

## FINLAND

# Diversification and job creation

### Location

Sastamala

### Programming period

2014 - 2020

### Priority

P6 – Social inclusion and local development

### Measure

M6 – Farm and business development

### Funding (EUR)

Total budget 17 933.40  
EAFRD 3 766.01  
National/regional 5 200.69  
Private 8 966.70

### Project duration

2015 – 2017

### Project promoter

Aqvacom Ltd.

### Contact

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### Website

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

**A start-up business in Finland used RDP financing to carry out a feasibility study which helped lower the risks in upscaling their production capacity of biocomposites.**

## Summary

Aqvacom Ltd. is a start-up business in Sastamala commercialising university-level development work on new materials called biocomposites.



As the first experimental phase production unit and methods were proving to be successful, the company owners wanted to invest in a multi-million euro production line, creating 20 new jobs. Finnish RDP and Local LEADER Action Group covered 50% of the costs of a new business support tool, the investment feasibility study. The support enabled the company owners to plan carefully its highly important investment, including funding visits to potential suppliers abroad.

## Results

The study led to a large-scale investment both in Sastamala and in Rauma, where a new factory was opened linked with the existing pulp mill.

Six new jobs were created both in Sastamala and Rauma, while the new production supports eight supplier jobs.

New markets have opened up in South Korea and China, where giant companies such as Samsung and Volvo are changing plastic parts to lighter, more durable and more environmentally friendly biocomposites.

A large South Korean plastic company also made a sizeable private investment in Aqvacom Ltd., which boosted its development.

## Lessons & Recommendations

- ❑ The company studied and identified the market potential before the investment, but it still needed to plan carefully, especially concerning the amount of foreign investment desirable while keeping ownership in Finnish hands.

### Context

Aqvacomp is a new type of biocomposite that utilises pulp fibre from the forest to reinforce and replace plastic materials. The company owners wanted to start production on a larger scale after the successful experimental phase.

The patented technology utilised by Aqvacomp uses pulp fibre as reinforcement without breaking its structure. This produces Aqvacomp's excellent technical properties and superb processability in technical applications. Aqvacomp composites are also especially well-suited for acoustic and haptic applications.

Aqvacomp technology is compatible with many different polymers (such as PP, PE, PS, ABS, and PLA). It is also possible to customise the composite's properties to meet the exact requirements of the end product. Unlike conventional composites, Aqvacomp composites are available in hundreds of different varieties according to the end product requirements.

Aqvacomp composites can be used just like plastic with existing equipment in injection moulding and extrusion, for example. They have proved durable, energy efficient and versatile. They have also won many international awards – for example, third place in the Wood and Natural Fibre Composite Innovation Award 2015 in Cologne, Germany: 'Cellulose fibre-reinforced polystyrene for music instruments has the potential to replace the use of a number of rare and threatened wood species.'

### Objectives

The aim of the feasibility study was to clarify the type of production machine combination that would be optimal for the biocomposite production line, both from the of technical quality and cost efficiency. The study also ensured that the machines selected were compatible with each other.

### Activities

The investment feasibility study support enabled the Aqvacomp Ltd. owners to make a careful, detailed plan of the large-scale production line investment. Scaling up production is always a risk even for a well-established business that has a clear demand and customers for its product. The company owners and the manager are all

very experienced in the processing industry but a similar production line had never been built in Finland or elsewhere before. It required personal visits to potential suppliers in several EU countries, much testing and finally installation of the new production line.



*"We thank the Local LEADER Action Group for this cooperation opportunity. Without the business support our start-up company would have faced a much higher risk of failure."*

manager Jari Haapanen

### Main results

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New markets have opened in South Korea and China, where giant companies such as Samsung and Volvo are changing their plastic parts to lighter, more durable and more environmentally friendly biocomposite.

A large South Korean plastic company also made a sizeable private investment in Aqvacomp Ltd., which has boosted its development.

### Key lessons

The quick growth of the start-up business was surprising. The company had studied and knew the market potential before the investment, but careful planning was necessary, especially regarding the amount of foreign investment permissible while retaining ownership in Finnish hands. The investment was first planned only in Sastamala but a spin-off, new factory was opened in Rauma, which is a traditional wood-processing town with a port on the West Coast, some 90 kilometres from Sastamala. An Aqvacomp manager explained that LEADER support was buying time: without it there had been a big risk of acting too hastily and investing in the wrong machinery.