

Sweden: a showcase for rural FTTH

By Nadia Babaali, Communications Director of the FTTH Council Europe

Brussels, 26 June 2013 - To understand the importance of fibre to the home (FTTH) to rural economies, we only need to look north. The Nordic countries of Denmark, Finland, Iceland, Norway and Sweden are some of the most extremely rural countries in Europe, and yet they have the most advanced FTTH networks.

Sweden is the third largest country in the European Union by geographical area, but it has a population density of just 21 inhabitants per square kilometre on average. Sweden's 21 inhabitants per square kilometre can be compared with 335 in Japan and 230 in Germany. When you consider that about 85% of the Swedish population lives in urban areas, the countryside itself must be even more sparsely populated. One only has to look at a map to see that this presents significant challenges when it comes to building the physical infrastructure of communications networks.

When Sweden created its broadband policy in the late 1990s – the first country in Europe to do so – it set an extremely ambitious goal to make Sweden “an information society for all”. The focus was on providing the physical infrastructure, the foundation without which nothing else is possible. The government set the policy direction, while country administrative boards had to ensure that competitive dark fibre networks were built across all 289 counties. Government subsidies were provided to connect every population centre of 3000 inhabitants or less, which were unlikely to be reached by private companies, but this was a relatively small part of the overall investment required.

Far sighted policies

Broadband – bringing always-on Internet access into people's homes and businesses – was a relatively new technology at the time. Although studies had linked broadband to economic growth, there was no conclusive proof that spreading the latest technology into every corner of the country would be necessary. Nevertheless, the Swedish government was convinced that the future survival of the rural parts of Sweden absolutely depended on their having access to this technology.

The far-sighted Swedish government had recognised what has become increasingly clear to policy makers across the rest of Europe: the information society cannot afford to leave rural areas behind. Access to broadband makes it easier to work remotely, and enhances the possibilities to launch and run businesses in all parts of the country. This reduces travel and means that people are able to work where they live instead of having to live where they work. Access to libraries, universities, schools and hospitals is dramatically improved when these important institutions are brought into the online world. In short, access to digital information and services enables communities to thrive, and stems the tide of migration out of rural areas and into the big cities. Although FTTH serves all sectors of society, its benefits are arguably greatest in rural areas.

By choosing to stimulate the infrastructure, the Swedish government expected to have a greater impact than if it merely stimulated demand (although education aspects in schools were also addressed). Under the broadband policy, dark fibre was to be installed to within a few kilometres of every home, but Swedish residents still had to fund the final connection to the network. They were encouraged to invest in their own connection by a tax rebate scheme that allowed them to claim

50% of the installation costs over SEK 8,000, up to a maximum of SEK 5,000 per property. And many have done so because a FTTH connection adds significant value to their homes.

The Swedish government's focus on dark fibre also encouraged the development of "open access" networks, where the physical infrastructure (dark fibre) is controlled by one company, but the network is open to any company that wishes to use it or offer services over it. The Swedish city of Västerås pioneered the concept in 1999 when it decided to build its own municipal fibre-optic network, both to meet its own communications needs and to attract new businesses to the city. The only way to recover the significant investment cost was to attract as many users onto the network as possible. Today, there are more than 35 service providers on the Västerås municipal network, including major operators like Telia and Tele2, and consumers can choose from more than 185 different services. The highly successful model developed in Västerås has since been documented and sold to other municipalities.

Counting the pennies

Sweden is already profiting from its decision to invest in broadband and FTTH. A study carried out by Ovum for the FTTH Council Europe aimed to quantify some of the benefits. In the small town of Hudiksvall, for example, the number of companies in the region grew between 6 and 14% year on year between 2004 and 2009 after a FTTH network was rolled out in the town. In 2011 the Swedish ICT research organisation Acreo carried out a preliminary study of the socio-economic return of FTTH investment in Sweden, looking at a number of factors, such as the jobs created during the construction of the network, to the telecoms savings made by country administrative boards. Acreo concluded that the investment of about SEK 39 billion – the projected cost of connecting every home in the country – would give a cumulative return of about 59 billion SEK after five years. In other words, one Swedish Kronor invested would bring back one and half times its value over five years.

The Nordic nations have become global FTTH leaders as a result of far-sighted government policy. Although we have focused on Sweden, we could tell similar positive stories about the others. Denmark, Finland and Norway started to develop FTTH networks a few years later, and because they paid attention to the Swedish example, progress was rapid. In Norway, they took the "open access" idea to the next level when utility company Lyse set up a broadband subsidiary called Altibox, creating a platform to connect small municipal FTTH networks with a large number of service providers. Finland recently became the first country in the world to make broadband a legal right. Since 1 July 2010, every Finnish citizen can expect to receive a 1Mbps broadband connection, and Finland has vowed to provide 100 Mbps to every home by 2015 – just two years from now. Even in Iceland, a country where temperatures can sink to –30°C in the winter (try digging trenches in that!), the local utility provider has deployed FTTH networks that already reach nearly half the population.

As other countries in Europe grapple with the problem of how to roll out high-speed broadband into the supposedly "non-profitable" rural areas, they should look to Sweden and the other Nordic nations for inspiration. As the early adopters of FTTH in Europe, these countries have valuable experience to share. We hope you will join us to discover examples of best practice from the Nordic countries at the FTTH Conference 2014 (www.ftthconference.eu), which will take place in Stockholm in February with the theme "Showcasing a brighter future". There will be special sessions and workshops devoted to FTTH initiatives in the Nordics, while services and applications from those countries can be experienced in our "World of Applications" demo zone.

References:

Socio-economic return of FTTH investment in Sweden, a pre-study by ACREO AB

https://www.acreo.se/sites/default/files/public/acreo.se/upload/publications/prestudy_socio-economic_return_of_ftth_0.pdf

The Swedish commitment to broadband both in the cities and in the countryside, by Dr Arne Granholm, Special Adviser at the Ministry of Industry, Employment and Communications, Sweden <http://www.oecd.org/sti/ieconomy/2736714.pdf>

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About the FTTH Council Europe:

The FTTH Council Europe is an industry organisation with a mission to accelerate the availability of fibre-based, ultra-high-speed access networks to consumers and businesses. The Council promotes this technology because it will deliver a flow of new services that enhance the quality of life, contribute to a better environment and increase economic competitiveness. The FTTH Council Europe consists of more than 150 member companies.

www.ftthcouncil.eu

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www.ftthconference.eu

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Project owners, investors, policy makers and media are invited to join our Nordic FTTH Investors Day in Helsinki on 10 September, register free of charge on www.investors.ftthcouncil.eu

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