

# Aquamar: a new method of water purification

**FLAG: Bytow Lake District**  
Pomorskie Region, Poland

### Project overview

**FLAG technical assistance and financial support helped a creative project holder turn his idea into an innovative and profitable eco-business offering water purification services to fishermen and aquaculture farms.**



Andrew was the manager of Aquamar Ltd., an aquaculture company operating in Pomerania with a total area of over 300 ha of fish ponds and lakes. Many of the lakes had lost their fish production value because of low water quality caused by eutrophication rendering them worthless for the production of valuable fish species like trout, whitefish and vendace due to the consequent lack of oxygen. For ten years Andrew tested many methods of water purification offered to him by professional companies, but he found them all too

expensive and too invasive. Based on significant knowledge and experience gained, and together with his son Marcin, Andrew started to experiment with the more environmentally friendly biological methods. After years of experiments he invented his own method of water purification based on instilling selected species of bacteria into water in order to absorb and process organic substances (the species of bacteria used in the method don't reduce the amount of oxygen in the water and don't produce toxic substances). The bacteria are dosed into water in the form of pills which drop down to the bottom zone of the lake or pond where mud and other organic material is accumulated. When the pills dissolve in water, bacteria initiate the process of water purification. The technology of the pills production was an important part of Andrew's method and was patented in 2011.

The new method turned out to be very effective and 5-6 times cheaper than chemical methods offered on the market. It can be easily applied to lakes and fish ponds, so Andrew decided to start a new business based on his method, offering water purification services to fishermen and aquaculture producers.

Axis 4 supported Aquamar to equip a laboratory comprising spectrophotometre, pH metre, oxygen analyzer, echo sounder and fish finder sonar. Some of these measuring devices can be mounted in a van, others on a small motorboat. The mobile laboratory provides on-site measurements and analysis necessary to plan and/or monitor water purification processes.

## Key lessons

- › **Relevance to FARNET themes:** diversification, innovation, environment
- › **Results:** This project enabled Aquamar to start a new kind of economic activity and to diversify its sources of income. It has also encouraged additional private sector investment as, given the positive results of the mobile laboratory project, Aquamar invested an additional €100 000 in machinery and equipment in order to put in place a medium-scale plant for the production of pills used in the Aquamar water purification method. The new method is already attracting interest from customers in Poland and abroad and, within a few months of starting the business, Aquamar secured five water purification contracts for ponds and lakes. At the time of writing, another contract was pending in Lithuania. The project has created one job with a high probability of more in the future.
- › **Transferability:** FLAGs can plan an important role in searching for innovative ideas and supporting project promoters to carry out successful projects. While, innovation and new technologies are often considered to be the domain of professionals from the research and development sector, this project shows that motivated and experienced professionals can have a great capacity for inventing new solutions for problems affecting fishery and aquaculture sector.
- › **Final Comment:** This project is an example of how Axis 4 can contribute to solving serious problems affecting the fisheries sector. Close contact with the project promoter enabled the FLAG to assess his potential to realize the project thus minimising the risk of project failure.

## Total cost and EFF contribution

**Total project cost:** € 71 700

- › EFF Axis 4: € 26 250
- › National / regional co-financing: € 8 750
- › Other/ Private: € 36 700

## Project information

**Title:** Aquamar: a new method of water purification

**Duration:** May 2013 – April 2014

**Case study date:** May 2014

### Project promoter

Andrzej Marczyński

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