This section analyses the main economic indicators for competition in the fixed telecommunications market (voice telephony and network services): number of players, market shares, choice of operators for users, use by operators of the various possibilities for offering voice telephony (carrier (pre-)selection or direct access), licence fees for fixed services.

<u>Public fixed voice telephony</u> is defined as a service available to the public for the direct transport on a commercial basis of real-time speech via the public switched network, such that any user can use equipment connected to a network termination point at a fixed location to communicate with another user of equipment connected to another termination point.

<u>Public fixed network services</u> are defined as the conveyance of calls, messages and signals over a telecommunications network, including any necessary switching. They may be network interconnection services, which are provided to other network operators to enable calls and associated functions to be passed through interconnected networks, or basic retail network services, which are provided to customers such as end users or service providers.

The data on the number of operators offering telecommunications services include both network operators and service providers. <u>Network operators</u> are defined as operators that install, manage and operate their own (wire or wireless) telecommunications transmission network to provide public telephony services or public network services. <u>Service providers</u> are defined as operators that offer telecommunications services using mainly third-party networks. They may also manage, operate and control leased capacity<sup>1</sup>. These definitions may differ from those used in the national law of individual countries. In particular, in some countries service providers engage exclusively in reselling activities, while in others they may also operate leased capacity.

<u>Incumbent operators</u> are defined as telecommunications organisations which enjoyed special or exclusive rights granted by Member States (as defined by Commission Directive 90/388/EEC) and/or a de facto monopoly before liberalisation.

Depending on the national licensing regime, telecommunications operators<sup>2</sup> may have individual licences/authorisations or be subject to declaration/notification procedures, or may effectively operate in the market without being subject to any individual licence or declaration procedure<sup>3</sup>. Operators may have to apply (and pay) for a number of different licences or may have to pay for a licence with a wider scope than they require (i.e. nationwide), even if they do not make full use of it.

The following table shows the licencing regimes in the 15 Member States for the four main categories of fixed services.

<sup>&</sup>lt;sup>1</sup> Operators engaged exclusively in reselling activities (call-back or calling card operators) or dealing only with marketing, billing, etc., are excluded.

<sup>&</sup>lt;sup>2</sup> In the following, "operators" means both network operators and service providers; "authorised operators" means operators that have been granted an individual licence/authorisation or are subject to a declaration/notification procedure.

<sup>&</sup>lt;sup>3</sup> This is the case for service providers in many countries (Austria, Germany, etc.) and for all types of public network operators offering voice telephony in the Netherlands and Denmark.

	Public fixed voice telephony services (not including network operation)	Operation of public network and provision of network services (not including voice telephony)	Public voice telephony over a self-operated network	Public voice telephony and network services over a self-operated network				
В	VT	NET	NET + VT					
DK	Free (operators apply only for numbers)							
D	VT $(class 4)^4$	NET (class 3)	NET (class 4 -	+ VT + class 3)				
EL	Derogation	Not liberalised yet	Derogation	Derogation				
Е	VT (type A)	NET (type C1)	LL and VT on	nd VT on NET (type B1)				
F	VT (L34-1)	NET (L33-1)	LL and VT on NET	Г (L34-1and L33-1)				
IRL	VT and LL on NET (General Licence)	NET <sup>5</sup> (Basic Licence)	VT and L (General	L on NET Licence)				
Ι	VT	NET	VT on NET	VT on NET + NET				
L	VT (type C)	NET (type B)	LL and VT on	NET (type A)				
NL	VT (registration)	NET <sup>6</sup> (registration)	VT on NET (registration)	VT on NET + NET (registration)				
$\mathbf{A}^7$	Notification	NET	VT on NET	VT on NET + NET				
Р	VT	NET	NET	+ VT				
FIN	Notification for fixed service	Notification for fixed network	Notification for fixed set	rvices and fixed network				
S	VT on NET (licence/registration)	NET (licence/registration)	VT on NET (Licence/registration)	VT on NET + NET (licence/registration)				
$\mathbf{UK}^{8}$		LL and VT on N	ET (PTO licence)					

#### Table 1 Licensing regime for fixed public services

Legend:

Public fixed voice telephony (not including network operation) (VT)

Provision of national and international public voice telephony<sup>9</sup>, not including the installation, operation and control of the operator's own telecommunications network (but including the operation and control of leased capacity). Simple call-back and calling card services and operators dealing only with marketing, billing, etc., are excluded.

<sup>&</sup>lt;sup>4</sup> The class 4 licence refers to "voice telephony over a self-operated network", which should not be confused with the definition of self-operated network used in this report (i.e. owned self-controlled and self-operated network). In Germany non-self-operated network is restricted to services offered by resellers who have no de facto control of a self-operated network.

<sup>&</sup>lt;sup>5</sup> Holders of a general licence are also permitted to operate a public network (and provide network services), but a basic licence is sufficient.

<sup>&</sup>lt;sup>6</sup> In the Netherlands, the licence to provide a public network service does not give operators public network status, but gives them the right to install and manage their own network. The public network licence is linked to voice telephony services (VT on NET).

<sup>&</sup>lt;sup>7</sup> Austria does not have a specific licence category for voice telephony service providers, but a licence for the operation of transmission capacity for public voice telephony.

<sup>&</sup>lt;sup>8</sup> Under the new licensing scheme in the UK, all former International Facilities Licences (that allowed licensees to install a cross-border network and to offer international calls) and all former Public Telecommunications Operator (PTO) licences (that allowed licensees to install a national network and to offer domestic services) have been replaced by new standard PTO licences, allowing licensees to offer both domestic and international services. By the same token, operators with a local licence now have the right to offer international services.

<sup>&</sup>lt;sup>9</sup> Public fixed voice telephony is defined as a service available to the public for the direct transport on a commercial basis of real-time speech via the public switched network, such that any user can use equipment connected to a network termination point at a fixed location to communicate with another user of equipment connected to another termination point.

Operation of public network and provision of network services (not including voice telephony) (NET)

The installation, control and operation of the operator's own public network<sup>10</sup>, including the right to offer national and international network services<sup>11</sup> to the public (not including the provision of voice telephony).

Public voice telephony on a self-operated network (not including network services) (VT on NET)

Provision of public fixed voice telephony over a network owned, controlled and operated by the operator, excluding the provision of network services.

Public voice telephony and network services on a self-operated network (VT and LL on NET)

Provision of public fixed voice telephony and public fixed network services over a network owned, controlled and operated by the operator.

The data presented below have been provided by the national regulatory authorities and indicate the position at August 2000; where the data on operators' market shares were not available from the NRA, other information sources were used.

#### 1. PUBLIC FIXED VOICE TELEPHONY

This section analyses the fixed voice telephony market, in terms of the number of authorised operators, operators that are actually offering voice telephony services, the percentage of the population with a choice of operators, the incumbent's market share, and the facilities used by the operators to provide public voice telephony services.

Figures in Chart 3,6 and 7 should be read service by service (local, long-distance and international call markets) and not as country totals, since the same operator is usually authorised to offer more than one type of service.

Greece is not considered in this section as it has a derogation until 31 December 2000.

Chart 1 shows the number of local and national operators authorised to offer public fixed voice telephony: fixed network operators, mobile operators, service providers and cable television (CATV) operators. The number of local operators is not strictly comparable between Member States, since it varies considerably between countries depending on the division of national territory into local areas.

<u>Local operators</u> are authorised to offer telecommunications services only to users located in specific areas (to whom they provide local calls as well as long-distance and international calls through interconnection agreements with other operators). <u>National operators</u> are authorised to offer telecommunications services without any geographical restriction. They may provide all types of telephony services (local, long-distance and international calls) to users located throughout the national territory. In the following charts, "national operator" means an operator who has been granted either a national licence/authorisation or a licence under a licensing scheme which does not specify the geographic coverage.

The number of operators authorised to offer voice telephony indicates the potential for competition in the market rather than the current level of competition. For this reason, an estimate of the number of operators actually offering public voice telephony is given. These figures do not show to what extent the operators are offering services. Many new entrants initially provide only services to

<sup>&</sup>lt;sup>10</sup> Public network is defined as a telecommunications network used, in whole or in part, for the provision of publicly available telecommunications services.

<sup>&</sup>lt;sup>11</sup> Public fixed network services are defined as the conveyance of calls, messages and signals over a telecommunications network, including any necessary switching. They may be network interconnection services, which are provided to other network operators to enable calls and associated functions to be passed through interconnected networks, or basic retail network services, which are provided to customers such as end-users or service providers.

business users in the main cities, even if they have a national licence allowing them to offer all types of services throughout the country.

<u>Belgium</u>, <u>Denmark</u>, <u>Germany</u>, <u>Ireland</u>, <u>Luxembourg</u>, <u>the Netherlands</u> and <u>Sweden</u> do not distinguish between local and national operators: all authorised operators are permitted to offer these services throughout the country<sup>12</sup>.

Data for <u>Sweden</u> include both licensed and notified operators<sup>13</sup>.

In <u>Finland</u>, 46 of the 66 regional operators are local incumbents and belong to the Finnet Group.

In <u>Denmark</u>, operators are not subject to any individual licence/authorisation requirements or notification procedures. The number of operators that have been allocated an access code has been used as proxy for the number of authorised operators.

In the <u>United Kingdom</u>, 90% of the 135 regional public telecommunications operators (PTOs), which relate to cable franchises, are held by two companies.

The figures for the Netherlands include only operators that have started operations.



#### Chart 1

<sup>&</sup>lt;sup>12</sup> The legal framework for the licensing regime in Austria does not distinguish between local and national coverage of licences, although operators can apply for a restricted scope of the network and/or the services provided.

<sup>&</sup>lt;sup>13</sup> According to the Swedish licensing regime, a notification is required for the provision (within a publicly available telecommunications network) of telecommunications services (fixed telephony, mobile services, leased lines, etc.) which require allocation of capacity from the telephony numbering plan. An individual licence is required for the provision of telecommunications services if the activity is considered to be of "considerable scope" with regard to the areas covered, the number of users or other comparable factors.



#### **1.1.LOCAL CALLS MARKET**

In <u>Finland</u>, 46 of the 66 regional operators are local incumbents and belong to the Finnet Group.

The figures for <u>the Netherlands</u> do not include 23 operators for which the national authorities have no information on the types of services provided.





\* The figures for Italy and the United Kingdom do not distinguish between local and national operators.

Chart 4 shows the estimated percentage of the population with a choice between 2 operators, 3 to 5 operators and more than 5 operators for local calls. Chart 8 indicates the same for long-distance and international calls.

Data are not available for Finland and Portugal.



\* The figures for <u>Sweden</u> and the <u>United Kingdom</u> refer to the overall call market (local, long-distance and international).

Chart 5 shows the incumbent operators' share of the local call market estimated on the basis of retail revenues.

The 1999 figures for <u>Austria</u> are estimates of the incumbent's share of the three call markets (local, long-distance and international) taken together.

For <u>Finland</u>, the figures refer to the combined market share of the two incumbents (Sonera and Finnet groups).

The most recent market share estimate for Ireland refers to 1998.

The 1998 market share for <u>France</u> was calculated as a share of the three call markets (local, longdistance and international) taken together.

The only figures available for <u>Denmark</u> and <u>Germany</u> are based on call minutes, and have therefore not been included in the charts. The main finding for Denmark is that from 1997 to mid-2000 the incumbent operator's share of the national call market (local plus long-distance calls) fell from 100% to 63%. The main finding for Germany is that from 1997 to the end of 1999 the incumbent's share of the local call market fell from 100% to about 95%.

These figures are estimates provided by the NRAs, except for Belgium.



#### **1.2.LONG-DISTANCE AND INTERNATIONAL CALLS MARKET**

The figures for <u>the Netherlands</u> do not include 23 operators for which the national authorities have no information on the types of services provided.

#### Chart 6



\* The figures for Italy and the United Kingdom do not distinguish between local and national operators.

Because of its small size, no distinction is made in <u>Luxembourg</u> between the local and long-distance call markets.





\* The figures for <u>Italy</u> and the <u>United Kingdom</u> do not distinguish between local and national operators.



#### Chart 8

\* The figures for <u>Sweden</u> and the <u>United Kingdom</u> refer to the overall call market (local, long-distance and international).

Chart 9 and Chart 10 show the incumbent operators' shares of the long-distance call market estimated on the basis of retail revenues.

Because of its small size, no distinction is made in <u>Luxembourg</u> between the local and long-distance call markets.

The 1999 figures for <u>Austria</u> are estimates of the incumbent's share of the three call markets (local, long-distance and international) taken together.

The 1998 market share for <u>France</u> was calculated as the aggregate share of the total voice telephony market (local, long-distance and international).

The most recent market share estimate for Ireland refers to 1998.

The only figures available for <u>Denmark</u> and <u>Germany</u> are based on call minutes, and have therefore not been included in the charts. In <u>Germany</u>, the incumbent operator's aggregate share of the long-distance and international call markets in terms of minutes was less than 60% (at the end of 1999); however, in terms of revenues it is expected to be higher. In <u>Denmark</u>, the incumbent operator's share of the international call market was 45% in mid-2000 (see comment on Chart 5 for the domestic market share).

These figures are estimates provided by the NRAs, except for <u>Belgium</u>.



#### Chart 9

#### Chart 10



### **1.3.** Share of public ownership of incumbent operators

In order to provide a complete overview of the players in the EU telecommunications market, the following chart shows the degree of public ownership of the incumbent operators on the fixed market.



# **1.4.** FACILITIES USED BY NEW OPERATORS TO PROVIDE VOICE TELEPHONY TO RESIDENTIAL USERS

This section shows the <u>estimated number</u> of alternative operators using carrier selection, carrier preselection or direct access to provide voice telephony services.

These figures are estimates provided by the national regulatory authorities and refer to August 2000.

The following three charts should be read separately and not summed up as country totals, since most operators use more than one means of providing call services.

As indicated in the section on numbering, carrier selection and pre-selection are not yet available for local calls in <u>Belgium</u>, <u>Germany</u>, <u>France</u> and <u>Finland</u>.

<u>Greece</u> has been granted a deferment for the implementation of carrier selection and carrier preselection. <u>Portugal</u> and <u>Spain</u> have been granted deferments for the implementation of carrier selection.

Because of its small size, no distinction is made in <u>Luxembourg</u> between local and long-distance calls.



\* The figures for <u>Denmark</u> and <u>Sweden</u> do not distinguish between the type of call. \*\* The figures for the <u>United Kingdom</u> refer to both residential and business users.





\* The figures for <u>Denmark</u> and <u>Sweden</u> do not distinguish between the type of call.



\* The value for Germany is not to scale.

\*\* The figure for Portugal refers to the provision of domestic voice telephony. One new operator is using direct access to provide international fixed voice telephony.

\*\*\* The figure for the <u>United Kingdom</u> refers to both residential and business users.

#### 2. PUBLIC FIXED NETWORK

This section analyses the number of network operators with a public network licence and/or authorised to offer network services (conveyance of calls, messages and signals over a telecommunications network, including any necessary switching).

The data presented below have been provided by the national regulatory authorities and give the position at August 2000.

The figures include all types of operator authorised to install and operate a public fixed network and/or to offer network services to the public: network operators, CATV operators, mobile and satellite operators (for the fixed part of their networks).

In Chart 15 the distinction between local and national public network operators concerns the geographical scope of the network, while the provision of network services is not usually subject to any geographical limitation. In the following, "local operators" means operators whose network does not cover the whole national territory (whatever the geographical scope of the service). Information on the number of operators actually offering network services is not included, since these data are not available for most of the Member States.

A licence to operate a local/regional public network does not necessarily imply the existence of local network access to customers ("the last mile"). See local loop section for more details.

<u>Belgium</u>, <u>Denmark</u>, <u>Ireland</u>, <u>Luxembourg</u>, <u>the Netherlands</u> and <u>Sweden</u> do not distinguish between local and national authorisations: all authorised operators may install and operate a national network and offer services throughout the country<sup>7</sup>.

The data for Sweden include both licensed and notified operators.

In <u>Finland</u>, 46 of the 66 regional operators are local incumbents and belong to the Finnet Group.

The figures for D<u>enmark</u> refer to operators that have actually started operations, since they are not subject to any individual licence/authorisation requirements or notification procedures.

In the <u>United Kingdom</u>, 90% of the 135 regional public telecommunications operators (PTOs), which relate to cable franchises, are held by two companies.

The figures for the Netherlands refer to operators that have started operations.





\* The figures for Germany are not to scale





# 3. ADMINISTRATIVE AND NUMBERING FEES FOR THE PROVISION OF PUBLIC VOICE TELEPHONY AND PUBLIC NETWORK SERVICES

This section provides data on Member States' administrative and numbering fees for public voice telephony and public network services licences (including VSAT network services). The data have been provided by the national regulatory authorities and give the position in August 2000. See appendix for details on the euro exchange rates used in this section.

Administrative fees (Table 2) are fees charged to cover the costs of examining an application for a licence, granting the relevant authorisation and verifying compliance with the terms and conditions set once the service or network is operational.

The categorisation of administrative fees is closely linked to the general licensing framework applicable in the individual countries. The categories of administrative fees will depend on whether market entry is subject to an individual licence or a notification under a general authorisation scheme (see Table 1 for more details).

**Numbering fees** are fees applied by many Member States in view of the relative scarcity of numbering resources.

Table 3 sets out for each Member State the different kinds of fees charged for the main categories of numbers needed by each operator to provide public voice telephony services: standard telephone numbers (ITU-T Recommendation E.164) (for subscribers directly connected to the operator), carrier selection codes (to select the operator) and signalling point codes<sup>14</sup> (for interconnection with other networks at national (NSPC) and international (ISPC) level).

<u>Ireland</u>, <u>Austria</u>, <u>Sweden</u>, <u>Portugal</u> and the <u>United Kingdom</u> do not charge for such numbers, although often the right to use numbers is implicitly included in the licensing fee. Greece is not considered here because liberalisation is not yet completed.

The fees/charges paid by operators for providing public **VSAT network services** - VSAT (Very Small Aperture Terminal) refers to earth stations with an antenna diameter of less than about 3.8 meters, used mainly for data communications between fixed locations - are shown in Table 4, and refer to the provision of VSAT networks and services in the 200 kHz-1 MHz band using up to 100 stations, bi-directional, with or without frequency coordination, with connection to the public switched telephone network.

<sup>&</sup>lt;sup>14</sup> Signalling Point Codes (SPCs) are used in public telephone networks using CCITT Signalling System No 7 (SS7). SPCs are the addresses of the signalling points. Two types of SPC are usually individually assigned to network operators: International SPCs and National SPCs. ISPCs are used in international transit networks, e.g. to address networks which connect the various networks in a specific country or to identify the national gateways of the various networks.

# Table 2 Administrative fees (August 2000, €)

	Public fixed voice telephony services (not including transmission capacity)		Operation of pu provision of n (not including	blic network and etwork services voice services)	Public voice telephony on a self- operated network (not including network services )		Public voice telephony and network services on a self-operated network	
	Single payment	Annual fee	Single payment	Annual fee	Single payment	Annual fee	Single payment	Annual fee
В	8 676	7 436 if SMP : 12 395	12 394	8 676 if SMP : 12 395	21 070	16 112 if SMP: 29 748	21 070	16 112 if SMP: 29 748
DK	0	0	0	0	0	0	0	0
<b>D</b> <u>Geographic licence</u> : Nationwide Local	1 533 687 1 022	0	1 533 687 1 022	0	6 952 707 2 044	0	6 952 707 2 044	0
Trunk line licence	5 112 per trunk line	0	306/km <sup>15</sup> (min. 1 022)					
Local line licence	51 per local line (min. 1 022)	0	102 per local line (min. 1 022)		153 per local line (min. 2 044)	0	153 per local line (min. 2 044)	0
$\mathbf{E}^{16}$	0	0.15% of relevant turnover	0	0.15% of relevant turnover	0	0.15% of relevant turnover	0	0.15% of relevant turnover
F								
> 5 regions	114 336	114 336	266 785	266 785	381 121	381 121	381 121	381 121
$\leq$ 5 regions	45 734	45 734	76 224	76 224	121 958	121 958	121 958	121 958
$\leq 1$ region	22 687	22 687	38 112	38 112	60 979	60 979	60 979	60 979
$\leq$ 1 department	15 244	15 244	15 244	15 244	30 488	30 488	30 488	30 488
$\leq$ one city of 100 000 inhabitants	7 622	7 622	7 622	7 622	15 244	15 244	15 244	15 244
If SMP	Not relevant	Not relevant	Double fees	Double fees	Double fees	Double fees	Double fees	Double fees
IRL	12 497	1 015 or 0.2% of turnover>635 000	3 175	1 015 or 0.2% of turnover>635 000	12 497	1 015 or 0.2% of turnover >635 000	12 497	1 015 or 0.2% of turnover >635 000
$I^{17}$								
Whole country	51 640	61 968	61 968	103 280	56 804	61 969	118 772	165 249
$\leq$ 10 million inh.	20 656	25 820	20 656	51 640	25 820	25 820	46 472	77 460
$\leq 200~000$ inh.	10 328	10 328	10 328	25 280	15 492	10 328	25 820	35 608

#### Table 2 Administrative fees (cont'd)

	Public fixed voice telephony services (not including transmission capacity)		<b>Operation of public network and</b> <b>provision of network services</b> (not including voice services)		Voice telephony on a self-operated network (not including network services )		Voice telephony and network services on a self-operated network	
	Single payment	Annual fee	Single payment	Annual fee	Single payment	Annual fee	Single payment	Annual fee
L	620	37 184 plus % of turnover (min. 0.15% max. 0.30%)	6 197	12 394 plus % of turnover (min. 0.10% max. 0.25%)	7 436	49 578 plus % of turnover (min. 0.20% max. 0.35%)	7 436	49 578 plus % of turnover (min. 0.20% max. 0.35%)
NL	363	1 724 if SMP : 890 454	363	862 if SMP: 925 000	363	2 042 if SMP: 923 443	726	2 904 if SMP: 1 231 106
A <sup>18</sup>	0	0	5 087	0.12% of turnover	5 087	0.12% of turnover	10 174	0.12% of turnover
Р	9 976	9 976	9 976	9 976	9 976	9 976	19 952	19 952
FIN	0	0	0	0	0	0	0	0
<b>S</b> Notification <sup>19</sup>	0	- 115 for turnover <343 896 - 2 867 for turnover >343 896	0	- 115 for turnover <343 896 - 2 867 for turnover >343 896	0	- 115 for turnover <343 895 - 2 867 for turnover >343 895	0	<ul> <li>- 115 for turnover</li> <li>&lt;343 895 for each</li> <li>relevant activity</li> <li>- 2 867 for turnover</li> <li>&gt;343 895 for each</li> <li>relevant activity</li> </ul>
Licence	11 463	<ul> <li>- 0.15% of turnover</li> <li>(min. 5 733)</li> <li>- Incumbent: extra</li> <li>0.5% of voice telephony turnover</li> <li>(max 11 467 890)</li> </ul>	11 463	- 0.15% of turnover (min. 5 733)	11 463	<ul> <li>0.15% of turnover (min. 5 733)</li> <li>Incumbent: extra 0.5% of voice telephony turnover (max 11 467 890)</li> </ul>	22 926	<ul> <li>- 0.15% of turnover for each relevant activity (min. 11 466)</li> <li>- Incumbent: extra 0.5% of voice telephony turnover (max 11 467 890)</li> </ul>

#### Table 2 Administrative fees (cont'd)

	<b>Public fixed voice telephony services</b> (not including transmission capacity)		Operation of public network and provision of network services (not including voice services)		Voice telephony on a self- operated network (not including network services )		Voice telephony and network services on a self-operated network	
	Single payment	Annual fee	Single payment	Annual fee	Single payment	Annual fee	Single payment	Annual fee
UK <sup>20</sup>	59 975	- new entrants: 4 498 for the first two years, then 4 498 if turn. >7 496 768 - max 0.08% if turnover >7 496 768	59 975	new entrants: 4 498 for the first two years, then 4 498 if turn. >7 496 768 - max 0.08% if turnover >7 496 768	59 975	new entrants: 4 498 for the first two years, then 4 498 if turn. >7 496 768 - max 0.08% if turnover >7 496 768	59 975	new entrants: 4 498 for the first two years, then 4 498 if turn. >7 496 768 - max 0.08% if turnover >7 496 768

<sup>&</sup>lt;sup>15</sup> Straight-line distance between the points to be connected.

<sup>&</sup>lt;sup>16</sup> According to the General Telecommunications Act, the exact amount of the annual fees (percentage value) will be fixed every year by Parliament, taking into account the need to cover the administrative costs of the licensing management and controls system. The annual fees cannot be higher than 2‰. For 1999 the value set is 0.15%.

<sup>&</sup>lt;sup>17</sup> An annual fee of 0.35‰ of the relevant turnover is payable to contribute to the overall costs of the regulator.

<sup>&</sup>lt;sup>18</sup> For all types of operator, an annual fee (depending on turnover and market share) is payable to contribute to the overall costs of the regulator. The annual percentage varies between 0.1% and 0.2% of the Austrian turnover. In 1999 it was 0.12%.

<sup>&</sup>lt;sup>19</sup> A licence is required if an operator's activity is considered "significant" regarding the area of distribution, the number of users and similar factors. These operators typically have a market share of 10-15% (never less than 5%).

<sup>&</sup>lt;sup>20</sup> Fees for public telecommunications operator (PTO) licence.

## Table 3 Numbering fees $(\in)$

$(\mathbf{S} = \text{one-off fee}; \mathbf{A} = \text{annual fee}; \text{where relevant: } \mathbf{S}(\mathbf{r})/\mathbf{A}(\mathbf{r}) = \text{one-off/annual fee in case of allocation of a number that had been reserved bet}$
--

	В	DK	<b>D</b> <sup>15</sup>	Ε	FIN	F	Ι	L	NL
Standard telephone numbers (E.164)	per block of 10 000 numbers S: 381.76 A: 128.9	per number (8- digit numbers) <b>A:</b> 0.2644	per block of 1 000 10-digit numbers <b>S:</b> 512.91 per block of 1 000 11-digit numbers <b>S:</b> 51.13	per number A: 0.03	per number A: 0.34	per number A: 0.0228 reservation A: 0.0114	per number A: 0.01 reservation A: 0.005	per number part of a block of 10 000 numbers <b>S:</b> 0.12 <b>A:</b> 0.12 per number in amount < a block: <b>S</b> 61 97 + n*0.24 <b>A:</b> 61 97 + n*0.24	per number S: 0.027 A: 0.022 reservation S: 0.027 A: 0.009
Carrier selection code	4 digits S: 1 266.74 A: 12 657.44	4 digits A: 2 644.42 5 digits A: 264.44	4 digits <b>S:</b> 512.91	per number A: 0.03 x a factor indicating the number of 8-digit numbers occu- pied in the num- bering plan	International A: 3 digits 92 503 A: 4 digits 18 501 A: 5 digits 3 700 Long distance A: 3 digits 92 503 A: 4 digits 18 501 A: 5 digits 3 700	reservation A: 4 digits 22 867 A: 1 digit 228 674 allocation A: 4 digits 45 734 A:1 digit 457 347	reservation A: 4 digits 51 640 A:5 digits 25 820 allocation A: 4 digits 103 280 A: 5 digits 51 640	S: 1 239 A: 1 239	reservation S 908 A: 227 allocation S: 908 S(r): 454 A: 454
<b>International</b> <b>Signalling Point</b> <b>Codes</b> (for international interconnection)	S: 381.76 A: 12 657.44	<b>A:</b> 26 444	<b>S:</b> 383		<b>A:</b> 1 682			<b>S:</b> 991 <b>A:</b> 495	reservation S: 908 A: 227 allocation S: 908 S(r): 454 A: 454
National Signalling Point Codes (for national interconnection)	S: 381.76 A: 0		<b>S:</b> 192		per group of 10 codes A: 34			S: 991 A: 495	reservation S: 908 A: 227 allocation S: 908 S(r): 454 A: 454

<sup>&</sup>lt;sup>15</sup> Numbers taken into use after July 1997.

### Table 4: Fees/charges for VSAT networks (August 2000, €)

Fees for VSAT networks and services in the 200 kHz-1 MHz band, up to 100 stations, bi-directional, with/without frequency coordination, with PSTN connection.

	INITIAL (ONE-OFF) FEES/CHARGES	ANNUAL FEES/CHARGES
В	Administrative fees: €770.95 (€1 797.23 with frequency coordination)	Frequency fees per station: €515.62
DK	Administrative fees: 0 Frequency fees: 0	Administrative fees per station: €14.75 Frequency fees per station: €23.26
D	Administrative fees: €7 665 for the network licence (Class 2) Frequency fees : €15	Frequency fees per station: € 17
EL	Administrative fees per station: €960.63 (hub station) €96.63 (peripheral station)	<b>Frequency fees</b> per station: €640.42 (hub station) €96.6 (peripheral station)
E	Administrative fees: €60 for the network licence	Frequency fees per station: 0.15% of turnover per bandwidth (per station): €1.07 per kHz (minimum €60)
F	Administrative fees: €3 811 up to 4 stations €6 098 from 5 stations	Administrative fees: €457 up to 4 stations €1 524 from 5 to 300 stations Frequency fees per station: € 76
IRL	Administrative fees: 0 Frequency fees: 0	Administrative fees: 0 Frequency fees: 0
I	Administrative fees: €516 for the service licence (€2 064 with frequency coordination) €516 for the network licence Frequency fees: €2 064 for up to 10 stations €5 160 for 11 to 100 stations	<b>Frequency fees</b> Per station: €103 per bandwidth: €5 160
L	Administrative fees: €6 197 for the network licence Frequency fees: €6 448	Administrative fees:
NL	Administrative fees: $\notin$ 363 (registration for the network) Frequency fees: $\notin$ 545 ( $\notin$ 1 090 with frequency coordination)	Administrative fees: €2042 (registration for network) Frequency fees per station: €472
A	Administrative fees: €98 (€196 with frequency coordination)	<b>Frequency fees</b> per station: from $\notin 174$ to $\notin 7$ 849 according to power <sup>22</sup>
Р	Administrative fees: €10 175.5 for licensing and registration of a public network €7 481.97 for registration of provision of a public telecommunications service Frequency fees €166.47 for each station licensing not needing coordination €499.45 for each station licensing requiring coordination	Administrative fees:
FIN	<b>Frequency fees</b> per station: €148 in case of frequency coordination	<b>Frequency fees</b> per station: €60.5

#### Table 4 (cont'd)

S	Administrative fees : 0 Frequency fees: 0	Frequency fees per station: €573.16
<b>UK</b> <sup>23</sup>	<b>Administrative fees</b> : €8 996.12 for the licence	Administrative fees: €4 498.1 (renewable licence fee) Frequency fees per station (hub stations): €1 499.35 up to 100 kHz €7 496.77 between 100 kHz and 2 MHz (peripheral stations): €2 298.71 up to 20 stations; €8 996.12 from 21 to 100 stations

<sup>&</sup>lt;sup>21</sup>The minimum percentage of 0.10% is applied for turnovers of up to €12 394 000; the highest percentage of 0.25% is applied to turnovers of greater than €123 940 000.
<sup>22</sup>Monthly fees per station vary as follows: €14 if < 1 Watt; €35 if 1-6 Watt; €50 if 6-30 Watt; €109 if 30-150 Watt;</li>

charges fees for frequencies and terminals.