

DENMARK

Fostering local development in rural areas

Location

Samsø

Programming period

2014 – 2020

Priority

P6 – Social Inclusion and Economic Development

Measure

M19 - LEADER/CLLD

Funding (EUR)

Total budget 78 311

EAFRD 25 423

National/Regional 6 356

Private 46 532

Project duration

2016 – 2017

Project promoter

Samsø Broadband Association

Contact

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Website

<http://net4samsø.dk/>

A LEADER funded project to expand and upgrade the current transmission network on the small island of Samsø.

Summary

The project's goal was to expand and upgrade the current transmission network on the small island of Samsø (Samsøe) with approximately 3 700 permanent residents. The network was expanded to areas of the island, which had no or only limited coverage.



Specific activities supported included the set-up and establishment of a new transmission mast and equipment in Onsbjerg. This activity consisted of conducting geotechnical studies, building the foundations for the mast and building a road; delivery and assembly of the mast and finally establishing the foundations for technology containers. Finally, the transmission network was updated by replacing the existing transmitter and receiver equipment with the new ones.

Results

Provided residents on the island with a fast and stable broadband.

An estimated 800-1000 existing residents will benefit from improved connection.

Attracted new people to the island through increased workplace facilities.

Increased the average number of days that leisure time residents spend on the island per visit.

Helped to maintain jobs and create jobs.

Lessons & Recommendations

- ❑ The project is an example of how shared investments, grants and voluntary work can work together, when the project outcome is in an entire community's best interest.
- ❑ Realizing the Samsø Broadband Association's vision to provide fast and stable broadband to all residents on Samsø, turned out to be harder than expected. It was necessary to get 20 / 20Mbit network that eliminates the serious problems that the island community had with the internet gaps and potential beneficiaries need to be prepared for non anticipated difficulties.

Context

Samsø (Samsøe) is a small 114 km² island in the Kattegat with approximately 3 700 permanent residents and 6 000 ha of cultivated agricultural area (approximately half of the island's territory). Samsø is characterized by a considerable number of holiday homes (about 25% of the houses) and is suffering from depopulation. 25% of the houses in Samsø are currently uninhabited. It is therefore a high priority for Samsø to initiate projects aimed at improving living and business conditions and attracting both permanent residents and businesses. Stable, high speed Wi-Fi is one of such key priority areas also in the local development strategy of the local action group (LAG LLSÆ).

Back in 2012, many people on Samsø had big problems with internet coverage and low Wi-Fi speed, and the situation worsened when the island's internet provider went bankrupt. In an attempt to remedy the situation, the Samsø Broadband Association was founded on June 11, 2012 by a wide group of permanent residents, companies on Samsø and so-called leisure time residents, many of which provided loans and prepaid equipment to generate start-up capital. The number of users has increased rapidly and by 2017 the Association had around 1 150 customer connections and one full-time technical employee.

Today the need for faster and more stable Wi-Fi connections is increasing, mainly due to increased use of streaming (TV and music). Samsø therefore faces a need to further expand and update the transmission network so that Samsø users can be offered a competitive product on an equal footing with those areas in Denmark, where coverage due to fiber-optic connections is significantly better than in the sparsely populated areas.

Objectives

The project's goal is to expand and upgrade the current transmission network, so that:

- a stable signal is secured, and the signal can be received by several households and companies on Samsø;
- the network is expanded to areas on Samsø, which currently has no or only limited coverage;
- competitive IT-infrastructure with that of the mainland will be available to existing business;
- the island will be more attractive as a location for new businesses;

- permanent citizens will be more likely to remain and leisure time residents, who already have an emotional connection with Samsø, will be more likely to settle permanently.



Activities

The project consisted of two main activities:

- A. Set-up and establishment of a new transmission mast and - equipment in Onsbjerg. This activity consisted of conducting geotechnical studies, building the foundations for the mast including moving and preparing the earth; building a road to and from mast; establishment of ring ground on the mast, delivery and assembly of the mast and finally establishing the foundations for technology containers.
- B. Upgrading the transmission network by replacing existing transmitter and receiver equipment with the new technology.

The broadband connection, which originates from Telia's mast in Tranbjerg, is distributed to customers through a number of distribution masts on the island. The transmission masts are placed depending on where the members of the association are located. Through membership of the association, the islanders indicate their interest in being connected to the network, thus affecting the areas to which the broadband is spread. The network is similar to the regular Wi-Fi, but has a higher radio frequency. This frequency is free to use, but the radio waves cannot penetrate obstacles in the landscape such as hills, woods and buildings. Therefore, the network is distributed through a number of highly located (in terms of altitude) transmitters on the island. In the course of this project, another such mast was raised in Onsbjerg.

Main Results

A fast and well-functioning internet is of great importance to both citizens, associations and companies on Samsø as well as to the island's many guests. Furthermore, it plays an extremely important role in attracting new citizens and companies to the island. On Samsø, several examples exist that the fast broadband has attracted more people to the island, as the fast internet connection provides better opportunities for home workplaces. Likewise, it has been observed that leisure time residents choose to spend more days on the island, as the broadband improves the opportunity to work from home, i.e. the holiday home on the island. Consequently, the project has:

- provided residents on the island with a fast and stable broadband.
- an estimated 800-1000 existing residents will benefit from improved connection.
- attracted new people to the island through increased workplace facilities.
- increased the average number of days that leisure time residents spend on the island per visit.
- helped to maintain jobs and create jobs.
- contributed to the future development of the island.

NB: Unfortunately, no quantifications on the realized results are available.

Key lessons

One interesting aspect about the work of the Samsø Broadband Association (not this project exclusively), is that the work of the association has been made possible in part by means of citizens and local businesses who have offered loans and prepaid equipment in order to raise the necessary capital to install the initial transmission masts etc. Furthermore, the Association has been granted a loan by the Samsø Industrial Fond (Erhvervsfond), it has received a LAG-subsidy under the national RDP and received funding from several other funds. In other words, several financial mechanisms have been applied and loans are now being repaid through membership fees and monthly subscriptions. The project is thus an example of how shared investments, grants and voluntary work can work together, when the project outcome is in an entire community's best interest.

As for the actual realization of Samsø Broadband Association's vision to provide fast and stable broadband to all residents on Samsø, the chairman of the Association says that it turned out to be "harder than expected". The chairman says that they needed to get the island a 20 / 20Mbit network that eliminates the serious problems that the island community had with the internet gaps. This required more points of distribution, i.e. transmission masts, than initially thought because the masts needed to be able to "see" each other, i.e. have "Line of Sight." In reality however, a lot of members and potential members were tucked away behind trees and thus did not have Line of Sight to the nearest point of distribution/transmission mast, so several technological work arounds were required (which often involved lucky neighbours).



Additional sources of information

n/a