

## FINLAND

### Diversification & job creation

#### Location

Haapavesi

#### Programming period

2014 – 2020

#### Priority

P6 – Social inclusion & local  
development

#### Measure

M06 - Farm & business  
development

#### Funding (EUR)

Total budget 10 071.00  
EAFRD 3 384.00  
National/Regional 4 673.00  
Private 2 014.00

#### Project duration

2019 – 2020

#### Project promoter

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#### Website

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

Using RDP support to develop and test a prototype mobile solar power station that can produce clean energy at any location without needing any fixed infrastructure.

### Summary

The entrepreneur came up with the idea to set up a mobile solar power station that can be used anywhere, without any fixed infrastructure. RDP support helped to build the first prototype and to test different kinds of solutions for the product.



Big leaps forward in the product development have been made due to this process. The project led to the creation of a new company which will mass-produce the mobile solar power station in 2020.

### Results

The project led to the creation of a new company which will start producing the mobile solar power station for the market in 2020.

The company has already received enquiries from Russia, the United States and Central America.

Initially, the company will employ between two and four people, but once the full production and sales start the company hopes to grow rapidly.

Estimates suggest that the first two years of operation will result in a turnover of around EUR 150 000-300 000. Within five years, the EUR 1 million mark is expected to be reached.

### Lessons & Recommendations

- ❑ The project was made possible with the help of a network of different experts from different fields. For example, the weatherproof board made of recycled plastic and the solar panel systems are products which require completely different expertise. Without such an extensive network and diverse expertise, the product development would not have been successful.

## Context

The entrepreneur is specialised in electrical installations. One of his family members has origins in Puerto Rico, which was heavily affected by hurricane Maria in 2017. During that event, houses with solar panels were able to produce electricity even though the infrastructure was damaged.

This fact led the entrepreneur think of how to produce energy in unusual, or emergency situations. He realised that solar energy can be used anywhere without any fixed infrastructure. Possible users could be, people using energy occasionally in remote summer cottages without an electricity connection, or companies whose activities require them to have energy available for work in places without electricity, or even ordinary homeowners who simply want to save energy.

## Objectives

The aim of this project was to develop and introduce a new product for the market, based on the identified need for a device that can produce clean energy from the sun, can be transported anywhere and can store the energy it produces.

## Activities

The entrepreneur designed a prototype mobile solar power station built on a car trailer, which also serves as a storage / transport unit. The idea was refined with the support of experts from various fields (building, wholesale, finance, and electrical engineering) before eventually producing model images of the prototype.

With the help of RDP funding, the first prototype was assembled. The prototype revealed minor problems, which needed to be adapted for the final product. The project allowed the testing of different kinds of solutions for the product and therefore the product development made big leaps forward.

The process of building the prototype started by identifying potential building materials. The prototype was built using only recycled plastic. The top and one of the walls are covered with solar panels. Inside the unit there is a power inverter and batteries. The unit includes an internal combustion engine generator (aggregation) which

runs on ethanol. In this way, the unit can operate even if there is no sunlight for a while. Support from the RDP was crucial while identifying the different materials and altering the car trailer structure in cooperation with a local trailer company.

It took about four months to build the prototype and carry out the testing. The unit was first presented at the ProForest Fair in Haapavesi, Finland in spring 2019.



## Main results

The project led to the creation of a new company which will start producing the mobile solar power station for the market in 2020. The company's growth prospects are significant as there is demand for the product both in the domestic and foreign market.

The company has already received enquiries from Russia, the United States and Central America.

Initially, the company will employ between two and four people, but once the full production and sales start the company hopes to grow rapidly.

Estimates suggest that the first two years of operation will result in a turnover of around EUR 150 000-300 000. Within five years, the EUR 1 million mark is expected to be reached.

From an environmental point of view, each mobile solar station sold will contribute to mitigate climate change by producing energy without using fossil fuels.

## Key lessons

The project was made possible with the help of a network of different experts from different fields. For example, the weatherproof board made of recycled plastic and the solar panel systems are products which require completely different expertise. Without such an extensive network and diverse expertise, the product development would not have been successful.

## Additional sources of information

[www.instagram.com/mobisol\\_energy/](https://www.instagram.com/mobisol_energy/)