It has been 12 years since Lyse Energi, a Norwegian regional energy supplier, decided to enter the communications market, and to do so using the most advanced, state of the art networking technology available – point-to-point Ethernet over optical fibre with symmetrical speeds up and down the network.

Lyse chose point-to-point Ethernet over fibre because of its flexibility. “This has proven to be a future-proof strategic choice, allowing for the high bandwidths today’s and tomorrow’s customers are expecting,” Altibox CEO Nils Arne Bakke says. But it’s not cheap to build infrastructure to reach new customers, and the Altibox partnership continuously puts great effort into improving best practices for building. Mr Bakke says they have managed to get average build cost per customer down by 30% over the years, to about NOK 21,000 (€2,500). This is still a significant cost, so network construction won’t start in a new area unless it is close to an existing point of presence, and up to 60% of potential subscribers sign up. Allowing residents to cut their connection costs by digging their own trenches (to an Altibox specification) helps to win commitment.

Altibox continues to increase the raw speed on the network. Starting in 2002 with 2Mbps, after several upgrades, it launched a 400Mbps service in 2010, and raised its basic

Altibox puts this success down to the strength of the 42 partnerships, 36 in Norway and six in Denmark, that Lyse has formed with other regional power utilities on fibre-based broadband, and their willingness to be patient investors. Lyse developed Altibox in response to deregulation in the power sector. This was a fibre-based triple-play (high speed internet, TV and voice), with extras, that it could sell to its own energy customers, and through other regional power companies. Telecommunications was a natural fit because it was an infrastructure play, and Lyse was expert at installing and operating infrastructure.

General Information

Homes passed: 360,000
Total homes: 2,200,000 plus 450,000 holiday homes
Total subscribers: 304,000 plus 16,000 in Denmark
Penetration of fibre market: 73%
Penetration of total homes market: 14%

Altibox claims 73% of all 414,000 FTTH subscribers in Norway

With only 2.2 million households, Norway’s communications market is small and, with at least seven telcos, saturated with competition. But Lyse’s gamble is paying off, and fibre is now the fastest growing access technology in Norway.

After spending nearly NOK2bn (€264.3m) on plant and equipment, Lyse now holds 40% of the Norwegian fibre market directly, and another 30-35% through resellers and partners. Through Altibox, its wholly-owned broadband subsidiary, Lyse now claims 320,000 broadband customers, more than twice its energy customers. This gives it about 17% of the total Norwegian broadband market, at a penetration rate of around 60% of homes passed.
rate to 25Mbps. “The next step is 1Gbps homes,” says Mr Bakke.

After beginning with 40, Altibox now offers 150 TV channels as well as games, football, on-demand services such as films, personal video recording, 3D, business video and interactive multi-screen services. In addition, more customers are uploading their own video to sites such as YouTube.

“Internet traffic in the home is increasing 30 - 40% yearly due to new Internet services, next-generation TV services and a significant change in customer online behavior,” Mr Bakke says. “Fibre is unarguably the best medium for handling this increase.”

Altibox has for 4 consecutive years won Norway’s most prestigious award for customer satisfaction (EPSI) in broadband and TV services. The company is currently focusing on improving the WiFi-experience in the homes, as customers are increasingly accessing Internet through wireless devices. “We provide customers with the best Internet access in the market, and we want to make sure they get the very best experience, even when using wireless devices,” says Mr Bakke.

Customers have a wide range of prices, services and packages. The average revenue per user is between NOK 750 (€99) and NOK 800 (€106) per month. Which is not much unless you are a patient investor. So the aim is to extend the present network and upsell existing customers. Mr Bakke says that in its home market around Stavanger, the company is cash positive and heading towards its best results since the start in 2002. In other regions, the partners have different investment criteria, with pay-back periods as low as eight years and as high as 12.

Financials

<table>
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<tr>
<th></th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
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</thead>
<tbody>
<tr>
<td>Sales (NOK m)</td>
<td>1900</td>
<td>2300</td>
<td>2580</td>
</tr>
<tr>
<td>Sales (EUR m)</td>
<td>226</td>
<td>274</td>
<td>307</td>
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</tbody>
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Lyse has organized telecommunications operations into:
- Altibox, to develop fibre-based content products and sell them to Lyse subsidiaries and partners, in effect wholesaling the Altibox concept to third parties;
- Lyse Smart, to develop solutions for smarter homes;
- Lyse Fiber, to build and operate broadband networks, connecting and managing the customers;
- Lyse AS, to manage customer service and invoicing;
- NorAlarm, which makes and sells remote fire and burglar alarm systems; and
- Lyse Fiberinvest, a company to manage partner and subsidiary relationships;

“Most companies are a product of their unique market ecosystems, so is Altibox’s success repeatable elsewhere? Mr Bakke is sure a similar venture could be reproduced in other countries.

Altibox and Lyse are not resting on their laurels. They are aiming for higher penetration in the business segment, with main focus on smaller businesses and capitalizing on existing infrastructure. They have built a national core network, and there are fibre links to Stockholm and Copenhagen with spare capacity. The emerging smart grid to manage households’ energy consumption is another opportunity.

End-user Services:

Internet: 25Mbps to 1Gbps symmetrical
TV: 150 channels, Radio, VOD/POD/EOD, Interactive portal, Games, Guide, Football (Premier and Norway leagues), High Definition, Local news, Personal video recorder, etc.
IP Telephony: Two lines, answering machine, Connect, Block filter
Alarms: Fire, Burglary
Mobile: Smart family, Apps
Future: Next-generation TV services, 1Gbps homes as a standard, interactive equipment, Cloud services, Health & safety, Energy Management

Most companies are a product of their unique market ecosystems, so is Altibox’s success repeatable elsewhere? Mr Bakke is sure a similar venture could be reproduced in other countries.