Based on the success with the development and implementation of Danish model trout farms in freshwater, a somewhat similar concept was developed for sea water farming of large trout and potentially also salmon in land-based, recirculating systems. Design and technology for the recirculation unit as well as for end-of-pipe treatment were developed and tested in 3 consecutive seasons.

During the project, design and operation were optimized and documented. End-of-pipe treatment, especially related to nitrogen removal and sludge hydrolysis were also investigated.

Based on the concept and the results achieved in the major unit in commercial scale at DTU Aqua premises in Hirtshals, it can be concluded that there is potential for such open land-based sea water farming units and that they can be operated commercially sustainable. Major issues related to reducing/preventing (toxic) algal blooms and supersaturation in seawater needs to be addressed before commercial operations should be initiated, though.

The project was coordinated by North Sea Science Park, Denmark.

The project was funded by the Danish Ministry of Food, Agriculture and Fisheries through the Green Development and Demonstration Program (GUDP) and the partners involved.

National Institute of Aquatic Resources
Section for Aquaculture
North Sea Science Park
BioMar A/S
AquaPri Innovation
Billund Aquaculture Service Aps
RK Plast A/S
Grundfos A/S
Period: 01/01/2011 → 31/12/2015
Number of participants: 4
Research area: Aquaculture
Project participant:
Letelier-Gordo, Carlos Octavio (Intern)
Pedersen, Lars-Flemming (Intern)
Project Manager, academic:
Pedersen, Per Bovbjerg (Intern)
Suhr, Karin Isabel (Intern)