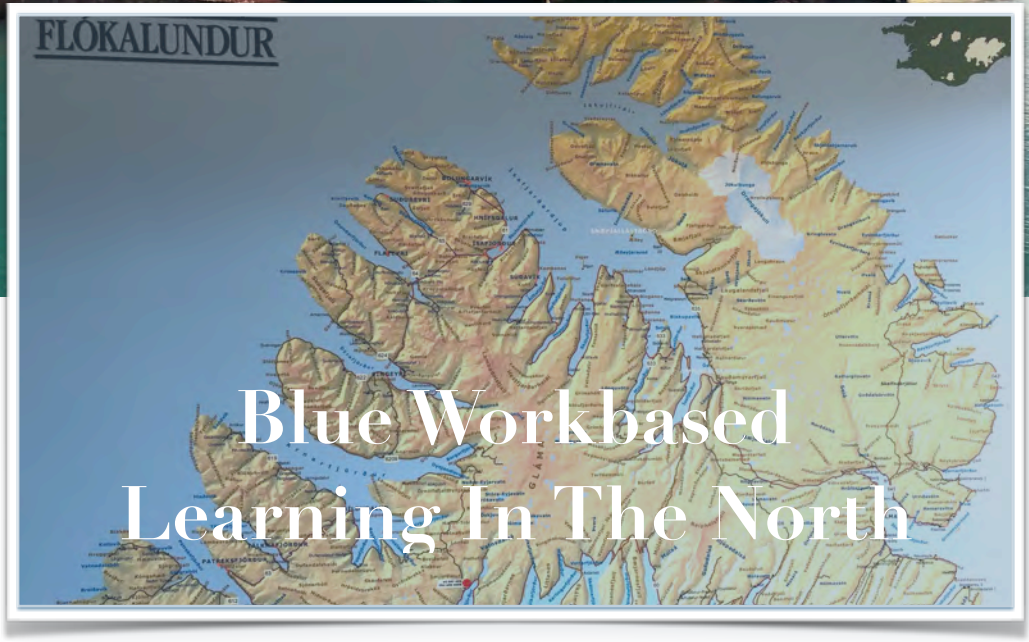

Blue Workbased Learning In The North

The Aquaculture Context

Workforce Development In Norway And Iceland

Within 2030, the world needs to produce 70% more food, and we need to do so using less resources and with a minimal environ-mental footprint.

While oceans cover more than two thirds of the world's surface, only 2% of the food energy for human consumption comes from the sea. Producing animal protein from aquaculture takes less resources and is friendlier to the climate compared to livestock.

Since traditional fisheries are almost fully exploited, increased aquaculture production needs to play a major part in efforts to feed future generations. Globally, fish represent 50% of all consumed protein and levels are anticipated to rise to 65% by 2030, reflecting a growth rate of 6.6% per annum.

Conversely, despite ambitious national targets for growth in the EU, the industry is stagnant. The lack of personnel with the correct skills and qualifications is becoming widely recognized as one of the main obstacles to sustainable growth in the production.

Throughout Europe at farm level, workforce development is heavily reliant on local recruits that have been and still is engaged based on their practical problem solving skills and capacities. Many of those are inexperienced and unqualified, changing the aquaculture workforce profile.

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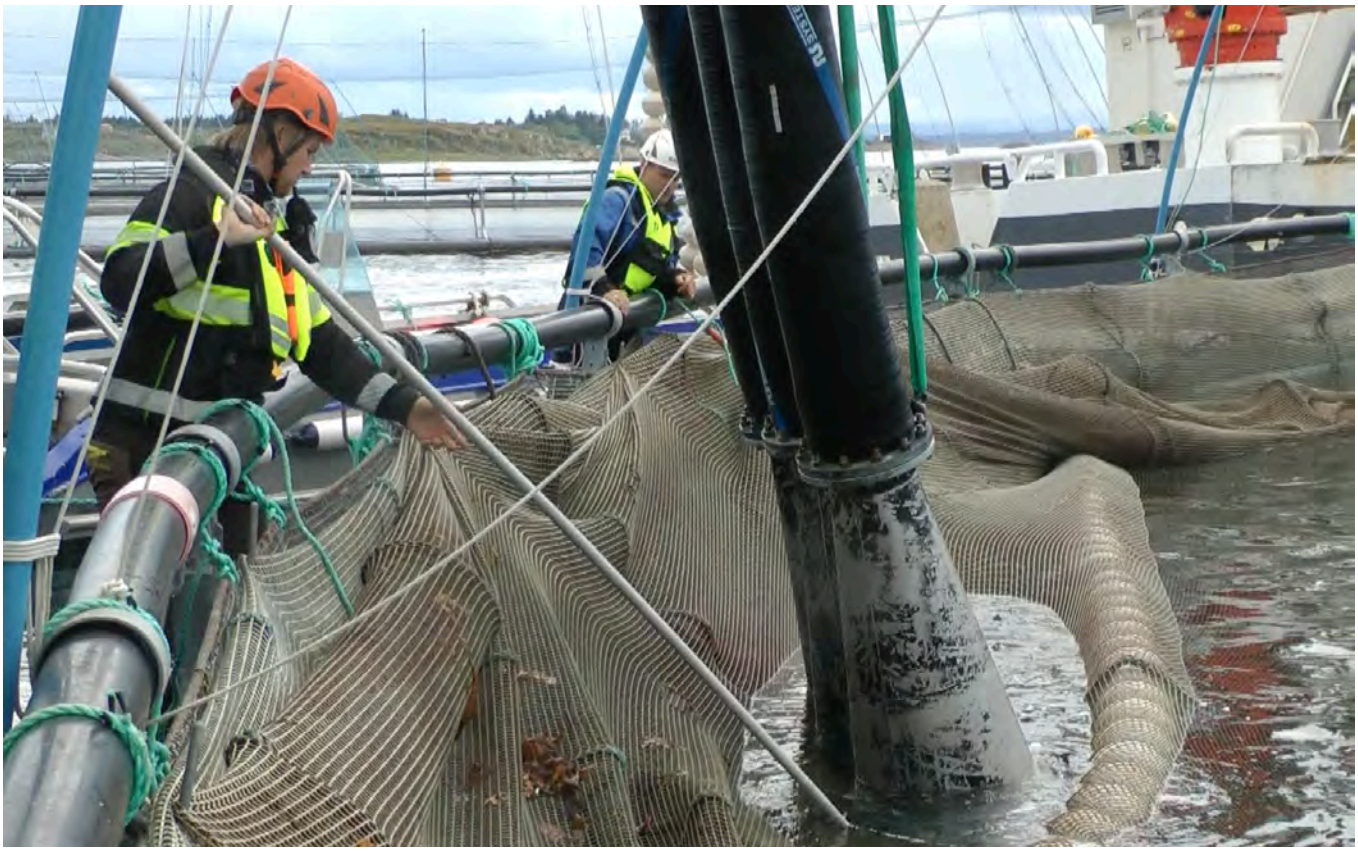


This is typified by Norway, where less than 50% of their salmon husbandry operatives have completed any relevant education. In other salmon producing countries, a small minority hold a National Qualification (NQ), and some lack a NQ delivery system for husbandry operatives.

With a general lack of flexible and accessible work-based VET, the industry has been catering for their workforce development needs, relatively unassisted. Company based training schemes (non-formal VET), which are not quality assured, and do not lead to nationally recognized certification, have proliferated through necessity.

Fish farming industry must, due to fast technological development, start offering more specialization.

Equipment become more complex, expensive, larger, heavier, etc., thus requiring better training and expertise knowledge.

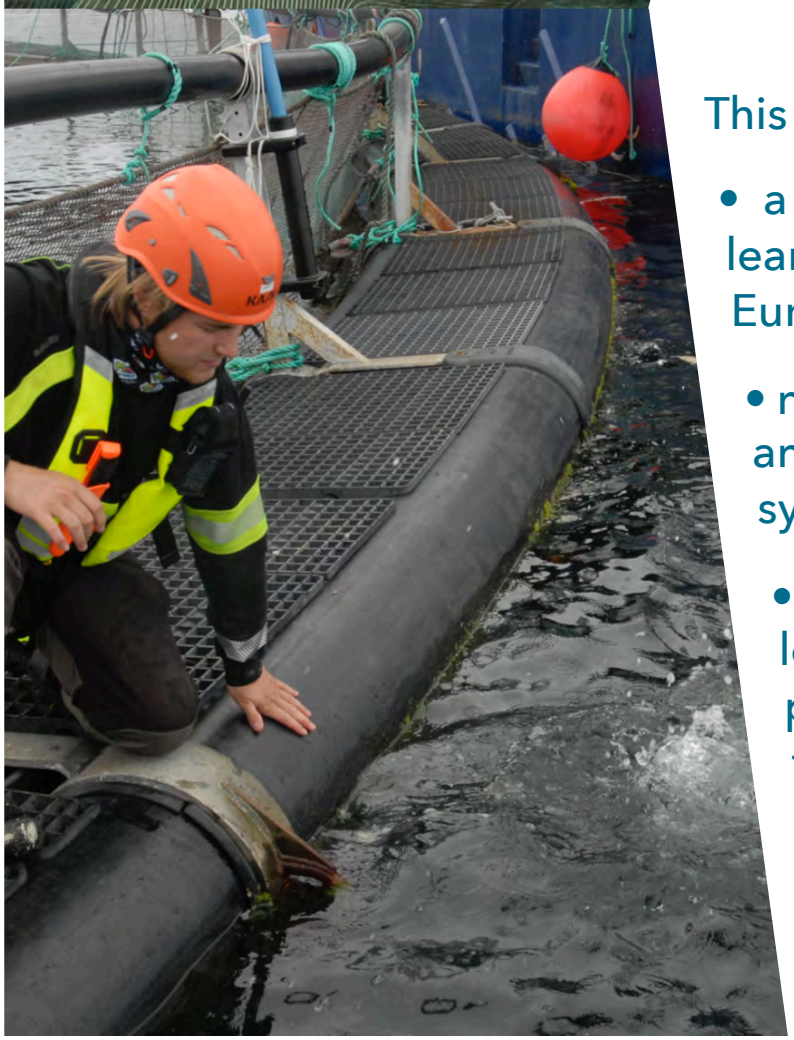
This requires improved aquaculture workplace learning processes.

Objectives Aqua VET

Our mission is to improve the accessibility and quality of work-based learning

and

start preparing for 'harmonization' of industry endorsed National Qualifications (NQ), thereby promoting learner and skilled labour mobility.



This includes developing

- a common frame work of learning outcomes for north European cagefarming
- new work-based learning and assessment delivery systems and resources
- national work-based learning delivery partnerships and support teams
- pilot the delivery of aquaculture NQs to work based learners

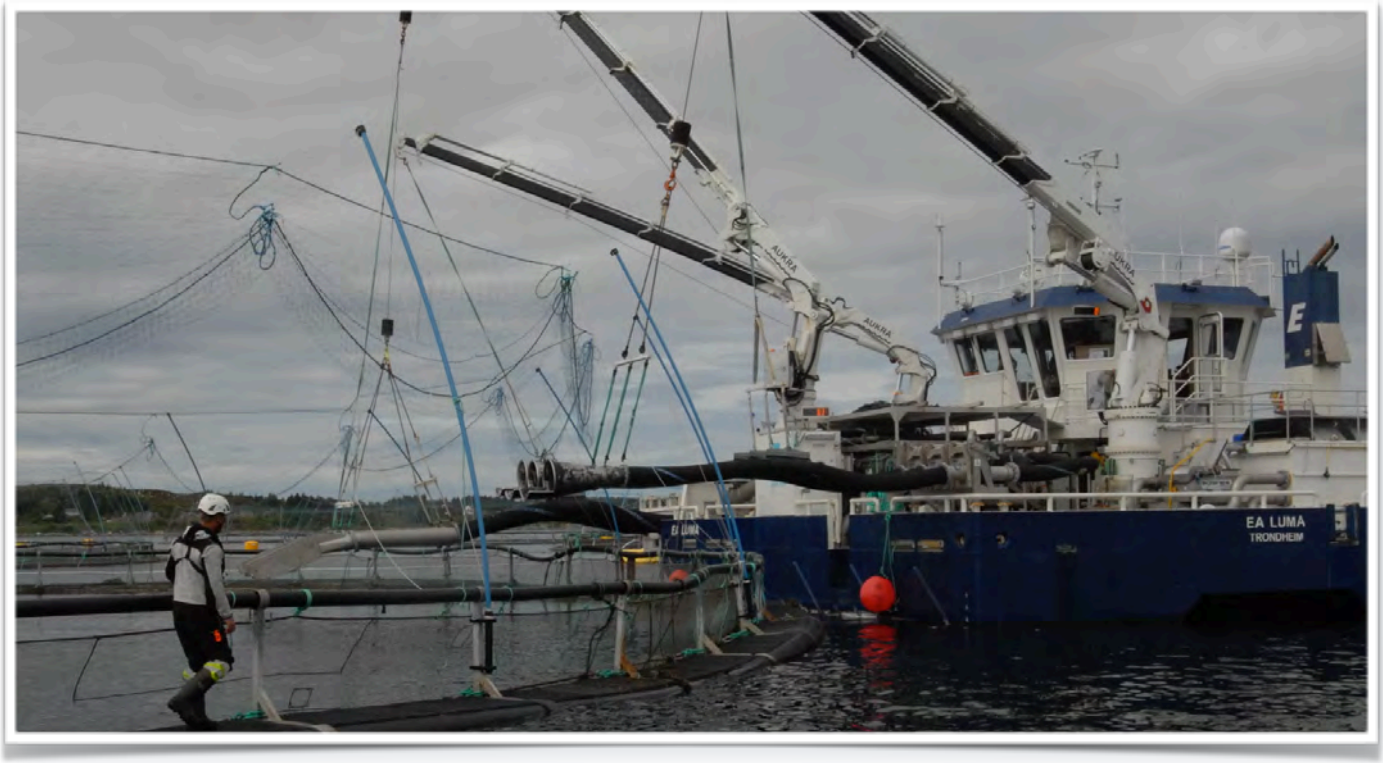
There is widespread industry support for encouraging staff to obtain aquaculture NQ in Norway («fagbrev») and Iceland.

Interestingly, experienced aquaculture VET teachers report that a significant amount of these staff in the fish farming industry face educational difficulties related to passing the theoretical training that is required in order to receive a NQ in aquaculture.

There is a gap between the ambitions of the industry, and the current training methods which do not take into account how many staff that are champions in problem solving, while they at the same time avoid and fears the required theoretical training.

Our target groups:

- Staff that work with production of salmon and trout within the areas: hatcheries, smolt, farming, sea farming and sea plants
- Teachers or aquaculture VET schools



Expected Results

In order to obtain national qualifications (NQ) in Norway and Iceland, like a "fagbrev", students must pass a theoretical and practical exam. All student groups must solve the same theoretical exam that is provided at national level. Iceland is currently considering to a large extend copying the system that is applied in Norway.

Larger attention from fish farming industry towards the importance of VET and in particular how NQ may be obtained by engaging in company mentors for spot on motivation and support during the learning transfer process of theory into practice

Larger attention from educational authorities about VET, and in particular the current "practice" where many fish farming companies encourage their staff at the cages to start on the theoretical training to prepare for the theoretical exam, which is part of the NQ.

Iceland, and to some extent Norway too, are facing major challenges related to the large distances between the fish farms and the VET schools offering training. This makes it challenging to offer effective work-based training solutions at farms that may be located in geographical remotely areas.

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