



VALLA – Validation of All Lifelong Learning in Aquaculture

Final Report

Public Part

Project information

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Executive Summary

A key challenge for the European Qualifications Framework (EQF) is the status of unaccredited short-term sectoral/professional training courses. The EQF is intended to cover HE, VET, training and schooling awards in Europe and facilitate compatibility with the EHEA Framework. National awards fit smoothly into the NQFs and the EHEA frameworks, whatever the differences in levels between them. But work placements, on-the-job training, short courses (unaccredited learning) are often not part of national awards, even though such skill acquisition is seen as essential in competitive business. Using the aquaculture sector as a pilot, the VALLA (Validation of all Lifelong Learning in Aquaculture) project set out to demonstrate how to validate and recognise short-term sectoral training (including non-formal learning). To do this VALLA first provided an occupational and functional map for the sector using a competence-based approach resulting in increased transparency and trust. VALLA then examined how the resulting competence-based learning can be evaluated and validated and made recommendations on how short-term training can be awarded credits. VALLA subsequently developed a methodology, dedicated software and supporting protocol to help trainers describe learning experiences suitable for recognition within the existing systems, EQF/NQF. VALLA obtained feedback from the competent educational and national authorities for feedback on deliverables mentioned and from that drew conclusions on how sectoral training could fit into the existing systems.

VALLA developed the following key outputs;

- 1) A methodology on how to map a sector by competencies, which can be used by trainers in any sector;
- 2) Occupational and Functional Map for European Aquaculture, and Best Practice Guidelines on how to create a European Sectoral Occupational Map;
- 3) A dedicated software tool (VALLA Online Tool) to define course, workshop or placement training by competencies and learning outcomes;
- 4) Guidelines on evaluating and validating unaccredited sectoral training
- 5) VALLA website, including an EQF glossary in 10 EU languages.

Already the VALLA outputs are having a positive impact within the aquaculture industry at several levels. The functional and occupational maps are to be presented to the working groups of the European technology and innovation platform to help them assess needs when developing their “Vision for 2030” and their “strategic research and innovation agenda”. The online tool is being used by trainers aware of the system through the extensive dissemination that has taken place to date. Outside of the aquaculture industry the VALLA outputs are also drawing attention given that they can be adopted by most other sectors. The consortium is already exploring multi disciplinary options for sustainability and extension of the project and its products.

With significant commitment and determination, the partnership has exceeded the extensive commitments the project set out in the original grant application. The effort has far exceeded the reimbursement of costs but the partnership was driven by a belief that their efforts had the potential to be extremely relevant. It is anticipated that this impact will soon be able to be measurably demonstrated by uptake both within the aquaculture sector and also within other sectors and the wider educational community.

Table of Contents

1. PROJECT OBJECTIVES.....	5
2. PROJECT APPROACH.....	7
3. PROJECT OUTCOMES & RESULTS.....	9
4. PARTNERSHIPS	11
5. PLANS FOR THE FUTURE	12
6. CONTRIBUTION TO EU POLICIES	13
7. CHALLENGES ASSOCIATED WITH IMPLEMENTING THE VALLA PROJECT	
14	

1. Project Objectives

The aims of the VALLA project were to support the realisation of a European area for lifelong learning, building transparency and trust:

- a) By showing how unaccredited learning activities in the aquaculture sector can be described as Learning Outcomes (what a learner knows, understands and is able to do) and according to best practice format;
- b) By providing generic tools, methodology and supporting guidelines able to be used by all sectors;
- c) Using existing networks covering Higher Education, Vocational Education and Training (VET) and non-formal learning to promote quality assurance and trust.

VALLA aimed to contribute towards the stated aims of the European Qualifications Framework (EQF) in several ways: by developing competence-based learning outcomes for the aquaculture sector; by providing a reference for the validation of non-formally acquired competences; by linking such reference points to established sectoral standards; and thus 'improve permeability within education and training'.

A key challenge for the EQF is recognised to be that of mutual trust, which can be built up by increased transparency from quality assurance. The Common Quality Assurance Framework (CQAF) looks to establish VET quality assurance on the basis of common principles, criteria and tools. Occupational mapping is one such tool, which can enable the National Qualification Frameworks (NQF) to position courses (formal and non-formal) within the (differing) NQF, European Higher Education Area (EHEA) and EQF framework levels. But while national awards fit smoothly into the NQFs and the EHEA frameworks (whatever the differences in levels between these), some sectorally important types of training (work placements, on-the-job training, and short courses) are often outside the scope of national awards. The objectives of the VALLA project made it possible to set the first steps in "linking sector initiatives, made by the stakeholders, to national qualifications, producing transparent criteria which will facilitate transfer and compatibility".

Objective 1: The VALLA project aimed to test how certain types of lifelong learning acquisition could fit into the EQF using the aquaculture sector as a pilot.

Objective 2: VALLA aimed to provide an occupational map for the sector using a competence-based approach, and to examine how the resulting competence-based learning could be evaluated and validated.

Objective 3: VALLA aimed to further investigate how short-term training could be included in quality assurance systems and awarded credits by asking feedback on the VALLA methodology and tools from national Qualification Awarding bodies.

Objective 4: VALLA aimed to develop a methodology, dedicated software and supporting guidelines/protocol, suitable for all sectors.

VALLA tools and protocols were aimed to benefit:

- Providers of training and education will be able to describe short training courses in terms of competence-based learning outcomes, according to best practice format.
- Employees will be able to better substantiate skills and competence learned through on-the-job experience.

- Job market entrants will be able to add relevant but previously unaccredited study stays, student jobs, and other useful experience to CVs to reflect the complete extent of job qualifications.

2. Project Approach

The VALLA project was carried out with a series of related activities and work packages. Using the aquaculture sector as a pilot, VALLA aimed to demonstrate how to validate and recognize short-term sectoral training, in particular non-formal learning. The European Aquaculture sector is a relatively young sector which has grown rapidly from a cottage industry in the 1960's to a very diverse industrial sector nowadays. As in any other sector, success and growth of the sector depend on knowledge and a joint knowledge and skills base, both theoretical and practical, and people working in the sector often require specialised training. However, maybe even more so in the aquaculture sector because it is such a relatively new industry, a lot of training in the sector falls outside current formal qualification systems. It is therefore a challenge to prove one has indeed acquired the knowledge, skills and competences through such learning.

The VALLA methodology started with an occupational mapping exercise of the aquaculture industry which has a wide range of job roles of differing levels of complexity and skills (WP2). The complementary functional analysis (WP2) then enabled the development of a range of occupational standards. These occupational standards form a vital part of the process of writing Learning Outcomes that accurately describe levels of achievement that can be set at the appropriate level in the EQF reference levels which are needed when trying to describe Learning Outcomes. The VALLA occupational map contains information concerning jobs, roles and occupations available within the European Aquaculture sector, with key functions defined.

At the heart of the VALLA project are several different case studies (WP4), exemplars of different types of courses which at present lack formal validation/accreditation in both Vocational Education and Training and Higher Education. Yet these are often formative educational experiences which are rightly regarded as valuable. The Case Studies are also authentic proof of the pedagogic added value of the entire project. Those trainers who used the tool to describe their courses in terms of Learning Outcomes all pointed out that their pedagogic knowledge as to the actual use, and need for such descriptions, had improved exponentially. The methodology for achieving these case studies started with developing a sectoral online "Learning Outcome" Tool (WP3). The tool is an online step-by-step dedicated software tool based on existing European Best Practice which enables trainers to define non-formal training units in terms of competences and learning outcomes as well as describing level, assessment, evidence requirements, delivery, credit value etc. The VALLA tool takes users step by step through a process which generates a template that covers in essence the following areas:

- identification of the Learning Outcomes covered by the subject areas of a specific unit or course
- information as to how the Learning Outcomes can be acquired
- information as to how these Learning Outcomes are assessed.

The organisational thrust needed to produce such an administratively complex, yet simple-to-use tool was immense and provides further and ample evidence of the added value of the project effort.

The choice of case studies (or exemplars) was made in consultation with industry, educational and awarding body representatives. They exemplify the needs of both industry and vocational education. A workshop was held where trainers from all over Europe tested the VALLA methodology and tool, and gave feedback on its further improvement.

These related activities culminated in a joint exercise (WP5) in which the VALLA methodology, online tool, and case studies/exemplars (covering HE, VET, formal and informal learning), were presented to several European awarding bodies which were also

responsible for creating National Qualification Frameworks (NQFs). The idea was to test whether the VALLA methodology and format would be suitable for describing non-formal training and would fall within national structures and could as such, be evaluated and validated. This extremely valuable consultation (with its undertones of political added value for the European education sector) can be seen to authenticate both the VALLA process and its products.

Dissemination had been assigned 2 work packages; WP6 and WP7. WP6 dealt with dissemination within the sector, whilst WP7 dealt with dissemination to the wider education community and other business sectors. A dedicated website – www.vallaproject.com – has been developed, where all the information about the project could be checked and downloaded. The website will continue to exist after the project duration. Besides the dedicated project website, another website has been used to disseminate to the wider community; www.aquamedia.org is intended to be a portal for the public to learn about aquaculture. Press releases in several newsletters, such as AquaTT Training News and the aqua-tnet newsletter have been informing the public on a regular basis. Information about the project has been presented and disseminated on many other occasions, notably at European conferences and meetings.

A dedicated Work Package - WP8 – was assigned to the Quality and Evaluation plan of the project; a project management system has been implemented, and an external evaluator monitored the project on a regular basis, producing an interim and a final evaluation.

Another work package was devoted to the exploitation of VALLA outcomes, according to an Exploitation Plan. Please check www.vallaproject.com for all information and outcomes. The combined activities of WP6, 7 and 9 will contribute to the sustainability of the project results, as interested parties will continue to be able to access information and results of the project. Also, there are some interesting ideas as how to further develop the VALLA results and products, as outlined in the exploitation plan.

3. Project Outcomes & Results

The first major results of the VALLA project were Functional and Occupational maps of the European Aquaculture Sector (objective 2). In the development of standards of occupational competence and vocational qualifications, it is essential that there should emerge a clear understanding of the occupational areas and the activities or functions that have to be included; it is thus important to develop functional and occupational maps, prerequisite to the development of occupational standards of competence for an industry. This is a tried and tested methodology and is used by National Accrediting Bodies to develop, accredit and validate qualifications. Consultation with key stakeholders, employer and employer representatives, education and training providers and professional bodies is an essential and integral part of the development of the Maps to ensure that all the job roles within the sector and all the functions required to operate effectively within these roles are clearly identified. The Functional and Occupational maps for aquaculture, as developed in cooperation with all those mentioned above, are presented on the VALLA website: www.vallaproject.com

The VALLA project also outlined how to do this process generically, which resulted in another outcome, i.e., “Best Practice Guidelines on how to create a European Sectoral Occupational Map”. This is a concise guidelines document, containing a step by step guide to creating a European Sectoral Occupational map (objectives 2 & 4). This is a very useful document for anyone wishing to create a European Occupational map for their own sector. The guidelines can also be found on the VALLA website: www.vallaproject.com

The next step and follow-up outcome of the project is the VALLA online tool accessible from the VALLA website, a dedicated software tool (objective 4) based on existing European Best Practice which enables trainers to define non-formal training units (short courses/workshops/placements, etc) in terms of competences and learning outcomes as well as describing level, assessment, evidence requirements, delivery and credit value (objective 1). The tool was developed as a method of helping users/trainers to present courses/units in a format suitable for submission to an awarding body, in this way contributing to making acquired skills and competences more transparent across Europe.

To test the efficiency of the VALLA online tool, over 20 case studies have been developed, exemplars from a range of courses representative of different types of courses which at present lack formal validation/accreditation in both VET and HE education. These exemplars/case studies are at the heart of the VALLA project and we see their influence as guidelines for the sector as constituting its most important justification (objectives 1 &3). The VALLA partners selected an optimal range of courses from the unaccredited sector as well as from non-standard aspects of higher education courses. The case studies can be accessed via the online tool via the VALLA project website – www.vallaproject.com. The 20 case studies and VALLA methodology have been analysed and valued by the European Aquaculture sector (objective 5), and a report has been produced, also available on the project website.

A final report on “Evaluating and validating unaccredited sectoral training/competency acquisition” related to “Fitting Sectoral Qualifications into NQF’s and the EQF – VALLA - The Aquaculture Pilot” has been produced (objectives 1, 2, 3, 4 & 5), to be found on the VALLA

project website as well. Meetings with National authorities in several EU countries both regarding higher education (HEA) including Universities and vocational education/training were held with the aim of demonstrating i) the VALLA methodology developed to map a sector, ii) the specially designed computer tool and iii) the case studies with particular emphasis on focus on work placements, short training courses and industrial workshops, mobility exchanges. The overall aim of these meetings was to see whether all three features above could be used for evaluating and validating unaccredited sectoral training/competency (objective 5).

All of the bodies consulted were in favour of the occupational and functional maps (objective 2) developed for the aquaculture sector, and particularly the direct involvement of the industry was very much appreciated. Functional and occupational mapping of the sector along with detailed descriptions of learning outcomes has not been often carried out previously and it was thought to be especially useful for course developers of courses as it gives a view of the industry and what they need.

All the industry representatives, the national authorities and universities consulted appreciate the developed software, which they see as a good practical instrument for describing non-formal, informal and formal learning. Since describing learning outcomes is quite new, the tool also provides helpful guidance for course developers without experience of Learning Outcomes. The software makes the whole process very transparent, a very positive feature, and since it is developed as a generic tool, it can be applied to and used for any sector.

How lifelong learning is validated varies between EU countries but all seem to have systems in place. Validation of generic skills is quite often carried out, but not for sector validation (apart from formal courses which are accredited in ECTS). The issue of quality control (objective 3) is of paramount importance especially as far as validation of prior learning as is finding the evidence to support the claim that the applicant has actually achieved the required learning outcome.

Very few countries have calibrated a sector framework against National Qualifications Frameworks and gone on to link the national framework with EQF levels which shows that the process not has come very far and that this exercise is difficult when it comes to practical implementation. There is a real challenge to define the actual learning outcomes needed for different occupational and the different EQF levels. This challenge has been addressed by the solid achievements of the VALLA project. The Case Studies do indeed show that it has been possible to establish common reference points (i.e., the EQF 8 reference points) across a sector (objectives 1 & 4) and the generated course descriptions should enable qualifications authorities/awarding bodies to use the reference grid of the EQF as intended (as a translation device which makes it possible to position and compare learning outcomes throughout the sector, in this case, the aquaculture sector, and throughout Europe).

4. Partnerships

The project consortium consisted of one European foundation (AquaTT, Ireland), one European Aquaculture Producers Association (FEAP, Belgium), one vocational training organisation (KEK, Greece), two Universities (University of Ghent, Belgium, representing aqua-tnet, and the University of Life Sciences (UMB), Norway) and one Qualifications authority (Scottish Qualifications Authority SQA, UK).

The importance of the VALLA project lies precisely in its European aspect. FEAP represents 29 national producers associations whose members constitute a large part of the industry labour market. Aqua-tnet's over 100 members consist of around 70 Higher Education institutes as well as industry and research organisations and representative bodies. By the participation of two partners representing many individual organisations drawn from an entire sector, VALLA can truly be said to have "the consultation, engagement and ownership of a wide range of stakeholders" and has on board the relevant learner and employer groups, as well as the relevant education and training providers, throughout the industry and throughout Europe.

This scope enabled the partnership to address issues of a trans-European character, in this instance the ongoing changes in European education, where VALLA partners are very experienced. The VALLA project used this experience to the full in order to contribute towards providing a methodological solution and guidance tools (software tool able to define course/ workshop/ placement training in competencies/learning outcomes and a tested protocol for evaluating and validating short-term training). All these outputs will enable progress to be made towards a prime European objective, the establishment of the European Qualifications Framework.

The consortium has been kept small to enable effective working and resource efficiency yet at the same time the consortium partners are representative of the sector given their extensive list of members which ensures dissemination and uptake of VALLA outcomes.

5. Plans for the Future

Improving the transparency of qualifications is a fundamental part of the effort to link training in the EU with the labour market. According to the CEDEFOP report "*Future Skills Needs in Europe* (2008) there will be a net increase in future demand for skilled agricultural and fishery workers (including aquaculture). Aquaculture is a challenging and innovative industry with changing skill requirements which will force workers to adapt, both by retraining and continuing training. VALLA will provide a reference point for the validation of this type of acquired knowledge, linked to established sectoral standards.

The VALLA outputs and deliverables will remain as valuable tools capable of use in other sectors and freely available on the VALLA portal which has been constructed as an integral part of the VALLA project and which will continue into the future. The VALLA partnership will continue to demonstrate the use of the Master List of Competencies, and the usefulness of the VALLA tool in converting these to learning outcomes at the many sectoral workshops and conferences to be convened in the future.

After very positive feedback from both course developers and National Authorities there are ideas now to further develop the online tool. Current ideas are i) to translate it into several European languages, ii) to introduce several more user-friendly options iii) construction of a FAQ, iv) provision of more exemplars. v) create a system whereby completed courses can be submitted to competent authorities for validation. A major suggestion was the linking the VALLA online tool to a database of Learning Outcomes, which could be developed from the VALLA Functional map, transforming the Competencies into Learning Outcomes at several EQF levels. It was highly recommended by some participants, as the logical next step to creating a sectoral framework for aquaculture, given the future active cooperation of industry and educational partners. It was stated that such an outcome would be extremely valuable for the Aquaculture Industry as well as for the aims of the EQF.

AquaTT intends to use the VALLA methodology and online tool to set up any courses it might develop and run in the future and will promote the same to other training organisations through the Aqua-tnet network.

Other suggestions relate to the role that AquaTT has played in the project, providing knowledge and backup technical support which enable users to create courses described in terms of Learning Outcomes. AquaTT would be able to edit and proof text for courses, as well as check content and learning outcomes descriptions. Interestingly, all participants in the training workshops wished to use AquaTT, as a sounding board, as a first step in initiating a dialogue with an awarding body.

The AquaTT dissemination instruments (online newsletter, websites, and workshop organisation) will promote the VALLA deliverables as an ongoing part of its work.

In the light of the continuing developments in European Qualifications Framework, and the interest being shown in Sectoral Frameworks, it is likely that the VALLA outputs could prove seminal in the setting up of a Sectoral Framework for Aquaculture Knowledge, Skills and Competences, based on its very thorough knowledge of and long-term (since 1997) work and research in this area. The VALLA project is the latest component of this continuing development. Based on the WAVE Master List of Competencies for Aquaculture, this has ensured a common agreed sectoral approach relevant to skills requirements and learning outcomes, the basic building blocks of European higher education reforms" (Stephen Adam, "*Learning "Outcomes Current Developments in Europe"*).

6. Contribution to EU policies

VALLA supports the realisation of a European area for lifelong learning, which is one of the Objectives of the European Commission. The European Commission developed the Lifelong Learning Programme, of which the general objective is to contribute through lifelong learning to the development of the Community as an advanced knowledge society, with sustainable economic development, more and better jobs and greater social cohesion, while ensuring good protection of the environment for future generations. In particular, it aims to foster interchange, co-operation and mobility between education and training systems within the Community so that they become a world quality reference.

The aims of the VALLA project are to support the realisation of a European area for lifelong learning, building transparency and trust:

- a. By showing how unaccredited learning activities in one sector can be described as learning outcomes capable of inclusion in both National Qualification Frameworks and the emergent European Qualification Framework;
- b. By providing generic tools, methodology and supporting guidelines able to be used by all sectors;
- c. Using existing networks covering Higher Education, Vocational Education and Training and non-formal learning to promote quality assurance and trust.

VALLA, which has a proactive transnational partner in the AQUA-TNET network, has delivered key measures in line with the EC call objectives: to develop a methodological solution and guidance tools at national, European and sectoral levels (Work package 3); to relate qualifications to EQF levels and descriptors (Work package 4); to implement and further the learning outcomes approach (Work packages 2 and 4) and to develop pathways between higher/general education and VET (Work packages 2, 4, and 5).

Furthermore, the extremely positive comments from the national awarding bodies which can be seen in the WP5 report, underline how useful the VALLA project, with its carefully described methodology, including guidelines and a generic online tool, could be in the future, not only for the industry, but also for the needs of the EQF.

7. Challenges associated with implementing the VALLA project

One of the original partners, SATA, withdrew from the project due to its key staff member immigrating to Australia. Although another individual with the required inside knowledge of VET aquaculture was identified (affiliated to a project partner), this caused a serious delay which had two results: (i) a project amendment and extension had to be sought which was administratively time-consuming; and (ii) the timing of the project deliverables which followed a lock-step process, was also affected.

The lock-step process was procedurally complex as well as functionally difficult. But this was forced on the project because of the lifecycle of academic courses. All courses must follow a set timetable according to the institution and country concerned; once the fixed dates of the various timetables have been missed, another year must pass before an attempt can be made to run the course or programme. In a two-year project, that can pose severe logistical problems which are quite frankly insurmountable. In addition, in the financial context, of the present credit crunch, types of courses on offer will also vary from one year to the next, in response to fluctuations in demand. It must be stated that these are not frivolous points; unfortunately at least one entire department concerned with aquaculture has been closed (University College Bergen) and many other courses across Europe have been savagely cut.

The lock-step procedure delayed the development of the VALLA generic tool. The design requirements of the tool were seriously wide-ranging. Its front-end interface had to be as simple and user-friendly as possible, in order to enable users to produce their own customised courses in terms of Learning Outcomes in a format suitable for submission to an awarding body that could then decide whether the course in question could be validated and accredited. This in turn meant that the courses had to be compliant with national qualifications standards and levels, as well as being compatible with EQF levels and descriptors. Therefore, potential users had to be made familiar with all of these new concepts and structures. Training users who are beginners is a complex and difficult task, because of all the parameters that have just been described. It needs trainers who have considerable personal skills in imparting the range of new knowledge and skills required.

The levels of difficulty encountered were by their nature unforeseen (departure of key personnel, global economic downturn), but the VALLA partnership managed to overcome them as can be seen by the high-quality deliverables.

