



European
Commission



STORY OF THE MONTH

SUPPORTED BY THE **European Maritime and Fisheries Fund (EMFF)**

Fresh fish from Vienna

Photos © Blün 2018



GENERAL INFORMATION

Member State:

Austria

EMFF measure:

Productive investments in aquaculture

Keywords:

- Aquaculture
- Sustainable Production

Operation start date:

2016



BUDGET

Total operation budget:

EUR 174 367

EU budget contribution:

EUR 30 258

Operation description

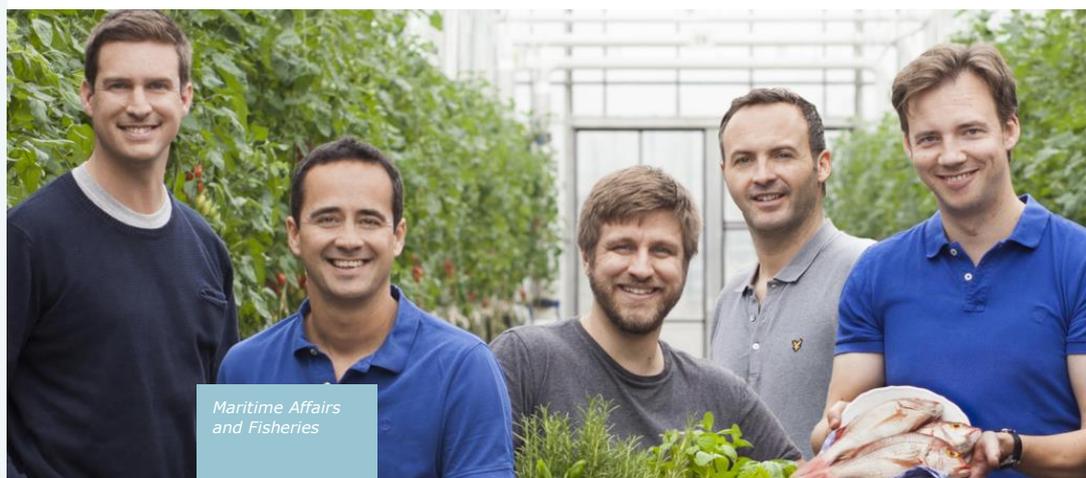
Aquaponics is the combined activity of fish production (aquaculture) with vegetable cultivation using a hydroponic technique. The waste water from the fish nourishes the plants or vegetables. Production is extremely efficient, eco-friendly, transparent, sustainable, and local to market.

This start-up company, established in 2016 with an EU budget contribution from the EMFF of around €30 000, combines vegetable farming with fish farming in large glasshouses to produce vegetables – aubergines, tomatoes, cucumbers, peppers and chilli – and fish – catfish and perch – in the outskirts of Vienna.

The farm is designed to produce a total of 12 tonnes of fish per year and supports vegetable growing on about 400 m². Full production was reached at the beginning of 2018. Currently the juvenile fish are bought, but in the medium term the company wants to produce the fish larvae on site.

'Viennese fish' are sold from the farm's premises in Schafflerhofgasse, online and in well-known restaurants and cafés. Customers appreciate the freshness and regionality of the products, and due to the company's location within the city of Vienna, there is a large market right on the doorstep.

The quality of the product is second to none. The fish fillet is produced entirely without pharmaceuticals or other products that would be damaging to the vegetables. Likewise, the vegetables are produced without any pesticides or other substances which would be harmful to the fish, a fact which Vienna's top gastronomy partners appreciate.





INTRODUCTION OF THE BENEFICIARY

Beneficiary name:

Blün GmbH

Further details:

www.bluen.at

When was the organisation established?

2016

What does the company do?

Produces fresh fish and vegetables in the outskirts of Vienna

Where is the organisation located?

Vienna, Austria

Employment:

3 part-time; fish production and marketing



Other operation info

Details of the project

The vegetables are grown in the glasshouse on about 400 m². The fish tanks (for the production of perch), a container plant (for the production of catfish) and a slaughter room are housed in separate rooms. The aquaponic process used is a sustainable technology that combines fish farming in an aquaculture recirculation system with hydroponic vegetable cultivation in the greenhouse. Every day, about 10 % of the water volume in a recirculation system has to be renewed. The wastewater enriched with nutrients discharged from the fish farm is fed to the plants in the hydroponic culture, thereby conserving resources. Up to 8 tonnes of vegetables can currently be produced each year in the glasshouse using the fish water.

At the heart of the system is the biofilter, through which the water is constantly circulated. In the biofilter, a biofilm of bacteria breaks down the harmful nitrogen compounds for the fish. The filtered water from the fish tanks is used for watering and the treated fish excrement is used as a natural fertiliser. In order for this natural biofilter to function properly, fish must be fed only high-quality feed and no pharmaceuticals or chemicals may be used. The waste heat from the greenhouse is used to heat the fish system – the fish swim in water heated to 25 °. A fish weighing 1 kg consumes a maximum of 120 litres of water in its lifetime. In comparison, the production of 1 kg of pork takes around 4 500 litres of water.

Austrian strategy

The Austrian Strategy for the Promotion of National Fish Production (Aquaculture 2020) sets the target to increase the self-sufficiency rate of freshwater fish from currently 34 % to 60 % by 2020. To achieve this goal, the production volume in Austria must be increased from 2 400 tonnes to 5 500 tonnes per year. Indoor recirculation systems are the most effective way to achieve this, as it is very difficult to expand the production of trout and carp.

Just a few years ago, the technology of indoor fish production in hot-water recirculation systems was almost completely unknown in Austria. In the meantime, some companies in Austria, such as Blün, have firmly established themselves in this sector.

Scientific background

Fish farming in recirculation systems was already technically proven and feasible. For this project, a close look was taken at the upstream and downstream processes. Upstream is the production of fry and the purchase of animal feed. Sourcing the fry in the appropriate quantity and desired type of fish is critical, as is the downstream processing and marketing of the products.

Blün employs a trained limnologist who specialises in fish farming and fish nutrition. Knowledge of vegetable production is also provided on site. Partners with entrepreneurial experience brought the relevant marketing knowledge.