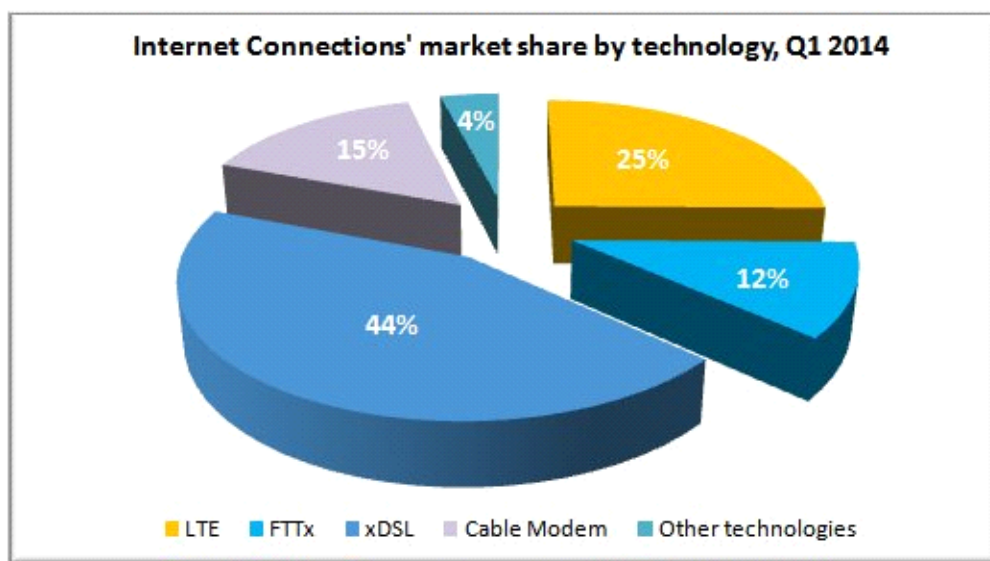


World Mobile and Fixed Internet Market Update, Q2 2014.

London, 17th July 2014 - [Quantum-Web](#)'s first quarter 2014 telecommunications industry monitoring service, covering over 140 countries, reveals how the largest xDSL, Cable Modem, FTTx and LTE markets are correlated to the price of connection expressed in Euros per Gigabyte.

The total number of xDSL, Cable Modem, FTTx and LTE connections reached 908 million by the end of the first quarter of 2014 (Figure 1).

Figure 1. Internet connection by technology



4G LTE with over 228 million connections and a Quarter on Quarter growth of 9% was the fastest growing Internet technology followed by FTTx, cable modem and xDSL. "Other technologies" displayed a negative trend and lost nearly 1 million connections in the same period (Table 1).

Table 1. Internet connection by technology

Technology	Q4 2013	Q1 2014	Q/Q Δ	Q/Q Δ (%)
LTE	209,364,000	228,758,000	19,393,000	9.3%
FTTx	99,104,000	103,035,000	3,931,000	4.0%
xDSL	396,933,000	400,710,000	3,777,000	1.0%
Cable Modem	137,440,000	139,038,000	1,598,000	1.2%
Other technologies	37,406,000	36,444,000	- 962,000	-2.6%

The top 10 LTE Markets

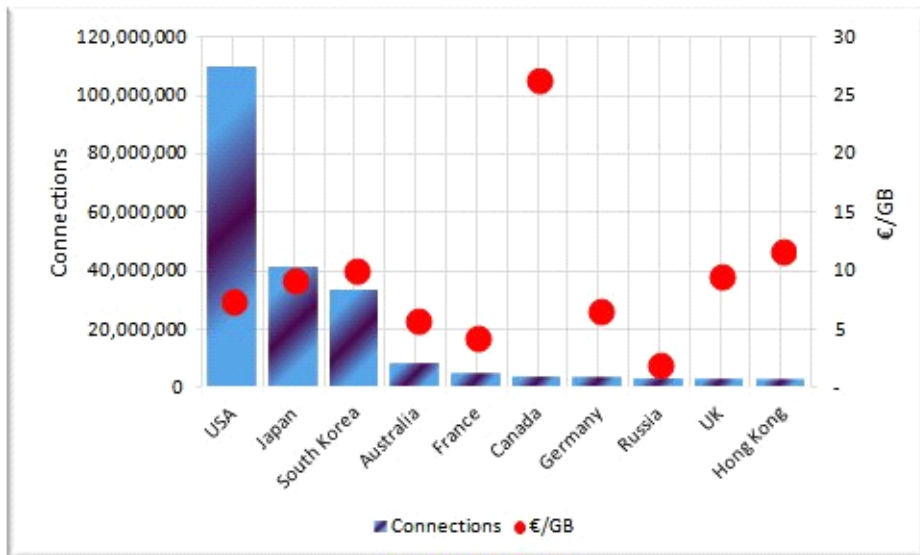
The USA was the largest LTE market in the world with 109 million LTE connections (30% of total connections) in this period. The average price of 1 Gigabyte data on LTE network in the USA stands at €7.45* (Figure 2). In this country, the downstream and upstream headline speed of 4G LTE was 27Mbps and 4Mbps on average respectively. The customers of Verizon, T-Mobile, Sprint, MetroPCS, Bluegrass Cellular, Big River and Benbroadband can enjoy up to 70Mbps upstream and 8Mbps downstream on the 4G LTE mobile network.

Table 2. Top ten LTE markets by number of connections and the cost of 1 Gigabyte LTE data, Q1 2014

Country	Connections	€/GB
USA	108,978,000	7.45
Japan	40,747,000	9.28
South Korea	32,866,000	10.02
Australia	7,620,000	5.75
France	4,352,000	4.30
Canada	3,493,000	26.27
Germany	3,106,000	6.66
Russia	2,894,000	2.07
UK	2,667,000	9.58
Hong Kong	2,391,000	11.67

The cost of LTE data varied across different countries (Table 2) depending on a number of factors such as the number of operators, speed of connection and operators pricing strategy among others. For example, in Canada, the most expensive country in the top ten table, the average downstream headline speed of 4G LTE was 79.5Mbps whereas in the less expensive country, Russia, the average downstream headline speed was less than 16Mbps. The top downstream headline speed in Russia is offered by Megafon and stands at 20Mbps. In Canada, the fastest LTE package belongs to Sasktel at 100Mbps.

Figure 2. Top ten LTE markets by number of connections and the cost of 1 Gigabyte LTE data, Q1 2014



*The average cost of 1 Gigabyte data is based on the “residential post-paid stand-alone” tariffs and exclude national VAT rates. The connection terminals included in our analysis are MiFi modem, Wi-Fi modem, mobile phone and tablet.

The top 10 xDSL Markets

China, with over 114 million xDSL connections, is the largest nation in the world in terms of connectivity way ahead of the runners up the USA and Germany (table 3).

Table 3. Top ten xDSL markets by number of connections and the cost of 1 Gigabyte data, Q1 2014

Country	Connections	€/GB
China	114,467,000	3.80
USA	32,026,000	0.68
Germany	23,606,000	0.42
France	22,854,000	
UK	18,441,000	
Brazil	16,471,000	
Italy	13,223,000	0.52
India	13,014,000	0.90
Mexico	10,078,000	0.50
Spain	9,708,000	0.50

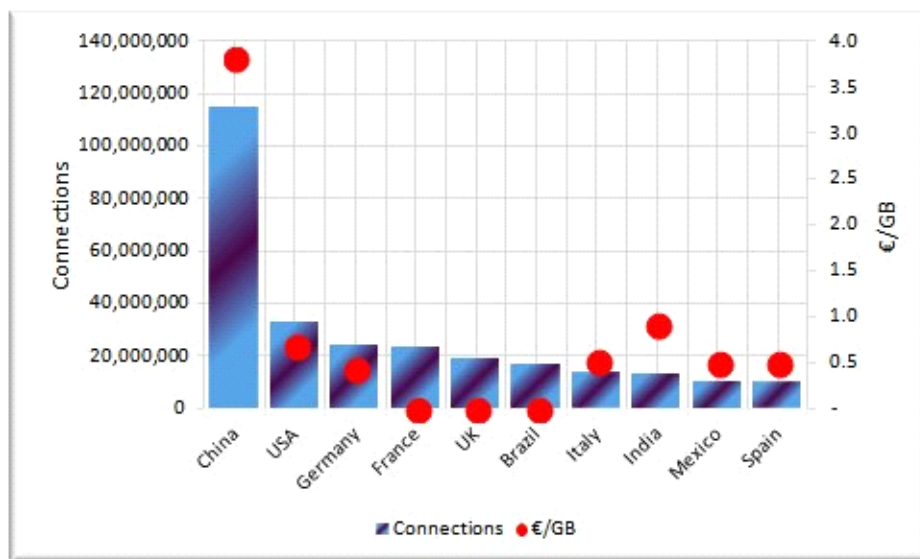
The cost of xDSL technologies (ADSL, ADSL2, ADSL2+, VDSL, VDS2+ and SDSL) was found to be more harmonised across the world’s top 10 markets. In Germany, the third largest world market for xDSL, the incumbent Deutsche

Telekom and major alternative operators, namely, Vodafone, United Internet and Telefonica, offer xDSL connection as low as €0.21 per Gigabyte; this positions the country as the most affordable in the world's top 10 xDSL markets table.

China Telecom and China Unicom offer the highest Gigabyte price in the largest xDSL market in the world.

In India, The average price of 1 Gigabyte data offered by BSNL, Airtel, MTNL and Reliance, as the major xDSL network operators, is €0.90 positioning the country as the second most expensive after China in the world's top 10 xDSL markets table (Figure 3).

Figure 3. Top ten xDSL markets by number of connections and the cost of 1 Gigabyte data, Q1 2014



In some countries like France, the UK and Brazil most of the operators don't offer stand-alone services anymore and as a result the cost of data for the purpose of this analysis is not representative.

The top 10 Cable Modem Markets

The USA cable modem sector with over 54 million connections remains the largest, the most lucrative and developed global market in this period leading by a large gap countries like China and Brazil among others. (Table 4).

Germany with over 5 million connections had the lowest data price in this category while Canada with over €1 per Gigabyte was the most expensive in the world's top 10 cable modem markets table.

In Germany, Unity Media and Kable Deutschland offer a downstream speed of up to 150Mbps whereas in Canada, Shaw, Videotrone and Rogers as the major cable TV operators offer packages with a downstream speed of up to 250Mbps.

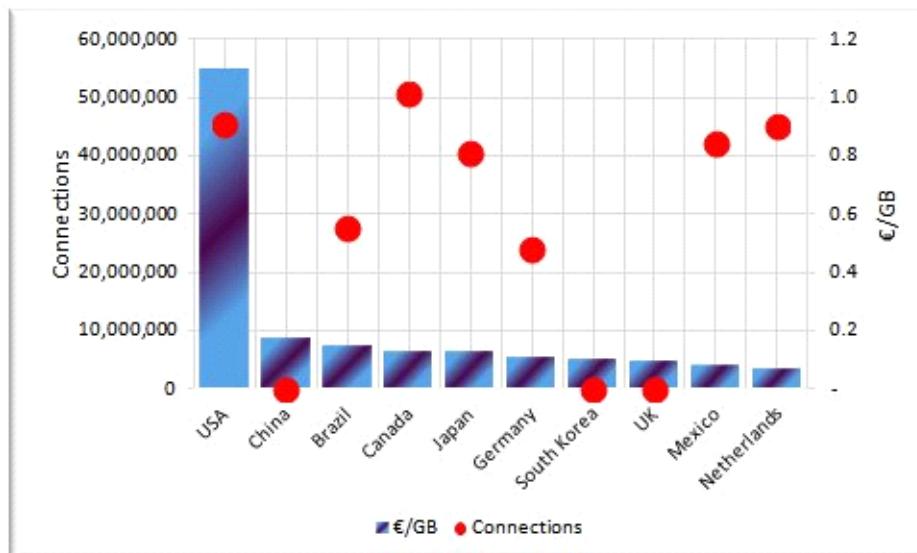
Table 4. Top ten Cable modem markets by number of connections and the cost of 1 Gigabyte data, Q1 2014

Country	Connections	€/GB
USA	54,478,000	0.91
China	8,496,000	
Brazil	7,279,000	0.55
Canada	6,138,000	1.01
Japan	6,089,000	0.81
Germany	5,107,000	0.48
South Korea	4,769,000	
UK	4,420,000	
Mexico	3,792,000	0.84
Netherlands	3,256,000	0.90

Cable TV operators continue to invest in their networks and drive the transition from HFC to Docsis 3.0 providing faster Internet connection which keeps the price of data transmission relatively high (Figure4).

Moreover, the competition for new customer gain and retention is hard as IPTV joined satellite and cable operators in the race in recent years.

Figure 4. Top ten Cable Modem markets by number of connections and the cost of 1 Gigabyte data, Q1 2014



The top 10 FTTx Markets

At the end of first quarter of 2014, Japan with over 25 million fibre optic connections including fibre to the home (FTTH) and fibre to the building (FTTB), was the world largest market followed by two other Asian countries, China and South Korea (Table 5).

Table 5. Top ten FTTx markets by number of connections and the cost of 1 Gigabyte data, Q1 2014

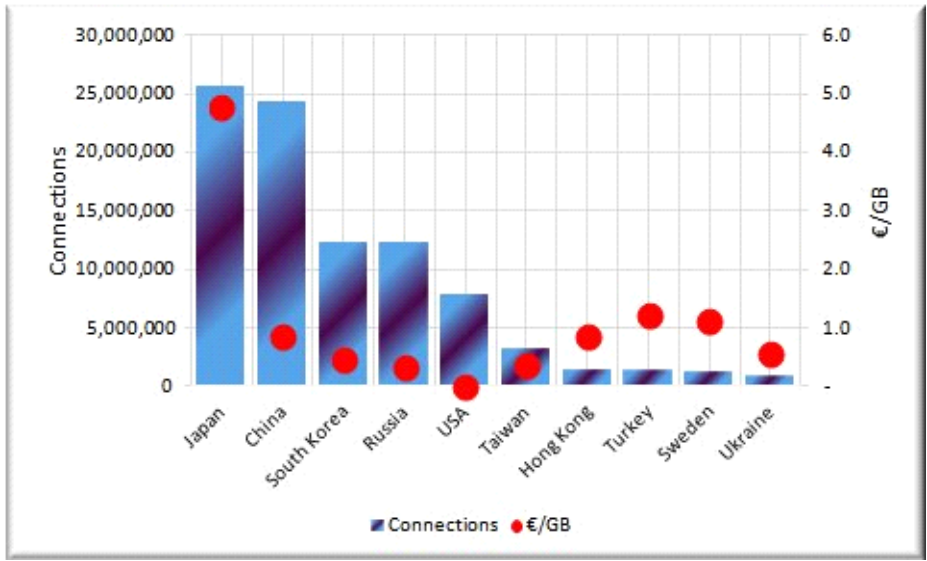
Country	Connections	€/GB
Japan	25,490,000	4.79
China	24,229,000	0.86
South Korea	12,240,000	0.45
Russia	12,166,000	0.32
USA	7,726,000	
Taiwan	3,044,000	0.37
Hong Kong	1,390,000	0.86
Turkey	1,259,000	1.21
Sweden	1,219,000	1.12
Ukraine	822,000	0.55

The fibre network runs via overhead cabling or underground trenching from the telephone switch to the customer premises in a point-to-point configuration allowing virtually infinite bandwidth. This infrastructure comes at a cost: in Japan, customers pay €4.8 on average for 1 Gigabyte data to NTT West, NTT East and KDDI for an average 131Mbps and 79Mbps downstream upstream headline speed.

In the cheapest nation among top ten FTTx markets, Russia, customers pay only €0.32 on average for 1 Gigabyte data to Beeline Russia and Er Telecom providing them with an average 45Mbps and 33Mbps downstream upstream headline speeds.

Overall, FTTx is more expensive in Europe than Asia (figure 5). The price gap between the two continents drives mainly from the higher Capex expenditure on the fibre network rollout in Europe due to the higher civil engineering labour costs in the old continent.

Figure 5. Top ten FTTx markets by number of connections and the cost of 1 Gigabyte data, Q1 2014



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