World Broadband Statistics: Q4 2003

23 March 2004

Contents

Commentary

Figures

Point Topic Ltd
Cardinal Tower
12 Farringdon Road
London EC1M 3HS, UK
Tel +44 (0) 20 7551 9260
Fax +44 (20) 7551 9090
Email info@point-topic.com

World Broadband Statistics: Q4 2003

Commentary

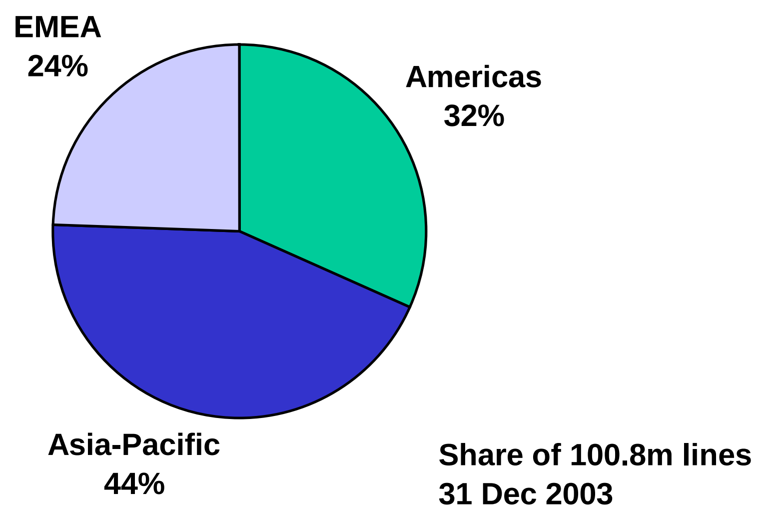
1 Introduction

This report continues the series of DSL reports started in June 2002 (Q2 2002). The coverage of the report was extended in Q2 2003 to include cable modems as well as DSL lines, in order to provide an overview of World broadband growth as a whole.

This edition of the report continues to cover fibre and other forms of broadband internet access as well as cable modems under the general heading "Cable modems etc." Fibre in this context means anything from fibre to the kerb to fibre to the individual home, often described as "FTTx". Bringing these additional broadband services into the picture makes a significant difference in a few countries, Italy, Sweden, Japan and South Korea in particular.

Our geographical coverage has continued to increase since Q2 2003, to reflect the growing number of countries where broadband services are available. We have also restated some Q2 2003 DSL and cable modem figures, and some of our Q4 2003 DSL numbers published earlier, in the light of new information from both operators and national regulatory authorities. Therefore some of these statistics will be different from those published earlier, but preference should be given to the numbers in this report.

Figure 1 Share of broadband lines by region



2 Global trends

The worldwide total of broadband lines grew to 100.8m during the last half of 2003 (H2 2003), an increase of 26.6% from 79.6m lines at 30 June 2003, and over 62.8% from 62.0m lines at end 2002. Figure 1 shows how the total was distributed between the three major World regions as of 31 December 2003.

The total number of broadband lines added in the second half of 2003 was over 21m. Asia Pacific contributed almost half this total with over 9.5m lines added, maintaining its overall share of World broadband lines at 44%. China was a key factor in the growth of this region, adding 5.6m lines in H2 2003 alone. The growth of DSL lines has remained strong at over 32% in H2, and pulled away from cable growth which was at a comparatively modest 18% in the same period.

DSL growth remained ahead of cable modem and other broadband growth overall, however there are signs of stronger cable modem growth in some major broadband countries. For example in Spain cable modem growth was almost 11% higher than DSL at 43.1% in H2 2003. Cable modems also grew faster than DSL in Hong Kong and Japan, and in South Korea DSL lines actually fell by 7% in the second half of the year, with cable modem and other broadband lines growing by 14.5% in 2003.

In the Americas, DSL gained the upper hand with 25% growth compared to 17% cable modem growth. The gaps between growth rates are actually smaller for major broadband countries such as Canada and USA, where DSL faces tough competition from cable operators. In contrast in Latin America, there are bigger differences between DSL and cable modems. The incumbent telcos in countries such as Argentina, Brazil and Mexico clearly dominate growth in their respective markets.

Figure 2 provides a breakdown of DSL and cable modem numbers for the 30 countries with most broadband lines, with their percentage growth between Q2 and Q4 2003.

3 "Top Ten" broadband countries

Number of lines

The country rankings shown in Figure 3 for total broadband lines, show significant differences between those for DSL alone or cable modem numbers alone. The USA remains by far the largest broadband market, now with over 25.1m broadband lines. Japan with 13.6m lines is second and is now closely trailed by China with 13.5m lines. Both these countries have overtaken South Korea, which has slipped from second place in Q2 2003 to fourth place in Q4 2003 with 11.1m broadband lines. China is looking certain to overtake Japan soon and even the USA within a year or two.

Despite the wide range in country totals and growth rates, Figure 3 shows that the world's major economies are continuing to converge in their use of broadband. All the world's biggest economies, the "Group of 7", are now in the broadband 'top ten' - including Italy which has maintained its position at number 10, ahead of Spain.

Figure 8 shows the number of lines added in the year by the current 'top ten' countries. China has by far been the most impressive, adding almost 9.7m lines in 2003 - which is more than the number of lines added collectively by South Korea, Canada, Germany, France, UK, Taiwan and Italy. The USA has also been impressive adding 7.3m lines, and so too has Japan adding 6m lines in the year, but China was clearly the strongest in absolute terms in 2003.

Lines added

This picture is confirmed by looking at the number of broadband lines added in the half-year in Figure 4. Here too all the G7 countries are in the Top Ten. China is now in the lead followed by USA both adding over 9.8m lines. Japan is still some way behind in third place with a 2.7m absolute increase. South Korea has faded significantly slipping out of the 'top 20' to a 21 place with a modest 117,000 absolute increase. The European countries are continuing to add impressive volumes with France and UK adding 1m each, and Italy adding 900,000 in H2 2003, all overtaking Germany which is in 7th place with 640,000 additions.

Percentage growth

Figure 5 ranks the most rapidly growing countries in percentage terms, considering only those countries with more than 100,000 broadband lines in June 2003.

China clearly leads the table with a 70% increase in installed broadband lines. Hungary passed 100,000 broadband lines in H2 and is in second place with 58% growth, highlighting the continuing development of broadband in Eastern Europe as a whole.

The remainder of the 'top 10' in terms of percentage growth is dominated by Western European countries with Italy registering over 50% growth, and Portugal, UK and France all experiencing growth at over 40% - Netherlands also features in this 'top 10' with 36% growth. The Latin American countries also reveal dynamic broadband markets on this chart, with Brazil and Mexico also registering over 40% growth in lines in H2 2003.

Penetration

There is still plenty of scope for increasing broadband penetration, and this is evident from Figure 6. Although South Korea is still the leading country in 2003, it has maintained a penetration of around 23 broadband lines per 100 people since Q2 2003. With the decline of DSL lines in Korea in H2, this presents the first example of 'broadband saturation'.

Other than Korea a wide variety of countries continue to feature in the 'top 10' for penetration, covering all regions of the world. From Figure 6 it is evident that most of these countries are still increasing strongly in terms of penetration. All of them except South Korea and Sweden increased penetration by at least 2 lines per 100 population. The most impressive were Switzerland and Netherlands, which increased by 3 lines per 100 population and are now clearly ahead of Japan in 7th and 8th place with around 11.5 lines per 100 people.

4 Technology choices

Comparative growth rates

Figure 7 shows how the market share of cable modems continues to vary widely between countries. Of all the Top Ten broadband countries only the USA and Canada still have clearly more cable modems than DSL lines, with the numbers in the UK marginally favouring DSL. DSL is well ahead of cable everywhere else, and in Germany, France, Italy and Taiwan cable modems and other technologies still account for less than 15% of the total broadband market.

DSL leaders

Looking at the DSL and cable modem markets separately, China has now overtaken Japan and is the world’s largest market for DSL now with over 11m lines. China was also the world’s most dynamic DSL market in absolute terms, adding a massive 5.3m lines in H2 2003.

Cable modem leaders

In contrast the USA remains the leading market for cable modems with over 15.7m subscriptions by the end of 2003. South Korea and Japan continue to lag behind in distant second and third place with 4.7m and 3.4m subscriptions respectively. The UK is in 6th place, with NTL and Telewest continuing to report strong 2003 growth.

Methodology and supporting material

Point Topic aims to provide the most complete, up-to-date and accurate source for broadband statistics and estimates. To do this we collect quarterly statistics from all the major primary suppliers of DSL lines and cable modems worldwide. We also collect data from many service providers which resell DSL products provided by primary suppliers. Many DSL and cable modem suppliers now quote quarterly numbers as part of their regular reporting cycle. Many others provide the numbers we are seeking via private email and other communications. On the other hand, some operators do not yet provide regular reports or disguise the totals in various ways. In these cases, Point Topic aims to provide the best possible estimates.

The most important sources for estimated totals are partial or earlier reports by the operators themselves. The national regulatory authorities (NRAs) also frequently provide DSL and other broadband statistics, although generally with a bigger time-lag. Where these sources are not available, DSL and cable vendors may provide useful indicators, as do estimates quoted by the trade press. Where we do have secondary estimates we try as far as possible to track them back to the original source.

Data collected per operator is then summed to provide country totals for the purposes of this report. Full details at the operator level are provided in the spreadsheets which are available to subscribers of the Point Topic website. Operator and country level data for smaller countries are also available to subscribers.

In principle, the DSL statistics include all lines which are described by their suppliers as "DSL". In practice the great majority of these are ADSL, variants of ADSL 2+ or other proprietary versions of ADSL. The main exceptions are:

- VDSL lines, of which Korea Telecom and Hanaro are the biggest reporting suppliers.
- Symmetrical DSL lines offered mainly by CLECs such as Covad in the USA and their counterparts in other countries

In some cases there are contradictions between operator and regulator reports. This is particularly significant in South Korea, where the operators typically report broadband subscriptions as either DSL or cable modem, whereas the regulator provides further breakdown with an "apartment LAN" or "A-LAN" category. A-LAN is defined as using a shared fibre or broadband copper connection to the apartment block with Ethernet-based distribution within the apartment block. Operator classification of these A-LAN subscriptions varies but they are often included as DSL lines.

In the Q3 2003 statistics we have stayed with the operator classifications but for this end-2003 issue we have followed the regulator classification.

Subscribers to Point Topic who want to carry out their own analyses of broadband developments can use the workbooks of current and historical DSL and cable modem data on the website. The workbooks include operator-level statistics for end-2001, mid and end-2002 and Q1, Q2 and Q3 2003 in regional format, plus demographic and telephone data.

A production of this kind is bound to have errors and omissions and we would be grateful if readers would notify us of any they discover, for example by emailing info@point-topic.com.

Haroon Butt
23 March 2004

Figure 2 DSL lines, cable modems and total broadband lines in major countries: World and Americas

	Thousands of lines at 30 June 2003			Thousands of lines at 31 December 2003			Growth in 2H 2003		
Country	**DSL**	**Cable modems etc**	**Total**	**DSL**	**Cable modems etc**	**Total**	**DSL**	**Cable modems etc**	**Total**
World total	**48520**	**31098**	**79618**	**64114**	**36755**	**100868**	**32.1%**	**18.2%**	**26.7%**
Americas	**10514**	**16076**	**26590**	**13165**	**18818**	**31983**	**25.2%**	**17.1%**	**20.3%**
Argentina	81	48	129	114	61	175	41.9%	25.7%	35.8%
Brazil	685	135	820	1013	159	1173	47.9%	17.8%	42.9%
Canada	1868	2259	4127	2170	2483	4653	16.2%	9.9%	12.8%
Chile	154	119	273	200	145	345	29.5%	22.3%	26.3%
Mexico	123	22	145	179	28	207	46.3%	25.0%	43.1%
USA	7482	13367	20849	9333	15777	25110	24.8%	18.0%	20.4%
Other Americas	122	126	248	155	166	321	27.1%	31.5%	29.4%

Figure 2 (continued) DSL lines, cable modems and total broadband lines in major countries: Asia-Pacific

	Thousands of lines at 30 June 2003			Thousands of lines at 31 December 2003			Growth in 2H 2003		
Country	**DSL**	**Cable modems etc**	**Total**	**DSL**	**Cable modems etc**	**Total**	**DSL**	**Cable modems etc**	**Total**
Asia-Pacific	**24469**	**10189**	**34658**	**32179**	**11930**	**44109**	**31.5%**	**17.1%**	**27.3%**
Australia	288	215	504	467	280	747	62.0%	30.1%	48.4%
China	5793	2214	8007	11143	2400	13543	92.4%	8.4%	69.1%
Hong Kong	629	478	1107	690	541	1231	9.7%	13.2%	11.2%
India	30	33	63	45	37	82	50.0%	12.1%	30.2%
Japan	8257	2682	10939	10272	3369	13641	24.4%	25.6%	24.7%
Singapore	192	92	284	242	132	374	26.0%	43.5%	31.7%
South Korea	6918	4143	11061	6436	4743	11178	-7.0%	14.5%	1.1%
Taiwan	2142	320	2462	2600	414	3014	21.4%	29.4%	22.4%
Other Asia-Pacific	220	12	231	284	14	298	29.2%	17.4%	28.6%

Figure 2 (continued) DSL lines, cable modems and total broadband lines in major countries: Europe, Middle East and Africa

	Thousands of lines at 30 June 2003			Thousands of lines at 31 December 2003			Growth in 2H 2003		
Country	**DSL**	**Cable modems etc**	**Total**	**DSL**	**Cable modems etc**	**Total**	**DSL**	**Cable modems etc**	**Total**
EMEA	**13537**	**4833**	**18370**	**18770**	**6007**	**24777**	**38.7%**	**24.3%**	**34.9%**
Austria	224	287	511	280	308	587	24.6%	7.3%	14.9%
Belgium	644	435	1079	790	488	1278	22.6%	12.3%	18.5%
Denmark	378	195	573	473	194	668	25.3%	-0.2%	16.6%
Finland	259	58	317	337	81	418	29.8%	39.7%	31.6%
France	2039	335	2374	3043	394	3437	49.2%	17.6%	44.8%
Germany	3865	60	3925	4500	66	4566	16.4%	9.3%	16.3%
Hungary	64	34	99	115	41	156	78.6%	20.4%	58.4%
Israel	325	42	367	380	60	440	16.9%	42.9%	19.9%
Italy	1435	149	1584	2280	211	2491	58.9%	41.3%	57.2%
Netherlands	543	831	1374	951	929	1880	75.1%	11.8%	36.9%
Norway	214	58	272	290	66	356	35.5%	13.8%	30.9%
Portugal	88	255	343	189	316	505	114.4%	23.9%	47.2%
Spain	1302	305	1607	1720	436	2157	32.2%	43.1%	34.3%
Sweden	511	311	822	592	364	956	15.7%	16.9%	16.2%
Switzerland	317	320	637	500	550	1050	57.7%	71.9%	64.8%
UK	1072	1094	2165	1820	1364	3184	69.9%	24.7%	47.1%
Other EMEA	257	65	322	509	139	648	98.4%	114.4%	101.6%

Figure 3 'Top ten' broadband countries by number of lines

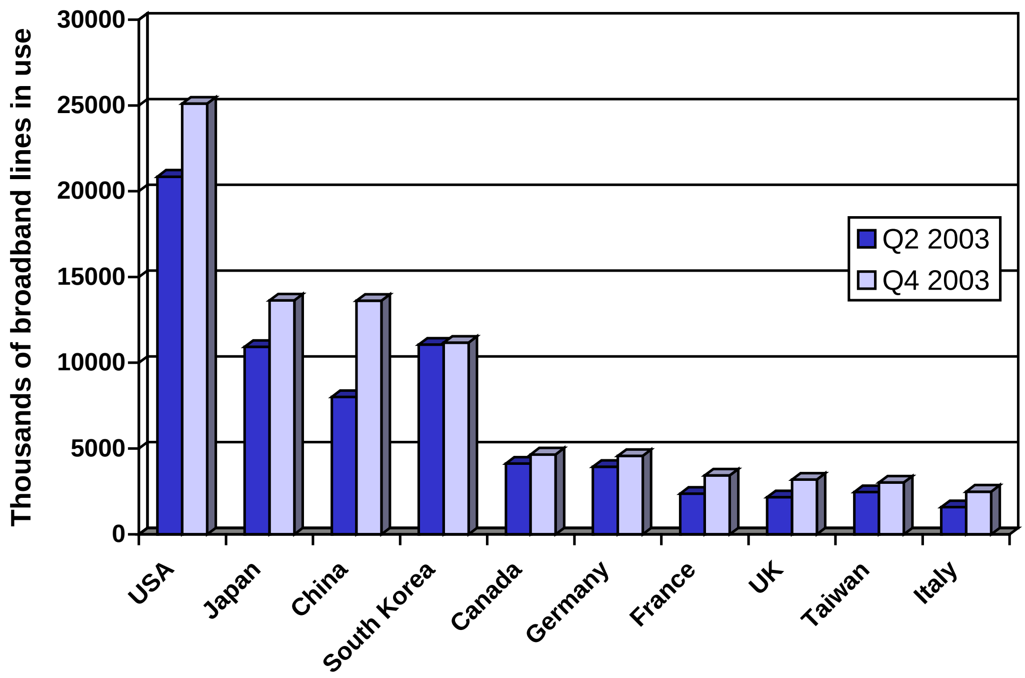
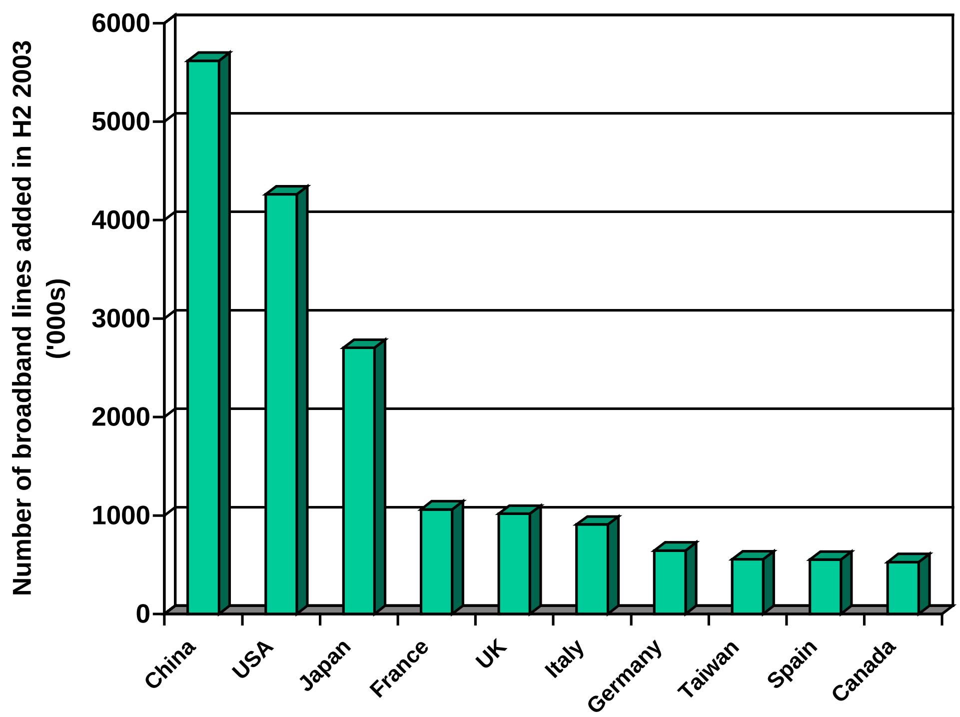


Figure 4 'Top ten' broadband countries by lines added



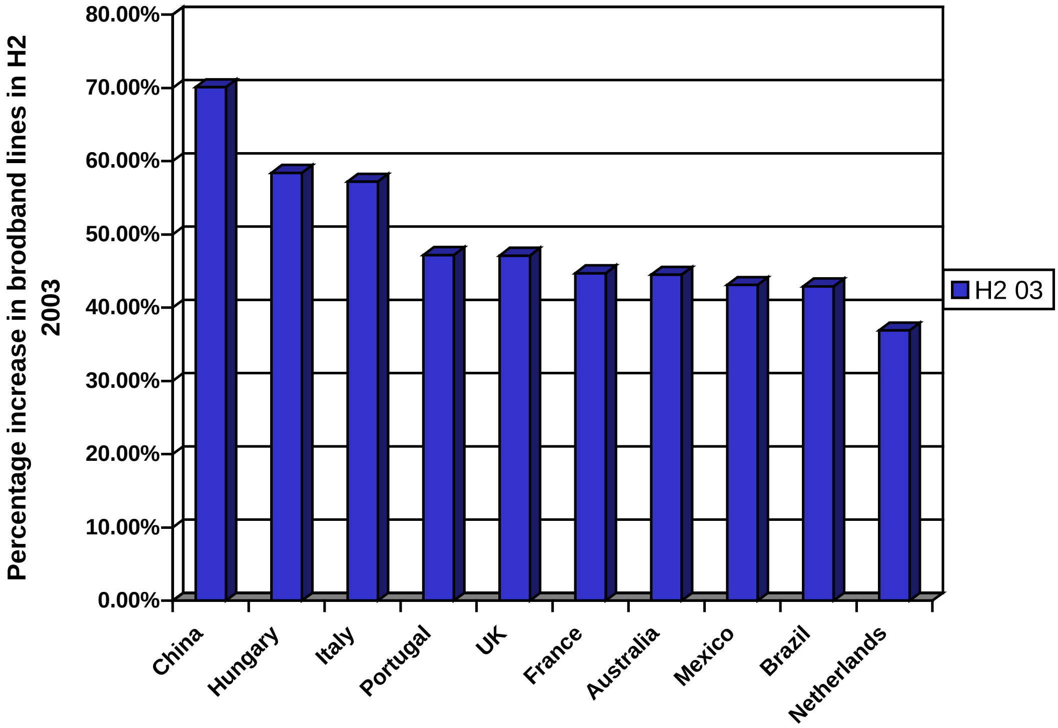


Figure 5 'Top ten' broadband countries by percentage growth

Figure 6 'Top ten' broadband countries by penetration

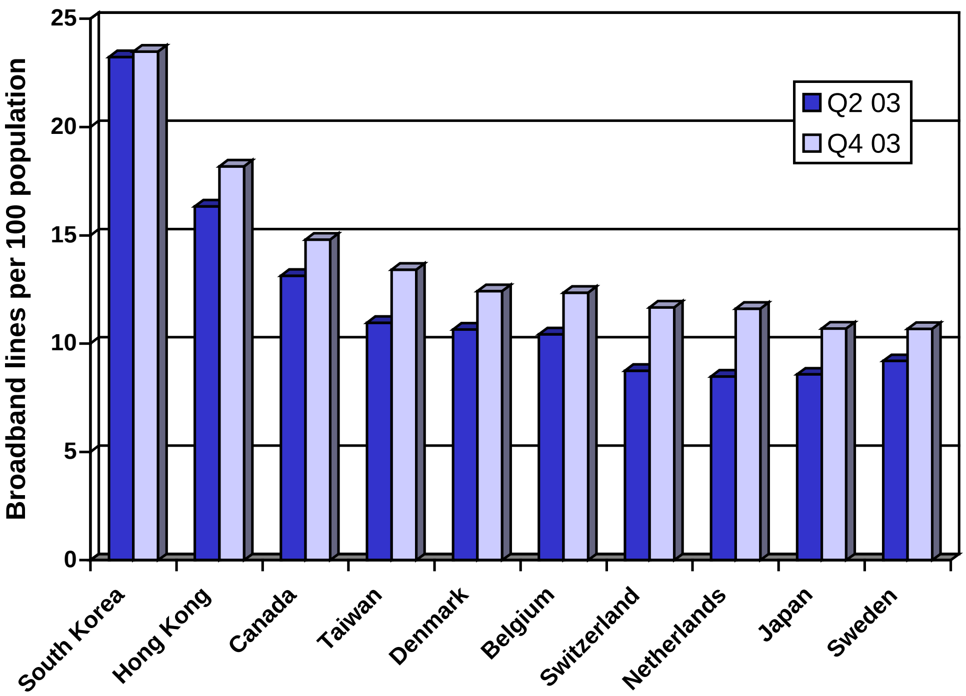


Figure 7 Technology shares in 'top ten' countries

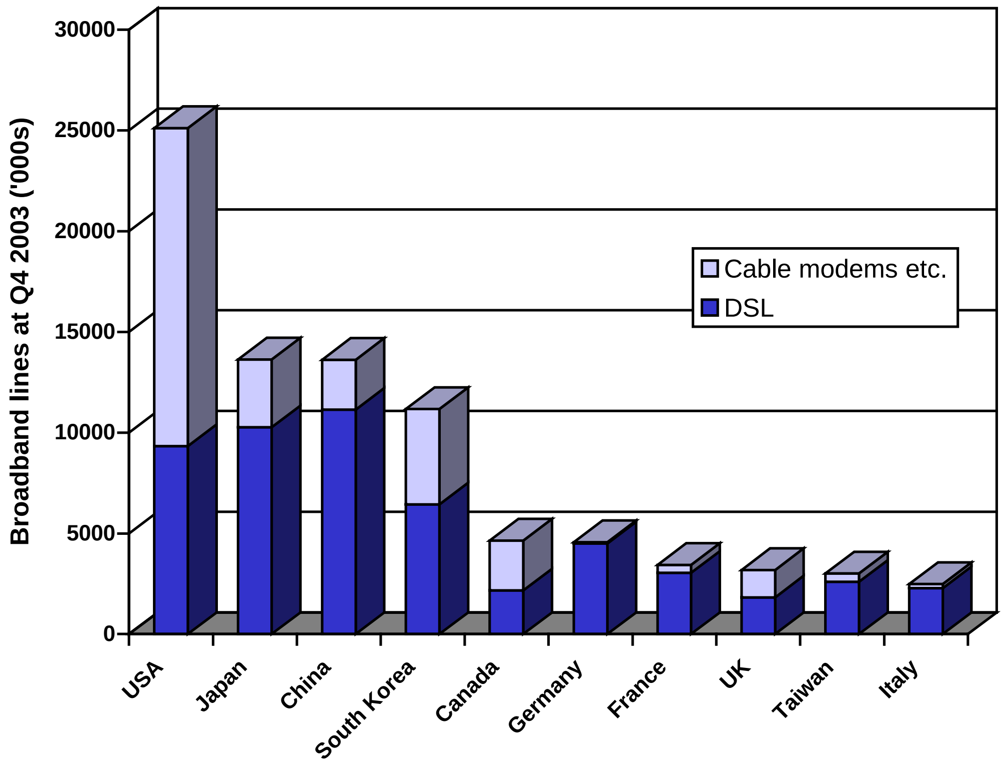


Figure 8 'Top Ten' broadband countries 2002-2003