



view from the top

Europe's FTTH challenge

The time has come for mass-scale fibre-to-the-home rollout in Europe, argues Hartwig Tauber, president, FTTH Council Europe

Europe is in danger of lagging behind other geographical regions, both economically and in 'quality of life', if it doesn't get serious about FTTH investment soon. That has been the consistent mantra of the FTTH Council Europe since it was founded in 2004. Its president, Hartwig Tauber, believes that regulators and operators need to act now as a matter of urgency to make widespread FTTH a reality.

"If we wait too long to decide when to roll out FTTH, the more likely it is Europe will be forced to play catch-up," he says. "Building fibre infrastructure takes time, so decisions need to be made now."

In some FTTH architectures, customers can receive more than 100Mbps — both on the downstream and the upstream — and it's this capability that Tauber sees as necessary to develop new revenue-generating services on top of 'a good quality' triple-play service that is at least capable of delivering HDTV to multiple channels in the house.

"Triple-play doesn't mean just having TV but having interactive services also," says Tauber. "And with FTTH, teleworking can become a reality. The industry has been talking about this for about 20 years but with FTTH you can actually get the office work experience at home. I'm not advocating that people should work at home all their lives, but it can lead to greater productivity and a better quality of life."

Another quality of life issue is e-health. Remote monitoring and interactive diagnostics for elderly or vulnerable people — via FTTH-based videoconferencing — is something that Tauber sees as an attractive FTTH investment spin-off. "E-health is only possi-

ble when you've got real broadband," he says.

Tauber views FTTN (fibre-to-the node) plus VDSL2 as an intermediate solution for customers' bandwidth requirements. Because this network architecture is unlikely to provide sufficient data speeds within two to three years — a maximum of 50Mbps for those located close enough to the central office — Tauber argues it is cost inefficient.



Hartwig Tauber ▲
president, FTTH Council Europe

"With a two-step approach to FTTH [VDSL2 being the first step], there are higher opex and capex costs compared with going straight to FTTH," he says. "With FTTH you can actually make significant opex savings as you don't have to maintain multiple nodes within the network and there is more scope for central office consolidation."

Verizon in the US, which is embarking on one of the biggest FTTH projects in the world — it plans to pass 18 million premises with its fibre network by the end of 2010 — says that it can achieve annual opex savings of US\$1 bn when that coverage target is reached. On the flip side, the upfront capex is huge. Verizon's FTTH project requires a jaw-dropping US\$23 bn worth of investment. By contrast, when Deutsche Telekom announced its plan last year to cover 50 German cities with FTTN+VDSL2, the capex level was a much more modest €3.3 bn.

But operators who are waiting to see how customer behaviour pans out before deciding on whether or not to commit to heavy FTTH investment are, Tauber implies, guilty of a strategic short-sightedness. BT, which has no immediate plans to roll out FTTH and is instead relying on ADSL2+, will, says Tauber, 'have to upgrade to FTTH sooner or later'.



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Of course, it is not only uncertainty about the extent of future bandwidth demand that is holding back FTTH investment in Europe. The regulatory environment is still unclear as the European Commission reviews the current EU Regulatory Framework. One of the key questions is whether FTTH — as well as local loops comprising FTTN plus metallic pairs — should be subject to *ex ante* regulation or whether they should be treated as 'emerging markets' and so be immune from regulatory intervention other than competition law. (Under *ex ante* regulation, an operator deemed to have significant market power would be obliged to unbundle its fibre-based local loops as well as wholesale services at prices set by the regulator.)

So, what is the optimum regulatory FTTH model for Europe? Tauber is non-committal. "It's not our role to go up to the EC and say that any model is the right one," he says. "In fact, it's much more difficult to find one model that is relevant for the whole of Europe than it is for the US, which is a more homogeneous market."

In sharp contrast, the FTTH Council North America, a sister branch of the FTTH Council Europe (there is also an FTTH Council Asia) has been unequivocal in its support of the FCC's ruling in October 2004 to relieve operators from unbundling requirements on their FTTC (fibre-to-the-curb) loops where fibre is extended to within 500 feet of a customer's premises. If such a ruling were passed in Europe, it would give incumbents the so-called 'regulatory holiday' they are seeking and would, in

all probability, stimulate FTTH investment. In mid-2004, prior to the FCC ruling, there were 78,000 FTTH connections and 189,000 homes passed in the US. By the end of 2006, those numbers had increased to over one million and over six million respectively.

But Tauber doesn't see regulatory holidays as necessarily the best way to go for all parts of Europe. "There are always two sides to every story," he says. "While the FCC's decision was good for the likes of Verizon, the danger of giving operators protection on their FTTH investment is that it excludes other service providers. We need to find the right balance."

As part of the EC's public consultation process to review the EU Regulatory Framework, the FTTH Council Europe submitted a document outlining its recommendations in September 2006. Its central message is a plea for regulatory clarity, as well as suggesting some practical measures to stimulate FTTH investment (such as mandating co-location access to passive infrastructure — trenches and ducts — when there is no practical possibility for operators to build their own alternative passive infrastructure).

In terms of giving regulatory clarity to operators, the FTTH Council Europe's document argues that 'the leap to 100Mbps symmetrical [speeds], that is ensured only by fibre, will provide the quantitative and qualitative evidence that "new services" enabled over FTTH networks are not substitutes, nor mere bundles of legacy services'.

In other words, even though the evidence to assign 'emerging market'

status to FTTH services is not here yet, it would be a catastrophic mistake on the part of the EC to make an assumption in any ruling it makes once the review process is complete (expected in the first half of 2007) that this will continue to be the case in the medium term and beyond.

"A related problem with the current *ex ante* regulatory regime is that it may be forward-looking," says a report from Analysys, and which the FTTH Council Europe quotes from approvingly, "but it is not supposed to regulate markets that do not yet exist and are not likely to emerge in the immediate future."

The FTTH Council Europe, it would seem, is asking for a leap of faith from both the regulators and the operators. But in an attempt to assure the industry that FTTH investment can be justified, the FTTH Council Europe is embarking on a widespread education campaign.

"The most important thing is to have an open discussion with the media, regulators and operators and approach the technical aspects of FTTH from a neutral point of view," says Tauber. "That's why we don't have any operators as part of our membership, as that could steer the discussion to one type of FTTH network architecture." (The construction and engineering companies, as well as suppliers — which form the membership of the FTTH Council Europe — can post white papers on the Council's web site but the Council itself doesn't endorse any one particular view).

A key part of the FTTH Council Europe's marketing campaign is its annual FTTH event. Started two years ago in Brussels, the first FTTH show had 200 delegates. Last year, in Vienna, that number went up to 800, and for this year's show in Barcelona Tauber is expecting far in excess of that amount. "Our aim is to encourage a vision of broadband among policy makers and operators," says Tauber. ♦

— Ken Wieland