administrations and applicants**
- **requests for too complex information resulting in need for skilled staff to assess the information or resistance to giving commercially sensitive information**
- **perception of inflexibility of the administration**
- **perception of lack of skilled personnel in the administration**
- **non-transparency of the legislation and procedure**

Spread over nearly all EU countries, frequently occurring problems were

- late implementation of the legal framework and
- inexperience of the regulator.

The proposal for a light handed authorisation regime, based on a clear relation between the regulatory objectives, licensing conditions and the information requested as a pre-condition for market access could remedy these problems.

A particular constraint encountered in certain countries was delay due to the requirement of signature of the licence by a political entity. This could raise concern regarding the necessary independence of the NRA, especially where the same Minister is head of the NRA and responsible for controlling a state owned operator.

6 In addition to the provisions of the revised ONP Framework Directive concerning the independence of the national regulatory authority in the case where a Member State continues to retain ownership or a significant degree of control of organisations providing telecommunications networks and/or services, countries should consider, where possible, making market entry subject to a simple administrative decision within the sole competence and responsibility of the daily management of the independent regulator.

It is the general perception within the industry that the surveillance of compliance with licensing conditions of operators active on the market is to date underdeveloped. Market surveillance is, however, highly important because it allows NRAs to monitor in an objective way:

- the market behaviour of dominant operators and operators designated as having SMP
 - the extent to which licensing conditions are observed by different kinds of players
- and to gather objective, reliable data in support of
- appropriate action against infringement of licensing conditions
 - reviewing, preparing or adopting the regulatory framework
 - information to be provided to consumers.

7. It would evidently be useful to develop a reliable statistical instrument. This should allow NRAs

to monitor in an objective way

- **the market behaviour of dominant operators and operators designated as having significant market power (SMP)**
- **the extent to which licensing conditions are observed by different kinds of players**

and to gather objective, reliable data in support of

- **appropriate action against infringement of licensing conditions**
- **reviewing or adopting the regulatory framework**
- **information to be provided to consumers**

As mentioned in the introduction, these proposals were presented on 20 September to a public workshop. There was general agreement with the results of the study and particular support was expressed for the proposal that information before market access should only be requested in a limited number of cases and should not include economic information on the applicant or the service. It was agreed that there should be no requirements related to aspects which are sufficiently regulated in general legislation.

Further clarification was sought as to what changes to the practices implemented under the existing Licensing Directive ETO would ensue from these proposals. ETO and the Commission explained that implementing the ETO proposals would limit the cases where information is requested before market entry to those involving the allocation of individual rights to use resources (numbers, frequencies, rights of way). At the same time the kind of information requested should mainly serve to provide the basis for the allocation of these rights. Compared to current practice this would therefore result in fewer national licensing categories and in categories which would be more streamlined throughout different countries. As a result only a very limited amount of technical information would have to be provided. The category “voice telephony” would disappear.

A consultant pointed out that it is surprising to see that individual licences often do not include substantial details on the rights individual operators have in terms of the use of resources or rights of way. Individual licences in their current form fail therefore to state in a comprehensive way the individual rights and obligations of an operator.

ETO replied that the draft recommendations 3 and 5 as presented indicated that ETO shared the opinion that the prime objective of an individual licence and request to provide information before market entry should in fact be to grant these individual rights. General rights and obligations can be the objective of a class licence or a general authorisation. The final version of the recommendation has been adapted to express this idea more explicitly.

A representative from a telecommunications users group asked about the harmonising effect of the proposals. ETO argued that it believes some form of mutual recognition of the licence or the status of the operator should be easier to achieve following implementation of the proposals relating to:

- limitation of the categories of individual licences to the few cases involving the use of scarce resources
- reduction of the requests for information on technical information related to these resources or some important licensing objectives (e.g. network security) and elimination of requests for economic information, additional documents, information on the competence of the applicant or requirements covered by general legislation.

One operator with experience in a country where market access proved to be easy and the information requirements before market access were reduced to a minimum stated that it had all the same experienced a heavy administrative burden as the NRA had repeatedly requested extensive information after operation started. ETO agreed to mention that information for verification after market access can prove to be equally as burdensome as *a priori* requests in other countries.

Finally one operator referred to a licensing condition which appeared to be difficult to meet by new entrants who were interested in obtaining licences for wireless local loop. It appears that in certain tender procedures candidates only qualify for participation on the condition that they possess a licence for the provision of public telecommunications services or networks. Given the restricted deadlines for showing an interest in tendering, it might prove to be impossible for an operator who was not previously active on that national market to obtain the required status of public telecommunications operator.

Annexes

Annex 1 Work order signed by ETO with the European Commission

Annex 2 Questionnaire sent to ECTRA members and PT GAIL on 27 August 1998

Annex 3 Questionnaire used to consult the telecommunications sector

Annex 4: List of abbreviations used to indicate countries

Annex 5 Description of different kinds of numbers

Annex 1 Work order signed by ETO with the European Commission

1. Subject: Information required for verification

2. Purpose

To identify and analyse the information that NRAs in CEPT/ECTRA countries require from operators and service providers in order to verify compliance with applicable conditions.

3. Background and justification

The Licensing Directive (97/13/EC) provides EU countries with a common general framework for licensing in the field of telecommunications. However, details of applicable licensing conditions may still differ substantially from country to country, as well as the level of information required from operators.

This level of information is an important aspect of a licensing regime, for if it is not defined and justified precisely enough it may significantly delay the granting of a licence. For instance, the time limits set up in the Licensing Directive for the granting of a licence will normally start only once the application is deemed “receivable”.

This information can be asked both *a priori* (at first market entry) and *a posteriori* (once an operator has started its activity under a specific licensing regime).

The annex of the licensing Directive foresees in section 2.2 that among the conditions which may be attached to all authorisations, there are conditions linked to the provision of information reasonably required for the verification of compliance with applicable conditions.

4. Work requirements

1. to identify and analyse the information required by the NRAs from operators and service providers to fulfil reporting duties in order to verify compliance with licensing conditions in general authorisations as well as individual licenses; in doing so,
2. to identify and analyse how operators and service providers have to provide the information required in practice.
3. to propose a detailed, maximum list of information which may be requested by NRAs for each categories of licences, if feasible.

5. Methodology

The information will be collected by means of questionnaires, which will be sent to all ECTRA members, and interviews with NRAs and operators or service providers where more details are needed than can be found by reading secondary legislation.

The information received will be checked by NRAs and subsequently corrected by ETO. A first interim report, consisting of a collection of information, will be compiled by ETO.

The second interim report, drafted by ETO, will consist of the analysis of the information and the proposals mentioned under work requirement 3. Comments made by organisations representing industry will be taken into account.

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 the proposals referred to in work requirement 3. These views will be taken into consideration 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 information required for verification 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 (January 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 6 man-months of effort at the expert level.

The cost of one man-month is 15,000 ECUs; therefore the total cost of the study is 90,000 ECUs.

Annex 2: Questionnaire sent to all ECTRA countries

To the Members of ECTRA
To the Members of the ECTRA PTGAIL

*Your
reference
Our
reference*

Copenhagen

27 August 1998

98-145-AV

Subject: Collection of information concerning "Information for verification".

Dear Madam/Sir,

The ETO work programme for 1998 includes a study concerning "Information for verification". As it appears from the work order (see annex) the aim of the study is to identify and analyse the information that NRA's require from operators and service providers in order to verify compliance with applicable licensing conditions. This information can be requested **a priori** (before entering the market) as well as **a posteriori** (after the service has become operational). The licensing conditions referred to can be stated in general legislation, class licences or individual licences.

It was explained earlier to the PTGAIL that ETO will make the best possible use of the information which has already been provided for the OSS-database and the country files on Voice Telephony and Infrastructure. This contains for all EU countries without extended deadlines for liberalisation, as well as Switzerland, Norway and Hungary, sufficient information to draft a chapter concerning the information required in order to be granted a licence for fixed services and networks which can be offered in full competition. Non-EU countries as well as EU countries with extended deadlines for liberalisation are hereby kindly invited to send contributions as soon as new legislation is available.

Furthermore, sufficient basic information has been collected recently by our colleagues specialised in numbering to cover the information obligations concerning numbering also.

In general, however, we do not dispose of sufficient information on the following issues:

- the verification of compliance to licensing conditions *a posteriori*.
- information related to frequency matters *a priori as well as a posteriori*.

I am accordingly now writing to invite countries to provide information on each of these issues.

Regarding “verification to licensing conditions *a posteriori*” a questionnaire is included in annex which could be of use in structuring the reply. This format is purely indicative and please feel free to use whatever form you find more suitable if you cannot fit in the information concerning your national situation. If you prefer to make references to texts of legislation rather than to fill in the table, please indicate clearly the article or page where the relevant information can be found.

Concerning the information related to the use of frequencies, it is impossible to accomplish a complete collection of information and in-depth analysis on this broad and complex issue which is also relatively new to ETO within the 6 man/month of man power allocated to this study.

In order to include a review, I would be very grateful if you could describe in general terms

- what kind of information needs to be provided in order to obtain the right to use frequencies for public telecommunications services and networks
- what kind of information needs to be provided in order to verify continued compliance with the licensing conditions concerning the use of frequencies stipulated in the general legislation, class licence or individual licence.

I would highly appreciate it if you could attach to your reply the different application forms and administrative documents used when applying for the right to use frequencies.

In order to have a first interim report ready in Autumn, the deadline for replying is set as 21 September. If this presents difficulties it would be helpful for planning our work if you could contact me in order to arrange for a solution.

I hope that this letter provides sufficient and useful information on the work requirement and what would be useful to include. I would like to thank you in advance for your co-operation in collecting this information.

Yours faithfully,

Ann Vandenbroucke

Questionnaire concerning “Information for verification”

Country	
Name of Regulatory Authority	
Name(s) of person(s) answering the questionnaire	
Telephone number	
Fax number	

Please note that the structure of the questionnaire is purely indicative. If the information concerning your national situation does not fit in, please feel free to give the information in a way that is more suitable. If you prefer to make references to texts of legislation rather than to fill in the table, please indicate clearly the article or page where the relevant information can be found.

Please return the information asked for in the questionnaire before 21 September 1998 to

ETO

Ann Vandenbroucke

Holsteinsgade 63

2100 Copenhagen

Fax 00 45 35 43 60 05

**The questionnaire is also available in electronic form. You can access it by entering: <http://www.eto.dk/PTGAIL>. In the menu which appears, please fill in
username : PTGAIL
password : TOSCA
Replies in electronic form are very welcome.**

It must be observed that the information collected here only concerns information that needs to be provided to the NRA for verification of compliance with the terms of the authorisation (general or individual) **once the service is operational**.

For explanation on **other information which is missing** at the moment concerning frequency matters and which I would be interested in to receive please see the cover letter.

A) IF LEGISLATION IS SPECIFIC ABOUT VERIFICATION

Please indicate in the table which follows on the next page for each of the different national authorisations (individual licences as well as general authorisations):

1. **which licensing conditions are subject to verification “a posteriori”**
2. **the kind of operators or what licensing category is subject to this obligation**
(e.g. providers of voice telephony, operators with SMP, providers of directory services, mobile services...)
3. **what detailed information is requested for each of these conditions**
4. **at what moment or with what interval information has to be provided**
(e.g. in the event of an unexpected control on premises, only upon request of the NRA, on a certain date, when changes occur to what was declared before, on a yearly/monthly basis,...)
5. **formalities involved for the operator providing the information**
(e.g. using a standard form issued by the NRA, having some information readily available, respect deadline given by NRA)

B) IF LEGISLATION IS NOT SPECIFIC ABOUT VERIFICATION

If your national legislation is not specific on the verification of licensing conditions, it would be very helpful if you could indicate how verification happens in practical terms for some relevant networks or services.

The following table may give you some indication of the kind of information that can be included and how it could be structured and presented. Please note that this does not include information to be provided when applying for a licence **but only to verify compliance “a posteriori”**

Licensing conditions requiring verification	Detailed information to be provided	Category of service or operator subject to obligation to provide information	When or at what intervals ?	Formalities
ACCESSIBILITY OF THE NETWORK				
non-discrimination of service providers	type contracts with service providers			
	characteristics for connection to the network including details on interfaces			
COMMERCIAL/FINANCIAL INFORMATION				
determine if operator has SMP	yearly turnover or gross income			
	traffic			
	market share			
technical competence				
managerial competence				
ownership				
price regulation/price cap	tariffs and tariff structure			
contribution to research and development	amount, institutions			
coverage and roll-out obligations	geographical plans			
way of commercialising the service	contract with dealers			
offer of innovative services				
ensuring fair competition				
DATAPROTECTION				
Calling Line Identification	voluntary code of conduct			

Licensing conditions requiring verification	Detailed information to be provided	Category of service or operator subject to obligation to provide information	When or at what intervals ?	Formalities
Customer data base information necessary for provision of universal directory information				
Integrity of data transmitted				
Unwanted calls				
ENVIRONMENTAL CONCERNS /TOWN AND COUNTRY PLANNING				
use of public or private land				
facility sharing				
collocation				
INFORMATION IN RELATION TO THE CONSUMER				
equal treatment of users	general conditions in the contract with consumers			
special arrangements for disabled people				
information to provide to consumers	place where this info is available			
	notice of changes in conditions, tariffs, quality, availability			
consumer complaints	information on procedure complaints			
	details on complaints			

INTERCONNECTION				
non-discriminatory offer	copy of concluded agreements			
transparency	make public reference interconnection offer			
	make public interconnection tariffs			
cost accounting system				
PAYMENT OF FEE				
pay in time				
parameters on which fees are based	number of clients, geographical coverage, telephone numbers used, turnover...			
TECHNICAL INFORMATION				
quality of service parameters	average duration of failures			
availability of the service				
measure for network security				
specifications for networks	reference offer			
efficient use of frequencies	figures on channel loading			
provision of emergency services				
UNIVERSAL SERVICE				
delivery of mandatory services				
cost of universal service				
management of directory services				
contribution to US fund				
OTHER				
designation of contact person for relations with the NRA				
changes which might influence the licence category	composition of closed user group			
	connections to PSTN			

Annex 3: Questionnaire used to consult the telecommunications sector

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

Ann Vandenbroucke
Licensing Expert

Annex**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 Vandebroucke

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):	

Specific licensing conditions	Rating effect on competition ⇒ ↓

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.

Annex 4: List of abbreviations used to indicate countries

The abbreviations used for the different countries are based are ISO 3166 codes.

Country	Abbreviation		Country
Austria	AT	AT	Austria
Belgium	BE	BE	Belgium
Denmark	DK	DK	Denmark
Finland	FL	ES	Spain
Federal Republic of Germany	GE	FL	Finland
Greece	GR	GE	Federal Republic of Germany
Hungary	HU	GR	Greece
Ireland	IE	HU	Hungary
Italy	IT	IE	Ireland
Luxembourg	LU	IT	Italy
Netherlands	NL	LU	Luxembourg
Norway	NO	NL	Netherlands
Poland	PO	NO	Norway
Portugal	PT	PO	Poland
Spain	ES	PT	Portugal
Sweden	SE	SE	Sweden
Switzerland	CH	CH	Switzerland
United Kingdom	UK	UK	United Kingdom

Annex 5: Description of different kinds of numbers

The national plans for the different categories of numbers, names and addresses are mainly based on ITU-T Recommendations. The following categories of numbers were distinguished in a previous ETO study⁹² (the relevant ITU-T Recommendations are shown between brackets for most categories):

- telephone numbers (E.164)
- data network numbers (X.121)
- IMSIs (International Mobile Subscriber Identities; E.212)
- ISPCs (International Signalling Point Codes; Q.708)
- NSPCs (National Signalling Point Codes; Q.704)
- X.400 names (X.400 series)
- X.500 names (X.500 series)
- NSAP addresses (Network Service Access Point addresses; X.213)
- IINs (Issuer Identifier Numbers; E.118)
- Object identifiers (X.660 series)
- CUGICs (Closed User Group Interlock Codes; X.180)
- NCCs (Network Colour Codes; ETSI standard ETS 300 523).
- Centrex codes (only nationally defined).

The listed thirteen categories have hierarchical structures of which countries can manage their national domain. These categories are further described below while focussing on the national domains. Internet domain names, IP (Internet Protocol) addresses, AESAs (ATM End System Addresses), Global Titles and telex numbers will not be considered here either because of the fact that they are not managed by the ECTRA members or of their minor importance.

Telephone numbers

Telephone numbers constitute by far the most important national plan at present. In general, national telephone numbering plans do actually not only contain telephone numbers but also prefixes that can be dialled before the telephone numbers.

Relevant in the context of fees are prefixes used to select specific networks. The best known examples are carrier selection prefixes which enable users to choose a specific long-distance network independent of their local access network operator when making a national or international call.

The national telephone numbers can be classified in three groups:

- Standard telephone numbers for the traditional telephone services in the fixed local loop. These are the numbers we are familiar with for many decades. In most countries, standard telephone numbers consist of an area code followed by a subscriber number. Some countries may use the term 'geographic numbers' for standard telephone numbers.
- Service numbers for services such as mobile services and freephone, premium rate and personal number services. These numbers consist of a service access code followed by a subscriber number. An example of a service access code, also named 'service code', is '800' for freephone services. Some countries may use the term 'non-geographic numbers' for service numbers.

⁹² ETO study concerning Fees for Telecommunications Networks and Services

- Short numbers, mainly used for special services such as emergency services and directory enquiries. Some countries may use different terms for short numbers such as 'short codes' or 'access codes'.

National telephone numbers are usually assigned in blocks of subsequent numbers by the independent regulator to network operators or service providers. A block of numbers can be indicated by the first digits which the numbers have in common. Network operators or service providers assign numbers from their blocks to users. The independent regulator may assign certain numbers individually to users directly. Carrier selection prefixes are individually assigned to operators of long distance networks.

Data network numbers

Data network numbers are used on dedicated data networks, in particular packet switched data networks, for identification of network termination points. They usually consist of a Data Network Identification Code (DNIC) followed by a Network Termination Number (NTN). The DNIC comprises the first four digits. Data network numbers are usually assigned to data network operators in DNICs or decimal parts of DNICs. The operators assign numbers from their blocks to users.

IMSI

IMSI are used for unique international identification of mobile terminals and mobile users in order to enable these terminals and users to roam among public networks which offer mobility services. The national domain of the IMSI consists of a Mobile Network Code (MNC) followed by the Mobile Subscriber Identification Number (MSIN). The MNC consists of two or three digits. IMSI are usually assigned to providers of mobility services in MNCs. The service providers use these blocks to program IMSI in cards that are inserted in telephones such as the GSM (Subscriber Identification Module) SIM card. The older mobile telephones do not have cards but have the IMSI integrated into the hardware.

ISPCs and NSPCs

Signalling Point Codes (SPCs) are used in public telephone networks using Signalling System no. 7 (SS#7). SS#7 is a modern protocol for information interchange between exchanges and other network nodes named signalling points. SPCs are the addresses of the signalling points. There are three types of SPCs: ISPCs, NSPCs and network-specific SPCs. Each of the three types constitute an independent addressing scheme. ISPCs are used in international transit networks, to address for instance international exchanges. NSPCs are used in the national transit networks which connect the different networks in a specific country, to identify for instance the national gateways of the different networks. ISPCs and NSPCs are usually individually assigned to network operators. Network-specific SPCs are used by operators within their own network and need not to be assigned.

X.400 names

X.400 names are used for identification of users of Message Handling System (MHS) services. The X.400 naming plan uses so-called Management Domains on two different hierarchical levels: Administration Management Domains (ADMDs) and Private Management Domains (PRMDs). ADMD names are assigned to public MHS providers. Usually, the MHS providers assign PRMD names within their ADMD to users, in particular organisations. The independent regulator may assign PRMD names to users directly. The organisations make, within their PRMD, further subdivisions into names to identify their departments and their employees.

X.500 names

X.500 names are used for identification of users, organisations in particular, in order to offer the so-called X.500 Directory Service. The idea is to store address information in different physical locations and to present the data to users as if constituting a single database. The database is hierarchically structured. Countries are defined on the highest level of the hierarchy. Downwards in the hierarchy, countries are, usually, followed by organisations and organisations by persons. The organisation names are assigned to the organisations which, for their domain, assign names to their employees.

NSAP addresses

NSAP addresses identify an access point between the OSI layers 3 and 4 of a data network which has a structure according to the seven layers model of OSI (Open Systems Interconnection). Two types of NSAP addresses are distinguished:

- The ICD (International Code designator) type is used to identify coding schemes of organisations. Some countries act on behalf of the British Standards Institute which is responsible for the assignment of ICD codes to organisations.
- The DCC (Data Country Code) type is used to identify countries. Countries assign blocks of NSAP addresses from their national domain to users, in particular organisations.

IINs

IINs are assigned to providers of international telecommunication charge card services for identification of these providers. The IIN is part of the Primary Account Number which is assigned by the provider to the user. The IINs enable providers to charge each other for the charge card services offered to each others customers. The remaining part of the Primary Account Number enables the providers to charge their own customers.

Object Identifiers

Object identifiers constitute a global system for unique identification of any object. Countries have, within the global system, their own domain which they can manage and structure themselves. Object identifiers can in principle be assigned to anybody for any purpose.

CUGICs

CUGICs are used to identify Closed User Groups (CUGs) on data networks and telephone networks. They are usually assigned in blocks to network operators which then assign individual CUGICs from their blocks to their customers.

NCCs

NCCs are used in Base Station Identity Codes for GSM-systems to separate GSM-network of operators of different countries in the border areas. They are assigned to GSM network operators.

Centrex codes

Centrex codes are used in country wide Centrex (virtual private network) systems to separate customers belonging to different Centrex groups. They are usually assigned in blocks to network operators which then assign individual Centrex codes from their blocks to their customers.

