## Connecting Denmark

MOBILE COMMUNICATIONS TECHNOLOGY has made a huge difference to individuals, communities and businesses, even in areas that were already served by fixed-line voice and data connections. That difference has been truly radical however in areas where such services were sparse or non-existent, and where the establishment of broadband links of any kind seemed to many like an impossible dream.

The improvement broadband is making to the quality of life of people living in rural Sweden and Denmark, where Hutchison Whampoa has established interlinked 3 networks, would be hard to overstate. There are large distances between the major towns and cities and the remote, sparsely populated areas where most people's livelihoods derive from agricultural businesses.

Standards of medical care and education in



## 3 brings modern data communications to remote Scandinavia

## By Robin Lynam

those areas can be two noteworthy beneficiaries, as has been established in Sweden where pioneering work in telemedicine has been conducted. A patient in Gällivare in northern Sweden who is suffering from a haemorrhage, for example, can be X-rayed at the local hospital then diagnosed by specialists at the university hospital in Umeå, more than 500 km away.

Students in remote communities can attend high school and university classes in real time without having to leave their friends and families for weeks at a time to do so.

Perhaps the most tangible contribution 3 is making, though, is to sustain the economies of these countries by helping to maintain or enhance the viability of businesses that previously had no effective data communications links.

These can now send and receive data much more quickly, effectively and flexibly, vastly improving communications between staff and service suppliers, and making it possible to reach whole new groups of potential customers, and to respond quickly to them.

Now Hutchison, too, is beginning to see a return on the substantial investment it has made in the Danish 3 network. Group Managing Director Canning Fok is confident that although it has taken more than six years for 3's Danish operations to turn a profit, the DKK4 billion put into the network will be recovered in full, and the

3 Denmark has put isolated agricultural businesses back on the map.



number of customers will double to more than one million.

"The vision from the beginning was mobile broadband, mobile data," stated Mr Fok emphatically. "We were in classical speech telephony on a large scale when we were in Orange and Voice-Stream in the US. Then we developed the vision for Hutchison's telecommunications strategy as data, data and data."

Hutchison's strategy for Denmark is one of aggressive growth, aiming always to be the market leader. It does this by making it easier for customers to run their businesses smoothly, according to 3's Head of Business Marketing in Denmark, Marianne Keinicke Hansen.

"The service offers business customers a possibility to work online wherever they are. When on the road, sales people are now able to answer important mail from customers, so when they get home in the evening the mail box is empty. It gives the employees flexibility, which is a very important tool when you want loyal and happy employees. At the same time, the companies provide

a better service level for their customers by giving quick responses. Especially within the business service sector and wholesale sector this has been a success, and that is why they typically have a huge sales force. Consultants working in other companies are now connected with their home office, and in contact with their colleagues, even if they are on long assignments in another company."

According to Hansen, many small businesses see mobile broadband as a tool to make their operations more competitive and efficient. Small companies and independent operators in service industries, for example, can now use broadband to print out invoices on the spot when work is completed – instead of doing the paperwork later back at the office – thus improving cash flow.

Within the construction industry, 3's mobile services are now often used to the exclusion of fixed lines because the service offers ease of connection in areas without them. Fixed line use, it seems, is no longer regarded as the best solution for many broadband users.

## **Small agricultural companies** in remote areas are wholly **dependent** on **3**'s network







"In Denmark, 25 per cent of the population have a paid broadband home office solution," said Ms Hansen. "Whenever a new employee starts in a company or someone gets a new job, a lot of cost and time is used in closing fixed line broadband solutions and acquiring new ones. Today, some of our customers choose mobile broadband instead. The advantages are that there is no cost for installation, and no work involved in closing broadband lines and ordering new ones. The new employee simply gets a mobile phone, a mobile broadband router and two SIM cards, and that is efficient and up-and-running within their home office on the first day of work."

Agriculture is another sector that has benefited from 3's mobile broadband technology. Ivan Munk of the IT centre of Dansk Landbrug, the Danish Agriculture and Food Council, pointed out that before 3 some of the people with whom they and their offices needed to maintain contact had no access to broadband at all, because of a lack of land lines in their areas.

According to Mr Munk although access to the Internet and improved communications have helped increase efficiency in agriculture, this is mostly attributable to having coverage which was not previously available, rather than primarily to the 3 network's mobile communications flexibility.

Some small companies in remote areas such as northwest Jutland are wholly dependent on 3's network because neither fibre nor ADSL connections had previously been available, although there are also service providers to agriculture which report distinct advantages to being able to access and communicate data while away from the office.

One agricultural company, Dalsgaard & Liboriussen based in western Jutland, reports that broadband had never found its way to their remote town, but now 3 has provided them with a connection to the world.

The case for 3's mobile network as the platform for data communications appears to be well proven. Now, according to Mr Fok, the company which has invested so much capital and faith in building it will begin to see a healthy return on the contribution it has made to connecting some of the remotest areas of Scandinavia to each other, and to the world.

Traditional mobile telephony investments, he pointed out, generally take 10 to 15 years to turn a profit. In Denmark, with data communications, 3 has done it in under seven.