Statistics in focus

INDUSTRY, TRADE AND SERVICES

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Contents

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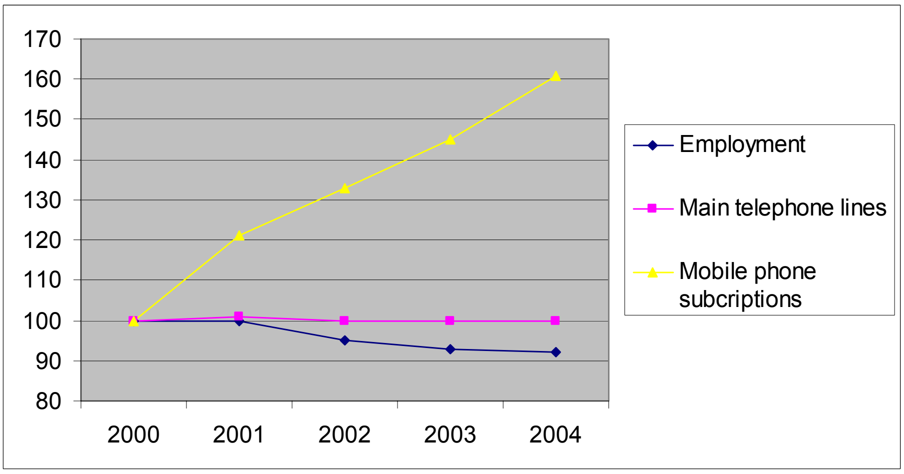
Telecommunications in Europe

The structure of the alternative ways of accessing telecommunication networks kept on changing in Europe in 2004. The number of main telephone lines seems to have stabilised in the EU25 slightly above 226 million. The number of mobile subscriptions again grew rapidly, rising above 409 million. Moreover, the broadband penetration rate also continued its rapid growth, from 6.5 in July 2004 to 10.6 per 100 inhabitants a year later.

For fixed telephone lines, trends differ between countries for the eight-year period 1996–2004, ranging from the high average annual growth in Poland (+8.5%) to the decline in Austria (-2.6%).
The latest annual developments from 2003 to 2004 show rapid growth rates in Cyprus (9.4%), Greece (7.9%), Spain (6.6%) and Slovenia (5.8%), whereas Finland (-6.9%) and the Czech Republic (-5.5%) had the highest negative developments. The highest densities in terms of fixed telephone lines per 100 inhabitants in 2004 were to be found in Germany (66.3), Denmark (64.6), Cyprus (63.5) and Sweden (63.4).

The number of mobile telephone subscriptions continued to increase. In absolute terms, growth in 2004 was even higher than in the previous year, though in relative terms it slowed down. The 100 subscriptions per 100 inhabitant's threshold is evidently not a saturation point, as already five Member States and two EFTA countries have surpassed this landmark (Luxembourg, Sweden, Italy, Czech Republic, United Kingdom, Iceland and Norway).

Graph 1: Recent development in the EU telecommunication sector Index:2000 = 100



The number of mobile telecommunications operators has in general risen, though in some cases the opposite is true. The market has opened for competition in every Member State, each now having more than one operator, thus giving consumers a choice throughout the EU in 2004.

The share of European households with internet access is rapidly rising. In 2004, an average of 43% of households in the EU25 had access. The variation between countries is wide, but those with a low penetration seem to be catching up. A growing proportion of internet connections are broadband.

Employment in telecommunications continued to fall slightly in 2004. The new competition has forced operators to rationalise and the creation of new jobs in the new services has not yet quite offset this effect within the telecommunications sector.

Development in the number of fixed telephone lines

At EU level, the total number of fixed telephone lines seems to have reached its peak in 2001 (227.4 million lines). The number has stabilised around 226 million (226.3 in 2004), with a minimal rise over the previous year. The largest markets in terms of the total number of lines in 2004 are, not surprisingly, Germany (54.7 million) and France (33.9 million).

Developments over the eight year period 1996–2004 differ considerably by country. While Poland (+8.5%) shows considerable annual growth, Austria (-2.6%) has an annual decline.

The latest annual developments from 2003 to 2004 show rapid growth rates for Cyprus (9.4%), Greece (7.9%), Spain (6.6%) and Slovenia (5.8%), whereas Finland (-6.9%) and the Czech Republic (-5.5%) had the highest negative developments.

The highest densities in terms of lines per 100 inhabitants in 2004 were to be found in Germany (66.3), Denmark (64.6), Cyprus (63.5) and Sweden (63.4).

Table 1: Number of main telephone lines (in 1000)

						Distribution among EU Member States (%)	Average annual increase (%)	change (%)	Main telephone lines per 100 inhabitants	
	1996	**2001**	**2002**	**2003**	**2004**	**2004**	**2004/1996**	**2004/2003**	**1996**	**2004**
EU25	**204909**	**227444**	**226331**	***225682***	***226310***	**100**	1.2	0.3	45.8	49.6
EU15	**188269**	**203033**	**202157**	***201464***	***202087***	**89.3**	0.9	0.3	50.6	52.8
BE	:	3702	3666	3570	3447	1.5	-0,9 **(1)**	-3.4	:	33.2
CZ	2816	3861	3675	3626	3428	1.5	2.5	-5.5	27.3	33.6
DK	3251	3865	3701	3612	3488	1.5	0.9	-3.4	61.9	64.6
DE	44200	52450	53780	54340	54680	24.2	2.7	0.6	54.0	66.3
EE	439	512	477	464	445	0.2	0.2	-4.1	30.8	32.9
EL	5329	5608	5413	5200	5612	2.5	0.6	7.9	49.9	50.8
ES	15413	17531	17641	17759	18924	8.4	2.6	6.6	39.1	44.8
FR	32900	34084	34124	33913	33910	15.0	0.4	0.0	56.8	56.6
IE	1390	1860	1759	1610	1593	0.7	1.7	-1.1	38.4	39.6
IT **(2)**	25259	27353	27142	26596	25957	11.5	0.3	-2.4	44.4	44.8
CY	366	435	427	424	464	0.2	3.0	9.4	55.8	63.5
LV	750	722	701	654	631	0.3	-2.1	-3.5	30.4	27.2
LT	993	1144	930	824	820	0.4	-2.4	-0.5	27.5	23.8
LU	258	336	248	245	244	0.1	-0.7	-0.4	62.7	54.0
HU	2651	3746	3670	3607	3570	1.6	3.8	-1.0	25.7	35.3
MT	181	208	207	208	211	0.1	1.9	1.4	48.8	52.0
NL	8431	8158	8027	7841	7862	3.5	-0.9	0.3	54.4	48.4
AT	3779	3316	3187	3159	3050	1.5	-2.6	-3.5	47.5	37.5
PL	6532	11427	11872	12304	12545	5.5	8.5	2.0	16.9	32.8
PT	3822	4518	4143	4497	4469	2.0	2.0	-0.6	38.1	42.7
SI	665	800	812	812	859	0.4	3.3	5.8	33.4	43.0
SK	1246	1556	1403	1295	1250	0.6	0.0	-3.5	23.2	23.2
FI	2802	2806	2726	2568	2390	1.1	-2.0	-6.9	54.8	45.8
SE	6032	5953	5828	5780	5688	2.5	-0.7	-1.6	68.3	63.4
UK	30678	31492	30773	:	:	*13,6* ***(3)***	0,6 **(4)**	:	52.3	:
IS	154	157	149	152	150		-0.3	-1.3	57.5	51.6
LI	20	:	20	:	:		:	:	64.7	:
NO	2589	2338	2317	2229	2173		-2.2	-2.5	59.2	47.5
CH	4290	4101	5388	5323	5263		2.6	-1.1	60.7	71.5
BG	2647	2922	2906	2856	2770		0.6	-3.0	31.6	35.5
HR	:	1780	1685	1684	1676		:	-0.5	:	37.7
RO	3161	4165	4207	4330	4883		5.6	12.8	14.0	22.5
TR	14286	18904	18915	18917	19125		3.7	1.1	:	26.8

Footnotes:

1) BE: 2001-2004

2) IT: source: ITU

3) UK: estimate

4) UK: 1996-2002

Mobile telephone subscriptions

The rapid growth of mobile telephony continued in 2004. In absolute numbers, it even accelerated. In relative terms, however, it slowed down. The average annual growth rate of 36.2% over the eight year period 1996–2004 is still impressive. The largest markets in terms of the total number of subscriptions were Germany (71.3 million), Italy (62.8 million) and the UK (61.1 million).

The number of subscriptions per 100 inhabitants has now surpassed the 100 milestone in five Member States. Sweden, Italy, the Czech Republic and the UK have all gone above this threshold, though Luxembourg is still showing the way with no fewer than 143 subscriptions per 100 inhabitants. Also two EFTA countries have surpassed this milestone. Many other Member States are close to the landmark and the rest of them are steadily approaching. The saturation of the market at this point, as many had expected, does not seem to be happening.

The highest annual growth rates from 2003 to 2004 were recorded in countries with a relatively low starting level: Lithuania (45.1%), Poland (32.7%) and Latvia (26.0%).

Table 2: Number of mobile telephone subscriptions (in 1000)

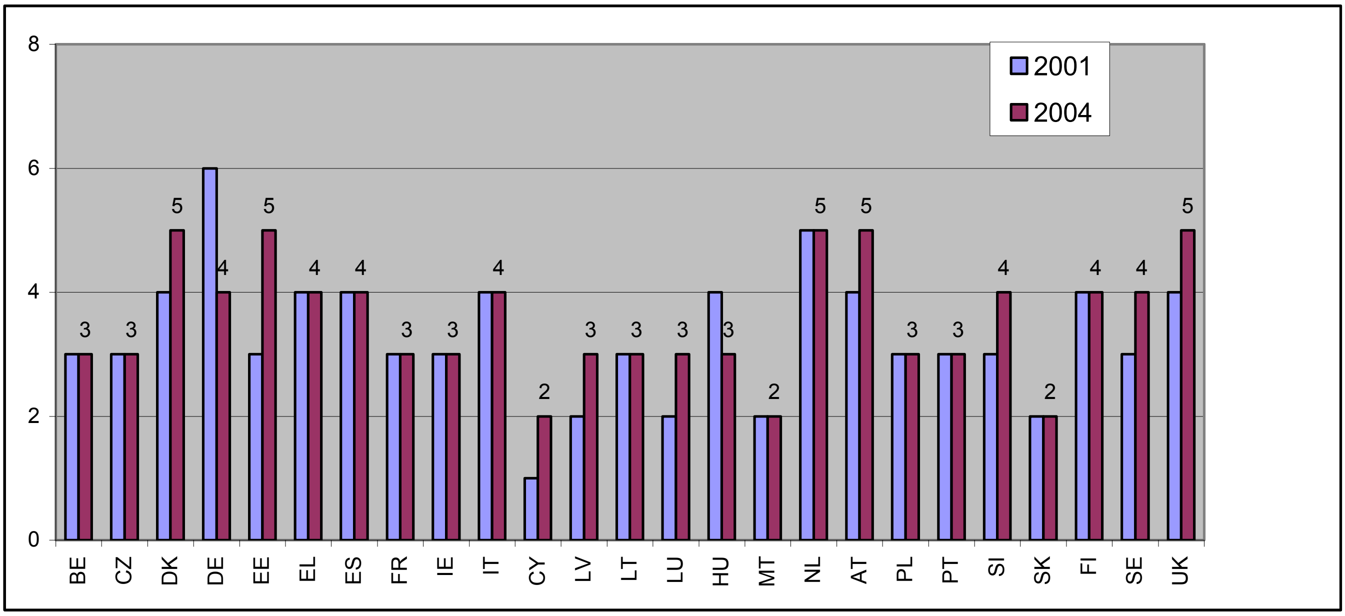
						Distribution among EU Member States (%)	Average annual increase (%)	change %)	Mobile phone subscriptions per 100 inhabitants	
	1996	2001	2002	2003	2004	2004	2004/1996	2004/2003	1996	2004
EU25	**34613**	**307657**	**337559**	**368047**	**409242**	**100**	**36.2**	**11.2**	**7.7**	**89.6**
EU15	**33421**	**279485**	**299576**	**323360**	**353701**	**86.4**	**34.3**	**9.4**	**9.0**	**92.5**
BE	478	6959	8102	8606	9132	**2.2**	44.6	6.1	4.7	87.8
CZ	200	6947	8610	9709	10783	**2.6**	64.6	11.1	1.9	105.6
DK	1317	3960	4478	4767	5168	**1.3**	18.6	8.4	25.1	94.8
DE	5554	56126	59128	64800	71316	**17.4**	37.6	10.1	6.8	86.4
EE	70	739	882	1050	1257	**0.3**	43.5	19.7	4.9	93.0
EL	531	7964	9314	8936	9306	**2.3**	43.0	4.1	5.0	84.3
ES	2997	29656	33531	37220	38623	**9.4**	37.6	3.8	7.6	91.5
FR	2467	36997	38593	41702	44552	**10.9**	43.6	6.8	4.3	74.4
IE	289	2800	3000	3400	3800	**0.9**	38.0	11.8	8.0	94.4
IT	6422	51246	53003	55918	62750	**15.3**	33.0	12.2	11.3	108.4
CY	71	314	418	552	658	**0.2**	32.1	19.2	10.8	90.1
LV	29	625	917	1220	*1537*	**0.4**	64.3	26.0	1.2	66.3
LT	51	1018	1632	2102	3051	**0.7**	66.8	45.1	1.4	88.5
LU	45	409	474	539	646	**0.2**	39.5	19.9	10.9	143.0
HU	473	4967	6886	7945	8727	**2.1**	44.0	9.8	4.6	86.3
MT	13	221	277	290	308	**0.1**	48.5	6.2	3.5	77.0
NL	1016	12200	12300	13491	14821	**3.6**	39.8	9.9	6.6	91.2
AT	563	6541	6736	7095	7990	**2.0**	39.3	12.6	7.1	98.2
PL	217	9605	13898	17401	23096	**5.6**	79.2	32.7	0.6	60.5
PT	664	8356	8530	9354	9773	**2.4**	40.0	4.5	6.6	93.3
SI	41	1509	1539	1739	1849	**0.5**	61.0	6.3	2.1	93.7
SK	29	2226	2923	3679	4275	**1.0**	86.7	16.2	0.5	79.5
FI	1477	4176	4517	4747	4999	**1.2**	16.5	5.3	28.9	95.8
SE	2492	7177	7949	8801	9775	**2.4**	18.6	11.1	28.2	108.9
UK	7109	44919	49921	*52984*	*61100*	**14.9**	30.9	15.3	12.1	102.4
IS	46	248	260	280	291		25.9	3.9	17.2	100.1
LI	:	:	11	:	:		:	:	:	:
NO	1216	3766	3911	4163	4716		18.5	13.3	27.8	103.0
CH	663	5276	5736	6189	6275		32.4	1.4	9.4	85.2
BG	40	1615	2500	3534	4842		82.1	37.0	0.5	62.1
HR	:	1731	2340	2551	2842		:	11.4	:	64.0
RO	:	4595	5099	7065	10215		:	44.6	:	47.0
TR	360	18299	23323	27889	34708		77.0	24.5	:	48.7

Footnote:

Source ITU : IT (1996-2004), LV (2004), NL (2004), UK (2003,2004)

Number of mobile telecommunications operators, by EU Member States

Graph 2: Number of mobile telecommunications operators, by EU-Member States

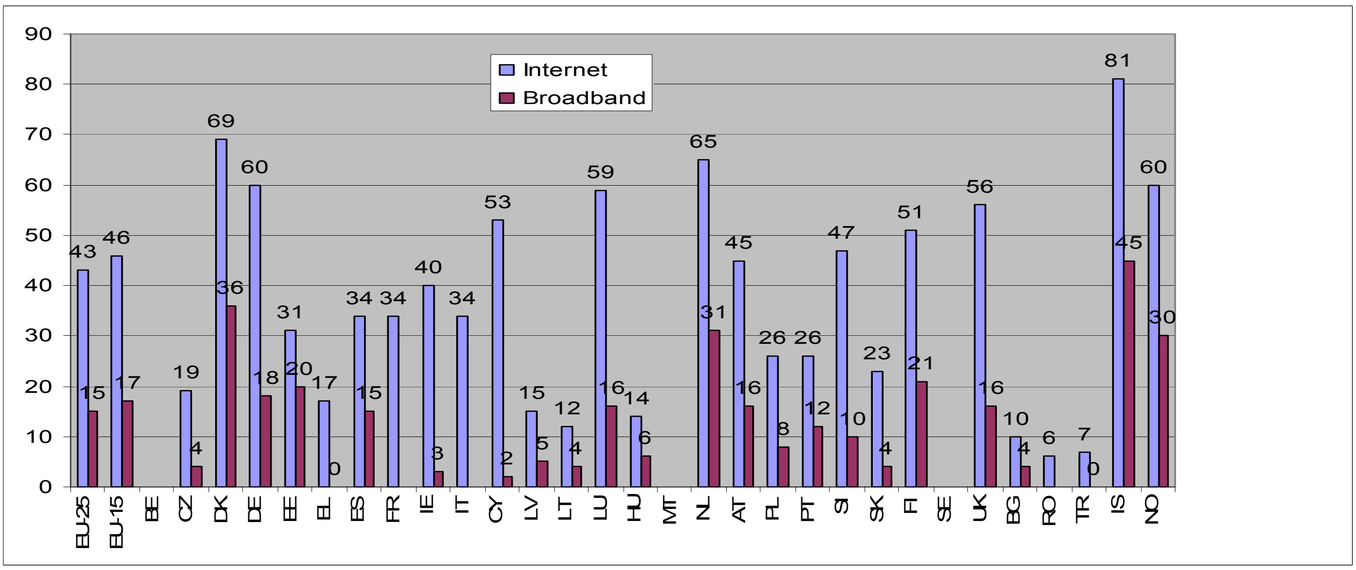


The number of operators has in general slightly risen, but in some cases the opposite is true. In 2004, every Member State had more than one operator, which should guarantee a degree of competition throughout EU.

Internet access

The internet has continued its rapid expansion in European households. In 2004, an average of 43% of households in the EU25 had access. The differences between countries are large, but growth seems to be faster in those with a low penetration. A growing proportion of internet connections are broadband. A high rate of internet access also seems to correlate with high broadband penetration.

Graph 3: Level of Internet access: households - percentage of households who have Internet and broadband at home, 2004



Source: Eurostat, ICT household survey

Broadband penetration rate

Number of broadband lines as a % of population.

The rapid rise in the broadband penetration rate has continued. The Netherlands (22.4) and Denmark (22.0) had the highest rates in July 2005. Again, the countries with the lowest rates are making the fastest relative progress.
Comparing the broadband access rates of households, the same countries come out on top, though in reverse order: Denmark at 36 and the Netherlands at 31. The household broadband access figures should be seen against the total penetration rate figures for January 2004.

Table 3: Broadband penetration rate
Number of broadband lines subscribed in % of population (revised figures of January 2005)

	Jan. 2003	Jul. 2003	Jan. 2004	Jul. 2004	Jan. 2005	Jul. 2005
EU-25		**:**		**6.5**	**8.8**	**10.6**
EU-15	**3.4**	**2.3**	**6.0**	**7.6**	**9.9**	**12.0**
BE	8.5	10.1	12.0	14.0	15.6	17.4
CZ	:	:	:	0.7	1.6	4.3
DK	8.3	10.4	12.6	15.6	17.9	22.0
DE	3.9	4.8	5.7	6.7	8.4	10.2
EE	:	:	:	7.6	10.3	11.1
EL	0.0	0.0	0.1	0.2	0.5	0.8
ES	3.1	4.3	5.4	6.7	8.2	10.0
FR	2.8	4.0	6.1	8.2	11.3	13.9
IE	0.2	0.2	0.9	1.7	3.4	4.4
IT	1.7	2.8	4.8	6.1	8.1	9.5
CY	:	:	:	2.0	2.6	2.7
LV	:	:	:	1.5	2.4	3.7
LT	:	:	:	2.5	3.7	5.0
LU	1.7	2.3	2.8	5.7	8.2	11.7
HU	:	:	:	2.2	3.6	4.5
MT	:	:	:	3.5	9.5	10.4
NL	7.5	9.8	11.8	14.7	19.0	22.4
AT	5.3	6.6	7.7	8.7	10.2	11.6
PL	:	:	:	0.5	3.3	1.9
PT	2.5	3.6	4.8	6.4	8.2	10.1
SI	:	:	:	3.8	5.9	7.8
SK	:	:	:	0.4	1.0	1.5
FI	5.3	6.6	9.5	11.0	14.9	18.7
SE	7.3	8.6	10.3	12.1	15.3	17.1
UK	2.6	3.7	5.3	7.4	10.3	13.5

Source: DGINFSO / National Regulatory Authorities

Number of internet service providers

As an indicator, the number of internet service providers is in many cases not based on reliable records. Sometimes, a rough estimate has to be given for individual countries for more than one year, if new surveys have not been carried out. Comparisons between countries would not therefore be reliable, but the trends within countries mostly have a more solid basis. Keeping these reservations in mind, the number of internet service providers has evidently stabilised, with some growth in many countries and a decline in a few.

Table 4: Number of Internet service providers

	2001	2002	2003	2004
EU-25	:	:	:	:
EU-15	:	:	:	:
BE	98	99	104	92
CZ*	:	:	:	:
DK	28	36	41	49
DE	700	750	800	900
EE	60	128	120	135
EL	173	168	173	170
ES	579	642	672	:
FR	:	:	:	34
IE	:	:	:	20
IT	507	333	:	:
CY	17	17	17	15
LV	:	11	101	129
LT	17	39	60	98
LU	33	32	31	32
HU	80	62	71	100
MT	16	14	14	15
NL	:	:	:	:
AT	200	200	220	270
PL	:	:	:	108
PT	30	32	26	30
SI	49	51	73	61
SK	39	143	187	211
FI	45	51	98	120
SE	100	100	120	150
UK	700	700	:	:
IS	12	12	12	12
LI	:	20	:	:
NO	:	117	132	157
CH	114	125	131	156
BG	200	200	200	200
HR	:	:	:	14
RO	115	269	362	515
TR	83	66	91	89

* Number of licence holders for 2001-2004 : 789, 1228, 1810, 2934

Employment in telecommunications

Employment in telecommunications fell slightly in 2004, as it has been doing since 2001. Productivity has clearly been increasing rapidly in the telecommunications sector, with more services produced using less labour. However, the growth in this sector may have benefited other sectors and helped create jobs there.

Table 5: Employment in Telecommunication

						Average annual increase (%)	change (%)
	1996	**2001**	**2002**	**2003**	**2004**	**2004/1996**	**2004/2003**
EU25	*1097687*	*1359987*	*1301793*	*1267923*	*1254890*	**1.7**	**-1.0**
EU15	*928590*	*1089598*	*1042538*	*1014696*	*1007341*	**1.0**	**-0.7**
BE	26193	28927	24408	23089	23775	-1.2	3.0
CZ	29524	24529	24610	23260	20334	-4.6	-12.6
DK	16126	22405	21873	20471	19739	2.6	-3.6
DE	222000	241000	231500	230600	225000	0.2	-2.4
EE	4438	3525	3112	2845	2759	-5.8	-3.0
EL	23808	26163	24700	25000	25700	1.0	2.8
ES	72386	94394	89605	85169	87923	2.5	3.2
FR	164720	151191	145487	138716	135326	-2.4	-2.4
IE	11560	17000	15600	14700	14500	2.9	-1.4
IT	100005	111794	104550	:	:	:	:
CY	2341	2426	2417	2409	2772	2.1	15.1
LV	8026	6602	6410	5421	5418	-4.8	-0.1
LT	9890	8517	7223	6482	5031	-8.1	-22.4
LU	:	1487	1515	1660	1680	:	1.2
HU	20083	20618	20784	19548	19131	-0.6	-2.1
MT	1833	1942	1867	1613	1619	-1.5	0.4
NL	29690	:	:	:	:	:	:
AT	17878	32152	26900	:	19900	1.3	-14.0 (1)
PL	73695	183082	175385	:	:	:	:
PT	18617	18627	17354	15221	14548	-3.0	-4.4
SI	3298	4470	4826	4712	4182	3.0	-11.2
SK	15969	14678	12621	11552	10878	-4.7	-5.8
FI	16856	25015	19426	17433	17786	0.7	2.0
SE	25001	29443	21620	20087	18914	-3.4	-5.8
UK	182900	231500	239500	:	:	:	:
IS	999	1497	1476	1568	1555	5.7	-0.8
LI	20	:	110	:	:	:	:
NO	19624	14237	13555	13102	:	:	:
CH	20602	24688	23568	22446	21964	0.8	-2.1
BG	28065	30151	33498	33551	32218	1.7	-4.0
HR		11871	11237	10201	9872	:	-3.2
RO	53588	62983	58299	53614	47523	-1.5	-11.4
TR	73933	75181	68267	70333	65035	-1.6	-7.5

(1) AT: Change between 2002 and 2004 on the average

➢ ESSENTIAL INFORMATION – METHODOLOGICAL NOTES

Abbreviations

EU: European Union, including the 25 Member States (EU-25): Belgium (BE), the Czech Republic (CZ), Denmark (DK), Germany (DE), Estonia (EE), Greece (EL), Spain (ES), France (FR), Ireland (IE), Italy (IT), Cyprus (CY), Latvia (LV), Lithuania (LT), Luxembourg (LU), Hungary (HU), Malta (MT), the Netherlands (NL), Austria (AT), Poland (PL), Portugal (PT), Slovenia (SI), Slovakia (SK), Finland (FI), Sweden (SE) and the United Kingdom (UK).
EU-15: European Union, including 15 Member States (BE, DK, DE, EL, ES, FR, IE, IT, LU, NL, AT, PT, FI, SE, UK).
Other countries: Iceland (IS), Liechtenstein (LI), Norway (NO), Switzerland (CH), Bulgaria (BG), Croatia (HR), Romania (RO) and Turkey (TR).

Symbols

":" non available

Definitions

The **Telecommunications sector** refers to telecommunications services.

A **main telephone line** is a telephone line connecting the subscriber's terminal to the Public Switched Telephone Network (PSTN). ISDN (Integrated Services Digital Network) lines are counted as main telephone lines.

Mobile telephone subscriptions refer to subscriptions to an automatic public mobile telephone service which provides access to the PSTN using cellular technology.

Active pre-paid cards are counted as subscriptions.

One person may have more than one mobile telephone subscription and the number of subscriptions can therefore be higher than the population.

Broadband lines are defined as those with a capacity equal or higher than 144 Kbits/s. Various technologies are covered; ADSL, cable modem as well as other types of access lines.

Internet service providers can be defined as companies that provide other companies or individuals access to, or presence on, the Internet.

Data sources

COINS Inquiry

This Inquiry is the initiative of the Working Group about Statistics on **C**ommunication and **In**formation **S**ervices (COINS). The COINS Working Group, which includes experts from statistical offices and regulatory authorities of the EU Member States, representatives of DG INFSO, ITU and OECD.

The COINS Inquiry has been modified in 2004 and is now called the Telecommunications Inquiry

It should be noted that data on employment in this publication refer to telecommunication operators and have been taken from the COINS Inquiry and may differ from employment data collected by Eurostat in the frame of the Structural Business Statistics (SBS), which refer to enterprises.

ICT usage in households
Survey type: : household survey
Survey period: second quarter 2003
Reference period: first quarter 2003
Sampling unit: households and individuals
Sample size: 60 000 households and 88 000 individuals
Lower age limit for survey of individuals: 16 years
Upper age limit for survey of individuals: 74 years

ITU
International Telecommunication Union (ITU)
Place des Nations
CH-1211 Genève – Switzerland
www.itu.int

The figures in this publication reflect the **state of data availability** as of December 2004.

This publication was established with the assistance of Sigrid Fickinger.

Further information:

Data: EUROSTAT Website/Home page/Industry, trade and services/Data

- **Industry, trade and services**
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European Statistical Data Support:

Eurostat set up with the members of the 'European statistical system' a network of support centres, which will exist in nearly all Member States as well as in some EFTA countries.

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