

## FINLAND

# Improve the quality of life in rural areas

### Location

North-Western Kuhmo

### Programming period

2007-2013

### Axis / Priority

Axis 3 – Quality of life in rural areas and diversification of the rural economy

### Measure

321 – Basic Services

### Funding (EUR)

Total budget 1 884 000

EAFRD 627 372

National 766 788

Private 489 840

### Project duration

2013 – 2015

### Project promoter

Village Optical Fibre Network Cooperative of North-Western Kuhmo

### Contact

Philip Donner

[pdonner@znak.fi](mailto:pdonner@znak.fi)

tel. +358 40 0404 555

### Website

[www.nettinoste.fi](http://www.nettinoste.fi)

A community broadband initiative delivered fast broadband access to hundreds of residents in a sparsely populated region of Kuhmo in eastern Finland.

## Summary

A local cooperative benefitted from RDP support to deliver a fibre-optic broadband network to seven villages in north-western Kuhmo. The cooperative achieved buy-in from the wider community through local discussions on the potential benefits.



With the commitment of local people - who contributed time and machinery - the necessary investment was made in the construction of a fibre-optic network – mainly through earthworks. Simultaneously, negotiations by the cooperative led to the big national operator TeliaSonera being selected as a service provider and the north-western Kuhmo network was successfully connected.

## Results

- Installation of 165 km of optical fibre network offering very fast 100 Mbps Internet and 1 Gbps Intranet data transfer speed.
- More than 200 of 270 households joined the network
- The cooperative's monthly rate of fast-speed internet connection is only €28 per household.
- Villagers improved their access to services, rural business and tele-work opportunities.
- The villagers learned that bottom-up initiatives and taking the future in their own hands can really make a difference.

## Lessons & Recommendations

- ☐ A national programme to provide backbone cable construction for a country is good, but it is not enough to reach sparsely populated areas.
- ☐ Community engagement can be central to overcoming market-related barriers to mainstream broadband access in such areas.
- ☐ Basing the project on the community's needs delivered hundreds of customers and very cost-effective implementation
- ☐ Villagers must first understand the benefits of fast-speed internet to generate the necessary levels of engagement – a local 'champion' can be key in this process.
- ☐ An alternative economic model is possible for providing even sparsely populated areas with fast internet connections where traditional market approaches fail.

### Context

Kuhmo is a region in the eastern Finnish countryside most famous for an international Chamber Music Festival held every summer. However, due to its sparse population, it has not been commercially attractive for telecommunications companies to invest in broadband and optical fibre infrastructure in the area.

Initially, state support from a “Broadband for All” programme went to commercial network operators to construct new central cable lines. However, even with support, it was not viable for commercial operators to build new networks to reach many isolated communities. A national policy change enabled networks and cooperatives to receive support to deliver bottom-up internet solutions.

The first demonstration community broadband project in Kuhmo region was built in the neighbourhood of Hietalahti in 2007. Philip Donner, a local resident, researcher and IT enthusiast helped champion the formation of a local internet cooperative in north-western Kuhmo in 2013. They applied for RDP funding to develop their own community broadband project.

### Objectives

The project aimed to deliver a fibre-optic broadband network to north-western Kuhmo and its seven villages: Hietaperä, Härmänkylä, Iivantiira, Kuusamonkylä, Härmänkylä, Koskenmäki and Ylä-Vieksi..

By providing affordable access to fast internet connections, it ultimately aimed at enhancing the quality of life, access to services and entrepreneurial and economic conditions in this sparsely populated countryside of eastern Finland.

### Activities

The cooperative started by seeking the commitment and buy-in of the local community. They went household by household and organised village and neighbourhood gatherings. They explained and discussed the benefits of the information society and opportunities of fast internet connections.

With the commitment of local people, the investment was made in the construction of a fibre-optic network. In practice, most of the construction work consisted of

earthworks. Many local people offered their time and equipment for free. As well as the use of tractors and excavators, the project benefitted from 36 000 hours of voluntary work at the construction phase.

Simultaneously, the cooperative was negotiating with different telecommunications companies about the service / connection provision to the network. Eventually, a big national operator TeliaSonera was selected as a service provider and the north-western Kuhmo network was connected in the autumn of 2015.



### Main Results

- Installation of 165 kilometres of optical fibre network, offering very fast 100 Mbps Internet and 1 Gbps Intranet data transfer speed.
- More than 200 of the total of 270 households in the area decided to join the network and thus improved their access to services, rural business and tele-work opportunities as well as property prices.
- The cooperative’s monthly rate of fast-speed internet connection is only 28 euros per household.
- The villagers learned that bottom-up initiatives and taking the future in their own hands can really make a difference.
- The cooperative’s working relationship with local authorities and Kuhmo municipality has improved, as they have witnessed the benefits of the cooperative approach.

*“Building optical fibre networks is not rocket science.”*

Philip Donner  
Project Coordinator

### Key lessons

- Whilst a national government programme “Broadband for Everyone” has supported backbone cable construction for the country, this is not enough to reach sparsely populated areas.
- Community engagement was central to overcoming market-related barriers to mainstream broadband access - the local population made the equivalent of around €367,380 in voluntary contributors (time and machinery).
- Basing the project on the community’s needs delivered hundreds of customers and very cost-effective implementation (compared to via a commercial telecommunications operator)
- A local ‘champion’ can be key to generating the energy behind community action.



- Villagers must first understand the benefits of fast-speed internet, how it would help them in everyday life etc. Building trust and commitment through neighbourhood and village gatherings was key to the Kuhmo project.
- RDP support to the project was 74 per cent of the total costs – without that, the investment would not have been possible.
- The cooperative showed that a workable economic model is possible for providing even sparsely populated areas with fast internet connections and was able thus to challenge the prevailing thinking on internet service provision amongst local authorities and telecommunications companies who were doubtful at the beginning of the project.

*“Knowledgeable individuals, local champions I could say, like Philip Donner are extremely important for sparsely populated countryside.”*

Pirjo Heikkinen  
LAG Manager, Living Kainuu LAG

### Additional sources of information

<http://iivantiira.net/wp/>