

The Blue Unit Solution and its advantages.

Blue Unit's business purpose is to generate and transform enormous amount of important, raw data collection on the fish farm into meaningful and useful information, and to cooperate with farm management in order to improve fish farm performance.

The Blue Unit Solution.

The tools behind this mission is a central measuring machine, a Lab Station, a Cloud Solution, many years of experience from working on fish farms around the world, analyzing and visualization of the data.

To succeed in this mission, the data is provided by our Lab Station, which consists of a control system and several sensors. The control system ensures the execution of an automatic sequence in which key water parameters are measured up to 12 different places on the fish farm.

Data is sent up in the Cloud. This process is performed fully automatically 24/7 with no human intervention. This means that data collection is carried out very frequently, registrations are made via the same sensor and the method is performed uniformly for all registrations.

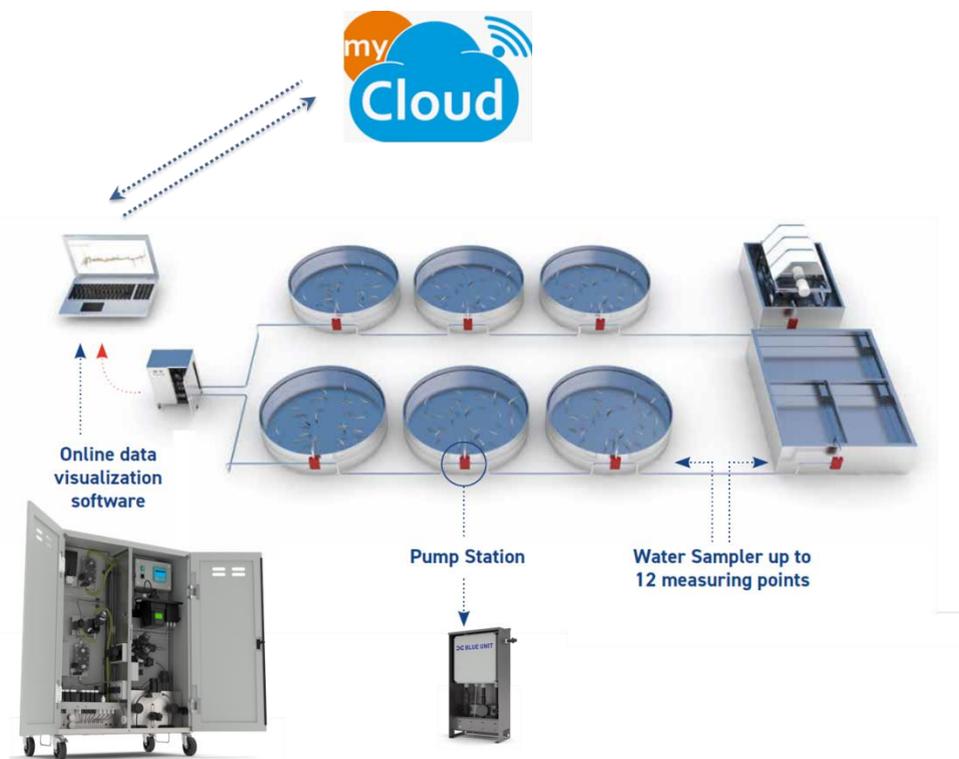


Figure 1. Shows a drawing of the Blue Unit Solution. Pump stations (red marks), location of the central Lab station (to the left of the tanks and the lower left), visualization of data on a screen of the customer (shown as PC) and the Cloud solution for calculations and data storage.

Data in The Cloud is stored in a database and can be forwarded to the customers own SQL-database for their own use. Making global KPI's for benchmarking means that all data is anonymous. Blue Unit's business is built on trust and credibility. Without honoring this, Blue Unit will soon be out of business.

The Blue Unit Cloud solution systematically aggregates and studies multiple fish farm data results together to uncover complex biological and chemical interactions that occur within recirculation aquaculture system farms, RAS-farms. This establishes a platform for a "shared learning experience" from which Blue Unit can draw upon to deliver the most powerful fish farm support ever seen.

To convert information into actionable insight on a fish farm, The Blue Unit Solution deliver value by:

- Visualization of data on a large central screen, a PC and/or a mobile device.
- Dashboards on a hosting site.
- Local KPI's with trend curves.
- Global KPI's to benchmark a customer with similar design.
- Shared information for all employees on a farm to gain knowledge and share the same language.
- Possibility to put the data into the customers own reporting systems.
- Access to experienced knowledge and customized analysis.
- Scheduled milestone meetings during a batch to ensure data analysis and agree on improvement actions.
- Telephone hotline.

Advantages.

This novel information combined with specific analysis and experienced consulting leads to complete new knowledge about challenges in different farm designs and how to manage these challenges.

The responsible employees on a fish farm for water quality can perform their job remotely, as we have experienced it during the corona pandemic situation. During this extreme situation many worked from home and still were able to analyze water quality.

In a larger cooperation you could centralize the competences regarding water quality. The work on observation and analyzing water quality can be managed from a group department on a central location. This department could follow and analyze the trends on water quality for several fish farms. The department could also guide operational personnel on the many different fish farms without being present.

Future possibilities.

One thing is to manage water quality during breeding a batch on a land-based fish farm. However, the data can also be input to a larger analysis. You will be able to analyze data from entire supply chain from eggs to slaughtered salmon. This way you could find the best possible match for breeding fish given the known factors like the RAS-design, egg supplier, feed, etc.

Perhaps this will come true some day!