

## Annex 3

Regulatory issues: supplementary data



## NATIONAL REGULATORY AUTHORITIES

This section indicates the number of staff employed by the national regulatory authorities (NRAs), the size of their budgets, and their sources of financing (Table 1). It also gives an overview of their activity in terms of granting licences and numbers as well as their involvement in or initiation of conciliation or settlement of disputes between operators (Table 2).

The information given in these tables is based on data made available by the NRAs themselves.

The figures given in Table 1, both in terms of budget and personnel, are **not comparable** across the Member States, because the range of tasks and powers assigned to the NRAs varies widely. In some countries, such as Italy, the NRA's tasks are very broad and encompass audiovisual and press matters, whereas in other countries these tasks are divided up between a number of organisations.

Table 2, regarding the dispute settlement and conciliation procedures handled by the NRAs, does not reflect the diversity of regulatory practices in the Member States. For example, Portugal did not state the number of conciliation and dispute settlement procedures that it had handled, but indicated that its action in the market had been characterised by several interventions of a more global nature on issues such as interconnection charges and conditions and the prices of digital leased lines.

In some cases (which have been indicated), the information given in this table refers to a different reporting period.

**Table 1: Financing and staff of the national regulatory authorities**

	Operational budget (millions of €)		Main sources of financing of the NRA's budget in 1999 (%)	Number of full-time staff (occupied posts)	
	1999	2000		Current	Projected
<b>B</b>	26.5	22.4	Licence application administrative charges, radio spectrum fees, number reservation fees (no figures given)	199	N/A
<b>DK</b>	16.5	18.5	97,3% of the budget financed by market actors: 59% from numbering fees paid by all licensed (fixed/mobile) operators; 39% from frequency fees, other fees, and the sale of goods and services	154	164
<b>D</b>	134.6	153.4	N/A	2446	< 2446
<b>EL</b>	9.0	12.0	100% financed by the fees/charges paid by all licensed (fixed/mobile) operators, of which 83% from the incumbent/SMP operators	27	60
<b>E</b>	11.3	12.3	98.6% financed by the fees/charges paid by all licensed (fixed/mobile) operators	106	111
<b>F</b>	13.5	14.0	100% financed by the state budget	140	174 <sup>1</sup>
<b>IRL</b>	14.5	15.4	65% financed by the fees/charges paid by all licensed (fixed/mobile) operators (44% from the incumbent/SMP operators), the remainder by radio, cable and MMDS licensing and bank interest.	72	95
<b>I</b>	25.8	25.8	100% financed by the state budget. However, this is a direct passthrough of a levy on the turnover of all operators.	180	320
<b>L</b>	N/A	3.0	Financing by fees/charges paid by all licensed (fixed/mobile) operators (no figures given).	19	N/A
<b>NL</b>	10.6	11.0	76% financed by the fees/charges paid by all licensed (fixed/mobile) operators (24% from the incumbent/SMP operators)	96	115
<b>A</b>	5.5	7.2	100% financed by the fees/charges paid by all licensed (fixed/mobile) operators, of which 60% from the incumbent/SMP operators	55	60
<b>P</b>	46.7	46.1	90% financed by the fees/charges paid by all licensed (fixed/mobile) operators.	375	380
<b>FIN</b>	21.5	22.5	31% financed by the fees/charges paid by all licensed (fixed/mobile) operators (26.5% from the incumbent/SMP operators <sup>2</sup> ), the remainder (69% or 14.84 million €) by TV licence fees, postal and Internet domain administration and other (non operator) licence fees.	210	210
<b>S</b>	19.9	21.2	71% financed by fees/charges paid by all licensed (fixed/mobile) operators (21% from the incumbent/SMP operators), 22.75% by previous excess revenue and 6% by the state budget.	178	184
<b>UK</b>	23.0	24.0	100% financed by the state budget. However, 83% out of this (£11,667,000) is a direct passthrough of licence fees paid by all licensed (fixed/mobile operators (59.5% by the incumbent/SMP operators). The remainder is state funded.	208	220

<sup>1</sup> Figure for the Ministry and NRA combined (as compared with the current figure of 169 for the NRA and the Ministry combined).

<sup>2</sup> €3.5 million frequency and licence fees; €2 million numbering fees.

**Table 2: Sample of the NRA's activities in 1999**

	Average time for granting individual licences for public voice telephony and public network	Average time for granting numbers	Number of conciliation/dispute settlement procedures handled by the NRA (in 1999, unless otherwise specified)
<b>B</b>	3 months	15 working days	Interconnection: 2 Special access: 1
<b>DK</b>	Not applicable (general authorisation system for fixed networks and services)	Max. 10 working days (average estimated to be slightly lower)	2 (one settled, one opened)
<b>D</b>	6 weeks	3-4 working days	Interconnection: 39
<b>EL</b>	N/A	N/A	Interconnection: 1 Leased line provision: 1 (All disputes to date)
<b>E</b>	6 weeks (four months if spectrum allocation)	5 weeks	Interconnection: 14 Public voice telephony: 4 Special access: 2
<b>F</b>	58.4 days	5 weeks	Interconnection: 9 Public voice telephony: 7 Special access: 2 (Figures for 1997-2000)
<b>IRL</b>	6 weeks	4 weeks	Interconnection: 24 Public voice telephony: 5 Special access: 1 Leased line provision: 4
<b>I</b>	6 weeks	30 days	Interconnection: 4
<b>L</b>	30 calendar days	2 working days	N/A
<b>NL</b>	15 calendar days	11 calendar days for free-phone and premium rate; 42 for other number categories	Interconnection: 7 Special access: 1 Scarcity of capacity: 3 Site sharing: 3 Access to cable: 3
<b>A</b>	4 weeks	10 working days	Interconnection: approx. 50 Public voice telephony: 31 Special access: 6 Leased line provision: 1
<b>P</b>	30 days	6 working days	No figures available
<b>FIN</b>	Not applicable (general authorisation system for fixed networks and services)	1 week	Interconnection: 5 Public voice telephony: 1 Local loop unbundling: 2
<b>S</b>	Licences: max. 90 working days (stipulated); notifications: less than 14 working days (average time)	Approx. 40 calendar days	Interconnection: 23 (figure for the year 2000)
<b>UK</b>	Just over five weeks.	28 calendar days	Interconnection: 20 Public voice telephony: <118 Leased line provision: 4



## LOCAL ACCESS

### 1. LOCAL LOOP UNBUNDLING (LLU)

**Table 3: Availability and economic conditions of full unbundling of local loop, August-September 2000**

	Availability	Lines for which LLU is operational	Operators with agreements in place	Economic conditions		
				Connection	Monthly rental	Pricing methodology
B	No (from 01.01.01)	-	-	-	-	-
DK	Yes, since 01.07.98	n.a.	8	€46.97-16.37 <sup>3</sup>	€8.28	FDHC and best practice <sup>4</sup>
D	Yes, since 01.01.98	Approx. 400 000	87	n.a.	€12.99	LRIC
EL	No	-	-	-	-	-
E	No (from 01.01.01)	-	-	-	-	-
F	No (from 01.01.01)	None (trials under way)	None (but experimental licences granted)	Under discussion	Under discussion	LRIC
IRL	No	-	-	-	-	-
I	Yes, since 03.2000, but not yet operational	None (trials under way)	None (but 11 temporary agreements concluded)	€151.84 (proposed) <sup>5</sup>	€13.58 (proposed) <sup>5</sup>	FDHC
L	No	-	-	-	-	-
NL	Yes, since 01.06.00 <sup>6</sup>	n.a.	9	n.a.	€10-15 <sup>7</sup>	EDC
A	Yes, since 02.07.99	Approx. 100 <sup>8</sup>	Approx. 108 <sup>8</sup>	from €54.50	€12.35	FL-LRAIC
P	No	-	-	-	-	-
FIN	Yes, since 1996	Approx. 10 000	n.a.	n.a.	€5.05-25.03 <sup>9</sup>	Company specific <sup>10</sup>
S	Yes, since 03.2000	n.a.	13	from €170.19	from €14.28	FDCC
UK	Yes, since 08.08.00, but not yet operational	None	None <sup>11</sup>	€235.61 (proposed) <sup>12</sup>	€14.75 (proposed) <sup>12</sup>	FL-LRAIC

Legend: "n.a." = information not available; "-" = not applicable; FDHC = fully distributed historic costs; LRIC = long-run incremental costs; EDC = embedded direct costs; FL-LRAIC = forward-looking long-run average incremental costs.

<sup>3</sup> The fees apply respectively to the first and subsequent connections to the same local exchange covered by the same order.

<sup>4</sup> LRAIC is envisaged from 2002.

<sup>5</sup> The NRA is expected to issue a decision by the end of 2000.

<sup>6</sup> KPN is due to make 200 main distribution frames ready for unbundling by the end of 2000.

<sup>7</sup> Depending on location.

<sup>8</sup> As of July 2000. The number of agreements includes Internet service providers.

<sup>9</sup> Range of prices charged by the 46 SMP local operators in Finland.

<sup>10</sup> Each operator applies its own standard. An appeal against the NRA's decision on LLU pricing and cost accounting has been lodged with the administrative court. The proceeding is still open.

<sup>11</sup> The contract is available, however the NRA is still investigating its terms.

<sup>12</sup> Actual price to be determined by the NRA by the end of 2000.

**Table 4: Availability and economic conditions of shared access to the local loop, August-September 2000**

	Availability	Lines for which LLU is operational	Operators with agreements in place	Economic conditions		
				Incumbent's internal price	Price to OLOs	Pricing methodology
<b>B</b>	No (from 01.01.01)	-	-	-	-	-
<b>DK</b>	Yes, since 01.07.00, but not yet operational	None	None	n.a.	n.a.	n.a.
<b>D</b>	No	-	-	-	-	-
<b>EL</b>	No	-	-	-	-	-
<b>E</b>	No (from 01.01.01)	-	-	-	-	-
<b>F</b>	No (from 01.01.01)	None (trials under way)	None (experimental licences granted)	Under discussion	Under discussion	LRIC
<b>IRL</b>	No	-	-	-	-	-
<b>I</b>	No	-	-	-	-	-
<b>L</b>	No	-	-	-	-	-
<b>NL</b>	Under discussion	-	-	-	-	-
<b>A</b>	No	-	-	-	-	-
<b>P</b>	No	-	-	-	-	-
<b>FIN</b>	Under discussion	-	-	-	-	-
<b>S</b>	No	-	-	-	-	-
<b>UK</b>	Under discussion	-	-	-	-	-

Legend: "n.a." = information not available; "-" = not applicable; OLOs = other licensed operators; LRIC = long-run incremental costs.



**Table 5 Availability and economic conditions of high-speed bitstream access, August-September 2000**

	Availability	Operators with agreements in place	Economic conditions	
			Connection	Monthly rental
B	No (from 01.01.01)	-	-	-
DK	Yes, since 01.07.98	None	n.a.	n.a.
D	Yes (retail ADSL, since 04.1999)	n.a.	ADSL wholesale prices are the same as retail prices for large users	
E	Yes (wholesale ADSL, since 15.09.00)	18	€90.15 (256 kbit/s UBR) €90.15 (256 kbit/s SBR) €150.2 (512 kbit/s SBR) €306.52 (2 Mbit/s SBR)	€24.04 (256 kbit/s UBR) €30.05 (256 kbit/s SBR) €153.26 (512 kbit/s SBR) €306.52 (2 Mbit/s SBR)
F	Under discussion	None (experimental licences granted)	-	-
IRL	No (planned for 04.2001)	-	-	-
I	Yes (wholesale ADSL, since 01.2000)	22	Wholesale: €129.11(640 kbit/s) Retail: €158.84 (640 kbit/s)	Wholesale: €13.58 Retail: €75.32
NL	Yes (retail ADSL, since 07.2000)	None	Wholesale/Large users: €251.02 (500 kbit/s, 1 Mbit/s)  Consumers: €158.92 or €294.96 (500 kbit/s, 1 Mbit/s)	Wholesale/Large users: €19.31 (500 kbit/s); €25.10 (1 Mbit/s)  Consumers: €22.69 (500 kbit/s); €27.23 (1 Mbit/s)
A	Yes (wholesale ADSL), since 27.06.00	Approx. 12 ISP <sup>13</sup>		Various fees up to a maximum of €27.62 <sup>14</sup>
FIN	Yes, but not mandatory	Few operators	n.a.	n.a.
S	Yes, but not mandatory	None	n.a.	n.a.
UK	Yes (retail ADSL), since 06.2000 <sup>15</sup>	Approx. 70	Wholesale/Large users: €426.06 (500 kbit/s, 1 Mbit/s, 2 Mbit/s)  Consumers: €245.81(500 kbit/s)	Wholesale/Large users: €114.7 (500 kbit/s); €141.8 (1 Mbit/s); €168.87 (2 Mbit/s)  Consumers: €57.35 (500 kbit/s)

Legend: "n.a." = information not available; "-" = not applicable; UBR = unspecified bit rate; SBR = statistical bit rate.

High-speed bit stream access is not available in EL, L and P.

<sup>13</sup> As of July 2000.

<sup>14</sup> This amount is normally divided between the alternative operator/ISP and the consumer according to the specific end user pricing scheme. Different prices to new entrants and final users.

<sup>15</sup> The NRA is investigating complaints that BT is engaging in cross-subsidy and discrimination in favour of its own service provider.



## **1. QUALITY OF SERVICE FOR PUBLIC FIXED VOICE TELEPHONY**

This section provides information on the quality of voice telephony services offered by the incumbent operators. It concerns the indicators listed in Annex III to the New Voice Telephony Directive (98/10/EC). A short description of these indicators is given in the heading of each table. For a more formal definition, reference should be made to ETSI ETR 138, 1994.

The information has been provided by the national regulatory authorities (NRAs). The information for 1998 is taken from the Fifth Report, which was based on information made available by the Member States.

For Germany, most of this information is still not available. Decision 169/1999 of the regulatory authority laid down the rules for the application and interpretation of ETSI ETR 138. Given that the measurement period is one year and that the first complete results will cover the period 1.1.2000-31.12.2000, the relevant information will not be available before the end of 2000. Some data are also missing for the other Member States, as indicated on a case-by-case basis below each table.

Information collected by the Member States may be based on standards which differ from the ETSI definitions. The information given in Table 6 to Table 14 is therefore **not comparable** across countries.

In these tables, the following abbreviations are used:

w. days = working days

c. days = calendar days

w. hours = working hours

aver. = on average

sec. = seconds

Q1 = Jan-Mar.

Q2 = Apr.-June

Q3 = July-Sep.

Q4 = Oct.-Dec.

N/A = information not available

**Table 6: Supply time for initial connection (see ETSI ETR 138. July 1994)**

Expressed:

- either in terms of working days/hours between valid contract and operational connection
- or as the percentage of orders met within a specified time-limit

	Jan.-June 1998		July-Dec. 1998		Jan.-June 1999		July-Dec. 1999		Jan.-June 2000
<b>B</b>	95.8% within 5 w. days		95.5% within 5 w. days		94.5% within 5 w. days		94.5% within 5 w. days		95.7% within 5 w. days
<b>DK</b>	N/A		N/A		N/A		3 w. days <sup>16</sup>		N/A
<b>D</b>	N/A		-99.3% within 10 w. days -99.6% within 15 w. days -99.8% within 20 w. days		-99.5% within 10 w. days -99.7% within 15 w. days -99.8% within 20 w. days		N/A		N/A
<b>EL</b>	5 w. days aver.		5 w. days		5 w. days		5 w. days		5 w. days
<b>E</b>	N/A		5.1 c. days		5.6 c. days		5.0 c. days		5.0 c. days
<b>F</b>	N/A		5.7 w. days <sup>17</sup>		N/A		N/A		N/A
<b>IRL</b>	9 w. days aver. <sup>18</sup>		10 c. days		10 c. days		10 c. days		7 c. days
<b>I</b>	8 c. days aver.	9 c. days aver.	9 c. days		10 c. days		10 c. days		9 c. days
<b>L</b>	N/A		<7 w. days aver.		Existing line: 3.3 w. days; new line: 15.7 w. days		N/A		N/A
<b>NL</b>	10-15 w. days aver. (80% within 21 days)		98% within 1 month		N/A		N/A		N/A
<b>A</b>	N/A		5.8 w. days aver. <sup>19</sup>		100% within 12.9 w. days <sup>20</sup>		N/A		N/A
<b>P</b>	N/A		5 w. days aver.		6 w. days aver.		5 w. days aver.		5 w. days aver.
<b>FIN</b>	4.7 w. days aver.		2.6 w. days		N/A		N/A		N/A
<b>UK<sup>21</sup></b>	Q1: BT: 97.8%	Q2: 97.4 %	Q3: 97.2%	Q4: 97.3%	Q1: 97.6%	Q2: 98.1%	Q3: 96.7%	Q4: 96.2%	N/A
	Kingston: 99.8%	100 %	99.9%	99.8%	99.9%	100%	99.8%	99.6%	

Information not available for Sweden.

<sup>16</sup> October-December 1999.

<sup>17</sup> Average time expressed in working days measured from the date on which the connection request is lodged with the sales office to the date on which the line is installed.

<sup>18</sup> January-November 1998.

<sup>19</sup> Figure for June 1999. Take-over of existing connection not included. No separation between requests for connection "as soon as possible" and "on agreed date".

<sup>20</sup> Figure for October-December 1999, excludes take-overs.

<sup>21</sup> Percentage of orders completed by the contractual date.

**Table 7: Fault rate per access line (see ETSI ETR 138. July 1994)**

Expressed as the number of valid faults reported per 100 access lines

	Jan.-June 1998		July-Dec. 1998		Jan.-June 1999		July-Dec. 1999		Jan.-June 2000
<b>B</b>	4.7		4.1		4.1		3.9		3.4
<b>DK</b>	N/A		N/A		N/A		15 <sup>22</sup>		
<b>EL</b>	27.9		17		17		17		N/A
<b>E</b>	N/A		6.48		6.48		8.9		8.2
<b>F</b>	6.4		6.5		6.5		6.5		N/A
<b>IRL</b>	12 <sup>23</sup>		14		14		16		15
<b>I</b>	15.6	16.8	16.2 <sup>24</sup>		16.2 <sup>24</sup>		18.2 <sup>24</sup>		17.4 <sup>24</sup>
<b>NL</b>	2.7		3.8		3.8		3.8		N/A
<b>A</b>	6.2		6.7 <sup>25</sup>		6.7 <sup>25</sup>		6.7 <sup>25</sup>		N/A
<b>P</b>	N/A		5.2		5.2		11.2		2.3
<b>FIN</b>	8.4		7 (estimate)		7 (estimate)		7 (estimate)		N/A
<b>S</b>	N/A		Approx. 10		Approx. 10		< 11		N/A
<b>UK<sup>26</sup></b>	Q1: BT: 4.0	Q2: 3.7	Q3: 3.6	Q4: 4.1	Q1: 4.0	Q2: 3.7	Q3: 4.0	Q4: 4.6	N/A
	Kingston: 3.4	3.3	2.7	3.4	3.2	3.0	3.4	3.4	

Information not available for Luxembourg.

<sup>22</sup> Figure for October-December 1999.

<sup>23</sup> January-November 1998.

<sup>24</sup> Valid and invalid faults.

<sup>25</sup> Including extraordinary events.

<sup>26</sup> Customer reported faults (residential).

**Table 8: Fault repair time (see ETSI ETR 138. July 1994)**

Expressed:

- either in terms of working hours between fault report and service restored
- or as the percentage of fault repairs completed within a specified period

	Jan.-June 1998		July-Dec. 1998		Jan.-June 1999		July-Dec. 1999		Jan.-June 2000		
<b>B</b>	90% within 2 w. days				89.8% within 2 w. days		89.6% within 2 w. days		92.0% within 2 w. days		
<b>DK</b>	N/A				N/A		99% within 75 w. hours <sup>27</sup>		N/A		
<b>D</b>	N/A				85.5% within 24 hours		86.3% within 24 hours		N/A		
<b>EL</b>	21 w. hours aver.				90.5% within 24 hours				N/A		
<b>E</b>	N/A				9.6 w. hours		8.7 w. hours		8.8 w. hours		
<b>F</b>	- Business: 16.5 w. hours. - Residential: 23.1 w. hours				84.4% within 2 w. days				N/A		
<b>IRL</b>	16 w. hours aver. <sup>28</sup>				24 hours		27 hours		31 hours		
<b>I</b>	94.9% within 2 c. days	94.1% within 2 c. days			95.5% within 2 c. days		88.5% within 2 c. days		90.8% within 2 c. days		
<b>L</b>	N/A				967% within 16 w. hours		94.9% within 16 w. hours		N/A		
<b>NL</b>	5 w. hours aver.				1.8 w. days				N/A		
<b>A</b>	N/A	5.9 w. hours aver. <sup>29</sup>				95.8% of faults repaired within 24 w. hours				N/A	
<b>P</b>	N/A				90.2% within 12 w. hours		88.9% within 12 w. hours		93.2% within 12 w. hours		
<b>FIN</b>	71.4% within 1 w. day				74.1% within 1 w. day				N/A		
<b>S</b>	55% within 8 w. hours				Approx. 85% within 8 w. hours. Approx. 97% within 16 w. hours		Approx. 75-78% within 8 w. hours. Approx. 90-93% within 16 w. hours		N/A		
<b>UK</b> <sup>30</sup>	Q1: BT: 78.3%	Q2: 85.3%	Q3: 82.4%	Q4: 79.9%	Q1: 83.0%	Q2: 82.4%	Q3: 78.2%	Q4: 83.0%	N/A		
	Kings- ton: 99.2%	98.3%	99.0%	98.3%	98.8%	98.4%	98.6%	99.1%			

<sup>27</sup> October-December 1999.

<sup>28</sup> January-November 1998.

<sup>29</sup> December 1998.

<sup>30</sup> Percentage of faults cleared in target time (BT: 9 working hours, Kingston: end of next working day).

**Table 9: Unsuccessful call ratio (see ETSI ETR 138. July 1994)**

Expressed in percentages, unless specified otherwise

	Jan.-June 1998	July-Dec. 1998	Jan.-June 1999	July-Dec. 1999	Jan.-June 2000
<b>B</b>	National calls: 0.2 Intra-EC calls : 5.1 Extra EC calls: 9.9		National: 0.3 Intra-EC: 8.4 Extra-EC: 16.3	National: 0.5 Intra-EC: 10.4 Extra-EC: 17.8	National: 0.4 Intra-EC: 20.4 Extra-EC: 24.2
<b>DK</b>	N/A		N/A	<sup>31</sup> National: 0.3 Intra-EC: 2.2 Extra-EC: 5.2	N/A
<b>E</b>	N/A		National: 0.2 International: 1	National: 0.1 International: 0.5	National: 0.1 International: 0.5
<b>F</b>	0,1		0.1		N/A
<b>IRL</b>	N/A		Local: 0.5 National: 0.8 (STD)	Local: 0.6 National: 1.6 (STD)	Local: 0.7 National: 2.0 (STD)
<b>I</b>	Local calls: 0.5 National calls: 1	Local: 0.4 National:0.7	Local: 0.3 Long-distance:0.8	Local: 0.3 Long-distance: 1.1	Local: 0.3 Long-distance: 0.9
<b>L</b>	N/A		National calls: 0.5	National: 0.8	N/A
<b>NL</b>	National calls: <1		National: 2.4 Average for all types of calls: 2.1		N/A
<b>A</b>	N/A		0.4		N/A
<b>P</b>	N/A		National calls: 0.8	0.5	0.5
<b>FIN</b>	National calls: 0.6		National: 0.7		N/A
<b>UK</b>	0.5 <sup>32</sup>		N/A	N/A	N/A

Information not available for Greece or Sweden.

<sup>31</sup> October-December 1999.<sup>32</sup> Figure given for BT (no equivalent Comparable Performance Indicator measure).

**Table 10: Call set up time: interval of time before busy tone/ringing tone/answer signal is received by the calling party (see ETSI ETR 138. July 1994)**

Expressed:

- in seconds

- as an average for all types of call, unless specified otherwise

	Jan. -Dec. 1998	Jan.-June 1999	July-Dec. 1999	Jan.-June 2000
<b>B</b>	N/A	National calls: 4.4 Intra-EC calls : 6+2.4 Extra-EC calls: 6+ 3	National: 4.6 Intra-EC: 6+2.5 Extra-EC: 6+ 3.1	National: 4.4 Intra-EC: 6+ 2.5 Extra-EC: 6+ 3.2
<b>DK</b>	N/A	N/A	National calls: 0.7 <sup>33</sup>	
<b>EL</b>	79.5% < 2 sec 85% < 4 sec 92% < 6 sec	N/A	N/A	N/A
<b>F</b>	N/A	1.2		N/A
<b>I</b>	All types of call: 0.4 sec	0.4 sec	0.4 sec	0.4 sec.
<b>L</b>	N/A	National calls: 0.4 Intra-EC calls: 1.8 Extra-EC calls: 3.3	National: 0.4 Intra-EC: 1.9 Extra-EC: 2.9	N/A
<b>NL</b>	N/A	Local calls: 0.3 Long-distance calls: 1.0		N/A
<b>A</b>	N/A	0.4 aver.		N/A
<b>P</b>	N/A	91.4% within 4 sec.	90.2% within 4 sec.	88.1% within 4 sec.

Information not available for Spain, Ireland, Finland, Sweden or the UK.



**Table 11: Response time for operator services: time in seconds from when the last address digit is dialled to when the human operator answers (see ETSI ETR 138. July 1994)**

	Jan.-Dec. 1998	Jan.-June 1999	July-Dec. 1999		Jan.-June 2000
<b>B</b>	17.8 aver.	20.1	8.3		3.3
<b>EL</b>	90% within 20 sec.	20	17		16
<b>E</b>	N/A	6.1	N/A		N/A
<b>F</b>	19.11 aver.	N/A	N/A		N/A
<b>IRL</b>	95% within 15 sec. <sup>34</sup>	N/A	31		17
<b>I</b>	99.8% within 20 sec.	99.5% within 20 sec.	98.5% within 20 sec.		94.2% within 20 sec.
<b>L</b>	N/A	20 aver.	33		N/A
<b>NL</b>	N/A		10.3		N/A
<b>A</b>	N/A		26.0		N/A
<b>P</b>	N/A	11.4	12.7		N/A
<b>UK<sup>35</sup></b>	89.9 - 1.8% within 15 sec. <sup>36</sup>	Q2: 80.1% within 15 sec.	Q3: 88.2% within 15 sec.	Q4: 96.4% within 15 sec.	Q1: 91.4% within 15 sec.

Information not available for Denmark, Finland or Sweden.

<sup>34</sup> January-November 1998.

<sup>35</sup> Figures given for BT.

<sup>36</sup> No equivalent Comparable Performance Indicator measure.

**Table 12: Response time for directory enquiry services (as for operator services)**

Expressed in seconds

	Jan.-June 1998	July-Dec. 1998	Jan.-June 1999	July-Dec. 1999	Jan.-June 2000
DK	N/A		N/A	<sup>37</sup> Nat. enqu.: 9.5 Intern. Enqu.: 6.1	N/A
EL	90% within 15 sec.		15	15	15
E	N/A		5.8	N/A	N/A
F	14 aver.		N/A	N/A	N/A
IRL	85% within 15 sec. <sup>38</sup>		N/A	15	9
I	69.7% within 15sec.	76.6% within 15 sec.	69.3% within 15 sec.	65.3% within 15 sec.	60.4% within 15 sec.
L	N/A		17 aver.	32	N/A
NL	N/A		National enquiries: 10.3 International enquiries: 10.6		N/A
A	N/A		53.1% within 20 sec. <sup>39</sup>		N/A
P	N/A		16.9	14.0	4.3
FIN	12 aver.		5.2 <sup>40</sup>		N/A
UK <sup>41</sup>	91.0% - 91.4% within 15 sec. <sup>42</sup>		Q2: 90.3% within 15 sec.	Q3: 95.3%	Q4: 94.2%
					Q1: 94.2% within 15 sec.

Information not available for Belgium or Sweden.

<sup>37</sup> October-December 2000.

<sup>38</sup> January-November 1998.

<sup>39</sup> For free-of-charge directory enquiry services.

<sup>40</sup> For number service only.

<sup>41</sup> Figures given for BT.

<sup>42</sup> No equivalent Comparable Performance Indicator measure.

**Table 13: Proportion of coin and card operated public pay-telephones in working order (see ETSI ETR 138)**

Expressed in percentages

	Jan.-June 1998	July-Dec. 1998	Jan.-June 1999	July-Dec. 1999	Jan.-June 2000
<b>B</b>	84.5		96.5	97.5	92
<b>EL</b>	96		N/A	N/A	N/A
<b>E</b>	N/A		98.5	97.2	98.0
<b>F</b>	90.9		99.0 <sup>43</sup>		N/A
<b>IRL</b>	95 <sup>44</sup>		92	92	92
<b>I</b>	0.9 = Hours of non availability of service as % of hours of availability	1.1 = Hours of non availability of service as % of hours of availability	0.9 = Hours of non availability of service as % of hours of availability	1.3 = Hours of non availability of service as % of hours of availability	1.2 = Hours of non availability of service as % of hours of availability
<b>L</b>	N/A		99.99	> 97	N/A
<b>NL</b>	N/A		96		N/A
<b>A</b>	N/A		98.5		N/A
<b>P</b>	N/A		99.3	99.2	99.0
<b>UK<sup>45</sup></b>	95.3-96.6 <sup>46</sup>		Q2: 95.6	Q3: 97.0	Q4: 95.5
					Q1: 96.6

Information not available for Denmark, Finland or Sweden.

<sup>43</sup> Calculated on the basis of the number of public pay telephones out of order for at least 24 consecutive hours (0.92% on average in 1999).

<sup>44</sup> January-November 1998.

<sup>45</sup> Figures given for BT.

<sup>46</sup> No equivalent Comparable Performance Indicator measure.

**Table 14: Billing accuracy: number of billing complaints received per 1 000 bills**

**(ETNO definition)**

	Jan.-June 1998	July-Dec. 1998	Jan.-June 1999	July-Dec. 1999	Jan.-June 2000		
<b>B</b> <sup>47</sup>	0.07		0.09	0.09	0.09		
<b>EL</b>	N/A		1.1	1	0.9		
<b>E</b>	N/A		1.4	1.7	2.6		
<b>F</b>	N/A		0.4 <sup>48</sup>		N/A		
<b>I</b>	N/A	N/A	0.5	0.4	0.4		
<b>L</b>	N/A		0.5	0.3	N/A		
<b>NL</b>	N/A		0.3		N/A		
<b>A</b>	0.6 <sup>49</sup>		0.5		N/A		
<b>P</b>	N/A		0.4	0.3	0.2		
<b>FIN</b>	3.9		1.9		N/A		
<b>UK</b>	BT: 2.0	2.4	Q1: 2.3	Q2: 2.0	Q3: 1.7	Q4: 1.9	N/A
	Kingston: 1.1 (Q1) 2.2 (Q2)	0.7 (Q3) 0.6 (Q4)	0.6	0.5	0.2	0.3	

Information not available for Denmark, Ireland or Sweden.

<sup>47</sup> Disputed bills and complex questions about billing.

<sup>48</sup> Number of written or oral complaints received which resulted in the opening of a file in the customer relations department per 1 000 direct exchange lines.

<sup>49</sup> Including ISDN services.

## 2. ITEMISED BILLING

This section examines the level of itemisation of the bills issued by the main telecommunications operators in the fifteen Member States.

The figures and information are taken from a study carried out by Cullen International for the Commission. The data, collected from primary sources (i.e. directly from telecommunications operators) give the situation in August 2000.

The current EU framework (Article 14 of the New Voice Telephony Directive 98/10/EC) requires a basic level of itemised billing at no extra charge to the user, but leaves it to the national regulatory authorities to lay down the basic level of itemised bills.

While no definition is provided by the Directive, for the purposes of this study, an itemised bill is considered to be a bill that includes the following details for every call: the full/partial number of the called party, the date of the call, the starting or ending time of the call, the duration of the call, and the price of the call.

In principle, in order to allow users to verify and control the charges incurred in using the network, this itemisation should extend to local calls. Situations where this is not the case have been indicated in the table.

A standard bill is the basic bill that a customer receives by default from his/her operator at no charge. The table distinguishes between two types of non-itemised standard bills:

- bills including aggregate information (calls listed per category as a total, total duration of connection and/or total cost) for each of the main categories of fixed services, i.e. national calls (with distinction between local calls, regional calls and long-distance calls), international calls, calls to mobile, and data/Internet connections.
- bills including no detailed information, but only the total price of the calls made (with no distinction between national calls, international calls, calls to mobile and data/Internet connections).

The standard bill may also contain itemised information on a certain type of calls (e.g. international calls) and aggregate information on other calls. This is indicated in the table.

The charges mentioned in the table do not include VAT.

**Table 15: Standard and itemised bills issued by the main telecommunications operators in the Member States**

		Information included in the standard bill			Itemised bill (not available/ free of charge as standard / free of charge on request/available at €per month)
		No detailed information	Aggregate information for each category of service	Additional information	
B	Incumbent (fixed voice telephony)		X	International calls itemised	€0.4 for details on calls > €0.25 €1.53 for details on all calls
	Main new entrant (fixed voice telephony)		X		Free of charge on request
	Main mobile operator		X	International calls itemised	Free of charge on request
DK	Incumbent (fixed voice telephony)		X	Calls to the Internet itemised <sup>50</sup>	From €0.67 <sup>51</sup> to €1.68 depending on number of calls listed <sup>52</sup>
	Main new entrant (fixed voice telephony)				Free of charge as standard
	Main mobile operator		X		€0.013 per call + €6.7 one-off fee <sup>53</sup>
D	Incumbent (fixed voice telephony)		X		Free of charge on request
	Main new entrant (fixed voice telephony)		X		Free of charge on request
	Main mobile operator		X		Free of charge on request
EL	Incumbent (fixed voice telephony)	X			€0.29 <sup>54</sup> + €0.147 per page <sup>55</sup>
	Main new entrant (fixed voice telephony)	N/A	N/A	N/A	N/A
	Main mobile operator				Free of charge as standard
E	Incumbent (fixed voice telephony)				Free of charge as standard (but local calls are not itemised) <sup>56</sup>
	Main new entrant (fixed voice telephony)				Free of charge as standard
	Main mobile operator				Free of charge as standard

<sup>50</sup> Calls to the Internet are not itemised on the bill, but details can be obtained free of charge on a CD-ROM.

<sup>51</sup> Exchange rate used: DKK 1 = €0.1343.

<sup>52</sup> A one-off detailed list of calls is available for €6.7.

<sup>53</sup> The itemised bill is sent quarterly to the subscriber.

<sup>54</sup> Exchange rate used: GRD 1 = €0.002948.

<sup>55</sup> For local calls: only those lasting more than 6 units are itemised.

<sup>56</sup> Only aggregate information is given on local calls (including data/Internet connections). Details on local calls are available at €3.00 (plus a one-off subscription fee of €12), but details on one selected local number (e.g. that of an Internet Service Provider) are available free of charge on request.

		Information included in the standard bill			Itemised bill (not available/ free of charge as standard / free of charge on request/available at €per month)
		No detailed information	Aggregate information for each category of service	Additional information	
F	Incumbent (fixed voice telephony)				Free of charge as standard
	Main new entrant (fixed voice telephony)				Free of charge as standard
	Main mobile operator	X <sup>57</sup>			€2.3 (free with some tariff options)
IRL	Incumbent (fixed voice telephony)		X		€1.5 <sup>58</sup>
	Main new entrant (fixed voice telephony)				Free of charge as standard
	Main mobile operator				Free of charge as standard
I	Incumbent (fixed voice telephony)		X		Free of charge on request
	Main new entrant (fixed voice telephony)				Free of charge as standard
	Main mobile operator		X		Free of charge on request
L	Incumbent (fixed voice telephony)		X		€2.2
	Main new entrant (fixed voice telephony)		X		Free of charge on request
	Main mobile operator		X		€2.2
NL	Incumbent (fixed voice telephony)		X		<sup>59</sup> €0.02 per call
	Main new entrant (fixed voice telephony)		X		€3.3 <sup>60</sup>
	Main mobile operator		X		Free of charge on request
A	Incumbent (fixed voice telephony)		X		€3.63 plus €0.0073 per call listed
	Main new entrant (fixed voice telephony)				Free of charge as standard
	Main mobile operator		X		€2.13
P	Incumbent (fixed voice telephony)				Free of charge as standard (but local calls are not itemised)
	Main new entrant (fixed voice telephony)		X	List of the 10 most called numbers <sup>61</sup>	Free of charge on request
	Main mobile operator				Free of charge as standard

<sup>57</sup> A standard bill including aggregate information will be provided by default free of charge starting from end-2000.

<sup>58</sup> A one-off detailed list of calls is available at €5. Local calls costing less than €0.12 are not itemised.

<sup>59</sup> Calls to the Internet are considered as calls to normal geographic numbers and are therefore not listed separately.

<sup>60</sup> No itemised billing for calls costing less than €0.22.

<sup>61</sup> Listed as top 10 by number, top 10 by destination, top 10 by duration, and top 10 by amount.

		Information included in the standard bill			Itemised bill (not available/ free of charge as standard / free of charge on request/available at €per month)
		No detailed information	Aggregate information for each category of service	Additional information	
FIN	1-Incumbent (fixed voice telephony)		X		Free of charge on request
	2-Incumbent (fixed voice telephony)		X	Long distance calls itemised <sup>62</sup>	€ + € one-off fee <sup>63</sup>
	Main new entrant (fixed voice telephony)		(Third-party billing)	(Third-party billing)	€ (variable) <sup>64</sup>
	Main mobile operator	X			€1.7
S	Incumbent (fixed voice telephony)		X		Free of charge on request <sup>65</sup> (but local calls are not itemised)
	Main new entrant (fixed voice telephony)	X			Free of charge on request, (but local calls are not itemised)
	Main mobile operator		X		€0.936 <sup>66</sup>
UK	Incumbent (fixed voice telephony)				Free of charge as standard <sup>67</sup> (but only for calls over €0.64)
	Main new entrant (fixed voice telephony)				Free of charge as standard <sup>68</sup> (but only for calls over €0.83)
	Main mobile operator <sup>69</sup>		X		€2.84 maximum <sup>70</sup>

<sup>62</sup> Through a special “101-long-distance call agreement” it is possible to have long-distance calls itemised free of charge on request.

<sup>63</sup> A one-off detailed list of calls is available for €14.

<sup>64</sup> Telia Finland does not invoice any fixed network service directly to its customers. The incumbent local operators offer third party billing services and carry out the billing for Telia Finland's fixed services. In doing so, they can impose a certain charge per customer.

<sup>65</sup> Calls to ISPs are made using a free phone number (0200) which is not specified on the bill.

<sup>66</sup> Exchange rate used: SEK 1 = €0.1170.

<sup>67</sup> As standard, only calls over €0.64 are itemised, those below €0.64 are summarised.

<sup>68</sup> As standard, only calls over €0.83 are itemised, those below €0.83 are summarised.

<sup>69</sup> This information concerns the incumbent’s mobile subsidiary (which is not the main mobile operator in terms of number of subscribers).

<sup>70</sup> Itemised billing is charged at various rates ranging from no charge for corporate customers to a maximum of €2.84 per month for certain types of residential customer. Exchange rate used: GBP 1 = €1.73.



### 3. THE NET COST OF UNIVERSAL SERVICE PROVISION IN ITALY AND FRANCE

Italy and France are the only two Member States where US funding mechanisms were activated in 1999 and contributions levied on operators.

**Table 16: Net cost of universal service provision in 1999**

Overall net cost <i>in € M</i>	France	Italy
Non profitable areas / customers	237	74
Public payphones	29	34
Directory / enquiries <sup>71</sup>	0	0
Social tariffs <sup>72</sup>	0	0
Indirect and intangible benefits <sup>73</sup>	0	-46
Total net cost	265	62
Net cost per line <sup>74</sup> , <i>in €</i>	France	Italy
Non profitable areas / customers	7.0	2.8
Public payphones	0.8	1.3
Directory / enquiries	0	0
Social tariffs	0	0
Indirect and intangible benefits	0	-1.8
Total net cost per line (€)	7.8	2.4

<sup>71</sup> In France, this component is profitable but the net surplus is not deducted from the overall result; therefore the net cost appears to be 0; in Italy, the regulator considers that the enquiries services could not be deemed universal in 1999, and decided not to take the net cost claimed by Telecom Italia into account.

<sup>72</sup> As regards France, the Commission assumes that, like in 1998, there will not be any such social component in the end-evaluation for 1999, since the social scheme has been practically introduced in 2000 only.

<sup>73</sup> According to Directive 97/33/EC, the intangible benefits accruing to the universal service provider should be subtracted from the net cost of universal service.

<sup>74</sup> The figures presented in this table are simply the division of the figures presented in the table above by the number of fixed lines (source : France, ART's 1999 annual report ; Italy : Telecom Italia's 1999 annual report)



## TARIFFS

Table 17 gives an overview of the type of regulation applicable in the fifteen Member States to the end-user tariffs for fixed public voice telephony services of operators considered as having significant market power (SMP). It also indicates the period of public notice which the national regulatory authorities require operators with SMP in the fixed public voice telephony market to give before implementing tariff changes (as required by Article 17(5) of the New Voice Telephony Directive 98/10/EC).

The table indicates the dates on which the latest report on the evolution of tariffs (required by Article 3(2) of the New Voice Telephony Directive 98/10/EC) was published in each of the Member States, as well as the assessment, by the Member States, of whether tariff rebalancing has been completed (as required by Directive 90/388/EEC, as amended by Directive 96/19/EC).

The information given in Table 17 is based on data made available by the national regulatory authorities (referring to the situation on 1 August 2000), with the exception of the column concerning the type of regulation of end-user voice telephony tariffs of SMP operators.

Greece has been granted an additional period to implement full competition, and is not required to complete tariff rebalancing until the end of 2000.

**Table 17: Fixed public voice telephony tariffs of SMP operators: rebalancing, regulation, period of public notice before the implementation of tariff changes, and report on the evolution of tariffs**

	Tariff rebalancing completed (according to MS)	Type of regulation of end-user voice telephony tariffs of SMP operators	Period of public notice before the implementation of tariff changes by operators with SMP in the fixed public voice telephony market	Date of publication of the last report on the evolution of tariffs
<b>B</b>	No	Price cap	Tariff increase: 15 days Tariff decrease: 1 day	June 2000
<b>DK</b>	No <sup>75</sup>	Price cap	14 days on top of the notice of termination of contract <sup>76</sup>	August 2000
<b>D</b>	No <sup>77</sup>	Price cap/NRA approval	1 month	June 2000
<b>EL</b>	No <sup>78</sup>	Ex ante approval by the NRA under ONP conditions	1 month	No publication
<b>E</b>	Yes	Price cap	Under price cap: 10 days Under maximum tariff regime: 15 days	Incl. in NRA's 1999 annual report
<b>F</b>	Yes	Ex ante approval by the Ministry under ONP conditions	8 days	Incl. in NRA's 1999 annual report
<b>IRL</b>	No <sup>79</sup>	Price cap	21 days	Incl. in NRA's annual and quart. reports
<b>I</b>	Yes	Price cap/NRA approval	90 days	Incl. in NRA's July 2000 annual report
<b>L</b>	No	Freely set by operator	No period set	No publication
<b>NL</b>	Yes	Price cap/NRA approval	2 weeks	Incl. in NRA's May 2000 annual report
<b>A</b>	Yes	Ex ante approval by the NRA under ONP conditions	2 months	Ongoing on the NRA's web site <sup>80</sup>
<b>P</b>	No	Ex ante approval by the Ministry under ONP conditions	5 days	1998 <sup>81</sup>
<b>FIN</b>	Yes	Freely set by operator <sup>82</sup>	No period set <sup>83</sup>	April 2000

<sup>75</sup> But, according to the NRA, the price is estimated to be very close to a rebalanced tariff.

<sup>76</sup> Except for tariff decreases.

<sup>77</sup> According to DT AG, its end user tariffs have still not been fully rebalanced. However, the NRA is not preventing DT from eliminating any remaining access deficit by further rebalancing its end-user tariffs.

<sup>78</sup> Tariff rebalancing is nearing completion.

<sup>79</sup> Progressive rebalancing is being permitted through the price cap. Eircom may increase local access rentals at the rate of up to CPI+2 each year during the period 2000-2003.

<sup>80</sup> Report on market evolution every two years.

<sup>81</sup> In 1999 and 2000 the NRA issued press releases on tariff changes that were implemented in each of those years.

<sup>82</sup> Subject to the obligation of cost orientation for local calls.

<sup>83</sup> Users notified of tariff changes prior to entry into force.

<b>S</b>	No	Price cap	No period set (in practice 1 month for tariff increase)	June 2000
<b>UK</b>	No <sup>84</sup>	Price cap	28 days (1 day when market determined as competitive)	April 2000 <sup>85</sup>

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<sup>84</sup> Line rental income is not yet sufficient to cover fully allocated costs. However, the NRA believes that BT's residential line rental charge now covers the incremental cost of providing the line. There are no regulatory constraints preventing BT from further rebalancing its tariffs.

<sup>85</sup> Phone bill of a typical residential customer.



## COST ACCOUNTING

This section supplements the chapter on cost accounting systems.

Table 18 shows the cost accounting systems in place for interconnection with the networks of SMP operators and the deadlines for implementation by the incumbent operators of cost accounting systems based on current costs, as recommended by the Commission<sup>86</sup>. These data have been provided by the Member States and refer to the situation on 1 August 2000.

Table 19 provides information regarding the verification of compliance with the cost accounting system required by the New Voice Telephony Directive 98/10/EC (Article 18) and the Interconnection Directive 97/33/EC (Article 7(5)). The data indicate:

- whether a competent and independent body has carried out the verification of compliance with the cost accounting system for both voice telephony and interconnection,
- the last accounting year which has been verified,
- the year of the last publication of the statement of compliance, and
- whether relevant accounting information is made available by the NRA to interested parties on request.

The data have been provided by the Member States, and refer to the situation on 1 August 2000 (with regard to the last column on the availability of information) and September/October 2000 (with regard to the other columns).

The Commission has issued a Recommendation<sup>87</sup> providing guidance on the implementation of accounting separation and cost accounting systems by operators designated by their NRAs as having significant market power. Please refer to that for further information.

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<sup>86</sup> Commission Recommendation of 8 January 1998 on interconnection in a liberalised telecommunications market (Part 1 – Interconnection Pricing), OJ L 73, 12.3.1998, p. 42.

<sup>87</sup> Commission Recommendation of 8 April 1998 on interconnection in a liberalised telecommunications market (Part 2 – Accounting separation and cost accounting), OJ L 141, 13.5.1998, p. 6.

**Table 18: Current and planned cost methodologies for calculating interconnection charges**

	Cost accounting system actually in place for interconnection by SMP operators		Deadline for implementation of a system based on current costs
	Cost base	Cost standard	
<b>B</b>	Historic <sup>88</sup>	FDC	2000
<b>DK</b>	Historic	FDC	31.12.2002 (LRAIC)
<b>D</b>	Forward looking	LRAIC	Implemented
<b>EL</b>	Historic	FDC	LRIC planned for 2001
<b>E</b>	Multi-standard	Multi-standard	31.7.2000
<b>F</b>	Historic <sup>89</sup>	FDC <sup>89</sup>	No deadline set
<b>IRL</b>	Historic	FDC	December 2000
<b>I</b>	Historic	FDC	1.1.2001
<b>L</b>	Historic	FDC	No deadline set
<b>NL</b>	Current	EDC <sup>90</sup>	Implemented
<b>A</b>	Current	FDC <sup>91</sup>	Implemented
<b>P</b>	Historic	FDC	No deadline set
<b>FIN</b>	Company specific <sup>92</sup>	Company specific <sup>92</sup>	No deadline set
<b>S</b>	Historic	AIC	No deadline set
<b>UK</b>	Forward looking/ current	LRIC + FDC	Implemented

Legend:

Cost base: historic, current, forward-looking

- Cost standard: AIC: average incremental costs  
LRIC: long-run incremental costs  
LRAIC: long-run average incremental costs  
FDC: fully distributed costs  
EDC: embedded direct costs

<sup>88</sup> With regard to network assets, historic costs are converted into current costs.

<sup>89</sup> Fully allocated historic costs, with significant forward-looking elements.

<sup>90</sup> The deadline for the introduction of LRIC is 1.7.2001. Between 1.7.2000 and 1.7.2001 interim interconnection tariffs based on the tariffs of the previous one-year period (1999-2000) will apply.

<sup>91</sup> Telekom Austria uses the FDC top-down model; the NRA uses the forward-looking LRAIC bottom-up model.

<sup>92</sup> The NRA does not set interconnection charges for SMP organisations. Operators set their own prices. There are 50 SMP operators in Finland and their prices must be cost-based. Cost structures, prices and accounting systems vary between operators. The Ministry approved the operators' descriptions of their accounting systems on 11 February 1998.



**Table 19: Verification of compliance with the cost accounting system**

	Verification of compliance with the CAS by a competent and independent body			Statement concerning compliance	Relevant accounting information made available by the NRA to interested parties on request
	Voice telephony	Interconnection	Last accounts verified (accounting year)	Last publication	
<b>B</b>	Yes	Yes	Not available	Not published	Yes <sup>93</sup>
<b>DK</b>	Yes	Yes	1999	Not published	Yes
<b>D</b>	Yes	Yes	1998/1999	1999	Yes <sup>94</sup>
<b>EL</b>	No	No	-	Not published	Yes
<b>E</b>	Yes	Yes	1998	1999	Yes <sup>94</sup>
<b>F</b>	Yes	Yes	1998	Not published	No
<b>IRL</b>	Yes	Yes	1998/1999	1999	Yes
<b>I</b>	Yes	Yes	1998	Not published	No
<b>L</b>	No	No	-	Not published	No
<b>NL</b>	Yes	Yes	1999 <sup>95</sup> - 1998/1999	1999 <sup>96</sup>	Yes <sup>94</sup>
<b>A</b>	No	No	-	Not published	Yes
<b>P</b>	Yes	Yes	1998	1999	Yes
<b>FIN</b>	No <sup>97</sup>	No	-	Not published	No
<b>S</b>	Yes	Yes	1999	1999 <sup>98</sup>	Yes <sup>93</sup>
<b>UK</b>	Yes	Yes	1999/2000	2000	Yes

<sup>93</sup> Some NRAs/SMP operators only provide aggregated accounting information. Some NRAs/SMP operators do not provide this information in a dedicated form, but include it in their general reports.

<sup>94</sup> The NRA does not provide accounting information that is considered confidential to third parties.

<sup>95</sup> Voice telephony has been verified for accounting year 1999; interconnection for the period July 1998 - June 1999.

<sup>96</sup> With regard to voice telephony, this refers to verification for accounting year 1998.

<sup>97</sup> Finland does not require cost orientation for international or long-distance voice telephony calls, because it is considered that there is effective competition on those markets, but does require it for local calls < 2 Mbit/s. Verification of compliance may take place on an ad hoc basis but is not done systematically.

<sup>98</sup> This refers to accounting year 1998.



## NUMBERING

### 1. CARRIER SELECTION (CS) AND CARRIER PRE-SELECTION (CPS)

**Table 20: Availability of carrier selection and pre-selection by type of call**

	Local calls		Long-distance calls		International calls		Calls to mobile		Calls to non geographic numbers	
	CS	CPS	CS	CPS	CS	CPS	CS	CPS	CS	CPS
<b>B</b>	No	No	Yes	Yes	Yes	Yes	Yes	No <sup>99</sup>	Yes <sup>100</sup>	No
<b>DK</b>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<b>D</b>	No	No	Yes	Yes	Yes	Yes	Yes	Yes	No	No <sup>101</sup>
<b>EL</b>	No	No	No	No	No	No	No	No		
<b>E</b>	15.11.00	15.11.00	Yes	Yes	Yes	Yes	Yes	Yes	No	No
<b>F</b>	No	No	Yes	Yes	Yes	Yes	01.11.00	01.11.00	No	No
<b>IRL</b>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<b>I</b>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<b>L</b>	Yes	Yes			Yes	Yes	Yes	Yes	Yes	Yes
<b>NL</b>	Yes	Yes <sup>102</sup>	Yes	Yes	Yes	Yes	Yes	Yes	No	No
<b>A</b>	Yes	Yes <sup>102</sup>	Yes	Yes	Yes	Yes	Yes	Yes	No	No
<b>P</b>	01.01.01	No	Yes	No <sup>103</sup>	Yes	No <sup>103</sup>	Yes	No <sup>103</sup>	No	No
<b>FIN</b>	No	No	Yes	Yes	Yes	Yes	No	No	No	No
<b>S</b>	Yes	Yes <sup>102</sup>	Yes	Yes	Yes	Yes	Yes	Yes	No	No
<b>UK</b>	Yes	No <sup>104</sup>	Yes	No <sup>104</sup>	Yes	No <sup>104</sup>	Yes	No <sup>104</sup>	Yes	No <sup>104</sup>

<sup>99</sup> Implementation expected by the end of the year.

<sup>100</sup> Except for 0800 numbers.

<sup>101</sup> The facility was available until July 2000, then it was stopped on the basis of a multilateral agreement between operators (DT and new entrants) because it was considered to be network inefficient.

<sup>102</sup> However, the area code must be dialled.

<sup>103</sup> The facility is not available. However, an *ad interim* solution has been adopted for national calls, which allows carrier pre-selection using “autodiallers” from July 2000. Carrier pre-selection will be implemented in October in Lisbon and Porto, and is expected to be available by January 2001 in the rest of the country.

<sup>104</sup> CPS is available from Kingston. BT has adopted an interim solution which allows carrier pre-selection using “autodiallers” from April 2000. Carrier pre-selection will be implemented in December 2000 for long-distance and international calls and in December 2001 for local calls and calls to mobile and other non-geographic numbers.

Table 20 shows the availability throughout the country of carrier selection and pre-selection facilities for different types of calls on 15 September 2000. The darker background indicates that these facilities are either already available or will be made available by the end of the year. In the latter case, the expected date of availability is indicated.

For a full understanding of the table it should be noted that:

- Greece has been granted a derogation until 01.01.2001 for the implementation of carrier selection and until 31.12.2002 for carrier pre-selection;
- Spain has been granted a derogation until 01.11.2000 for the implementation of carrier pre-selection;
- Portugal has been granted a derogation until 01.01.2002 for the implementation of carrier pre-selection.

Table 21 shows information about the conditions for the provision of carrier pre-selection:

- the delivery period, that is the number of days between the client's request and the activation of carrier pre-selection, as defined by incumbents' reference interconnection offers (RIOs), rules of procedure, industry standards, etc.; it is not a measurement of effective delivery periods,
- the maximum delivery period for the provision of number portability laid down by the NRA, if any,
- where available, the maximum number of requests for activation of number portability that the incumbent operator declared it was able to process per working day.

**Table 21: Conditions for the provision of carrier pre-selection**

	Delivery period	Max. delivery period set by NRA (availability for the consumer)	Max. number of activations per working day
<b>B</b>	5 working days <sup>105</sup>	No requirements by NRA. However, NRA approved Belgacom's RIO	1 200
<b>DK</b>	3-5 working days <sup>106</sup>	No requirements by NRA	5 000
<b>D</b>	Geographic numbers: approx.11 working days Non geographic numbers: 4-10 working days <sup>107</sup>	No requirements by NRA	No upper limit admitted
<b>EL</b>	Not applicable	Not applicable	Not applicable
<b>E</b>	n.a.	5 working days for calls to geographic and mobile numbers <sup>108</sup>	No records
<b>F</b>	n.a.	72 hours <sup>109</sup>	30 000 <sup>109</sup>
<b>IRL</b>	n.a.	5 days	No limit set
<b>I</b>	10 days <sup>110</sup>	10 days <sup>111</sup>	12 000
<b>L</b>	7 working days for Entreprise PT to accept the request + 5 days for activation <sup>112</sup>	No requirements by NRA. However, NRA approved Entreprise PT's addendum to the RIO	No records
<b>NL</b>	24 hours for residential customers, about 1 week for business customers because procedure is longer	No requirements by NRA	No records
<b>A</b>	n.a.	A delivery period of 3 days is considered normal. In the case of a longer delivery period economic measures affecting the operators are taken.	No records
<b>P</b>	n.a.	5 working days	No records
<b>FIN</b>	2-3 working days	No requirements by NRA	No records
<b>S</b>	n.a.	5-10 working days <sup>113</sup>	No limit set
<b>UK</b>	Interim CPS: 25 working days <sup>114</sup> Permanent CPS: 10-25 working days <sup>115</sup>	No requirements by NRA	Interim CPS: approx. 1 800 Permanent CPS: approx. 3 600 <sup>116</sup>

Legend: "n.a." = not available

- <sup>105</sup> Delivery period set in Belgacom's reference interconnection offer.
- <sup>106</sup> As specified in the standard agreement on carrier pre-selection, which has been agreed on by the operators.
- <sup>107</sup> Industry forum AKNN.
- <sup>108</sup> CMT Decision, 29 June 2000.
- <sup>109</sup> ART Decision 99-490.
- <sup>110</sup> Telecom Italia's reference interconnection offer for the year 2000.
- <sup>111</sup> AGCOM Decision 4/00/CIR, 9 May 2000.
- <sup>112</sup> Delivery period set in the addendum to Entreprise des Postes et Télécommunications' reference interconnection offer for the year 2000,.
- <sup>113</sup> PTS Decision 2000:4.
- <sup>114</sup> For ICPS, 25 working days is the maximum period laid down in the Industry ICPS Process document for the access operator to validate a request for ICPS from the ICPS operator. However, as the ICPS operator can begin the service to the consumer and claim back the amount due from BT at a later date, there is effectively nothing to stop the ICPS operator providing service immediately upon customer request.
- <sup>115</sup> 10 working days is the minimum cooling-off period laid down in the Industry CPS Process document between the access operator matching an electronic order for permanent CPS with a consumer reply slip and service activation. After 25 working days from receipt of either the order or the reply slip by the access operator, if order/reply slip matching is not possible, then the access operator is permitted to cancel the order.
- <sup>116</sup> Oftel's estimate of BT's daily number of activations.

## 2. NUMBER PORTABILITY (NP)

The following table shows the availability of number portability (for users wishing to keep the same number when they change operator) in September 2000. The table shows the availability of this facility for geographic numbers and non-geographic numbers (i.e. freephone numbers, premium-rate services and personal numbers).

The darker background indicates that this facility is available.

For a full understanding of the following table, it should be noted that Greece and Portugal have been granted the same derogation periods as for carrier pre-selection.

**Table 22: Availability of operator number portability by type of number**

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
Geographic	Yes	Yes	Yes	No	Yes	Yes	Yes <sup>117</sup>	Yes	Yes	Yes	Yes	30.06.01	Yes	Yes	Yes
Non-geographic	Yes	Yes	Yes	No	Yes	No	Yes	Yes	No	Yes	Yes <sup>118</sup>	30.06.01	Yes	Yes	Yes

Table 22 shows information about the conditions for the provision of number portability:

- the delivery period, that is the number of days between the request from the client to switch operators and the activation of NP, as defined by incumbents' reference interconnection offers, rules of procedures, industry standards, etc.,
- the maximum delivery period for the provision of number portability laid down by the NRA,
- where available, the maximum number of requests for activation of number portability that the incumbent operator declared it was able to process per working day.

<sup>117</sup> Implementation started in July 2000 and is expected to be completed by the end November 2000.

<sup>118</sup> Except for numbers which do not conform to the Numbering Plan.

**Table 23: Conditions for the provision of number portability**

	Delivery period	Max. delivery period set by NRA	Max. number of activations per working day
<b>B</b>	n.a.	4 day <sup>119s</sup>	No records
<b>DK</b>	For <u>type I numbers</u> (single lines): 3-5 working days if customer ID known, 8-10 working days otherwise For <u>type II numbers</u> (including multiple lines and non-geographic numbers): 8-10 working days if customer ID known 15-20 working days otherwise <sup>120</sup>	No requirements by NRA	No records
<b>D</b>	Geographic numbers: approx. 11 working days Non-geographic numbers: 6-8 working days <sup>121</sup>	No requirements by NRA	No upper limit admitted
<b>EL</b>	Not applicable	Not applicable	Not applicable
<b>E</b>	Min. 3-5 days <sup>122</sup>	4 working days	300 single lines + 30 basic ISDN + 20 multiple PBX 40 non-geographic numbers
<b>F</b>	Set by bilateral agreements between operators	No requirements by NRA	No records
<b>IRL</b>	9 days	No requirements by NRA	No upper limit set
<b>I</b>	15 working days <sup>123</sup>	15 working days <sup>124</sup>	1100
<b>L</b>	n.a.	No requirements by NRA	No records
<b>NL</b>	5 working days <sup>125</sup>	No requirements by NRA	No records
<b>A</b>	n.a.	Geographic numbers: 7 days in case of unbundling of the line <sup>126</sup> . Non-geographic numbers: 3 days	No records
<b>P</b>	Not applicable	Not applicable	Not applicable
<b>FIN</b>	2-3 days <sup>127</sup>	No requirements by NRA	No records
<b>S</b>	N.a.	15/30 working days	No upper limit set
<b>UK</b>	5 working days	5-8 working days	No records

Legend: "n.a." = not available

<sup>119</sup> Royal Decree, 16 March 2000.

<sup>120</sup> *Rules and procedure for number portability*, Telecommunications Industry Association, Denmark.

<sup>121</sup> Industry forum AKNN.

<sup>122</sup> According to the technical specifications (CMT decision, May 1999), after receiving the request, the donor can propose a time of 3-5 days for starting the process of porting the number.

<sup>123</sup> Telecom Italia's reference interconnection offer 2000

<sup>124</sup> AGCOM Decision 7/00/CIR, 1 August 2000.

<sup>125</sup> Standard agreed by the industry.

<sup>126</sup> Otherwise the feasibility has to be confirmed within 3 days and a deadline has to be agreed.

<sup>127</sup> Typical delivery period, as estimated by Finnish TAC.





## RIGHTS OF WAYS

The following table gives an overview of access to public and private ways, facility sharing and access to sea cables.

**Table 24: Rights of Way**

	Access to public ways legally granted	Access to private ways legally granted	Fees imposed for the use of public ways	Mast sharing offered in practice	Duct sharing offered in practice	Collocation offered in practice	Access to sea cables
<b>B</b>	Yes	Yes	Yes	Yes	n.a.	n.a.	Yes
<b>DK</b>	Yes	Yes	No	Yes	n.a.	Yes	Yes
<b>D</b>	Yes	Yes	No	Yes	Yes	Yes	Yes
<b>EL</b>	Yes	Yes	n.a.	n.a.	n.a.	n.a.	Yes
<b>E</b>	Yes	Yes	n.a.	Yes	Yes	Yes	Yes
<b>F</b>	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<b>IRL</b>	Yes	Yes	Yes	Yes	Yes	n.a.	n.a.
<b>I</b>	Yes	Yes	Yes	Yes	n.a.	Yes	Yes
<b>L</b>	Yes	Yes	No	Yes	No	Yes	-
<b>NL</b>	Yes	Yes	Yes	Yes	n.a.	Yes	Yes
<b>A</b>	Yes	Yes	No	Yes	Yes	Yes	-
<b>P</b>	Yes	Yes	n.a.	Yes	Yes	Yes	Yes
<b>FIN</b>	Yes	Yes	No	Yes	Yes	Yes	Yes
<b>S</b>	Yes	Yes	n.a.	Yes	n.a.	No	n.a.
<b>UK</b>	Yes	Yes	No	n.a.	n.a.	n.a.	Yes

Legend: "n.a." = information not available; "-" = not applicable.



## DATA PROTECTION

This section supplements the chapter on data protection.

It relates to the obligations that the Member States have to fulfil under Directive 97/66/EC concerning the processing of personal data and the protection of privacy in the telecommunications sector.

The information given in Table 25 and Table 26 is based on data provided by the national regulatory authorities.

Table 25 relates to the implementation of Articles 6(2), 7, 10 and 11 of the Directive. Article 6(2) provides that for the purposes of subscriber billing and interconnection payments, certain data may be processed up to the end of the period during which the bill may be lawfully challenged or payment may be pursued. Articles 7, 10 and 11 deal with the subscribers' right to receive non-itemised bills; the stopping of automatic call forwarding by a third party; and the charge, if any, for subscribers to be omitted from the directory.

Table 26 gives an overview of the availability and cost of various facilities relating to calling line identification, which are mandated by Articles 8 and 9 of the Directive.

**Table 25: Data protection: storage of data and other provisions of the Data Protection Directive**

	Maximum period permitted for the storage of billing data	Charge for subscribers to be omitted from the directory	Availability and cost of stopping automatic forwarding by a third party	Itemised billing	
				Possibility to receive non-itemised bills	Number of digits from the called number deleted
<b>B</b>	N/A	BEF 105	Free of charge	Yes	No rules exist
<b>DK</b>	5 years <sup>128</sup>	Free of charge	Free of charge	Yes	No deletion for private customers, two for business customers
<b>D</b>	80 days	Free of charge	Available <sup>129</sup>	Yes	Three last digits/complete itemisation on request
<b>EL</b>	N/A <sup>130</sup>	GRD 330/month	N/A	Yes	No deletion.
<b>E</b>	5 years	Free of charge	Free of charge	Yes	Defined number <sup>131</sup>
<b>F</b>	Not specified in the law <sup>132</sup>	FRF 15.26/month	Available <sup>133</sup>	Yes	Last four
<b>IRL</b>	N/A	Free of charge	N/A <sup>129</sup>	Yes	No deletion
<b>I</b>	N/A	Free of charge	N/A	Yes	Last three
<b>L</b>	Not specified in the law	Free of charge	Not available	Yes	Incumbent: no deletion; others: not defined
<b>NL</b>	Not specified in the law <sup>134</sup>	Free of charge	Free of charge	Yes	No deletion
<b>A</b>	Company specific <sup>135</sup>	Free of charge	Not available	Yes	Two
<b>P</b>	6 months	Free of charge	Free of charge	Yes	Four
<b>FIN</b>	Min. 3 months after maturity date of the bill; max 3 years after bill has been paid in full	Free of charge	Free of charge	Yes	Three last digits/complete itemisation in certain cases
<b>S</b>	3 years <sup>136</sup>	SEK 60 annual charge	Free of charge.	Yes	No deletion
<b>UK</b>	6 years <sup>137</sup>	Free of charge	Free of charge	Yes	No deletion

<sup>128</sup> The end of the period during which the bill may be lawfully challenged or payment may be pursued.

<sup>129</sup> Legislation forthcoming, mandating this facility to be offered free of charge.

<sup>130</sup> According to the incumbent, traffic data may be stored for as long as the subscriber has the right to challenge his/her bill (currently six months).

<sup>131</sup> To be specified in secondary legislation.

<sup>132</sup> But, for France Télécom, a maximum period of one year has been set by the Commission nationale de l'informatique et des libertés.

<sup>133</sup> Information given for France Télécom.

<sup>134</sup> The forthcoming legislation on the protection of personal data states that data for billing purposes can be stored for a reasonable period.

<sup>135</sup> According to the conditions stipulated in the contracts with the operators.

<sup>136</sup> Period within which the bill must be paid, or it is timebarred.

<sup>137</sup> Limitation period for contractual disputes.

**Table 26 : Data protection: calling line identification (CLI)**

	Availability and cost		Availability and cost for the called subscriber to:			Availability and cost to the organisation dealing with emergency calls of overriding the elimination of the presentation of the CLI
	For the calling user to eliminate the presentation of the CLI on a per-call basis	For the subscriber to request the service provider to (temporarily) override the elimination of the presentation of the CLI <sup>138</sup>	Eliminate the presentation of the connected line identification to the calling user	Prevent the presentation of the CLI of incoming calls	To reject incoming calls where the presentation of the CLI has been eliminated by the calling user	
<b>B</b>	Free of charge	Available	Free of charge	Free of charge	Available	Free of charge
<b>DK</b>	Free of charge	Not available	Free of charge	Free of charge	Free of charge	Free of charge
<b>D</b>	Free of charge	Not available	Not available <sup>139</sup>	Partially available <sup>140</sup>	Not available <sup>139</sup>	Free of charge
<b>EL</b>	N/A	N/A	N/A	N/A	N/A	N/A
<b>E</b>	Free of charge	Free of charge	Free of charge	Free of charge	Free of charge	Free of charge
<b>F</b>	Free of charge	Not available <sup>141</sup>	No connected line identification offered	Available by default <sup>142</sup>	Not available	Free of charge
<b>IRL</b>	Free of charge	Not available.	Free of charge	Free of charge	Not available	Free of charge
<b>I</b>	Free of charge	N/A	Free of charge	N/A	N/A	N/A
<b>L</b>	Free of charge	Not regulated	Free of charge	Not available	Not available	Free of charge
<b>NL</b>	Free of charge	Free of charge	Not available	Available	Not available	Free of charge
<b>A</b>	Free of charge	Available (€6.54 + 0.73 per day + €1.45 per identification)	Available: €6.54 (single payment)	Free of charge	Available from 4 <sup>th</sup> quarter of 2000 (commercial price)	Available: €4.36 (single payment)
<b>P</b>	Free of charge	Not available	Free of charge	Free of charge	Not available <sup>143</sup>	Available
<b>FIN</b>	Free of charge	Free of charge <sup>144</sup>	Free of charge	Free of charge	Available	Available <sup>145</sup>
<b>S</b>	Free of charge	SEK 500 + SEK 50 per tracing <sup>146</sup>	Free of charge	Free of charge	Not available	Available <sup>147</sup>
<b>UK</b>	Free of charge	Free of charge <sup>144</sup>	Free of charge	Free of charge	Free of charge or £ 9.99 for 3 months (BT) <sup>148</sup>	Free of charge

<sup>138</sup> For tracing malicious or nuisance calls

<sup>139</sup> Legislation forthcoming, mandating this facility to be offered free of charge.

<sup>140</sup> This facility is offered by a number of operators, but there is no legal obligation.

<sup>141</sup> Regarding malicious and/or nuisance calls, France Télécom provides a service to its subscribers that allows the latter either to block so-called “secret calls” (i.e. calls for which the calling line identification is not presented) or to block calls marked with an “R” (i.e. calls from lines that are on a list established by the subscriber).

<sup>142</sup> Information given for France Télécom, which only offers CLI upon subscription.

<sup>143</sup> This facility will be offered from 2001.

<sup>144</sup> Calling line identification available to law enforcement authorities.

<sup>145</sup> Override category available, organisation pays installation costs.

<sup>146</sup> Malicious call identification is ordered for two weeks at a charge of SEK 500 including 5 successful tracings. Extra tracings: SEK 50 each.

<sup>147</sup> The charge is included in the general charge to the organisation dealing with emergency calls to receive information about subscribers from the operators.

<sup>148</sup> Price for analogues services (for digital services, depending on the functionality of the terminal).