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## **COMMUNICATIONS COMMITTEE**

### **Working Document**

**Subject: Broadband access in the EU: situation at 1 January 2007**

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**European Commission**  
Information Society and Media

## Broadband access in the EU as at 1 January 2007

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<b>DEFINITIONS</b>
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Definitions used in the tables for the collection of data:

- Fully unbundled lines: Fully unbundled lines supplied to other operators, excluding experimental lines. In the case of full unbundling, a copper pair is rented to a third party for its exclusive use.
- Shared access lines supplied by the incumbent to new entrants: Shared access lines supplied to other operators, excluding experimental lines. In the case of shared access, the incumbent continues to provide telephony service, while the new entrant delivers high-speed data services over that same local loop.
- Bitstream access: Supplied to new entrants. Bitstream access refers to the situation where the incumbent installs a high-speed access link to the customer premises and then makes this access link available to third parties, to enable them to provide high-speed services to customers. Bitstream depends in part on the PSTN and may include other networks such as the ATM network, and bitstream access is a wholesale product that consists of the provision of transmission capacity in such a way as to allow new entrants to offer their own, value-added services to their clients. The incumbent may also provide transmission services to its competitor, to carry traffic to a 'higher' level in the network hierarchy where new entrants may already have a broadband point of presence.
- Simple resale: In contrast to bitstream access, simple resale occurs where the new entrant receives and sells on to end users - with no possibility of value added features to the DSL part of the service - a product that is commercially similar to the DSL product provided by the incumbent to its own retail customers, irrespective of the ISP service that may be packaged with it. Resale offers are not a substitute for bitstream access because they do not allow new entrants to differentiate their services from those of the incumbent (i.e. where the new entrant simply resells the end-to-end service provided to him by the incumbent on a wholesale basis).
- Incumbent's DSL lines: Provided to end users by the incumbent, its subsidiaries or partners (for example an associated company such a joint venture providing ISP services),
- WLL: Internet broadband connections by means of wireless local loop (sometimes referred to as fixed wireless access)
- Cable modem: Internet broadband connections by means of cable TV access
- L.L. (other traditional wireline access): Internet broadband connections by means of dedicated capacity (Leased Lines) provided over metallic copper pairs, including tail ends or partial circuits. "Incumbent's leased lines" includes only retail lines and excludes lines provided to other operators. "New entrants' leased lines" includes all retail lines provided to end users, even if based on wholesale lines supplied by the incumbent.
- Other: Internet broadband connections by means of 3G, satellite, fibre optic, powerline communications, etc.
- Retail access: Access provided to end users.
- Incumbents are defined as the organisations enjoying special and exclusive rights or *de facto* monopoly for provision of voice telephony services before liberalisation, regardless of the role played in the provision of access by means of technologies alternative to the PSTN.
- "New entrants" refers to alternative telecommunications operators, as well as internet service providers (ISPs).
- Broadband capacity: Downstream capacity equal to or higher than 144 Kbit/s

## EU OVERVIEW: RETAIL FIXED BROADBAND LINES

The data in this document have been collected by the European Commission, Information Society and Media Directorate General, from national ministries and regulatory authorities. The definitions used have been agreed in the Communications Committee (COCOM).

Throughout the document broadband lines are defined as those with capacity equal to or higher than 144 Kbit/s.

Data refer to 1 January 2007.

In some cases information for some types of access is not available. In a number of countries certain figures are estimates, as the National Regulatory Authorities had not received consolidated data from operators. It should also be noted that in some cases information only refers to major broadband access providers and that broadband access lines provided by other small operators are not included.

The charts and tables in this document only include fixed broadband lines. Data on 3G mobile subscribers are only available for a limited number of countries and have not been included.

This report includes information from all 27 Member States, including Bulgaria and Romania.

Data for Bulgaria and Romania are included where possible. Given the non-availability of data pre-ceding 1 January 2007, no trends could be established for Bulgaria and Romania.

There were 80 047 141 (78 614 140 without Bulgaria and Romania) fixed broadband lines in the EU as of 1 January 2007, a 16.80% increase since 1 July 2006. Of these lines, 64 734 223 were DSL lines (80.87% of total) and 15 312 918 (19.13%) were provided using other transmission means, mostly cable modem.

Incumbent fixed operators provided 47.2% of these lines, continuing the downward trend recorded since 2003. This figure was 57.5% in January 2004, 54.3% in January 2005 and 50% in January 2006.

In the period between January 2006 and January 2007 a total of 21 058 525 new broadband lines were added, an increase of 35.70%. Although in relative terms this growth is lower than in the previous twelve month period (49.38%), in absolute numbers it is higher than the growth recorded between January 2005 and January 2006 (19 500 282 lines). For comparison, new broadband lines added in the period between January 2006 and January 2007 excluding Bulgaria and Romania amounted to 19 625 524 lines, which points to a moderate deceleration of growth in EU25.

84.40% (79.57% with the new data for Bulgaria and Romania) of the new lines were by means of xDSL technologies, while 15.60% (20.43% with the new data for Bulgaria and Romania) were connections using other type of technologies, which represents a moderate growth of access lines by other means compared to July 2006 (85.05% of new lines were DSL and 14.95% were non-DSL lines).

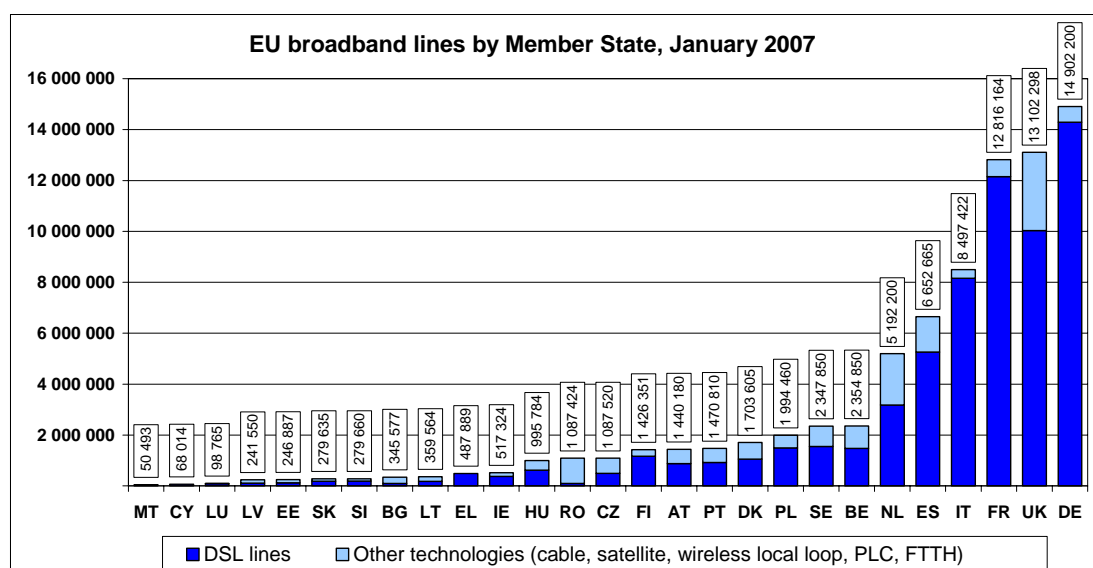
Table 1 shows how the broadband lines in the EU were distributed between the EU Member States at 1 January 2004, 1 July 2004, 1 January 2005, 1 July 2005, 1 January 2006, 1 July 2006 and 1 January 2007.

**Table 1 Retail broadband lines in the EU by country**

	January 2004	July 2004	January 2005	July 2005	January 2006	July 2006	January 2007
BE	1 244 736	1 444 673	1 619 756	1 804 133	2 010 584	2 172 246	2 354 850
CZ	101 000	121 000	228 200	436 000	650 000	860 508	1 087 520
DK	727 906	921 477	1 039 378	1 188 431	1 337 587	1 592 120	1 703 605
DE	4 667 457	5 415 247	6 905 159	8 435 369	10 558 100	12 608 400	14 902 200
EE	58 515	102 771	138 617	150 246	179 104	222 987	246 887
EL	10 483	25 386	51 455	93 583	160 113	297 090	487 889
ES	2 228 169	2 767 627	3 452 706	4 240 339	5 026 933	5 784 862	6 652 665
FR	3 656 654	4 915 487	6 793 249	8 322 442	9 950 561	11 297 543	12 816 164
IE	34 050	67 530	138 116	177 121	276 860	322 368	517 324
IT	2 401 939	3 503 497	4 701 232	5 521 374	6 896 696	7 690 503	8 497 422
CY	10 063	14 520	18 967	18 967	47 090	50 566	68 014
LV	N/A	33 904	56 448	85 381	131 329	155 738	241 550
LT	64 982	88 279	129 053	170 619	234 046	286 059	359 564
LU	15 942	25 334	37 019	53 049	70 436	80 105	98 765
HU	187 228	257 016	365 741	457 557	619 712	760 271	995 784
MT	N/A	13 738	38 054	41 551	51 289	51 943	50 493
NL	1 908 044	2 372 529	3 084 561	3 642 315	4 113 573	4 741 829	5 192 200
AT	612 600	707 725	827 675	937 830	1 176 183	1 249 952	1 440 180
PL	173 239	219 901	536 738	710 726	1 015 841	1 504 274	1 994 460
PT	500 437	664 045	854 130	1 054 553	1 222 301	1 359 744	1 470 810
SI	60 398	76 339	118 031	156 669	196 686	228 962	279 660
SK	8 275	14 485	51 869	80 385	137 927	215 279	279 635
FI	447 444	572 100	779 929	974 614	1 171 363	1 308 459	1 426 351
SE	1 010 400	1 131 400	1 385 100	1 533 647	1 865 676	2 069 685	2 347 850
UK	3 172 109	4 395 561	6 137 151	8 063 111	9 888 626	11 622 929	13 102 298
BG	N/A	N/A	N/A	N/A	N/A	N/A	345 577
RO	N/A	N/A	N/A	N/A	N/A	N/A	1 087 424
<b>EU</b>	<b>23 302 070</b>	<b>29 871 571</b>	<b>39 488 334</b>	<b>48 350 012</b>	<b>58 988 616</b>	<b>68 534 422</b>	<b>80 047 141</b>

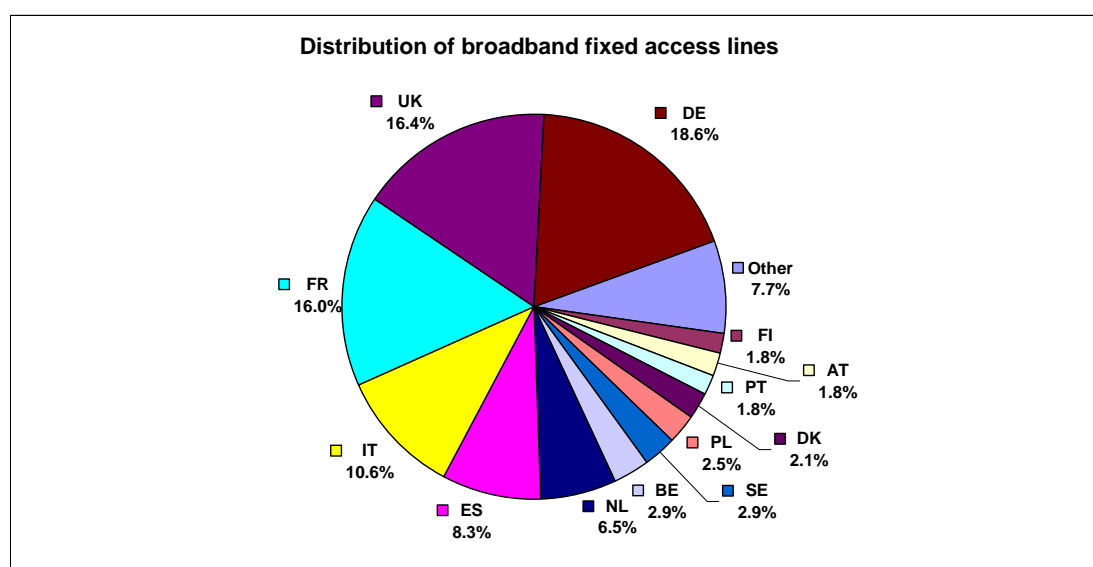
Figure 1 shows the distribution of broadband lines by country, Figure 2 presents this distribution in percentage terms at 1 January 2007, and Figure 3 shows the growth rate since January 2003 (EU15 for January 2003).

**Figure 1 EU countries by number of broadband lines**

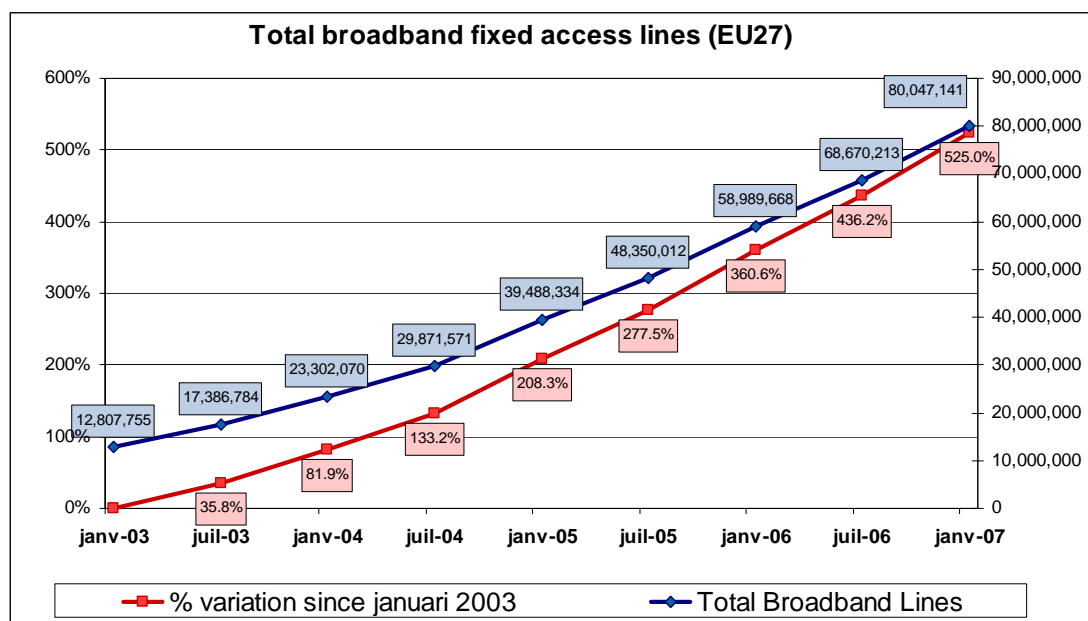


Germany accounts for 18.6% of all broadband lines, followed by the UK and France, with 16.4% and 16.0% respectively. These three countries represent 51% of all EU broadband connections. Italy, Spain and the Netherlands follow. The new Member States (EU12) contribute 7.04 million broadband lines, which represent 8.79% of the total, 3.26 points up from January 2006.

**Figure 2 EU distribution of broadband lines by country (% of broadband lines)**



**Figure 3 Growth trend since January 2003**

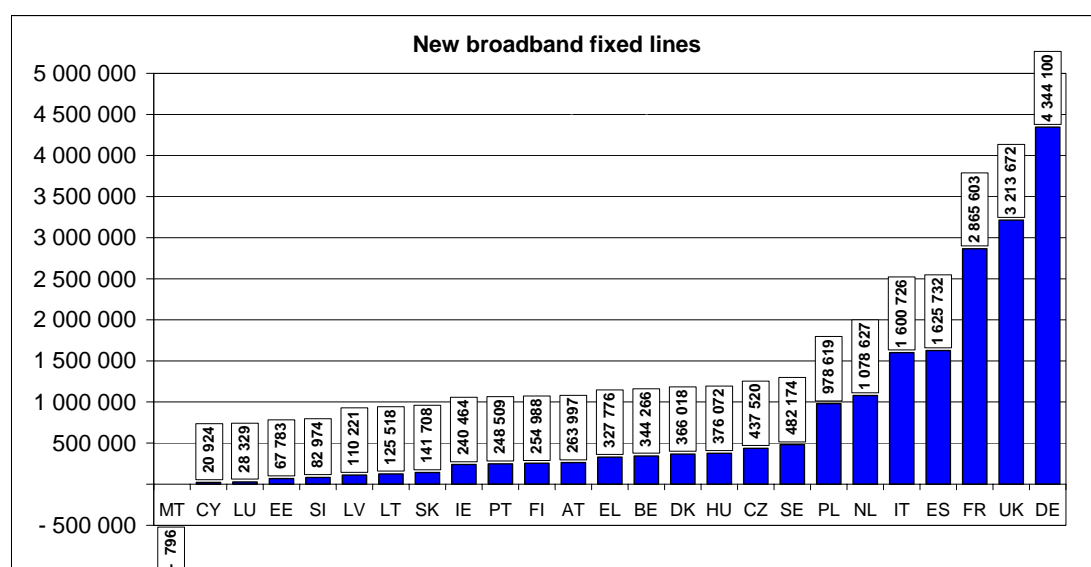


The number of broadband lines added per day in the period between January 2006 and January 2007 was 53 768 (without Bulgaria and Romania), i.e. merely 343 more connections per day than the 53 425 new lines per day between January 2005 and January 2006. In other words, in January 2007 there was only 0.64% more lines added every day than a year before.

The absolute growth, without Bulgaria and Romania, in the second half of 2006 - 10 079 718 lines - was 2nd highest biannual increase since January 2003. It reveals that the growth in 2006 was more intensive in the last six months of 2006 (9 545 806 lines added in the first six months of 2006).

Figure 4 shows that Germany is the most "dynamic" broadband market in the EU in absolute terms, adding 4.34 million new lines in the period between January 2006 and January 2007. Germany was followed by other European large economies (UK, France, Spain and Italy).

**Figure 4 Broadband lines added, by country**



In order to measure the increase in the number of lines relative to the population size, Figure 5 shows the number of new lines per 100 population. Denmark is the leader with 6.7 lines per 100 inhabitants, followed by the Netherlands with 6.6 and Luxembourg with 6.0. A group of 5 countries with less than 6 and more than 5 lines per 100 population follows.

**Figure 5 New broadband fixed lines per 100 population**

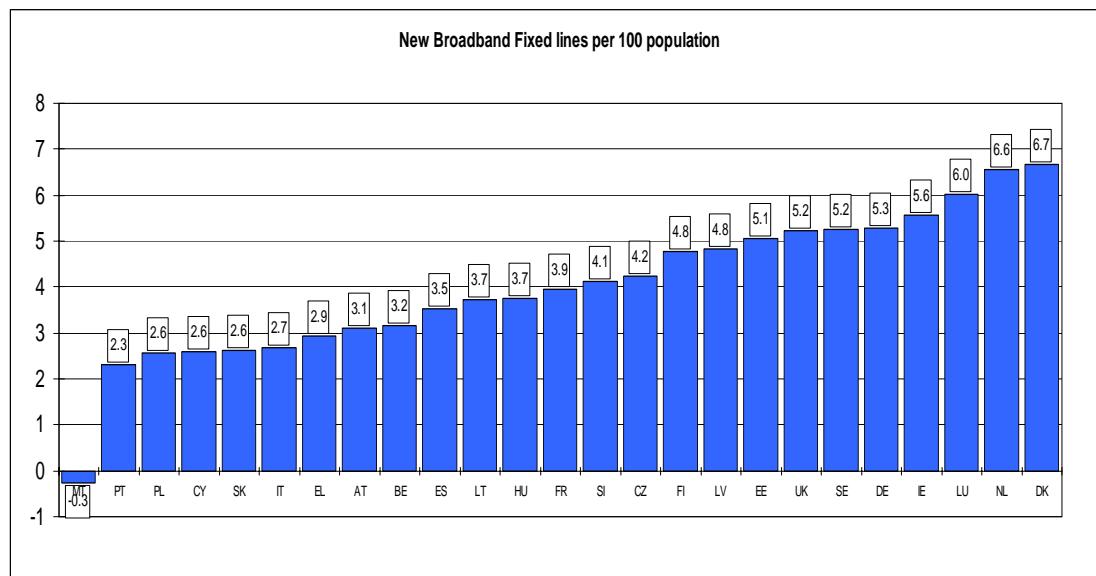


Figure 6 shows the penetration rate of broadband measured as the number of broadband lines per 100 population. Two countries, the Netherlands (31.8%) and Denmark (31.4%), have exceeded the magical 30% penetration threshold; Finland exceeds 27%, Sweden is close to 26%, while Belgium, UK, Luxembourg and France have all exceeded the 20% mark. At EU level the penetration rate is 16.2%, up 3.5 percentage points from 12.7% a year ago.

**Figure 6 Penetration rate. Lines per 100 population**

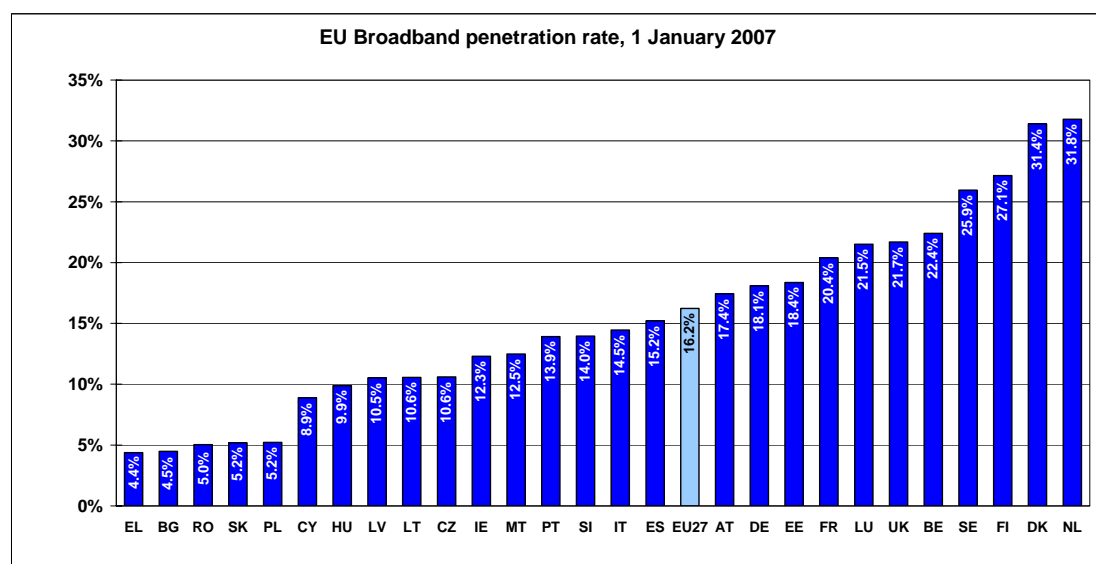




Figure 7 combines the penetration rate as of January 2007 and the growth of this indicator in percentage points during the period between January 2006 and January 2007.

Growth was higher in Denmark and the Netherlands, followed by Luxembourg and Ireland. Eight other Member States exceed the EU25 average growth.

**Figure 7 Penetration rate and speed of progress**

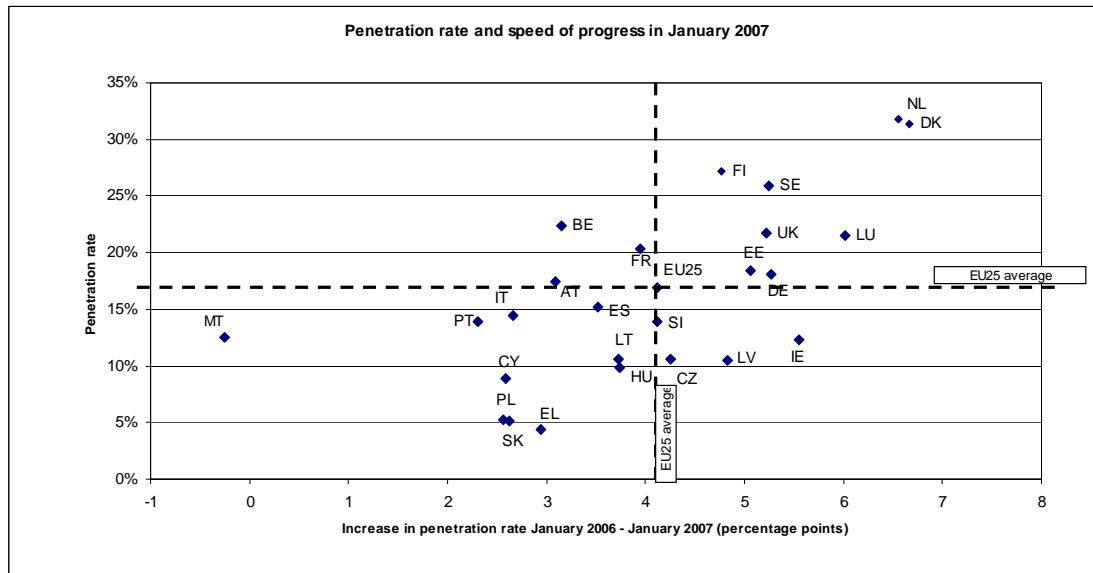
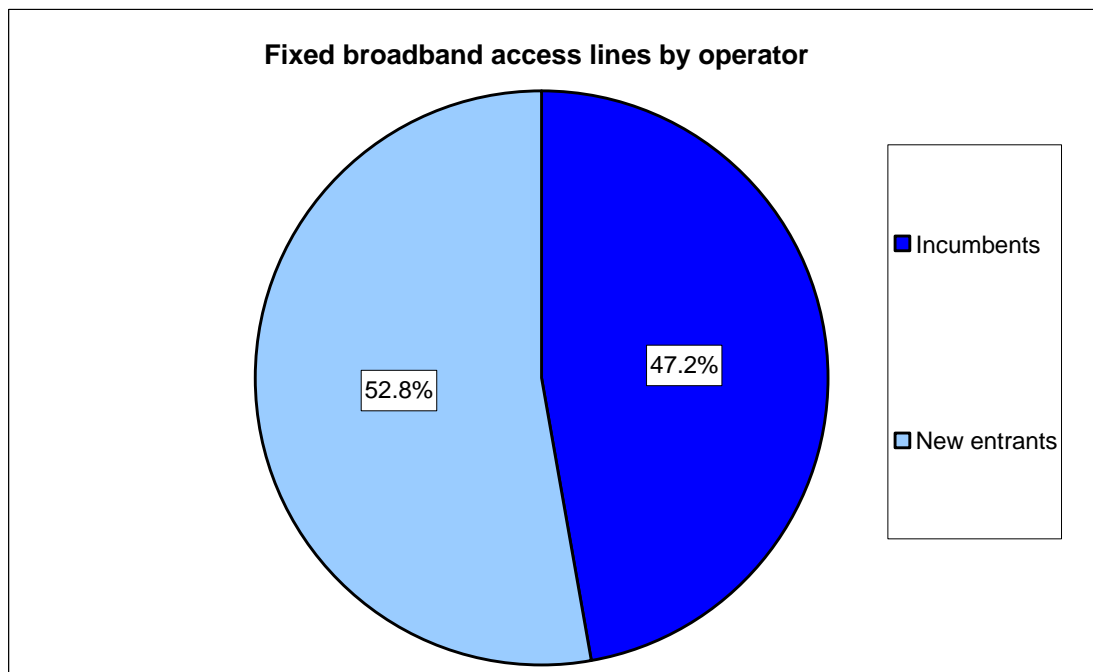
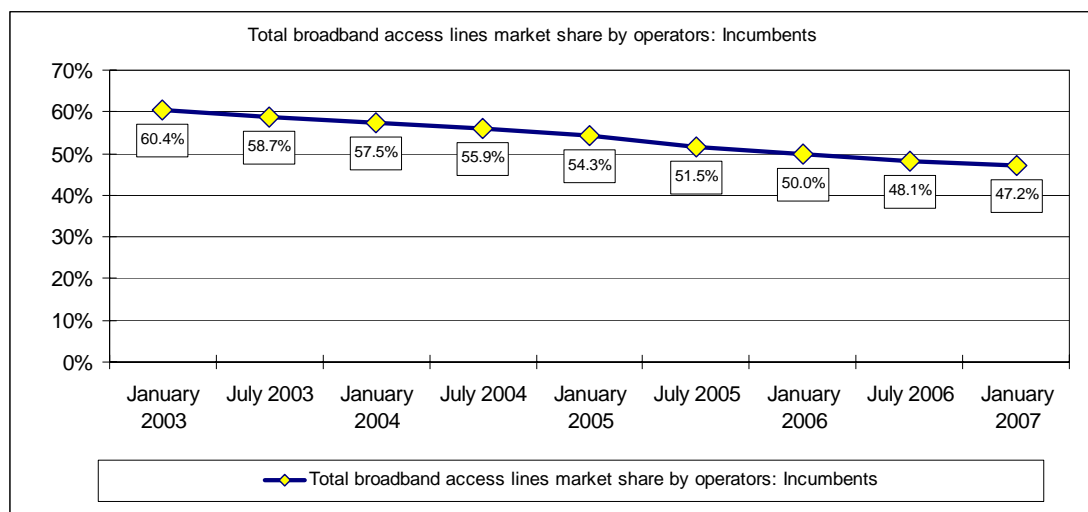


Figure 8 shows the percentage of broadband lines provided by the incumbent fixed operators and by the other operators. Figure 9 displays the trend in the percentage of broadband lines provided by the incumbent fixed operators.

**Figure 8 Broadband lines market share**

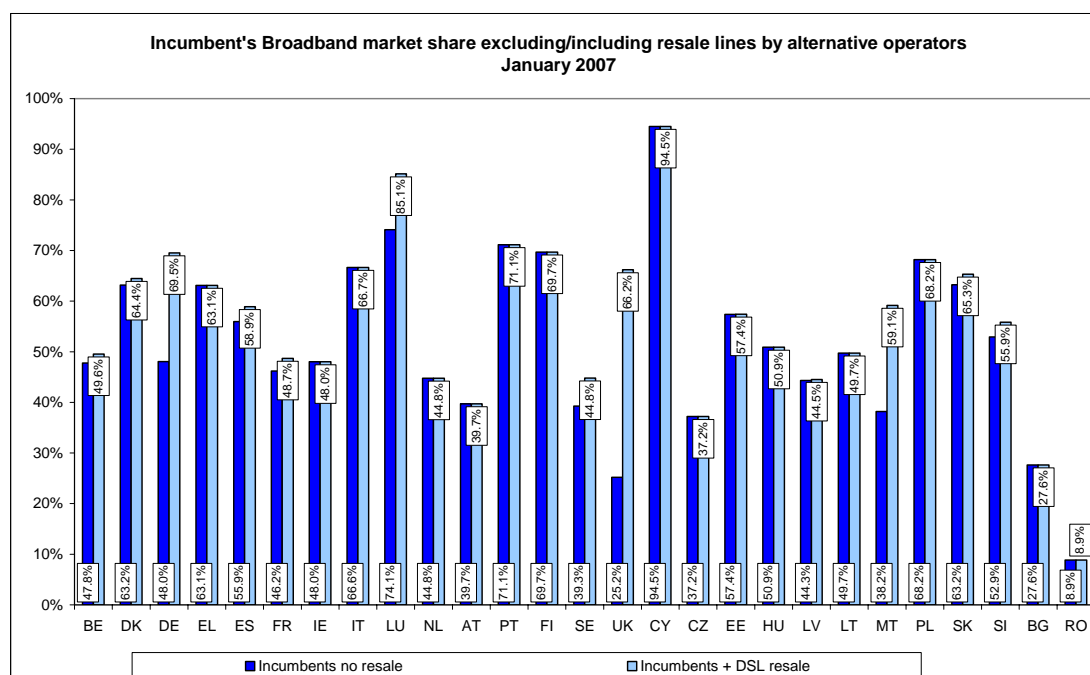


**Figure 9 Trend in the percentage of broadband lines provided by the incumbent fixed operators**



Resale, which remains largely unregulated, has acquired increasing importance in some Member States. This trend is unlikely to provide a basis for sustainable competition. Figure 10 shows the market share of the incumbents excluding or including DSL resale. UK (41% points), Germany (21.5% points), Malta (20.9% points) and Luxembourg (11% points) are good examples of control that the incumbents exercise over the end-users.

**Figure 10 Market shares of incumbents, excluding and including resale**



UK – according to the NRA, a significant number of bitstream lines has been reported under the category "resale"

## DSL LINES

There were 64 541 104 (64 734 223 with Bulgaria and Romania) DSL lines in the EU as of 1 January 2007, a 34.52% increase since 1 January 2006.

In the period between January 2006 and January 2007 a total of 16 563 481 (16 756 600 with Bulgaria and Romania) new DSL lines were added. This represents 87 448 less lines than the 16 650 929 new lines installed in the period between January 2005 and January 2006. The trend reveals signs of a growth slowdown in DSL segment.

Incumbent fixed operators provided 56.7% of these lines, down from 59.7% in January 2006 and 66.1% in January 2005.

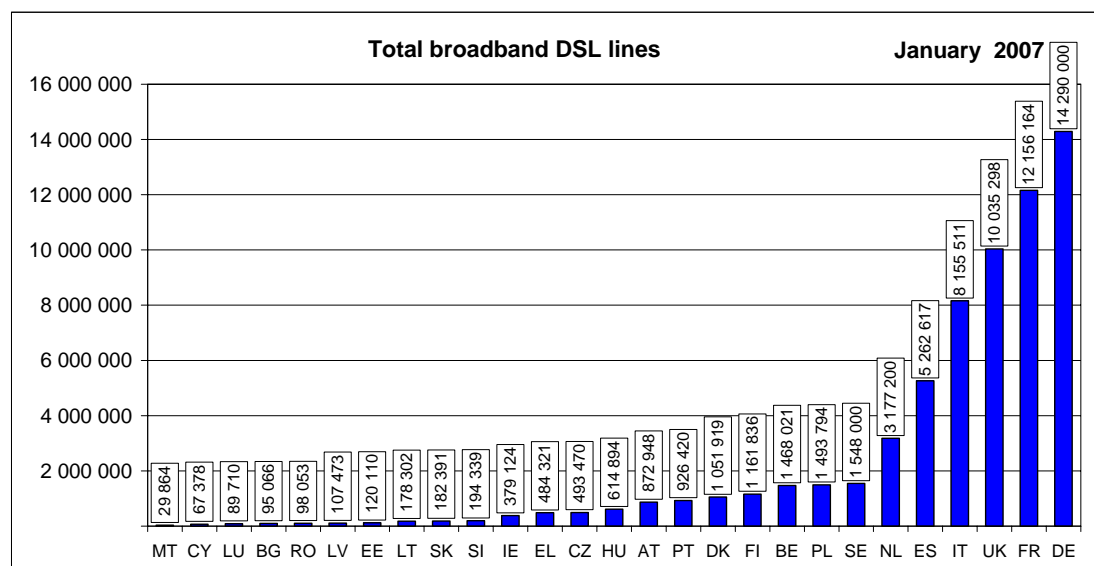
Table 2 shows how the DSL lines in the EU were distributed between the EU Member States at 1 January 2004, 1 July 2004, 1 January 2005, 1 July 2005, 1 January 2006, July 2006 and January 2007.

**Table 2 DSL retail lines in the EU by country**

	January 2004	July 2004	January 2005	July 2005	January 2006	July 2006	January 2007
BE	765 183	889 294	996 118	1 113 641	1 247 471	1 356 007	1 468 021
CZ	21 000	36 000	106 000	181 000	309 000	399 478	493 470
DK	473 359	562 009	638 961	714 529	830 697	943 835	1 051 919
DE	4 498 086	5 286 141	6 709 683	8 138 941	10 207 500	12 128 500	14 290 000
EE	37 558	50 906	64 628	75 133	83 880	109 157	120 110
EL	8 588	22 937	46 547	91 869	157 993	294 026	484 321
ES	1 676 466	2 086 172	2 604 067	3 268 602	3 915 435	4 583 849	5 262 617
FR	3 262 800	4 490 487	6 293 249	7 802 442	9 390 561	10 697 543	12 156 164
IE	24 400	57 445	115 583	144 376	202 290	238 868	379 124
IT	2 158 458	3 223 188	4 402 585	5 175 270	6 556 648	7 363 356	8 155 511
CY	10 033	14 490	17 994	17 994	44 322	49 873	67 378
LV	N/A	26 815	39 281	49 465	69 464	83 807	107 473
LT	26 438	34 074	50 688	69 804	104 798	133 880	178 302
LU	13 860	22 128	32 607	47 048	63 132	71 870	89 710
HU	117 369	165 980	239 810	297 237	412 886	485 881	614 894
MT	N/A	11 426	22 145	23 799	30 139	30 523	29 864
NL	978 044	1 374 129	1 884 561	2 204 067	2 551 052	2 848 829	3 177 200
AT	279 600	355 725	442 075	525 230	683 083	739 543	872 948
PL	80 239	108 901	410 186	532 284	730 358	1 098 859	1 493 794
PT	184 860	293 435	424 169	576 258	707 916	835 998	926 420
SI	38 330	53 840	74 922	95 932	129 281	155 288	194 339
SK	4 210	9 900	38 334	64 539	104 487	140 503	182 391
FI	328 704	400 000	585 650	763 283	929 268	1 068 082	1 161 836
SE	595 200	686 200	883 200	1 038 747	1 250 441	1 392 000	1 548 000
UK	1 804 609	2 753 061	4 203 651	5 784 002	7 265 521	8 712 129	10 035 298
BG	N/A	N/A	N/A	N/A	N/A	N/A	95 066
RO	N/A	N/A	N/A	N/A	N/A	N/A	98 053
<b>EU</b>	<b>17 387 394</b>	<b>23 014 683</b>	<b>31 326 694</b>	<b>38 795 492</b>	<b>47 977 623</b>	<b>55 961 684</b>	<b>64 734 223</b>

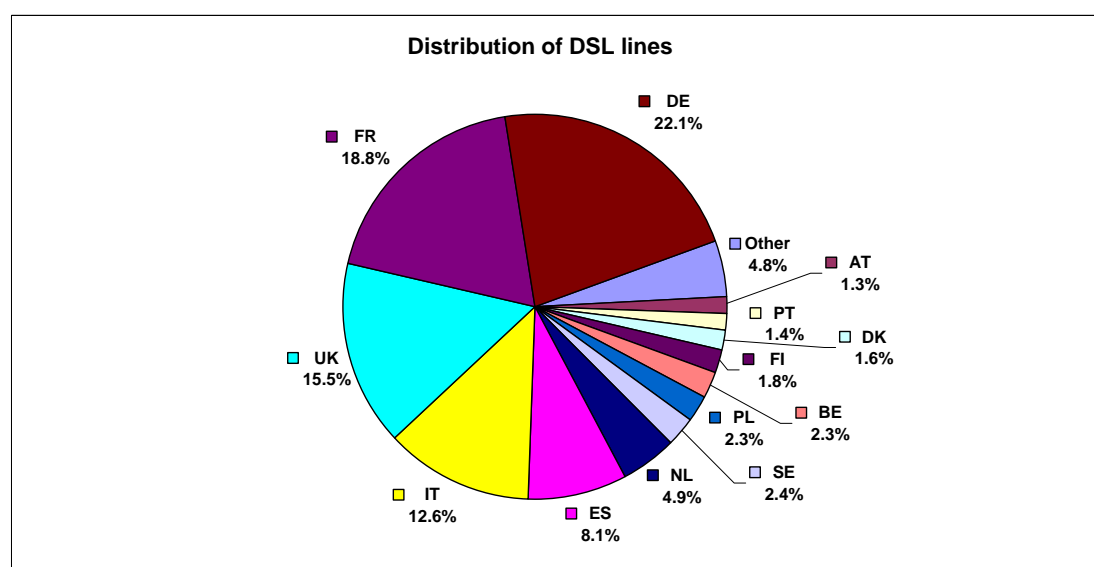
Figure 11 displays the distribution of DSL lines by country, Figure 12 presents this distribution in percentage terms at 1 January 2007 and Figure 13 shows the growth rate since January 2003 (EU15 for January 2003).

**Figure 11 EU countries by number of DSL lines**

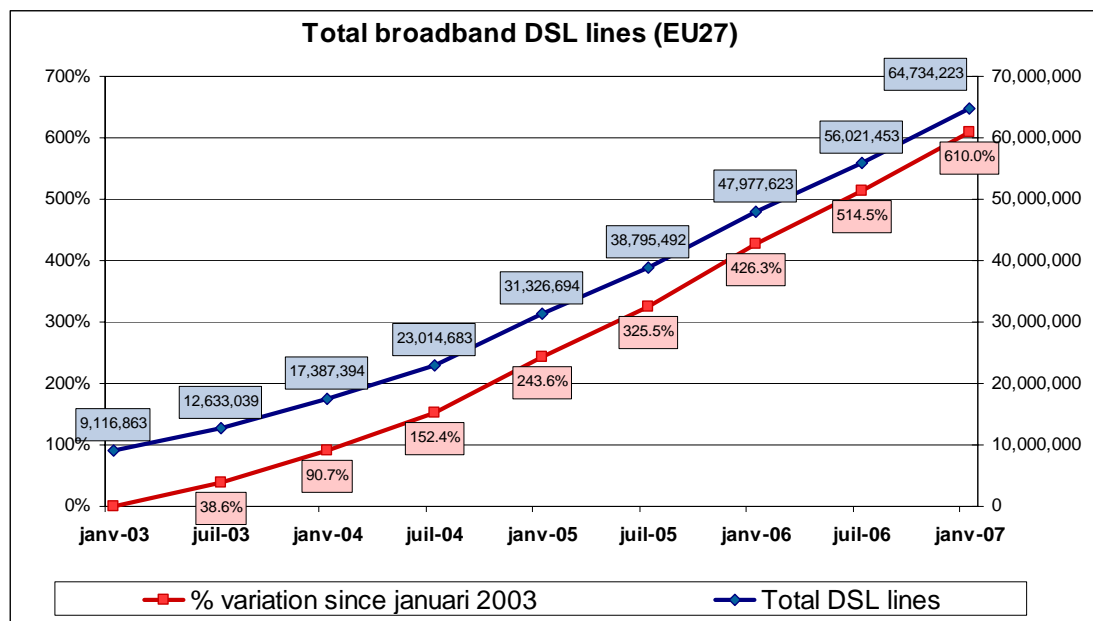


Germany accounts for 22.1% of all DSL lines, followed by France with 18.8% and the UK with 15.5%. These three countries provide more than 56% of all DSL lines, as shown in Figure 12. The new Member States (EU12) contribute 3.67 million DSL lines, which represent 5.68% of the total DSL lines, up by 1.47% since January 2006.

**Figure 12 EU distribution of DSL lines by country (% of DSL lines)**



**Figure 13 Growth trend since January 2003**



The number of DSL lines added each day in the period between January 2006 and January 2007 was 45 379 (Bulgaria and Romania not included), which means that 0.53% less lines per day were added than in the period between January 2005 and January 2006, when 45 619 new DSL connections per day were recorded.

Germany added more than 4 million new lines over the period, followed by the UK, France, Italy, Spain and Poland.

**Figure 14 DSL lines added, by country**

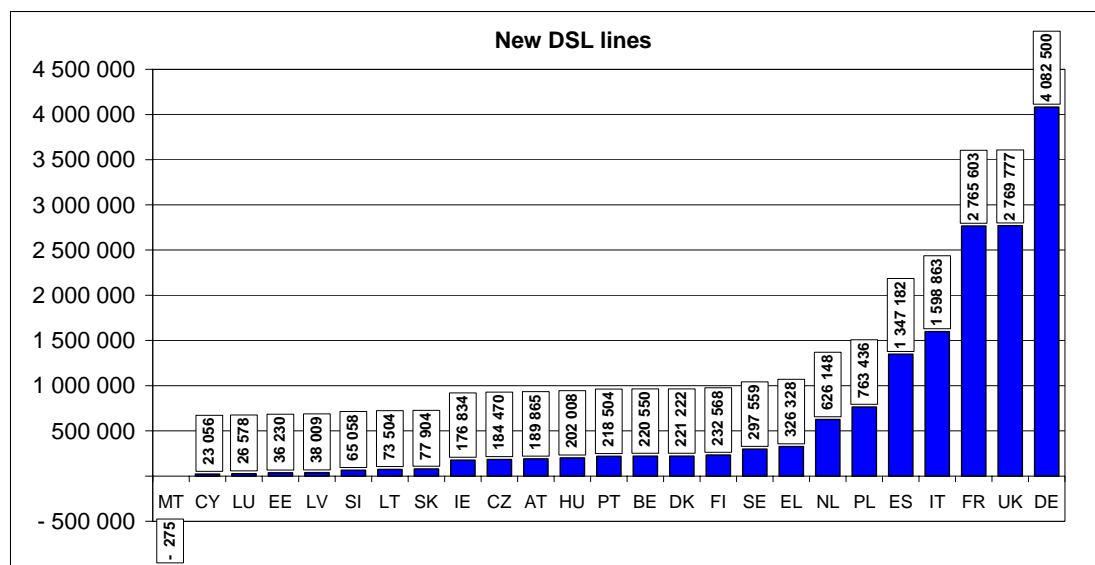
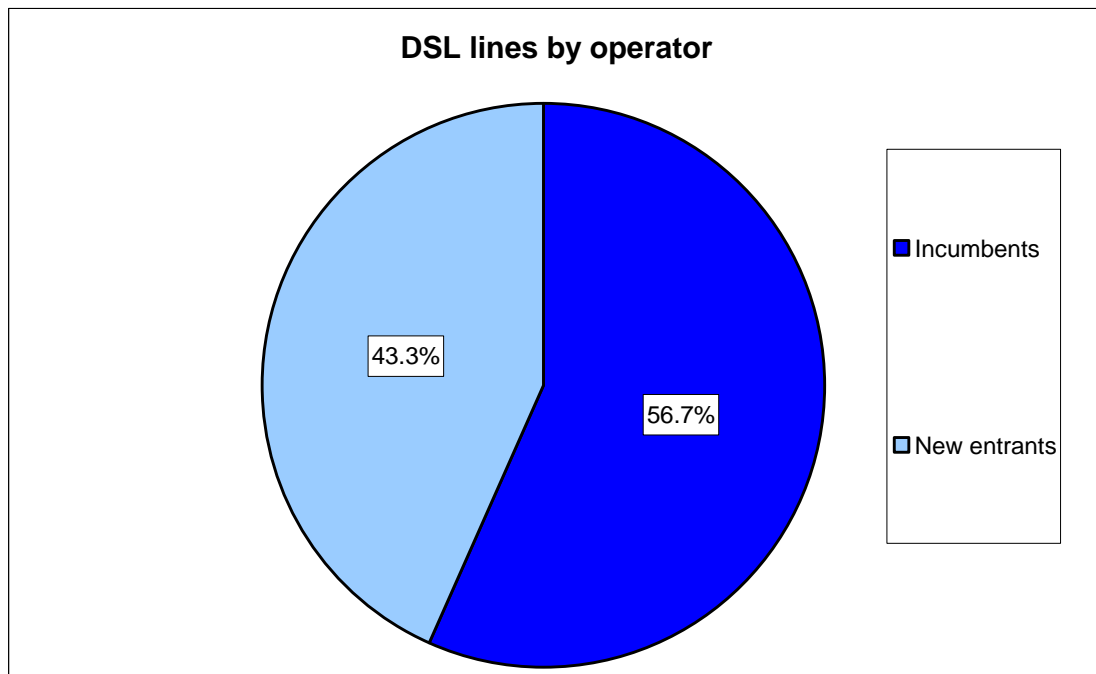


Figure 15 shows the percentage of DSL lines provided by the incumbent fixed operators and the new entrants. Figure 16 displays the trend in the percentage of DSL lines provided by incumbent fixed operators.

**Figure 15 DSL lines market share by operator**



**Figure 16 Trend in the % of DSL lines provided by incumbent fixed operators**

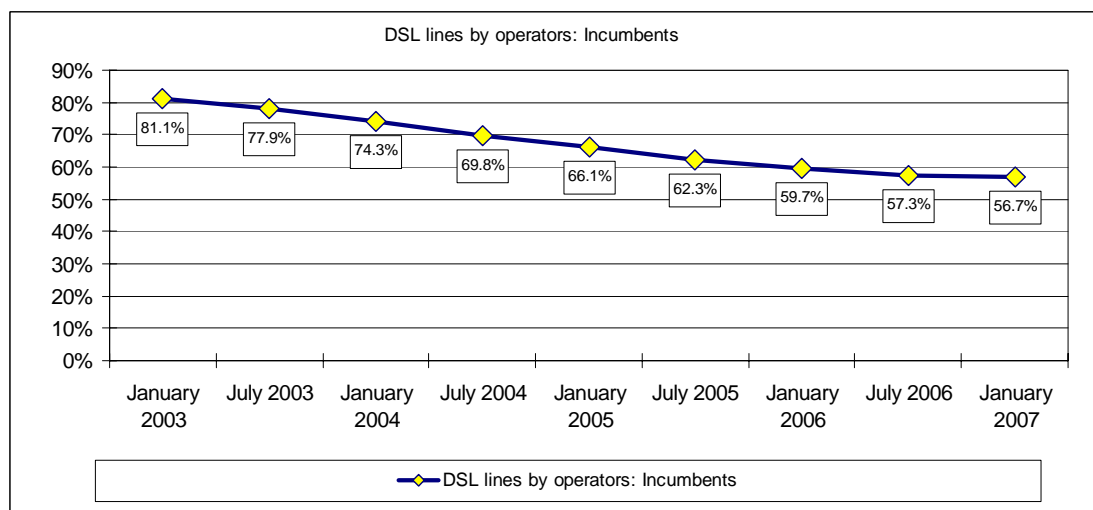
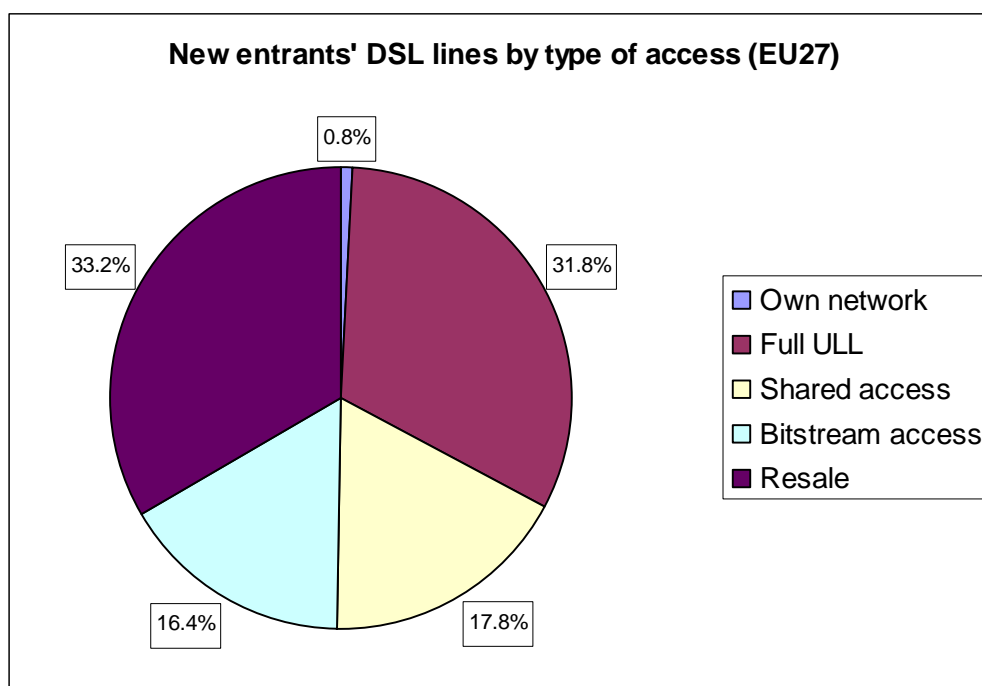
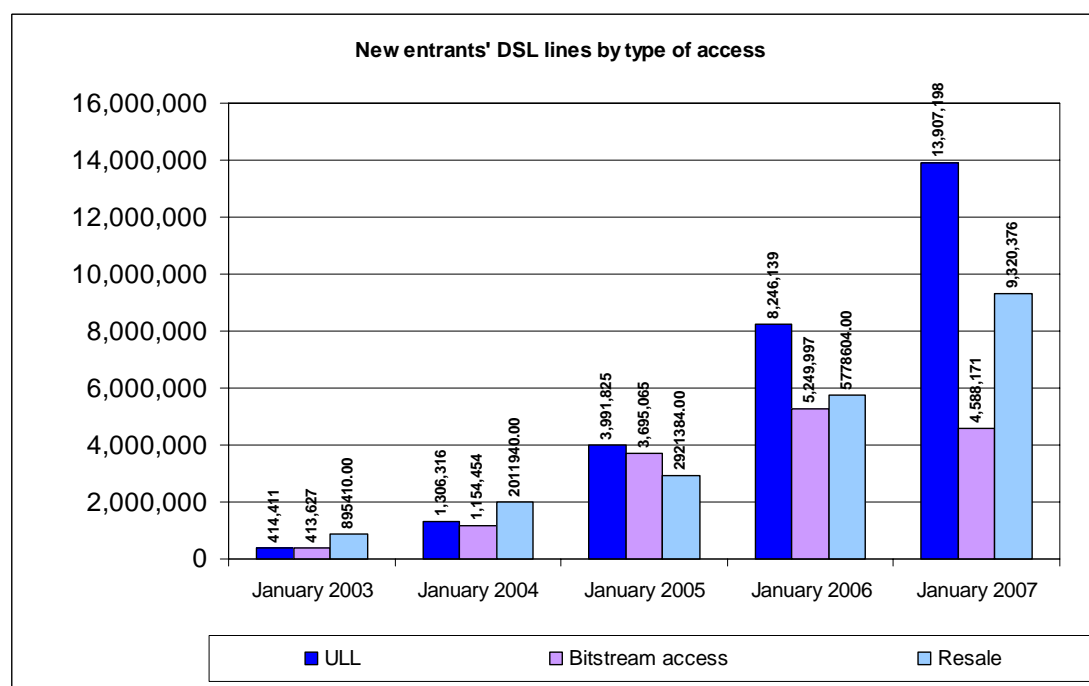


Figure 17 displays the type of access used by new entrants' to provide DSL lines to their customers. Local loop unbundling (fully unbundled lines and shared access) is the main wholesale access for new entrants with 49.6% of DSL lines, up from 42.7% in January 2006. New entrants replace bitstream access (down by 10.8 percentage points since January 2006) for local loop unbundling in the provision of broadband services, as can be seen in Figure 18. Share of resale, which represents a type of access for low-investment intensive new entrants has grown in the last year (3.3 percentage points) and has been driven mainly by the UK and Germany.

**Figure 17 New entrants' DSL lines by type of access**



**Figure 18 New entrants' DSL lines by type of access**



# FIXED BROADBAND LINES USING TECHNOLOGIES OTHER THAN DSL

There were 14 073 036 (15 312 918 with Bulgaria and Romania) broadband lines using technologies other than DSL in the EU as of 1 January 2007. 3 062 043 lines were added (4 301 925 with Bulgaria and Romania), which represents a 7.46% increase since 1 January 2006. Net additions in the period between January 2006 and January 2007 were higher than in the period between January 2005 and January 2006, when 2 849 354 new lines were sold, pointing at a moderate growth of non-DSL segment.

Alternative operators provided 93.1% of these lines, which is 0.7 percentage points more than the percentage of January 2006 and 2 percentage points more than the market share in January 2005.

Table 3 shows how the non-DSL broadband lines in the EU were distributed between the EU Member States at 1 January 2004, 1 July 2004, 1 January 2005, 1 July 2005, 1 January 2006, 1 July 2006 and 1 January 2007.

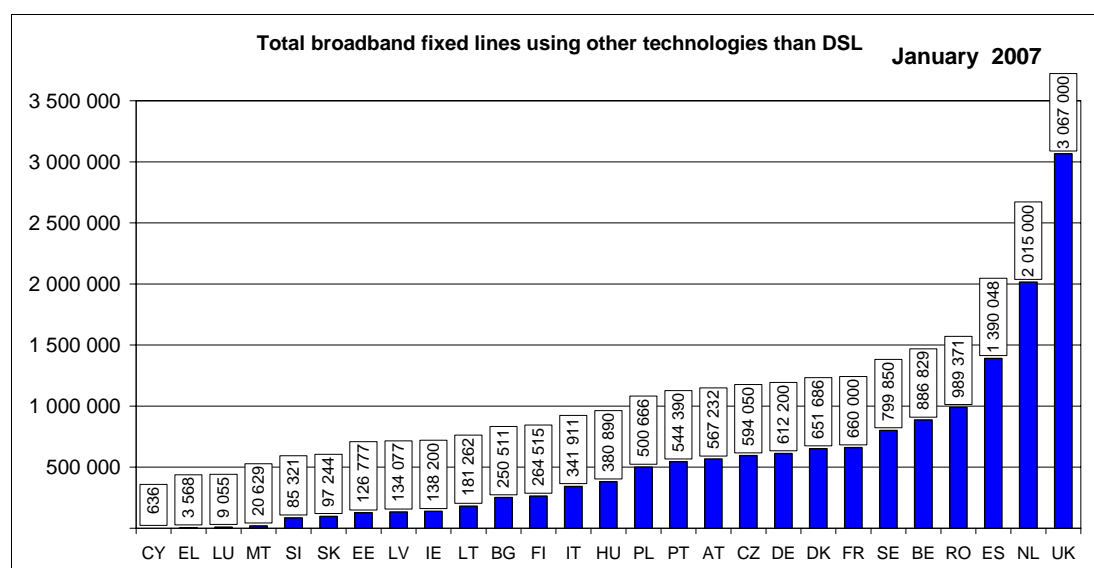
**Table 3 Non-DSL broadband lines in the EU by Country**

	January 2004	July 2004	January 2005	July 2005	January 2006	July 2006	January 2007
BE	479 553	555 379	623 638	690 492	763 113	816 239	886 829
CZ	80 000	85 000	122 200	255 000	341 000	461 030	594 050
DK	254 547	359 468	400 417	473 902	506 890	648 285	651 686
DE	169 371	129 106	195 476	296 428	350 600	479 900	612 200
EE	20 957	51 865	73 989	75 113	95 224	113 830	126 777
EL	1 895	2 449	4 908	1 714	2 120	3 064	3 568
ES	551 703	681 455	848 639	971 737	1 111 498	1 201 013	1 390 048
FR	393 854	425 000	500 000	520 000	560 000	600 000	660 000
IE	9 650	10 085	22 533	32 745	74 570	83 500	138 200
IT	243 481	280 309	298 647	346 104	340 048	327 147	341 911
CY	30	30	973	973	2 768	693	636
LV	N/A	7 089	17 167	35 916	61 865	71 931	134 077
LT	38 544	54 205	78 365	100 815	129 248	152 179	181 262
LU	2 082	3 206	4 412	6 001	7 304	8 235	9 055
HU	69 859	91 036	125 931	160 320	206 826	274 390	380 890
MT	N/A	2 312	15 909	17 752	21 150	21 420	20 629
NL	930 000	998 400	1 200 000	1 438 248	1 562 521	1 893 000	2 015 000
AT	333 000	352 000	385 600	412 600	493 100	510 409	567 232
PL	93 000	111 000	126 551	178 442	285 483	405 415	500 666
PT	315 577	370 610	429 961	478 295	514 385	523 746	544 390
SI	22 068	22 499	43 109	60 737	67 405	73 674	85 321
SK	4 065	4 585	13 535	15 846	33 440	74 776	97 244
FI	118 740	172 100	194 279	211 331	242 095	240 377	264 515
SE	415 200	445 200	501 900	494 900	615 235	677 685	799 850
UK	1 367 500	1 642 500	1 933 500	2 279 109	2 623 105	2 910 800	3 067 000
BG	N/A	N/A	N/A	N/A	N/A	N/A	250 511
RO	N/A	N/A	N/A	N/A	N/A	N/A	989 371
<b>EU</b>	<b>5 914 676</b>	<b>6 856 888</b>	<b>8 161 639</b>	<b>9 554 520</b>	<b>11 010 993</b>	<b>12 572 738</b>	<b>15 312 918</b>



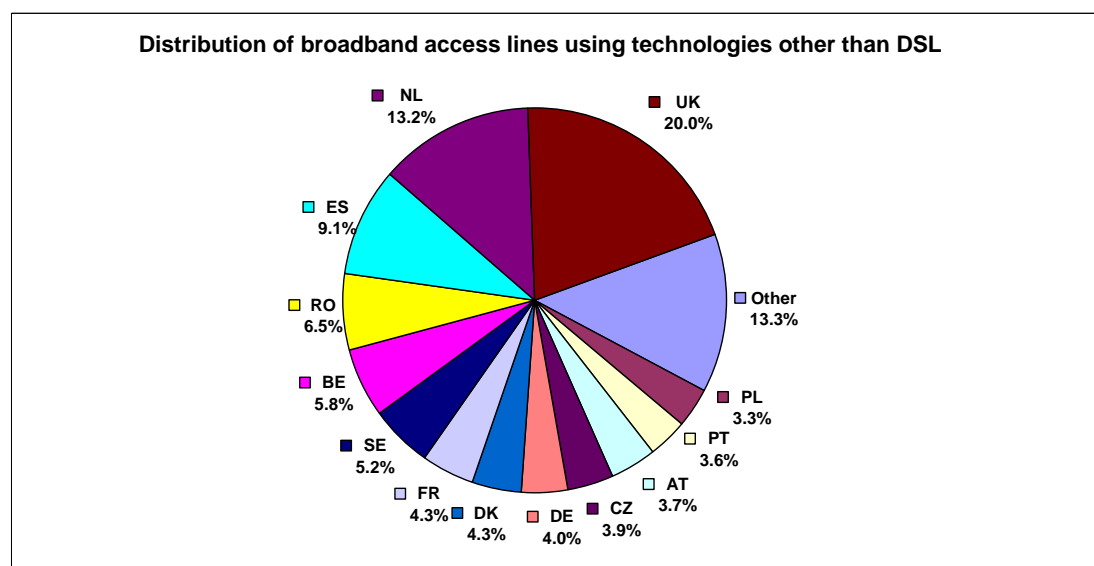
Figure 19 displays the distribution by country, Figure 20 presents this distribution in percentage terms at 1 January 2007 and Figure 21 shows the growth rate since January 2003.

**Figure 19 EU countries by number of broadband lines using other technologies**

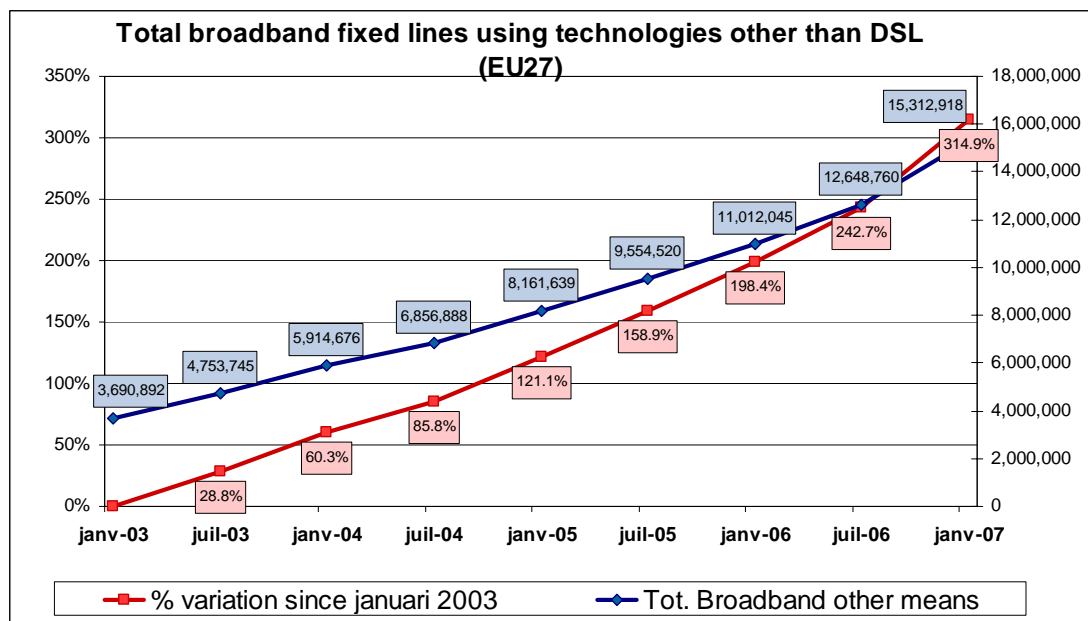


The UK accounts for 20% of all broadband lines using other technologies, as shown in Figure 20. The Netherlands has the second largest individual share, with 13.2%, followed by Spain, Romania and Belgium with 9.1%, 6.5% and 5.8% respectively. These five countries account for more than 54% of this category of broadband line in the EU.

**Figure 20 EU distribution of broadband lines using other technologies by country (% of lines)**



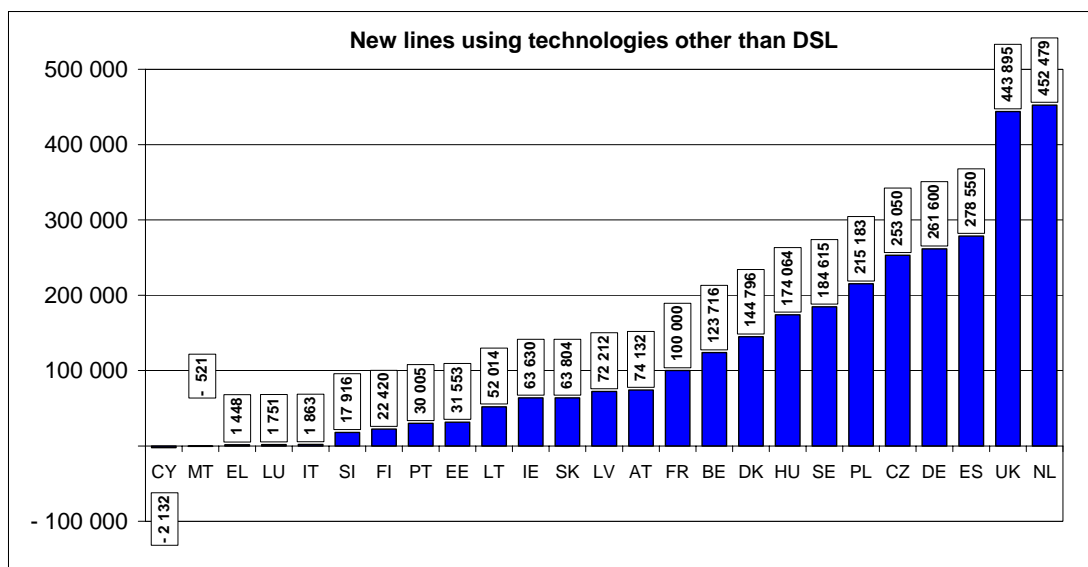
**Figure 21 Growth trend since January 2003**



8 389 (Bulgaria and Romania not included) broadband lines using other technologies were added each day in the period between January 2006 and January 2007. This compares to the 7 806 new lines per day between January 2005 and January 2006.

The Netherlands and the UK added together 896 374 lines using technologies other than DSL, while Spain, Germany, Czech Republic and Poland added between 300 000 and 200 000 lines each.

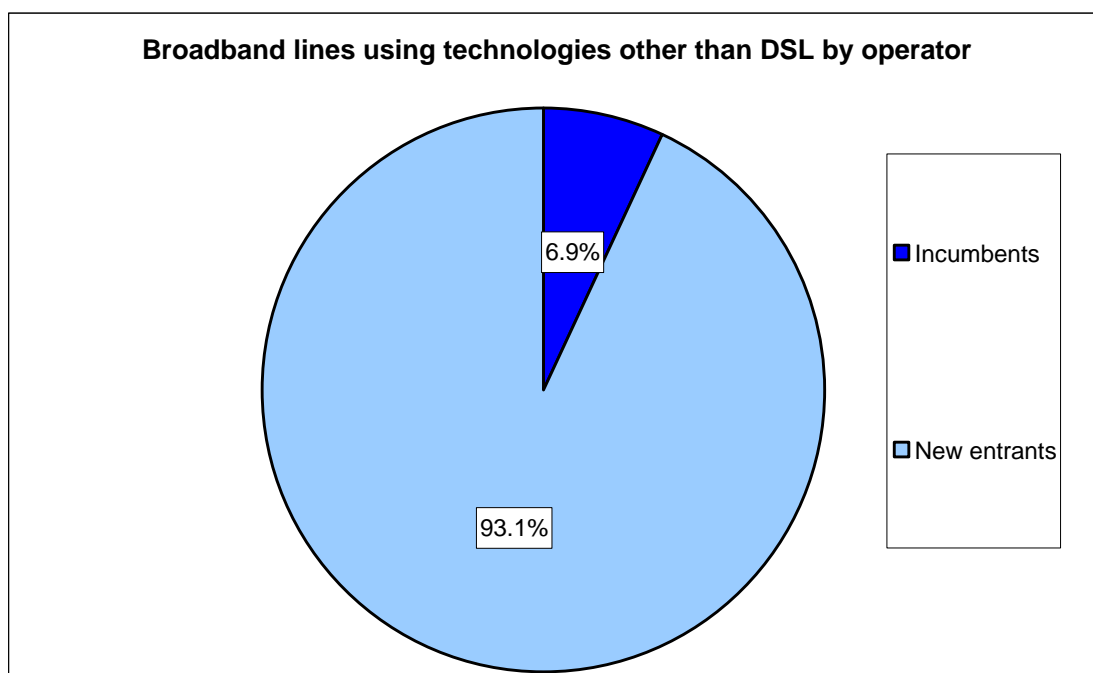
**Figure 22 Broadband lines using other technologies added by country**



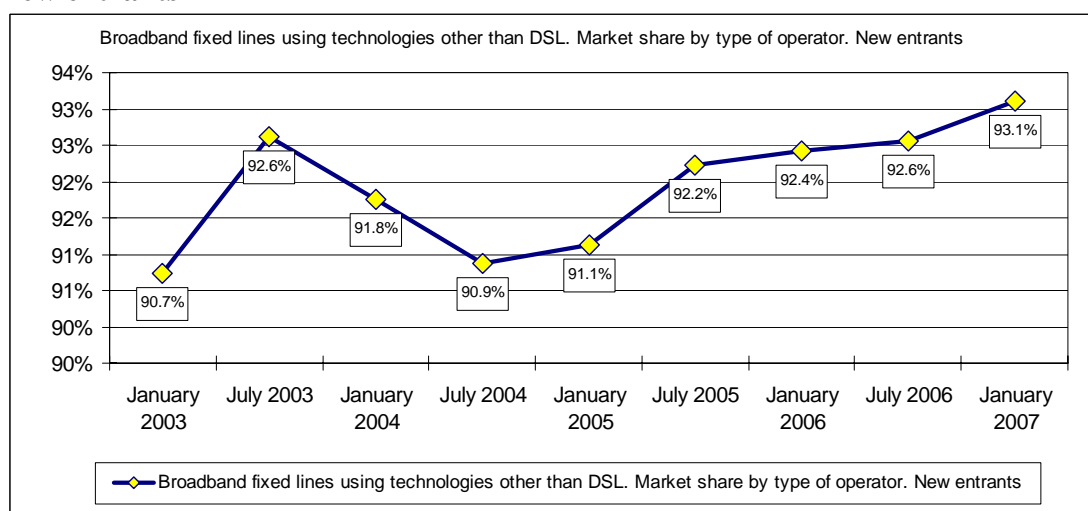
CY- the negative number is due to incorrect data provided by the incumbent regarding the number of leased lines and their capacities of previous years.

Figure 23 and 24 show the percentage of broadband lines using other technologies provided by the incumbent fixed operators and the alternative operators and the trend since July 2002.

**Figure 23 Broadband lines using other technologies: market share**



**Figure 24 Trend in the % of lines using technologies other than DSL provided by new entrants**



## **ANNEX 1: DATA ON LOCAL BROADBAND ACCESS (WHOLESALE AND RETAIL)**

This annex provides additional information, by Member State, on unbundling, shared access and wholesale DSL, as well as incumbents' and new entrants' retail DSL offerings and incumbents' and new entrants' retail offerings by means other than DSL (WLL, cable, leased lines and others such as satellite, fibre to the home or powerline communications).

Availability of wholesale access 1 January 2007											
January 07		Fully unbundled lines			Shared access lines supplied by the incumbent to new entrants			Wholesale DSL lines supplied			
	Incumbent's PSTN activated							Bitstream access		Simple resale	
Country	main lines	Unbundled lines	Requested lines	N. of agreements	Shared lines	Requested lines	N. of agreements	No. of lines	No. of agreements	Resale No. of lines	No. of agreements
BE	4110533	26575	389	9	27145	22	9	267328	13	42183	18
DK	3074906	102023	0	21	87025	0	8	92812	14	21460	11
DE	38200000	4700000	0	103	85000	0	18	0	0	3200000	27
EL	5391150	12176	4293	14	7328	925	7	158415	15	0	0
ES	15759343	411286	26994	17	527723	16851	13	404214	25	195520	2
FR	32108000	2109267	0	0	1810058	0	0	1756584	0	322617	0
IE	1600000	18488	112	5	1040	8	5	111193	11	0	0
IT	20828000	2073000	62500	27	406500	14200	9	1131000	248	0	0
LU	224510	7025	392	4	102	2	4	0	0	10904	7
NL	6273000	291000	0	10	561000	0	10	confidential	5	0	0
AT	2589822	197938	16622	36	113	3	3	122265	0	0	0
PT	3316572	195751	4861	5	3	0	1	62759	7	0	0
FI	2217670	297265	na	na	61598	na	na	79666	na	na	na
SE	5164000	119000	0	0	403000	0	0	0	0	130000	0
UK	23500000	263350	na	55	1031732	na	31	1016961	30	7652983	582
CY	408319	3374	3778	2	16	16	2	0	0	0	0
CZ	2376183	14024	na	6	9171	na	6	65227	22	na	na
EE	464000	4460	43	7	0	0	0	0	0	0	0
HU	3216000	1354	621	7	3070	34	7	162053	20	na	na
LV	600000	0	0	2	0	0	2	847	11	0	0
LT	752349	292	0	1	0	0	0	2155	9	0	0
MT	202413	0	0	0	0	0	0	0	0	10577	11
PL	8384407	0	0	0	0	0	0	59	6	0	0
SK	1081337	0	0	0	0	0	0	0	0	5802	12
SI	815904	16180	2041	3	11469	1147	3	10851	12	8131	4
BG	2376448	0	0	0	2	12	3	0	0	72	3
RO	3400000	576	na	17	356	na	17	0	na	0	na
EU27	188434866	10864404	122646	351	5033451	33220	158	5444389	448	11600249	677

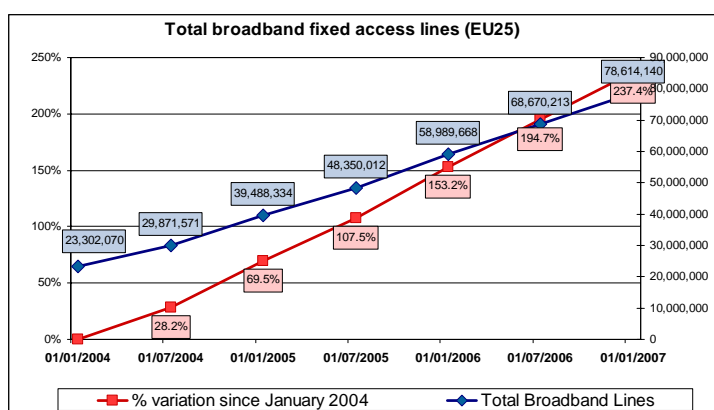
## BROADBAND RETAIL LINES, 1 January 2007

January 07		New entrants' DSL lines on PSTN January 07						Incumbents' access lines by other means										New entrants' access lines by other means										
	Incumbent's DSL lines	Own network	Full ULL	Shared access	Bitstream access	Resale	Tot.	WLL	Cable modem	Leased lines	3G	Fiber to the home	Satellite	PLC	Other	Public access WIFI Hotspots	Tot. (exc. WIFI)	WLL	Cable modem	Leased lines	3G	Fiber to the home	Satellite	PLC	Other	Public access WIFI Hotspots	Tot. (exc. WIFI)	
BE	1 124 673		22 366	21 080	257 719	42 183	343348									895	0	6 968	878 360	834		14				653	1 363	886829
DK	750 251	203	124750	63 726	91 203	21 786	301668	36621	278370	6 173					4 727	760	325891	20733	216 313	862		17441	149	98	70199	223	325795	
DE	7 100 000	5 000	3900000	85 000		3200000	7190000			56400			2 900			8 500	59 300		490 000				53 400	9500		100	552900	
EL	306 402		12 176	7 328	158 415		177919			1 064			350			14	1 414	643		1 036		475				na	2154	
ES	3 717 667	6 207	411 286	527723	404 214	195 520	1544950						4 290			2 181	4 290	10658	1 350101	15023		2 681	1 989	3169	2 137	35	1385758	
FR	5 915 694		2109267	1810058	1 998 528	322 617	6240470												660 000								660000	
IE	248 403		18 488	1 040	111 193		130721											75200	56 000			7 000					138200	
IT	5 639 000	349	1060170	381893	1 073 327	772	2516511			392		244	23 191		182	1 488	24 009	1 395	20	4 892		228588	83 000		7	500	317902	
LU	72 170		6 534	102		10 904	17540		754	237						31	991	98	7 956	10						50	8064	
NL	2 325 200		291 000	561000	confidential		852000												1 950000			65 000					2015000	
AT	572 014		178 556	113	122 265		300934										0	20122	537 684			1 000	1 000	5400	2 026		567232	
PT	686 681		188 296	3	51 440		239739		358569	1 046						1 159	359615	3 532	179 081	2 162							184775	
FI	837 456		183 116	61 598	79 666		324380	2 214	95 520						58345		156079	2 643	85 567					812	19414		108436	
SE	896 000		119 000	403000		130 000	652000			2 000		24000					26000	8 000	445 000	10000		310000	850				773850	
UK	3 298 454	70 272	263 350	1031732		5371490	6736844										0	2 500	3 058500				6 000				3067000	
CY	63 988		3 374	16			3390			273					22	45	295		305	33					3	8	341	
CZ	404 570		14 900	9 000	65 000		88900									200	0	350000	216 000			24 000	4 000	50		2 790	594050	
EE	115 930	1 066	3 074			40	4180	3 100				22507			163	130	25770	6 152	59 183			18 376			17296	774	101007	
HU	448 417		1 354	3 070	162 053		166477	5 500	51 233	1 500							58233	33900	284 257	3 500		1 000					322657	
LV	106 585		212	10	142	524	888	234							165		399	11398	38 504	18405		6 813	496	1236	56826		133678	
LT	176 147				2 155		2155			102		65			2 472	804	2639	24424	65 758	1 451		43 836			43154	189	178623	
MT	19 287					10 577	10577										0		20 629								20629	
PL	1 350 819	142916		59			142975		3 089						6 135		9224	12 339	457 519	3 261		1 195	4		17124	636	491442	
SK	176 589					5 802	5802			248							248	15 000	36 480	950		29 542	24		15000	500	96996	
SI	147 708		16 180	11 469	10 851	8 131	46631		192			160				255	352	249	81 446			2 876			398	4	84969	
BG	95 036					30	30					139			315	0	454		64 918			6 920	1		178218		441	
RO	95 834	1 490	729				2219			302		131				0	433	16 735	393 514	71		52 705	131		525782	522	1 099	
EU27	36 690 975	227503	8928178	4979020	4 588 171	9320376	28043248	47669	787727	69737		47246	30 731		72526	16 462	1055636	622689	11633095	62490		819462	151044	20265	948237	7 694	13019827	

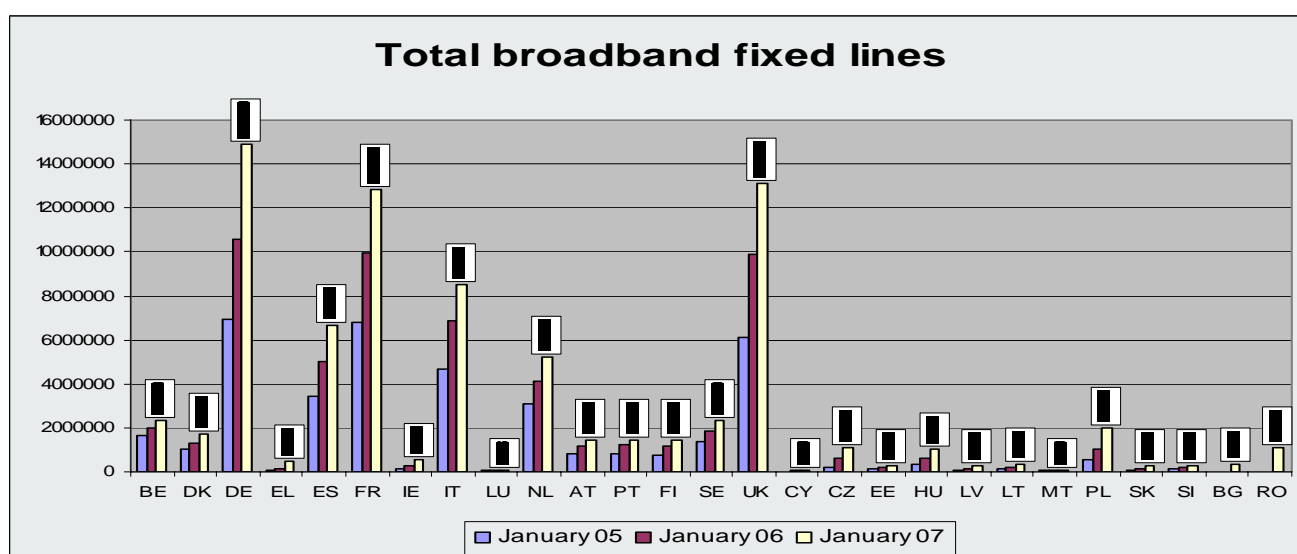
UK – according to the NRA, a significant number of bitstream lines has been reported under the category "resale"

## Broadband access in the EU as at 1 January 2007

### Total broadband access retail fixed lines in EU



Total Broadband Lines		% variation since January 2004		Variation January 06-January 07	
				%	Lines/day
janv-04	23,302,070	0.0%			33.3%
juil-04	29,871,571	28.2%			53,768
janv-05	39,488,334	69.5%			
juil-05	48,350,012	107.5%			49.4%
janv-06	58,989,668	153.2%			53,428
juil-06	68,670,213	194.7%			
janv-07	78,614,140	237.4%			69.5%
					44,346

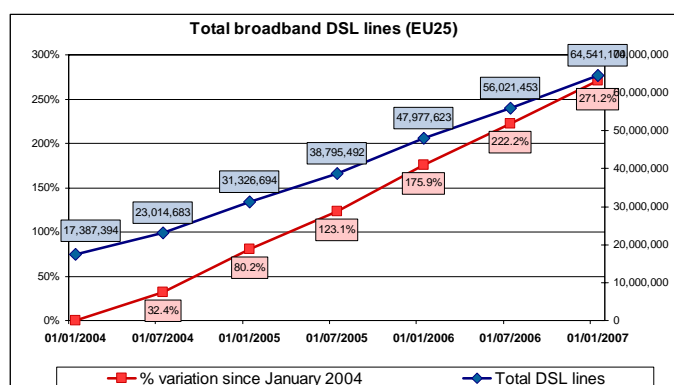


Country	January 04	July 04	January 05	July 05	January 06	July 06	January 07
BE	1,244,736	1,444,673	1,619,756	1,804,133	2,010,584	2,172,958	2354850
DK	727,906	921,477	1,039,378	1,188,431	1,338,298	1,607,237	1703605
DE	4,667,457	5,415,247	6,905,159	8,435,369	10,558,100	12,613,700	14902200
EL	10,483	25,386	51,455	93,583	160,113	297,090	487889
ES	2,228,169	2,767,627	3,452,706	4,240,339	5,026,933	5,786,864	6652665
FR	3,656,654	4,915,487	6,793,249	8,322,442	9,950,561	11,297,543	12816164
IE	34,050	67,530	138,116	177,121	276,860	372,172	517324
IT	2,401,939	3,503,497	4,701,232	5,521,374	6,896,696	7,691,283	8497422
LU	15,942	25,334	37,019	53,049	70,436	80,105	98765
NL	1,908,044	2,372,529	3,084,561	3,642,315	4,113,573	4,741,829	5192200
AT	612,600	707,725	827,675	937,830	1,176,183	1,310,096	1440180
PT	500,437	664,045	854,130	1,054,553	1,222,301	1,360,691	1470810
FI	447,444	572,100	779,929	974,614	1,171,363	1,308,459	1426351
SE	1,010,400	1,131,400	1,385,100	1,533,647	1,865,676	2,069,685	2347850
UK	3,172,109	4,395,561	6,137,151	8,063,111	9,888,626	11,622,929	13102298
CY	10,063	14,520	18,967	18,967	47,090	50,574	68014
CZ	101,000	121,000	228,200	436,000	650,000	860,567	1087520
EE	58,515	102,771	138,617	150,246	179,104	223,094	246887
HU	187,228	257,016	365,741	457,557	619,712	760,271	995784
LV	0	33,904	56,448	85,381	131,329	155,738	241550
LT	64,982	88,279	129,053	170,619	234,333	286,536	359564
MT	0	13,738	38,054	41,551	51,289	51,943	50493
PL	173,239	219,901	536,738	710,726	1,015,841	1,504,274	1,994,460
SK	8,275	14,485	51,869	80,385	137,927	215,358	279,635
SI	60,398	76,339	118,031	156,669	196,740	229,217	279,660
BG	0	0	0	0	0	0	345577
RO	0	0	0	0	0	0	1087424

Country	January 05 - January 06			January 06 - January 07		
	Difference	Variation	Lines/day	Difference	Variation	Lines/day
BE	390,828	24.1%	1,071	344,266	17.1%	943
DK	298,920	28.8%	819	365,307	27.3%	1,001
DE	3,652,941	52.9%	10,008	4,344,100	41.1%	11,902
EL	108,658	211.2%	298	327,776	204.7%	898
ES	1,574,227	45.6%	4,313	1,625,732	32.3%	4,454
FR	3,157,312	46.5%	8,650	2,865,603	28.8%	7,851
IE	138,744	100.5%	380	240,464	86.9%	659
IT	2,195,464	46.7%	6,015	1,600,726	23.2%	4,386
LU	33,417	90.3%	92	28,329	40.2%	78
NL	1,029,012	33.4%	2,819	1,078,627	26.2%	2,955
AT	348,508	42.1%	955	263,997	22.4%	723
PT	368,171	43.1%	1,009	248,509	20.3%	681
FI	391,434	50.2%	1,072	254,988	21.8%	699
SE	480,576	34.7%	1,317	482,174	25.8%	1,321
UK	3,751,475	61.1%	10,278	3,213,672	32.5%	8,805
CY	28,123	148.3%	77	20,924	44.4%	57
CZ	421,800	184.8%	1,156	437,520	67.3%	1,199
EE	40,487	29.2%	111	67,783	37.8%	186
HU	253,971	69.4%	696	376,072	60.7%	1,030
LV	74,881	132.7%	205	110,221	83.9%	302
LT	105,280	81.6%	288	125,231	53.4%	343
MT	13,235	34.8%	36	-796	-1.6%	-2
PL	479,103	89.3%	1,313	978,619	96.3%	2,681
SK	86,058	165.9%	236	141,708	102.7%	388
SI	78,709	66.7%	216	82,920	42.1%	227
BG	0	n.a.	0	n.a.	n.a.	0
RO	0	n.a.	0	n.a.	n.a.	0

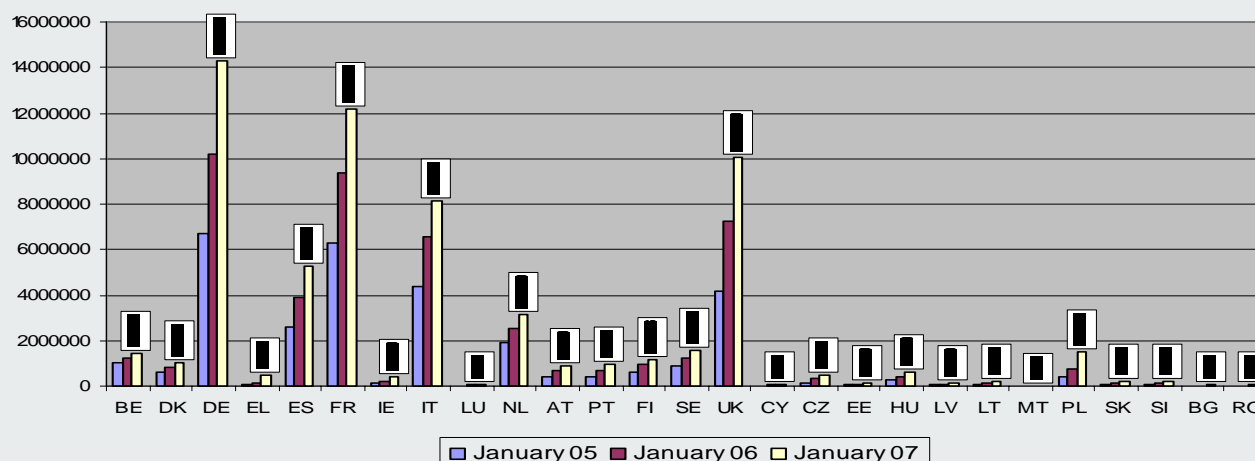
## Broadband access in the EU as at 1 January 2007

### Total DSL retail lines in EU



Total DSL lines		% variation since January 2004	Variation January 06-January 07	
janv-04	17,387,394	0.0%	%	34.5%
juil-04	23,014,683	32.4%	Lines/day	45,379
janv-05	31,326,694	80.2%	Variation January 05-January 06	
juil-05	38,795,492	123.1%	%	53.2%
janv-06	47,977,623	175.9%	Lines/day	45,619
juil-06	56,021,453	222.2%	Variation January 04-January 05	
janv-07	64,541,104	271.2%	%	80.2%
			Lines/day	38,190

### Total broadband DSL lines



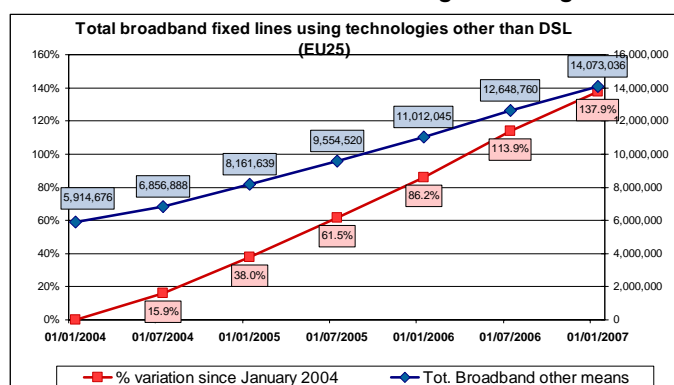
Country	January 04	July 04	January 05	July 05	January 06	July 06	January 07
BE	765,183	889,294	996,118	1,113,641	1,247,471	1,356,007	1,468,021
DK	473,359	562,009	638,961	714,529	830,697	947,577	1,051,919
DE	4,498,086	5,286,141	6,709,683	8,138,941	10,207,500	12,128,500	14,290,000
EL	8,588	22,937	46,547	91,869	157,993	294,026	484,321
ES	1,676,466	2,086,172	2,604,067	3,268,602	3,915,435	4,561,707	5,262,617
FR	3,262,800	4,490,487	6,293,249	7,802,442	9,390,561	10,697,543	12,156,164
IE	24,400	57,445	115,583	144,376	202,290	275,172	379,124
IT	2,158,458	3,223,188	4,402,585	5,175,270	6,556,648	7,363,356	8,155,511
LU	13,860	22,128	32,607	47,048	63,132	71,870	89,710
NL	978,044	1,374,129	1,884,561	2,204,067	2,551,052	2,848,829	3,177,200
AT	279,600	355,725	442,075	525,230	683,083	781,408	872,948
PT	184,860	293,435	424,169	576,258	707,916	835,998	926,420
FI	328,704	400,000	585,650	763,283	929,268	1,068,082	1,161,836
SE	595,200	686,200	883,200	1,038,747	1,250,441	1,392,000	1,548,000
UK	1,804,609	2,753,061	4,203,651	5,784,002	7,265,521	8,712,129	10,035,298
CY	10,033	14,490	17,994	17,994	44,322	49,873	67,378
CZ	21,000	36,000	106,000	181,000	309,000	399,478	493,470
EE	37,558	50,906	64,628	75,133	83,880	109,157	120,110
HU	117,369	165,980	239,810	297,237	412,886	485,881	614,894
LV	0	26,815	39,281	49,465	69,464	83,807	107,473
LT	26,438	34,074	50,688	69,804	104,798	133,880	178,302
MT	0	11,426	22,145	23,799	30,139	30,523	29,864
PL	80,239	108,901	410,186	532,284	730,358	1,098,859	1,493,794
SK	4,210	9,900	38,334	64,539	104,487	140,503	182,391
SI	38,330	53,840	74,922	95,932	129,281	155,288	194,339
BG	0	0	0	0	0	0	95,066
RO	0	0	0	0	0	0	98,053

Country	January 05 - January 06			January 06 - January 07		
	Difference	Variation	Lines/day	Difference	Variation	Lines/day
BE	251,353	25.2%	689	220,550	17.7%	604
DK	191,736	30.0%	525	221,222	26.6%	606
DE	3,497,817	52.1%	9,583	4,082,500	40.0%	11,185
EL	111,446	239.4%	305	326,328	206.5%	894
ES	1,311,368	50.4%	3,593	1,347,182	34.4%	3,691
FR	3,097,312	49.2%	8,486	2,765,603	29.5%	7,577
IE	86,707	75.0%	238	176,834	87.4%	484
IT	2,154,063	48.9%	5,902	1,598,863	24.4%	4,380
LU	30,525	93.6%	84	26,578	42.1%	73
NL	666,491	35.4%	1,826	626,148	24.5%	1,715
AT	241,008	54.5%	660	189,865	27.8%	520
PT	283,747	66.9%	777	218,504	30.9%	599
FI	343,618	58.7%	941	232,568	25.0%	637
SE	367,241	41.6%	1,006	297,559	23.8%	815
UK	3,061,870	72.8%	8,389	2,769,777	38.1%	7,588
CY	26,328	146.3%	72	23,056	52.0%	63
CZ	203,000	191.5%	556	184,470	59.7%	505
EE	19,252	29.8%	53	36,230	43.2%	99
HU	173,076	72.2%	474	202,008	48.9%	553
LV	30,183	76.8%	83	38,009	54.7%	104
LT	54,110	106.8%	148	73,504	70.1%	201
MT	7,994	36.1%	22	-275	-0.9%	-1
PL	320,172	78.1%	877	763,436	104.5%	2,092
SK	66,153	172.6%	181	77,904	74.6%	213
SI	54,359	72.6%	149	65,058	50.3%	178
BG	0	n.a.	0	n.a.	n.a.	0
RO	0	n.a.	0	n.a.	n.a.	0

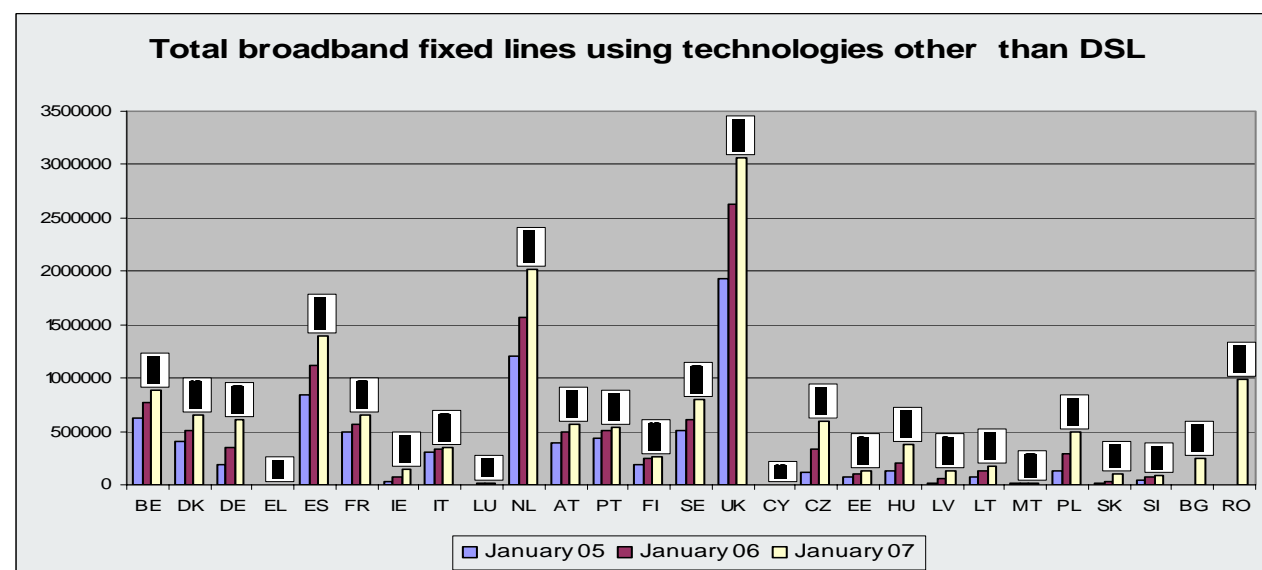


## Broadband access in the EU as at 1 January 2007

### Total broadband fixed retail lines using technologies other than DSL in EU



Tot. Broadband other means			% variation since January 2004	
janv-04	5,914,676	0.0%	Variation January 06-January 07	
juil-04	6,856,888	15.9%	%	27.8%
janv-05	8,161,639	38.0%	Lines/day	8,389
juil-05	9,554,520	61.5%	Variation January 05-January 06	
janv-06	11,012,045	86.2%	%	34.9%
juil-06	12,648,760	113.9%	Lines/day	7,809
janv-07	14,073,036	137.9%	Variation January 04-January 05	
			%	38.0%
			Lines/day	6,156

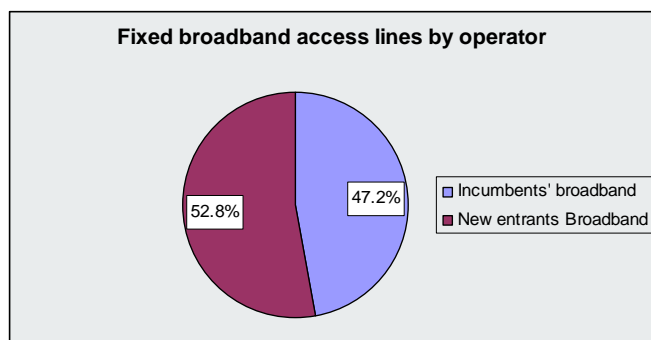


Country	January 04	July 04	January 05	July 05	January 06	July 06	January 07
BE	479,553	555,379	623,638	690,492	763,113	816,951	886,829
DK	254,547	359,468	400,417	473,902	507,601	659,660	661,686
DE	169,371	129,106	195,476	296,428	350,600	485,200	612,200
EL	1,895	2,449	4,908	1,714	2,120	3,064	3,568
ES	551,703	681,455	848,639	971,737	1,111,498	1,225,157	1,390,048
FR	393,854	425,000	500,000	520,000	560,000	600,000	660,000
IE	9,650	10,085	22,533	32,745	74,570	97,000	138,200
IT	243,481	280,309	298,647	346,104	340,048	327,927	341,911
LU	2,082	3,206	4,412	6,001	7,304	8,235	9,055
NL	930,000	998,400	1,200,000	1,438,248	1,562,521	1,893,000	2,015,000
AT	333,000	352,000	385,600	412,600	493,100	528,688	567,232
PT	315,577	370,610	429,961	478,295	514,385	524,693	544,390
FI	118,740	172,100	194,279	211,331	242,095	240,377	264,515
SE	415,200	445,200	501,900	494,900	615,235	677,685	799,850
UK	1,367,500	1,642,500	1,933,500	2,279,109	2,623,105	2,910,800	3,067,000
CY	30	30	973	973	2,768	701	636
CZ	80,000	85,000	122,200	255,000	341,000	461,089	594,050
EE	20,957	51,865	73,989	75,113	95,224	113,937	126,777
HU	69,859	91,036	125,931	160,320	206,826	274,390	380,890
LV	0	7,089	17,167	35,916	61,865	71,931	134,077
LT	38,544	54,205	78,365	100,815	129,535	152,656	181,262
MT	0	2,312	15,909	17,752	21,150	21,420	20,629
PL	93,000	111,000	126,551	178,442	285,483	405,415	500,666
SK	4,065	4,585	13,535	15,846	33,440	74,855	97,244
SI	22,068	22,499	43,109	60,737	67,459	73,929	85,321
BG	0	0	0	0	0	0	250,511
RO	0	0	0	0	0	0	989,371

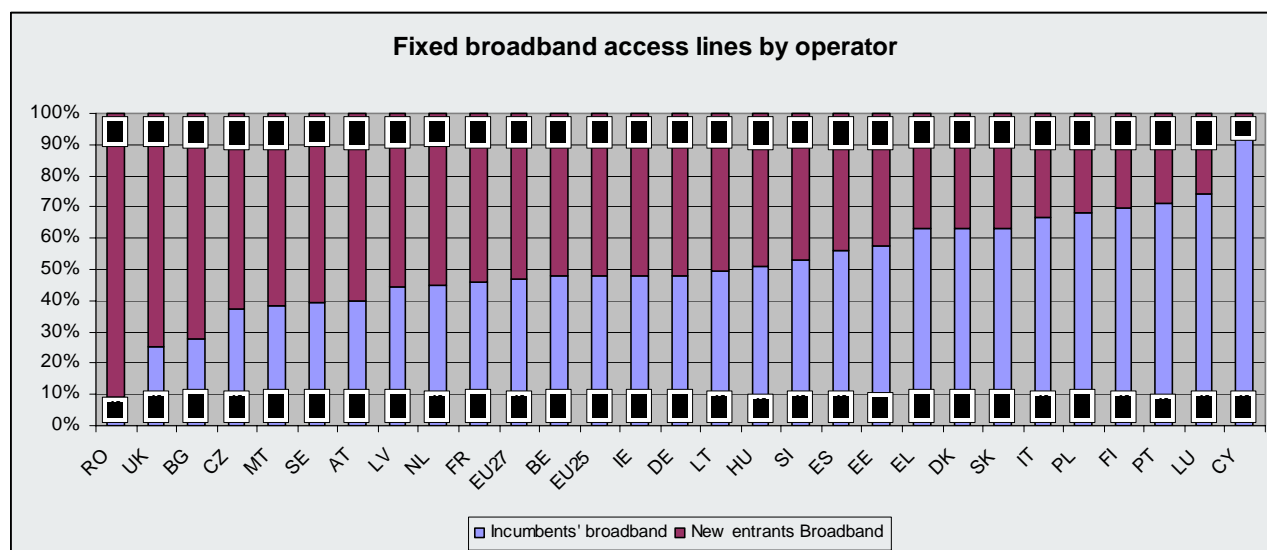
Difference			Variation			Lines/day		
January 05 - January 06			January 06 - January 07					
BE	139,475	22.4%	382	123,716	16.2%	339		
DK	107,184	26.8%	294	144,085	28.4%	395		
DE	155,124	79.4%	425	261,600	74.6%	717		
EL	-2,788	-56.8%	-8	1,448	68.3%	4		
ES	262,859	31.0%	720	278,550	25.1%	763		
FR	60,000	12.0%	164	100,000	17.9%	274		
IE	52,037	230.9%	143	63,630	85.3%	174		
IT	41,401	13.9%	113	1,863	0.5%	5		
LU	2,892	65.5%	8	1,751	24.0%	5		
NL	362,521	30.2%	993	452,479	29.0%	1,240		
AT	107,500	27.9%	295	74,132	15.0%	203		
PT	84,424	19.6%	231	30,005	5.8%	82		
FI	47,816	24.6%	131	22,420	9.3%	61		
SE	113,335	22.6%	311	184,615	30.0%	506		
UK	689,605	35.7%	1,889	443,895	16.9%	1,216		
CY	1,795	184.5%	5	-2,132	-77.0%	-6		
CZ	218,800	179.1%	599	253,050	74.2%	693		
EE	21,235	28.7%	58	31,553	33.1%	86		
HU	80,895	64.2%	222	174,064	84.2%	477		
LV	44,698	260.4%	122	72,212	116.7%	198		
LT	51,170	65.3%	140	51,727	39.9%	142		
MT	5,241	32.9%	14	-521	-2.5%	-1		
PL	158,932	125.6%	435	215,183	75.4%	590		
SK	19,905	147.1%	55	63,804	190.8%	175		
SI	24,350	56.5%	67	17,862	26.5%	49		
BG	0	n.a.	0		n.a.	0		
RO	0	n.a.	0		n.a.	0		

## Broadband access in the EU as at 1 January 2007

### Fixed broadband access lines by operator in EU27



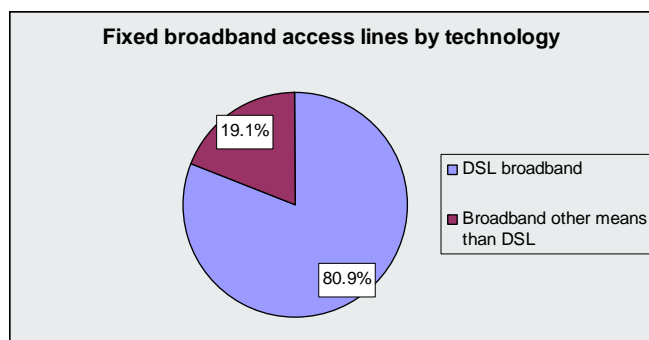
	Fixed broadband access lines by operator	
	Incumbents	New entrants
January 2007	47.2%	52.8%



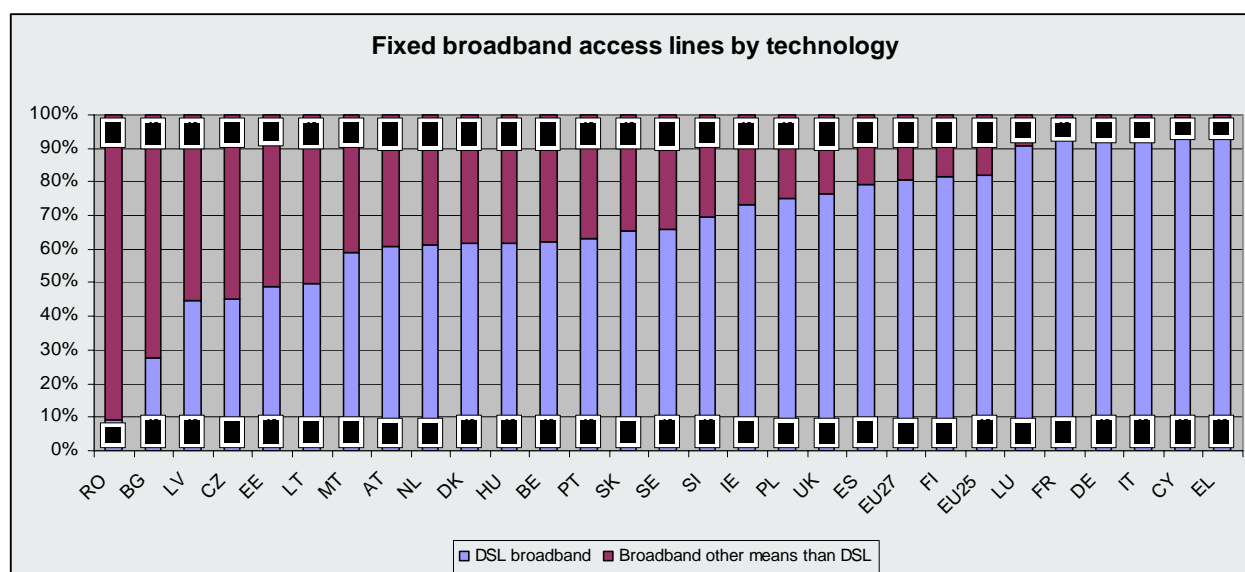
	Incumbents' broadband	New entrants Broadband
BE	47.8%	52.2%
DK	63.2%	36.8%
DE	48.0%	52.0%
EL	63.1%	36.9%
ES	55.9%	44.1%
FR	46.2%	53.8%
IE	48.0%	52.0%
IT	66.6%	33.4%
LU	74.1%	25.9%
NL	44.8%	55.2%
AT	39.7%	60.3%
PT	71.1%	28.9%
FI	69.7%	30.3%
SE	39.3%	60.7%
UK	25.2%	74.8%
CY	94.5%	5.5%
CZ	37.2%	62.8%
EE	57.4%	42.6%
HU	50.9%	49.1%
LV	44.3%	55.7%
LT	49.7%	50.3%
MT	38.2%	61.8%
PL	68.2%	31.8%
SK	63.2%	36.8%
SI	52.9%	47.1%
BG	27.6%	72.4%
RO	8.9%	91.1%
EU25	47.8%	52.2%
EU27	47.2%	52.8%

## Broadband access in the EU as at 1 January 2007

### Fixed broadband access lines by technology in EU27



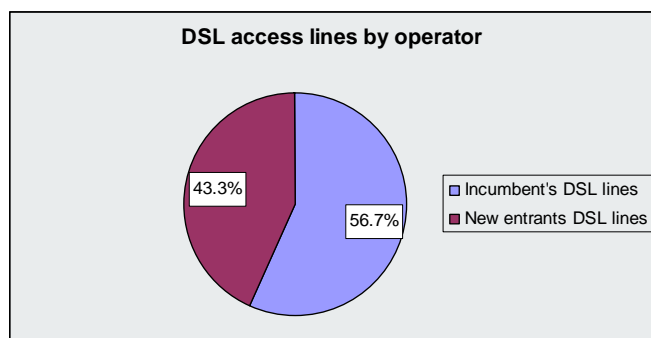
	Fixed broadband access lines by technology	
	DSL	Technologies other than DSL
January 2007	80.9%	19.1%



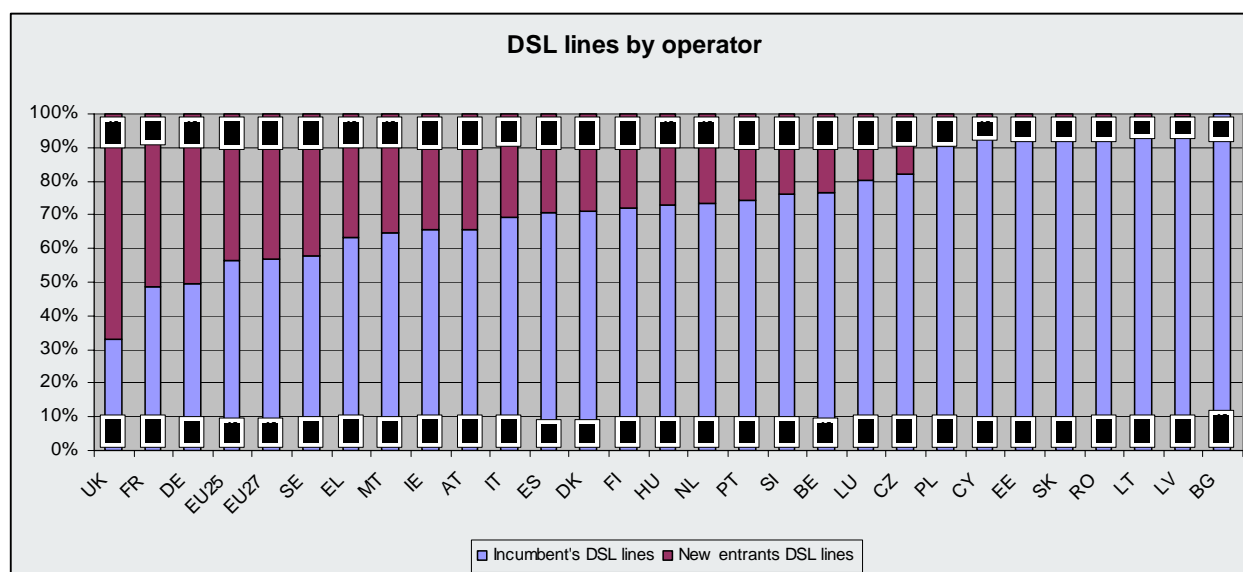
	DSL broadband	Broadband other means than DSL
BE	62.3%	37.7%
DK	61.7%	38.3%
DE	95.9%	4.1%
EL	99.3%	0.7%
ES	79.1%	20.9%
FR	94.9%	5.1%
IE	73.3%	26.7%
IT	96.0%	4.0%
LU	90.8%	9.2%
NL	61.2%	38.8%
AT	60.6%	39.4%
PT	63.0%	37.0%
FI	81.5%	18.5%
SE	65.9%	34.1%
UK	76.6%	23.4%
CY	99.1%	0.9%
CZ	45.4%	54.6%
EE	48.6%	51.4%
HU	61.7%	38.3%
LV	44.5%	55.5%
LT	49.6%	50.4%
MT	59.1%	40.9%
PL	74.9%	25.1%
SK	65.2%	34.8%
SI	69.5%	30.5%
BG	27.5%	72.5%
RO	9.0%	91.0%
EU25	82.1%	17.9%
EU27	80.9%	19.1%

## Broadband access in the EU as at 1 January 2007

### DSL access lines by operator in EU27



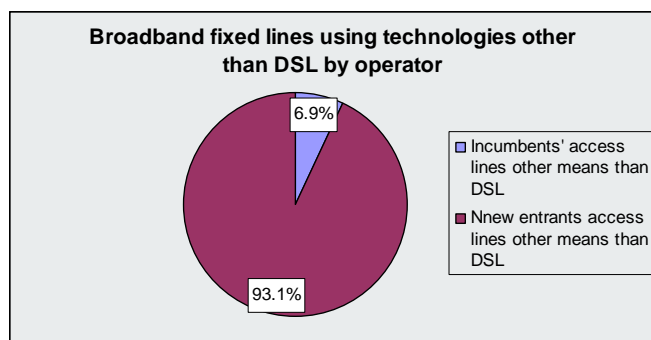
	DSL lines by operator	
	Incumbents	New entrants
January 2007	56.7%	43.3%



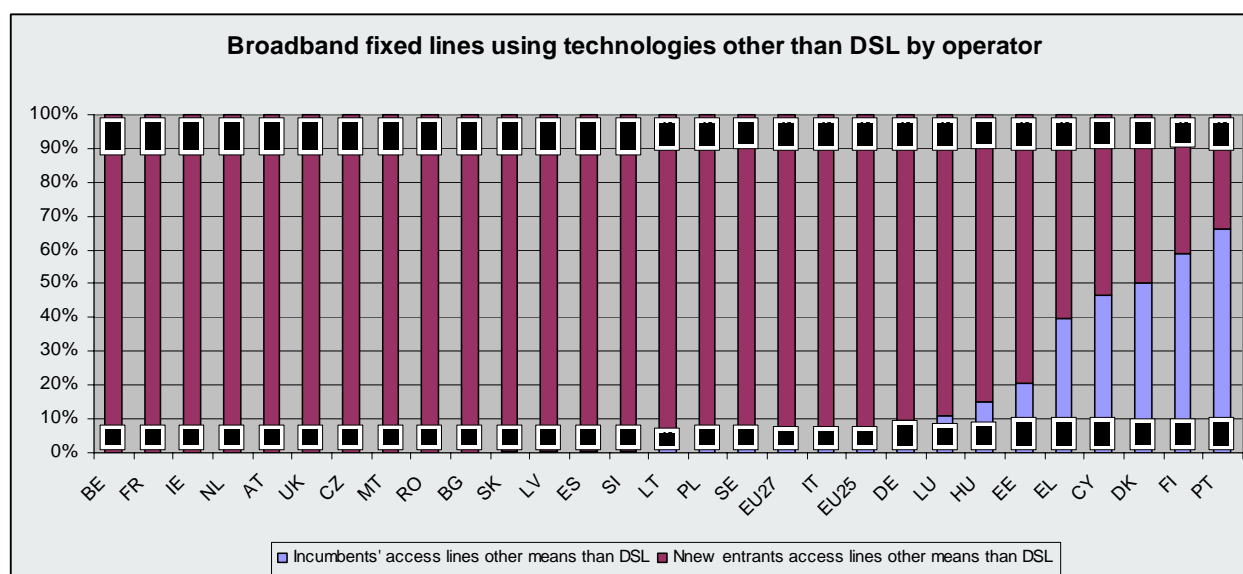
	Incumbent's DSL lines	New entrants DSL lines
BE	76.6%	23.4%
DK	71.3%	28.7%
DE	49.7%	50.3%
EL	63.3%	36.7%
ES	70.6%	29.4%
FR	48.7%	51.3%
IE	65.5%	34.5%
IT	69.1%	30.9%
LU	80.4%	19.6%
NL	73.2%	26.8%
AT	65.5%	34.5%
PT	74.1%	25.9%
FI	72.1%	27.9%
SE	57.9%	42.1%
UK	32.9%	67.1%
CY	95.0%	5.0%
CZ	82.0%	18.0%
EE	96.5%	3.5%
HU	72.9%	27.1%
LV	99.2%	0.8%
LT	98.8%	1.2%
MT	64.6%	35.4%
PL	90.4%	9.6%
SK	96.8%	3.2%
SI	76.0%	24.0%
BG	100.0%	0.0%
RO	97.7%	2.3%
EU25	56.6%	43.4%
EU27	56.7%	43.3%

## Broadband access in the EU as at 1 January 2007

### Broadband fixed lines using technologies other than DSL by operator in EU 27



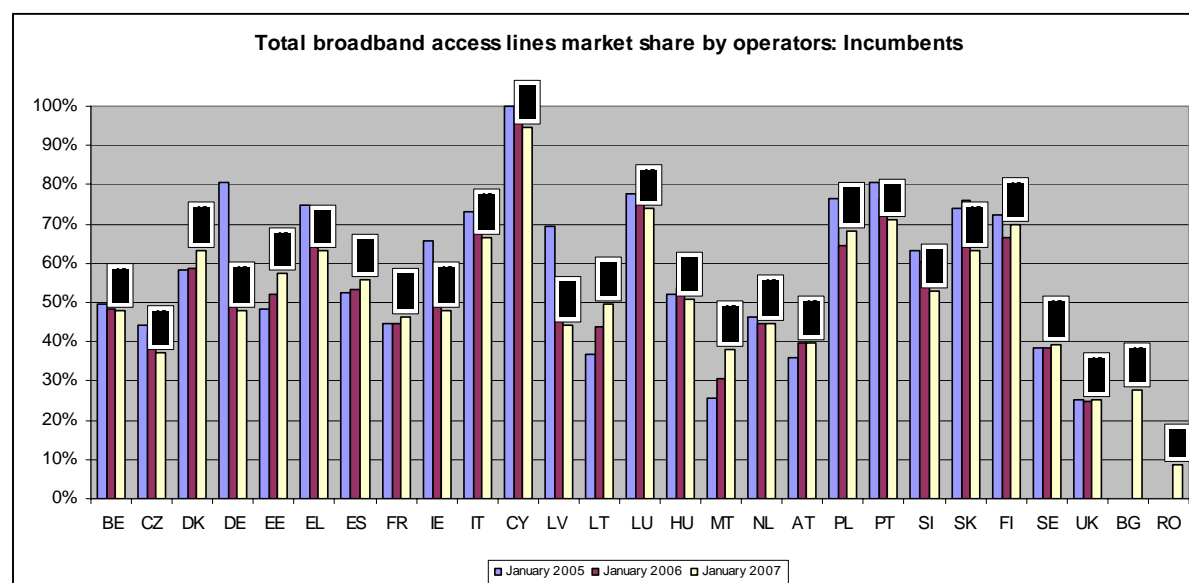
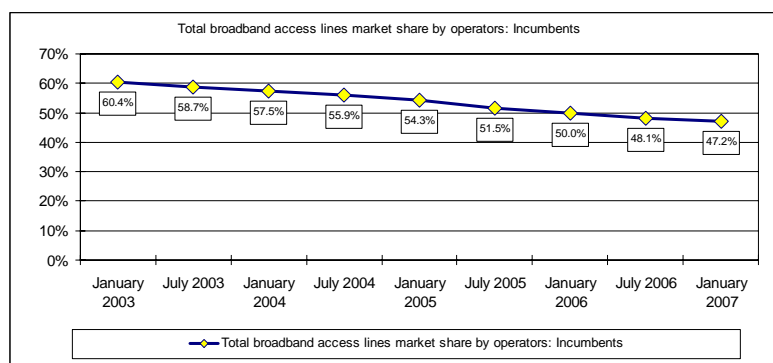
	Broadband fixed lines using technologies other than DSL by operator	
	Incumbents	New entrants
January 2007	6.9%	93.1%



	Incumbents' access lines other means than DSL	New entrants access lines other means than DSL
BE	0.0%	100.0%
DK	50.0%	50.0%
DE	9.7%	90.3%
EL	39.6%	60.4%
ES	0.3%	99.7%
FR	0.0%	100.0%
IE	0.0%	100.0%
IT	7.0%	93.0%
LU	10.9%	89.1%
NL	0.0%	100.0%
AT	0.0%	100.0%
PT	66.1%	33.9%
FI	59.0%	41.0%
SE	3.3%	96.7%
UK	0.0%	100.0%
CY	46.4%	53.6%
CZ	0.0%	100.0%
EE	20.3%	79.7%
HU	15.3%	84.7%
LV	0.3%	99.7%
LT	1.5%	98.5%
MT	0.0%	100.0%
PL	1.8%	98.2%
SK	0.3%	99.7%
SI	0.4%	99.6%
BG	0.2%	99.8%
RO	0.0%	100.0%
EU25	7.5%	92.5%
EU27	6.9%	93.1%

## Broadband access in the EU as at 1 January 2007

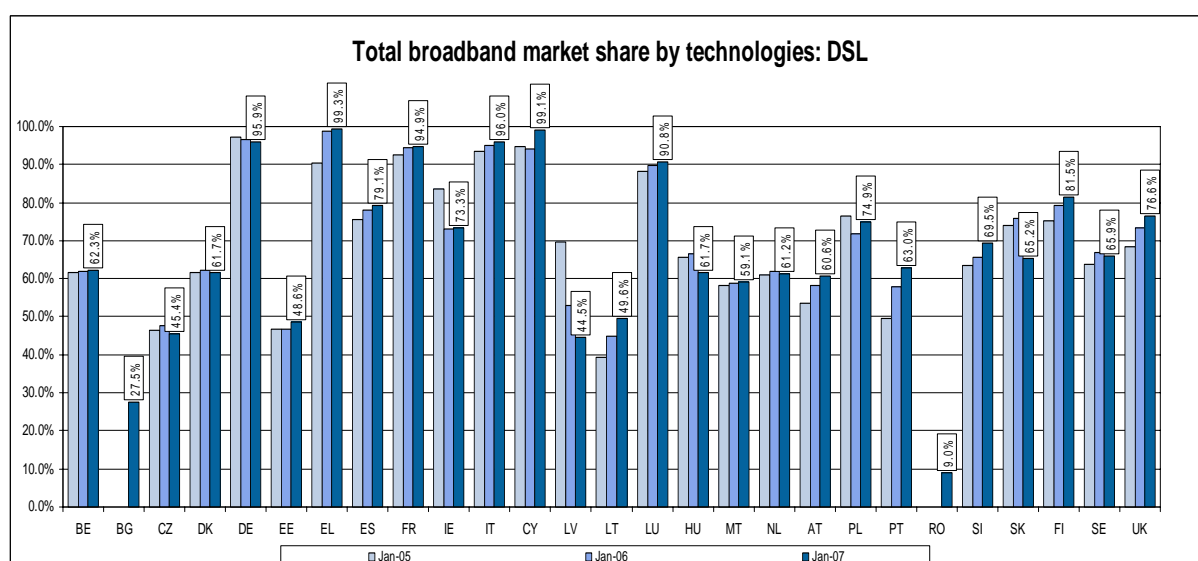
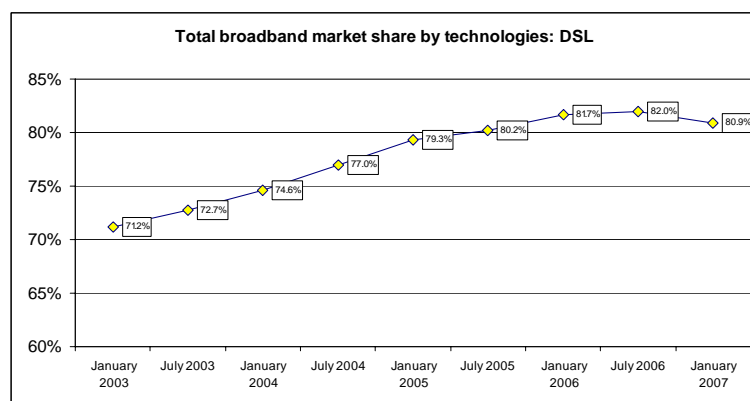
### Trends in fixed broadband access lines by operator in EU - Incumbents



	July 2002	January 2003	July 2003	January 2004	July 2004	January 2005	July 2005	January 2006	July 2006	January 2007
BE	48.7%	50.5%	51.1%	53.2%	50.7%	49.6%	48.8%	48.3%	48.4%	47.8%
CZ				14.9%	24.8%	44.3%	34.9%	42.3%	37.9%	37.2%
DK	61.6%	63.7%	62.0%	61.1%	58.5%	58.2%	55.4%	58.7%	60.2%	63.2%
DE	93.9%	92.6%	90.8%	88.0%	86.9%	80.4%	71.6%	60.1%	51.2%	48.0%
EE				65.0%	50.5%	48.4%	51.1%	51.9%	53.7%	57.4%
EL		17.8%	17.9%	72.3%	79.7%	74.8%	74.5%	69.6%	60.9%	63.1%
ES	61.4%	56.3%	55.5%	55.8%	55.5%	52.3%	51.5%	53.3%	55.4%	55.9%
FR	72.0%	62.7%	57.5%	54.8%	48.0%	44.7%	44.0%	44.8%	46.5%	46.2%
IE	72.8%	35.8%	44.9%	61.7%	70.0%	65.9%	63.0%	55.6%	54.3%	48.0%
IT	76.5%	64.5%	66.7%	68.9%	70.7%	73.1%	70.8%	71.7%	67.9%	66.6%
CY				100.0%	100.0%	100.0%	100.0%	100.0%	98.5%	94.5%
LV					80.9%	69.6%	57.5%	52.6%	53.7%	44.3%
LT				38.8%	36.2%	36.9%	39.4%	43.7%	46.5%	49.7%
LU		90.5%	83.7%		73.5%	77.7%	78.0%	75.8%	73.6%	74.1%
HU				50.2%	51.3%	52.1%	51.9%	53.8%	50.6%	50.9%
MT					32.8%	25.6%	24.7%	30.6%	35.3%	38.2%
NL	19.3%	29.9%	36.1%	40.7%	44.4%	46.1%	44.5%	44.6%	43.7%	44.8%
AT	30.4%	31.7%	33.1%	33.9%	35.2%	36.1%	37.2%	39.7%	39.8%	39.7%
PL				46.3%	49.5%	76.4%	74.9%	64.3%	66.2%	68.2%
PT	66.5%	70.7%	75.2%	78.5%	79.9%	80.7%	79.1%	76.3%	72.1%	71.1%
SI				65.2%	71.0%	63.3%	61.0%	60.5%	56.3%	52.9%
SK				50.9%	68.3%	73.9%	80.5%	75.9%	64.3%	63.2%
FI	72.9%	74.0%	69.9%	73.5%	72.0%	72.3%	66.8%	66.4%	66.5%	69.7%
SE	54.7%	52.7%	43.1%	39.5%	38.8%	38.5%	39.1%	38.4%	39.6%	39.3%
UK	25.5%	22.6%	25.6%	26.4%	25.4%	25.1%	24.8%	24.8%	24.3%	25.2%
BG										27.6%
RO										8.9%
EU				57.5%	55.9%	54.3%	51.5%	50.0%	48.1%	47.2%

## Broadband access in the EU as at 1 January 2007

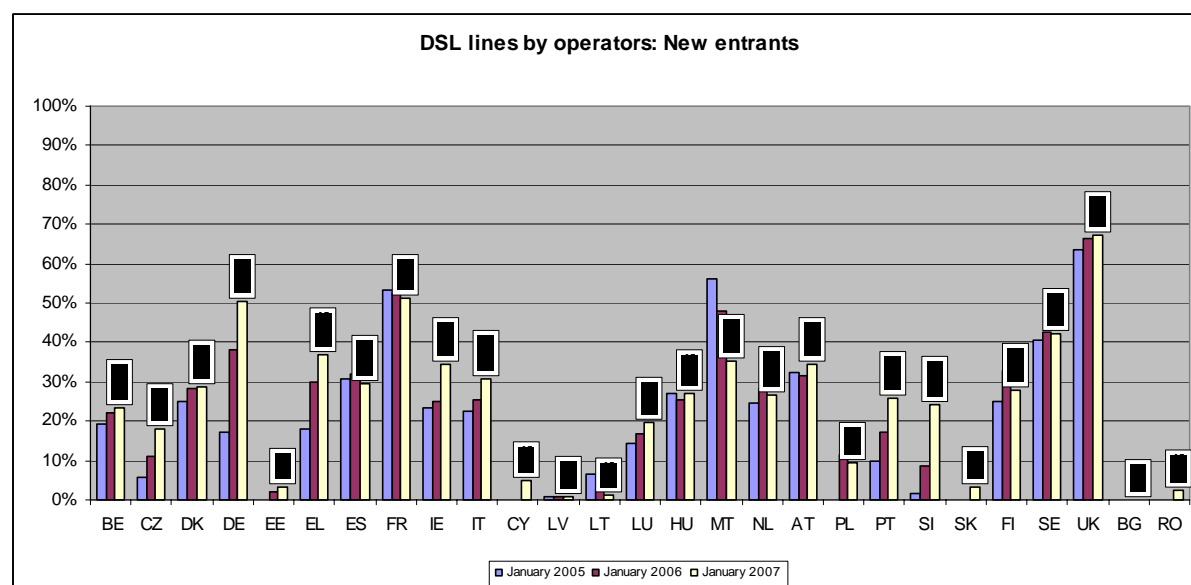
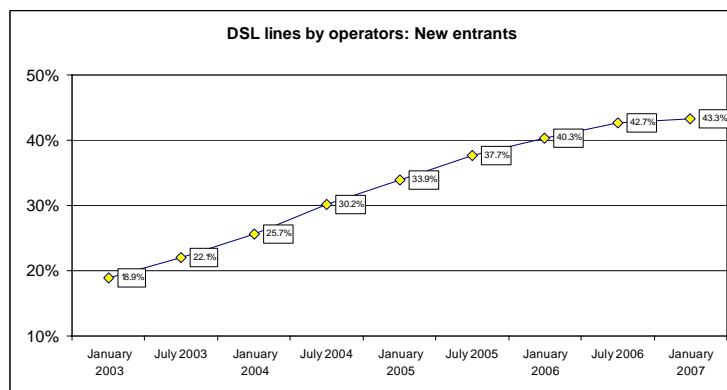
### Trends in fixed broadband access lines by technology in EU - DSL



	July 2002	January 2003	July 2003	January 2004	July 2004	January 2005	July 2005	January 2006	July 2006	January 2007
BE	58.0%	59.7%	60.0%	61.5%	61.6%	61.5%	61.7%	62.0%	62.4%	62.3%
CZ				20.8%	29.8%	46.5%	41.5%	47.5%	46.4%	45.4%
DK	62.7%	66.8%	64.4%	65.0%	61.0%	61.5%	60.1%	62.1%	59.3%	61.7%
DE	98.4%	98.2%	97.8%	96.4%	97.6%	97.2%	96.5%	96.7%	96.2%	95.9%
EE				64.2%	49.5%	46.6%	50.0%	46.8%	49.0%	48.6%
EL	20.2%	5.0%	16.7%	81.9%	90.4%	90.5%	98.2%	98.7%	99.0%	99.3%
ES	79.0%	73.4%	73.0%	75.2%	75.4%	75.4%	77.1%	77.9%	79.2%	79.1%
FR	71.5%	84.9%	87.0%	89.2%	91.4%	92.6%	93.8%	94.4%	94.7%	94.9%
IE	73.7%	44.5%	56.7%	71.7%	85.1%	83.7%	81.5%	73.1%	74.1%	73.3%
IT	88.8%	85.6%	87.5%	89.9%	92.0%	93.6%	93.7%	95.1%	95.7%	96.0%
CY				99.7%	99.8%	94.9%	94.9%	94.1%	98.6%	99.1%
LV					79.1%	69.6%	57.9%	52.9%	53.8%	44.5%
LT				40.7%	38.6%	39.3%	40.9%	44.8%	46.8%	49.6%
LU		92.0%	87.1%	86.9%	87.3%	88.1%	88.7%	89.6%	89.7%	90.8%
HU				62.7%	64.6%	65.6%	65.0%	66.6%	63.9%	61.7%
MT					83.2%	58.2%	57.3%	58.8%	58.8%	59.1%
NL	21.3%	34.1%	43.0%	51.3%	57.9%	61.1%	60.5%	62.0%	60.1%	61.2%
AT	37.0%	39.8%	42.6%	45.6%	50.3%	53.4%	56.0%	58.1%	59.2%	60.6%
PL				46.3%	49.5%	76.4%	74.9%	71.9%	73.0%	74.9%
PT	3.7%	20.3%	29.1%	36.9%	44.2%	49.7%	54.6%	57.9%	61.5%	63.0%
SI				63.5%	70.5%	63.5%	61.2%	65.7%	67.8%	69.5%
SK				50.9%	68.3%	73.9%	80.3%	75.8%	65.3%	65.2%
FI	73.7%	79.8%	80.9%	73.5%	69.9%	75.1%	78.3%	79.3%	81.6%	81.5%
SE	60.7%	59.1%	58.5%	58.9%	60.7%	63.8%	67.7%	67.0%	67.3%	65.9%
UK	41.0%	44.3%	49.9%	56.9%	62.6%	68.5%	71.7%	73.5%	75.0%	76.6%
BG										27.5%
RO										9.0%
EU				74.6%	77.0%	79.3%	80.2%	81.7%	82.0%	80.9%

## Broadband access in the EU as at 1 January 2007

### Trends in DSL access lines by operator in EU – New entrants

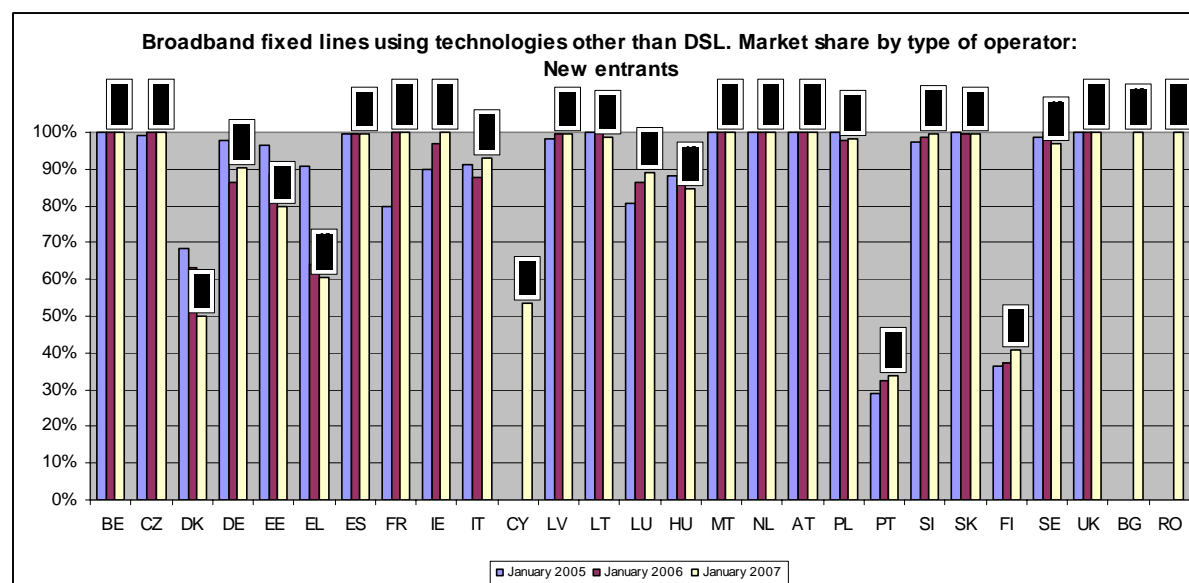
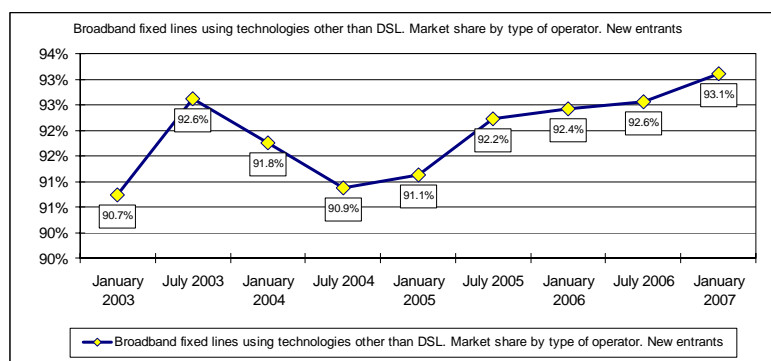


	July 2002	January 2003	July 2003	January 2004	July 2004	January 2005	July 2005	January 2006	July 2006	January 2007
BE	16.2%	15.5%	15.0%	13.5%	17.7%	19.3%	20.9%	22.2%	22.5%	23.4%
CZ				28.6%	16.7%	5.7%	16.6%	11.0%	18.3%	18.0%
DK	20.5%	18.9%	17.7%	21.3%	24.0%	25.2%	27.3%	28.1%	28.3%	28.7%
DE	4.6%	5.8%	7.3%	8.9%	11.1%	17.3%	26.3%	38.3%	47.2%	50.3%
EE				0.1%	0.2%	0.1%	3.9%	2.1%	5.0%	3.5%
EL	100.0%	100.0%	100.0%	16.6%	13.7%	18.2%	24.7%	30.0%	38.8%	36.7%
ES	22.3%	23.3%	24.1%	25.8%	26.4%	30.7%	33.3%	31.8%	30.2%	29.4%
FR	8.4%	29.8%	37.1%	41.1%	49.4%	53.4%	53.1%	52.5%	50.9%	51.3%
IE	1.3%	19.5%	20.9%	23.7%	21.7%	23.2%	24.3%	25.1%	26.8%	34.5%
IT	13.9%	24.6%	23.8%	23.5%	23.8%	22.5%	25.5%	25.3%	29.4%	30.9%
CY									0.7%	5.0%
LV				#DIV/0!		0.7%	1.4%	1.0%	0.6%	0.8%
LT				5.1%	6.6%	6.4%	4.1%	2.6%	1.8%	1.2%
LU	#DIV/0!	4.3%	7.3%	11.4%	18.2%	14.4%	13.6%	17.0%	19.5%	19.6%
HU				27.2%	27.0%	26.9%	26.3%	25.6%	28.0%	27.1%
MT				#DIV/0!	60.5%	56.0%	56.8%	48.0%	39.9%	35.4%
NL	9.7%	12.3%	16.2%	20.6%	23.4%	24.5%	26.5%	28.2%	27.3%	26.8%
AT	17.8%	20.3%	22.4%	25.7%	29.9%	32.5%	33.6%	31.6%	32.7%	34.5%
PL								11.4%	10.0%	9.6%
PT	3.8%	17.3%	15.6%	13.1%	11.3%	9.7%	13.2%	17.3%	23.9%	25.9%
SI				1.1%	1.7%	1.7%	1.8%	8.6%	17.3%	24.0%
SK									1.7%	3.2%
FI	15.4%	18.2%	24.0%	22.0%	23.4%	24.9%	32.3%	32.7%	31.5%	27.9%
SE	26.1%	27.9%	27.3%	33.8%	36.8%	40.4%	42.3%	42.7%	43.0%	42.1%
UK	38.1%	49.3%	48.8%	53.8%	59.5%	63.4%	65.4%	66.3%	67.6%	67.1%
BG										0.0%
RO										2.3%
EU				25.7%	30.2%	33.9%	37.7%	40.3%	42.7%	43.3%



## Broadband access in the EU as at 1 January 2007

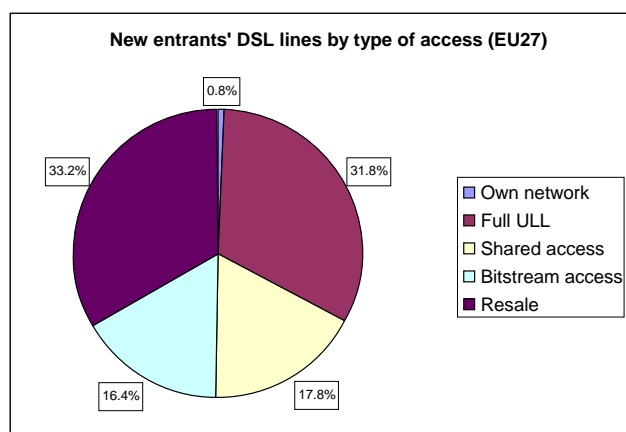
### Trends in broadband fixed lines using technologies other than DSL in EU – New entrants



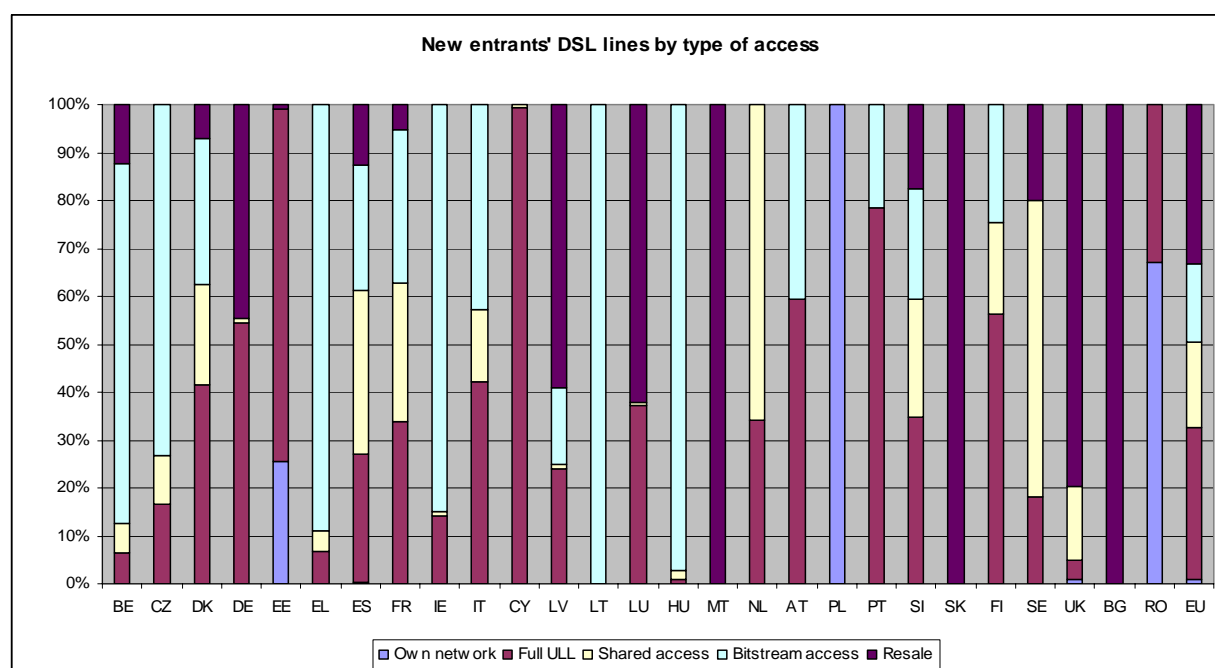
	July 2002	January 2003	July 2003	January 2004	July 2004	January 2005	July 2005	January 2006	July 2006	January 2007
BE	99.7%	99.7%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
CZ				100.0%	100.0%	99.2%	99.6%	100.0%	100.0%	100.0%
DK	68.3%	71.3%	74.8%	71.6%	68.8%	68.4%	70.7%	63.0%	56.7%	50.0%
DE	100.0%	91.2%	94.0%	96.9%	96.2%	97.8%	85.2%	86.6%	88.3%	90.3%
EE				97.7%	97.9%	96.6%	94.0%	88.6%	85.8%	79.7%
EL	100.0%	81.3%	78.5%	77.7%	81.5%	90.9%	63.4%	64.2%	61.8%	60.4%
ES	100.0%	100.0%	100.0%	99.9%	99.9%	99.7%	99.6%	99.5%	99.7%	99.7%
FR	77.3%	79.6%	78.7%	79.3%	79.3%	80.0%	100.0%	100.0%	100.0%	100.0%
IE	99.7%	100.0%	100.0%	75.1%	77.2%	89.8%	93.1%	96.9%	100.0%	100.0%
IT	99.5%	100.0%	99.9%	99.1%	92.8%	91.3%	83.6%	87.6%	91.1%	93.0%
CY									58.4%	53.6%
LV					91.4%	98.2%	99.1%	99.5%	99.6%	99.7%
LT				99.7%	99.7%	99.8%	99.8%	99.8%	99.0%	98.5%
LU		68.5%	77.1%	82.5%	83.5%	80.9%	87.7%	86.5%	86.4%	89.1%
HU				87.7%	88.4%	88.0%	88.4%	87.4%	87.3%	84.7%
MT					100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
NL	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
AT	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
PL				100.0%	100.0%	100.0%	100.0%	97.7%	98.5%	98.2%
PT	34.6%	32.4%	28.5%	26.5%	27.1%	28.8%	30.1%	32.5%	34.3%	33.9%
SI				93.3%	94.2%	97.4%	97.8%	98.7%	99.3%	99.6%
SK				100.0%	100.0%	100.0%	98.9%	99.4%	99.7%	99.7%
FI	60.0%	56.8%	56.1%	39.1%	38.9%	36.3%	36.7%	37.2%	42.5%	41.0%
SE	74.9%	75.3%	78.6%	98.9%	98.6%	98.6%	100.0%	100.0%	96.3%	96.7%
UK	99.9%	99.8%	99.8%	99.8%	99.8%	99.9%	100.0%	100.0%	100.0%	100.0%
BG										99.8%
RO										100.0%
EU				91.8%	90.9%	91.1%	92.2%	92.4%	92.5%	93.1%

## Broadband access in the EU as at 1 January 2007

### New entrants DSL lines by access type in EU



January 2007	
Own network	0.8%
Full ULL	31.8%
Shared access	17.8%
Bitstream access	16.4%
Resale	33.2%
Total LLU	49.6%



UK – according to the NRA, a significant number of bitstream lines has been reported under the category "resale"

	Own network	Full ULL	Shared access	Bitstream access	Resale
BE	0.0%	6.5%	6.1%	75.1%	12.3%
CZ	0.0%	16.8%	10.1%	73.1%	0.0%
DK	0.1%	41.4%	21.1%	30.2%	7.2%
DE	0.1%	54.2%	1.2%	0.0%	44.5%
EE	25.5%	73.5%	0.0%	0.0%	1.0%
EL	0.0%	6.8%	4.1%	89.0%	0.0%
ES	0.4%	26.6%	34.2%	26.2%	12.7%
FR	0.0%	33.8%	29.0%	32.0%	5.2%
IE	0.0%	14.1%	0.8%	85.1%	0.0%
IT	0.0%	42.1%	15.2%	42.7%	0.0%
CY	0.0%	99.5%	0.5%	0.0%	0.0%
LV	0.0%	23.9%	1.1%	16.0%	59.0%
LT	0.0%	0.0%	0.0%	100.0%	0.0%
LU	0.0%	37.3%	0.6%	0.0%	62.2%
HU	0.0%	0.8%	1.8%	97.3%	0.0%
MT	0.0%	0.0%	0.0%	0.0%	100.0%
NL	0.0%	34.2%	65.8%	0.0%	0.0%
AT	0.0%	59.3%	0.0%	40.6%	0.0%
PL	100.0%	0.0%	0.0%	0.0%	0.0%
PT	0.0%	78.5%	0.0%	21.5%	0.0%
SI	0.0%	34.7%	24.6%	23.3%	17.4%
SK	0.0%	0.0%	0.0%	0.0%	100.0%
FI	0.0%	56.5%	19.0%	24.6%	0.0%
SE	0.0%	18.3%	61.8%	0.0%	19.9%
UK	1.0%	3.9%	15.3%	0.0%	79.7%
BG	0.0%	0.0%	0.0%	0.0%	100.0%
RO	67.1%	32.9%	0.0%	0.0%	0.0%
EU	0.8%	31.8%	17.8%	16.4%	33.2%