

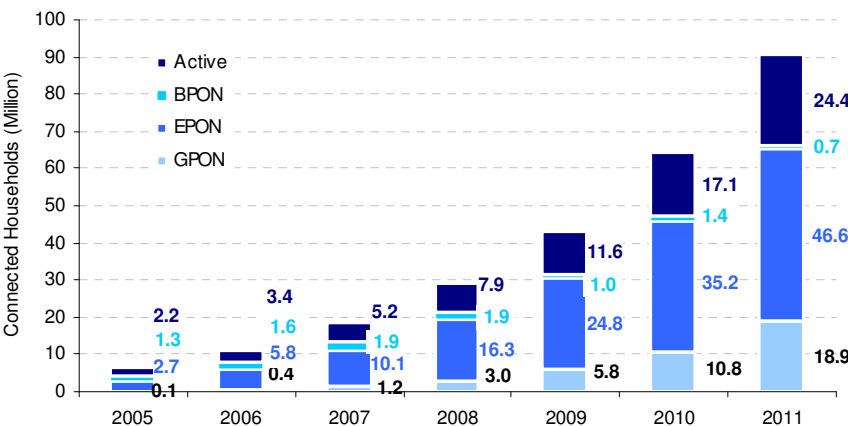
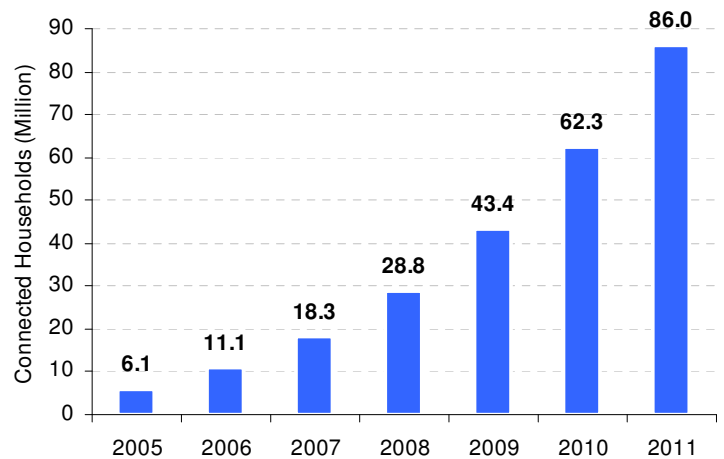
FIBER INDUSTRY INSIGHT, a publication by Sterlite Optical Technologies Ltd., tracks technological advancements, product and market demand trends in the Global and Indian Fiber Optic Industry. As an industry leader and innovator of Optical Fiber products, we are committed to the broadband and convergence revolution that is sweeping the globe, thereby enabling millions to communicate, interact and enjoy life.

## FTTH Market Forecast & Technology Trends

According to the 'FTTH Worldwide Market & Technology Forecast, 2006-2011' published by Heavy Reading, USA, the total number of homes connected to fiber will grow from about 11 million at the end of 2006 to about 86 million at the end of 2011, representing about 5% of all households worldwide. This growth will be dominated by Asia, where the number of connected households will grow to 59 million by the end of 2011. The rest of the subscriber base at 2011 will be split equally between the Americas and EMEA region.

The transition from copper to fiber access networks is now well underway, and will result in the replacement of most copper access networks over the next two decades. Although DSL offers a temporary fix to the ever growing consumer demand for bandwidth, it will run out of options in the next three to five years, meaning telcos must begin the transition to fiber soon.

Because EPON is currently the solution of choice in most Asian countries, it is assumed that it should dominate overall deployment through the next five years. GPON however will dominate in the US since it now appears certain to be used by both major ILECs and many independent telcos.



The relentless increase in bandwidth needs is certain to continue, meaning PON supporters and builders need to develop a next generation PON based on 10Gb Ethernet or WDM within next five years. Failing such a development, the market could drift toward active optical networking approaches.

For every vendor, the most obvious question about PON technology is which technology will prevail. It seems fairly clear that GPON will dominate in North America and probably in Europe, while

EPON (or GEAPON) will probably dominate in Asia. However, there are some exception cases like some vendors believe that GPON will become a significant technology in China and some other Asian territories.

## FTTH Deployment Cost

Two major factors influencing the deployment of FTTH are construction cost and equipment cost.

### Construction cost

Construction costs include laying ducts where necessary and laying underground fiber or deploying aerial fiber. Of all the factors influencing the cost of FTTH deployment, construction cost is the biggest factor.

Construction factors are mainly influenced by many local factors like availability of ducts, whether ducts can be laid or aerial fiber to be deployed, labor cost and digging conditions etc. This is also one of the reasons for why FTTH is emerging on piece-meal basis, and also it suggests that case has to be made separately, district-by-district and for every FTTH network. In a study, it is found that the construction cost per household varies from the ideal scenario to worst-case scenario from about US\$300 – US\$7000.

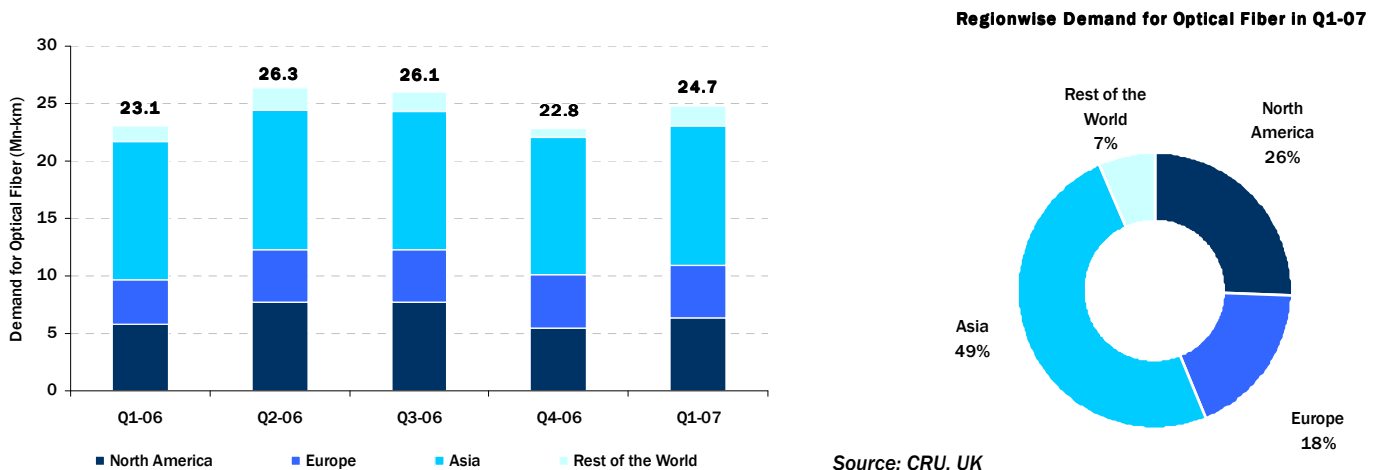
### Equipment cost

Equipment forms relatively a small part of the overall cost when there is a significant construction to do. However the cost of equipment is still a factor in decision-making, especially where the construction costs are not so high. Equipment costs are also a major factor in Greenfield deployments, where the service provider may be directly comparing the cost with a new copper build-out. Equipment cost is partly influenced by design, type of PON and splitting ratio, number of fibers etc. In an estimate, approximate equipment cost per household is found to be about US\$800.

Source: 'FTTH Worldwide Market & Technology Forecast, 2006-2011', June 2006. Published with permission from Heavy Reading, USA.

## Market Buzz

As per CRU, UK, the global demand for Optical Fiber in Q1-07 was 24.7 Million fiber-km, 7% up on Q1-06, and 8% up on Q4-06. Most regions showed y-o-y demand growth, as the positive trends seen in 2006 continued.



## Industry Event

### World Wire and Cable Conference

Incorporating the KMI Fiberoptics Conference

10–12 June 2007, Paris Rive Gauche Hotel, Paris, France

For more details, please visit [www.cruerevents.com](http://www.cruerevents.com)

CRU Events' *World Wire and Cable Conference* aims to give a comprehensive update and insight into the latest movements of the worldwide wire and cable industry.

The 2-day conference would focus on 'Creating value in the cables business' & 'Materials management in a volatile price environment'. The conference would also have sessions on Power Cable, OEM Cable & The *KMI Fiberoptics Conference*.

This issue of Fiber Industry Insight was dispatched on May 31, 2007.

