



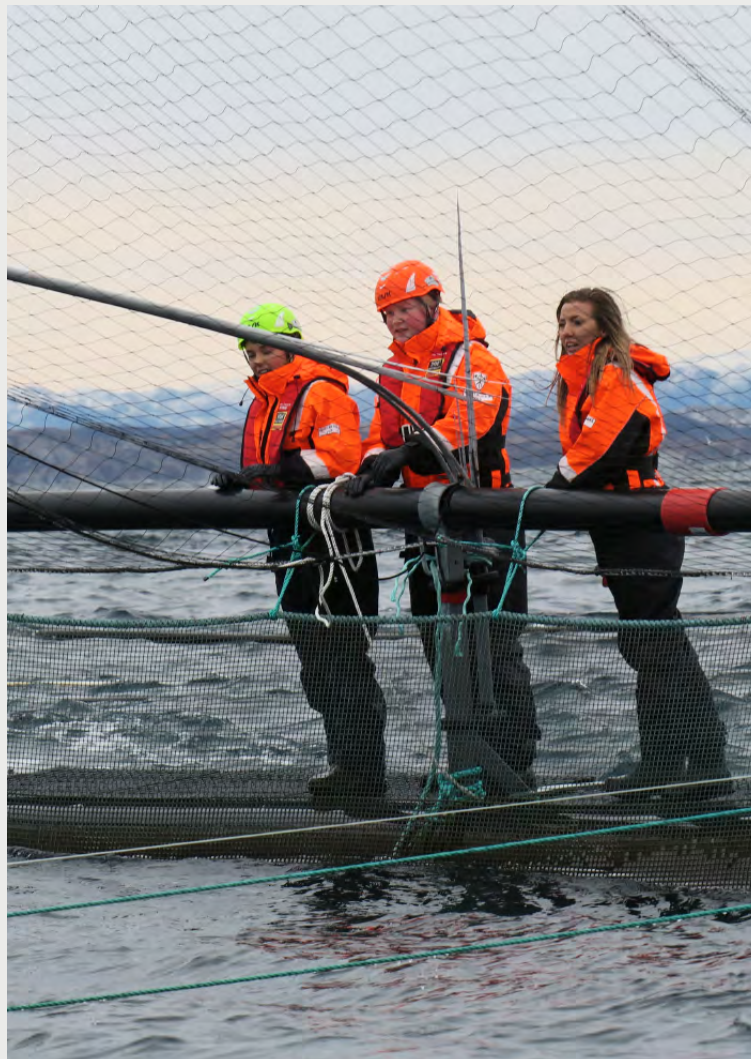
BlueEDU (2016-18)

Fostering growth in the Blue Economy by developing an action plan for Innovative European Aquaculture VET and harmonised qualifications

FISH FARMING PROCESSING



FISH FARMING PRODUCTION



Through its engagement and research activities, BlueEDU aims to catalyse a concerted effort, between industry and the VET providers, to equip the workforce with the knowledge and skills required to 'do their job' competently, as evidenced by the achievement of relevant and trusted qualifications. Consequently, the aquaculture industry will be professionalised, raising its profile within the 'blue economy', in response to Blue Growth (European Union, 2012).

TARGET GROUP

AQUACULTURE INDUSTRY



The project will catalyse industry /education partnerships to develop and deliver technically current and accessible VET, supported by ICT enabled learning which leads to reliable and trusted qualifications, based on robust assessment practices.

The BlueEDU beneficiaries fall in to three main categories; the aquaculture industry, VET sector and learners and can be reached through direct communication approaches and information cascaded by others.

PARTNERS

The Norwegian University of Science and Technology - NTNU

Sør-Trøndelag County represented by the Guri Kunna VET school, Norway

The University of Stirling, Institute of Aquaculture, UK

Pisces Learning Innovations Ltd., UK

AQUARK - PANAGIOTIS
CHRISTOFILOGIANNIS - IOANA TAVLA,
Greece

FEAP - Fédération Européenne des Producteurs Aquacoles (Federation of European Aquaculture Producers), France and Belgium

SUMMARY

Growth has stalled in the European aquaculture industry, largely due to a shortage of staff with the right knowledge, skills and qualifications. If unaddressed, despite a growing demand for fish products globally, Europe could fail to grow its market share.

BlueEDU will determine how receptive the education system and aquaculture industry are to aquaculture vocational education and training (VET) innovation and the harmonisation of qualifications. With a high dependency on marine cage based rearing systems and technology, the 12 partner countries face many of the same skills development challenges, irrespective of the different fish species farmed in northern and southern Europe.

Through a combination of intensive engagement, demonstration and dissemination activities, influential industry members and VET providers, will be informed and enthused, motivating them to respond to subsequent VET 'supply and demand' surveys, overcoming the common problem of poor response rates. This Lot 1 project will define the evidence base upon which future strategies for aquaculture VET innovation and collaborative delivery can be based.



CAGE INSPECTION,
GREECE

*Sea Bass and Sea Bream
production in the
Mediterranean Sea*



European level occupational definitions will be developed for high priority occupations, such as ‘cage farming fish husbandry operative’, to produce a competence map that can complement EQF qualifications levelling, making VET more transparent and enhancing mobility, anchored by shared occupational definitions.

The current VET supply will be evaluated, including formal and non-formal VET, to identify good practice for demonstration and sharing. The most successful VET practices, including ICT enabled learning, will be demonstrated to industry, raising awareness of the potential impact VET innovation could have on aquaculture work based learning and qualifications.

Aims and objectives

The overall goal is to investigate, study and identify skills gaps within the European aquaculture workforce, determine VET demand and supply, and establish industry and VET providers’ receptiveness to innovative VET delivery methods.

Aim 1 Investigate the definition and application of Aquaculture Occupational Profiles and Standards (AOPS)

Investigate the establishment of a Labour Skills Foresight forum with producer and supply company representation, to investigate job functions and occupational profile definitions, that are applicable to European marine cage rearing.

Investigate the application of AOPS at company, VET provider and national level, to identify good practice examples within European aquaculture VET provision.

Define AOPS for selected high priority occupations and levels within European marine cage based fish production, technical operations and processing, to guide the ‘skills gap analysis’.

Aim 2 Evaluate the demand from industry for aquaculture education and training

Analyse aquaculture skills and training needs with reference to existing published information to confirm the existing evidence base.

Define the knowledge and skills gaps at each occupational level within marine cage farming, including the identification of language barriers to learning and mobility, in order to inform VET development priorities.

Establish the current and emerging ICT and environmental management skills required in cage based aquaculture, culminating in defined competences for inclusion within the European AOPS.

Evaluate the nature of demand for aquaculture VET including the preferred delivery modes, technical content and certification, to inform future VET developments.



The outcomes of the supply and demand analysis will be disseminated to stakeholders, supported by a proposed action plan for future ‘aquaculture VET Innovation and the harmonisation of qualifications’, catalysing a new Strategic Alliance between northern and southern European aquaculture interests and their VET sector.

BlueEDU by country:

Target countries in the north

Norway, Iceland, Finland, UK, Denmark and Ireland

Target countries in the south

Greece, Cyprus, Croatia, Italy, Spain and France

Aim 3 Evaluate aquaculture education and training supply

Map existing aquaculture VET courses and qualifications to the AOPS and EQF, including statutory training, to create a navigable inventory of existing qualifications and qualification pathways.

Identify equivalencies between existing aquaculture qualifications in different salmon producing countries to enable areas of commonality to be identified and described.

Evaluate VET staff qualifications, skills and experience, including; aquaculture, teaching and industry partnerships or provider networks, to determine the collective staff capacity and innovative VET development capability.

Evaluate VET delivery modes deployed by providers, including;

conventional face to face delivery, workplace learning and ICT enabled learning, to determine VET accessibility and the sectors capacity for innovation.

Evaluate ‘learning cultures’ within salmon farming and technology supply companies’ to determine their investment in workforce development and their attitude towards education and training.

Aim 4 Investigate and evaluate the aquaculture VET assessment process

Investigate VET regulation in European countries, to identify the specific responsibilities for VET governance and quality assurance at national level.

Investigate VET quality assurance (QA) at provider level, to determine the effectiveness of existing policies and practices for the quality assurance of learning

and assessment.

Investigate the accreditation of prior learning (APL) in each country, to identify transferable best practice leading to gains in VET efficiency and effectiveness longer term.

Evaluate work based assessment practices; including the application of ICT enabled assessment and QA systems, clarifying the specific role of employers and providers.

The European aquaculture workforce is relatively unqualified compared to other mature industries. Despite the aquaculture sector has developed fast and is using and implementing modern technology, the industry is challenged by for instance:

1. More and better jobs
2. Faster and more efficient growth
3. Better odds for industry

The BlueEDU Aquaculture Sector Skills Alliance, approved in July 2016 in support of the European «blue growth» agenda, has a unique opportunity to put the aquaculture workforce development practices under the spotlight.

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More and better jobs

The blue economy sector is looking more and more into green solutions that can deliver more and better jobs.

On the other side the industry suffers from an insufficiency of professionals equipped with the skills and competences needed.

Faster and more efficient growth

Farms strive to keep their fish healthy and well fed at all times, leading to faster and more efficient growth. The profitability

of a fish farm depends on these key factors.

Better odds

Well chosen farm locations, genetically proven fish stocks, nutritionally complete diets and investment in advanced equipment and technologies, tip the odds in the farmers favour.

Thus, without vigilant stockmen and site managers who can operate the latest equipment and technology competently and solve the multitude of practical 'day to day' problems, little can be achieved.



How can fish farming staff best follow these rapid developments?

The main goal of this investigative Erasmus+ funded project is to demonstrate and document through partnership what are the basic training needs in the aquaculture sector.

In addition, the project will guide the future development of innovative aquaculture Vocational Education and Training.

The mission is to support the cage farming sector of the aquaculture industry to find ways of developing the workforces' knowledge, skills and qualifications more effectively and efficiently.

Over the next two years, through extensive engagement with industry and education and training providers in the 12

BlueEDU partner countries, the future skills needs and the nature of industry demand for training will be established.

BlueEDU will focus on **marine cage farming** in Northern and Southern Europe. However, once proven, the methodology can be transferred and expanded to other farming types and could benefit the whole sector.

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Funded by the
Erasmus+ Programme
of the European Union

This project has been funded with support from the European Commission. This publication reflects the views only of the authors, and the Commission cannot be held responsible for any use, which may be made of the information contained therein.