

## Summary

# Executive summary

Mobile broadband based on HSPA/LTE and other mobile communication standards has taken off as an important technology for connecting mobile PCs to the Internet. The evolution is led by Europe where HSPA now accounts for 12 percent of the total number of broadband connections, compared to 5 percent in North America. The concept that was first launched as an exclusive business service is now a mass-market consumer product sold on an intensively competitive market. Consumers are utilizing their mobile broadband connections extensively, pushing the networks to their capacity limits. In fact the overwhelming majority of data traffic on mobile networks is today generated by notebook PC users that surf the Internet, not smartphone users.

Berg Insight estimates the total global number of shipped mobile broadband devices in 2008 to 37.2 million, with Europe and North America accounting for 18.2 million units and 3.7 million units respectively. The European device market grew by 222 percent in 2008, but is likely to cool off in 2009 as operators start reducing their inventories. Growth is forecasted to continue with shipments reaching 68 million units in 2014, fuelled by integration in notebook PCs and strong demand for mobility. Also the North American device market will experience a rapid growth to reach 45 million shipments in 2014. The ASP in Europe was reduced from about € 100 in 2007 to € 45 in 2008. The US device market is still focused on business users and the Chinese vendors Huawei and ZTE have not managed to capture significant market shares, whereby the ASP remained as high as US\$ 150 in 2008.

The European mobile broadband service market continues to grow rapidly, with demand fuelled by declining prices, improved user experience and massive marketing campaigns. Berg Insight estimates that the total number of mobile broadband subscribers in EU 23+2 grew by 74 percent to reach 14.6 million in 2008 while the estimated operator revenues reached € 3.4 billion. The European mobile broadband market is expected to grow at a compound annual growth rate of 14.3 percent to reach € 7.6 billion in 2014. While the

expected high demand from the PC-industry will lead to higher shipment volumes for embedded modules, the vast majority of new subscribers will only be occasional users generating lower network ARPU.

Berg Insight estimates that the number of mobile broadband subscribers in North America was about 4 million at the end of 2008. The estimated service revenues were about US\$ 2.9 billion and are expected to grow at a compound annual growth rate of 13.9 percent, to reach US\$ 6.3 billion in 2014. The growth in North America will accelerate when operators start to target the consumer segment with attractively priced proposals. At a later stage, the increasing number of notebooks featured with embedded modules will drive usage as consumers do not need to make the initial hardware investment.

Huawei has established itself as the world's largest supplier of mobile broadband terminals and has a particularly strong foothold in Europe. In North America, the local vendors Sierra Wireless and Novatel Wireless still hold strong positions on a market where EVDO is the dominant network technology. Option was previously the main supplier in Europe, prior to Huawei's entrance and launch of the USB modem and is now ranked second. ZTE is the latest player to join the race and have adopted an aggressive strategy to capture market shares. Two of the largest telecom vendors – Ericsson and Qualcomm – entered the market for embedded solutions in 2008 and managed to sign contracts with many of the major notebook vendors.