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Lifelong Learning Programme

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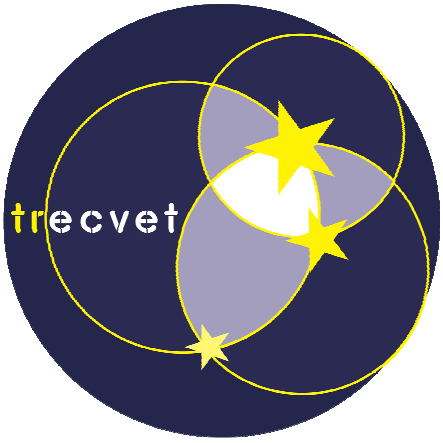

Transnational Recognition of European Certification in Vocational Education and Training TRECVET

Progress Report Public Part

518197-LLP-1-2011-1-ES-LEONARDO-LMP

Project information

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Beneficiary organisation:		Sea Teach S.L.
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Executive Summary

The Lifelong Learning Programme, Leonardo da Vinci project TRECVET started on 1. October 2011 and has a duration of 24 months. The requirement for this project arose because currently within the Small Commercial Vessel (SCV) maritime sector of the EU, qualifications of one Member State are not recognised by the authorities of other Member States. The objective of this project is to develop a database and on-line tools to allow learners, trainers and decision makers, to:

- simply and objectively compare different countries' syllabi, training materials and qualifications;
- identify and examine single fundamental elements of a syllabus;
- rebuild syllabi by adding or removing individual fundamental elements;
- find differences and commonalities within different countries syllabi; and create partial syllabi that can equalise qualifications and skill levels between countries.

Initially three target groups were identified:

Target Group a): Decision makers, competent bodies and authorities within both, the project related countries (UK, Spain and Germany) and the SCV marine sector.

Target Group b): Students (learners), potential or existing and professionals.

Target Group c): Trainers, institutions, SMEs and VET organisations.

However, it soon became apparent that the project would produce important tools for application in a broader ECVET context. Additional target groups including national licensing authorities and other ECVET experts have been identified. These experts will be introduced to the concepts, methods and tools developed and will be invited to attend the end of project conference.

To date, the project has developed a software tool named ‘fexTool’ that is being used by the three project partners, expert in marine training, to breakdown their country's syllabi. This data is being placed on a common database for syllabi comparison by a software tool due for completion in its provisional form by the end of March 2013.

The project consortium comprises five partners who provide the four major areas of expertise required to successfully complete the project:

Knowledge and experience within the industry sector, competence in internet applications and software development, project dissemination and exploitation, and General Project Management.

In addition the consortium will include associated partners representing decision makers in the SCV sectors of Germany, Spain and the UK, who will be encouraged to provide critical feedback for the tools and methodologies developed.

Once the project is completed additional syllabi from all VET sectors can be added to the database providing a cross industry comparison tool to identify workers’ skills that can be migrated between sectors. This will provide greater job opportunities and worker mobility within the Member States.

Full details of the projects aims, progress, achievements, news and forums can be found at www.trecvet.eu .

Table of Contents

1. Project Objectives

The specific requirement for this project arose because currently within the Small Commercial Vessel (SCV) maritime sector of the EU, qualifications of one member state are not recognised by the authorities of other member states. This problem exists across most EU countries. The project is examining the problem as it exists within three similar qualifications in a sample group from three Member States, UK, Spain and Germany.

The main objective of this project is to develop on-line tools, a database and a set of database queries that will allow all members of the target groups consisting of learners, trainers and decision makers, to:

- simply and objectively compare different countries' syllabi, training materials and qualifications;
- identify and examine single FEs (Fundamental Elements) of a syllabus;
- rebuild syllabi by adding or removing FEs;
- find differences and commonalities within different countries' syllabi; and
- create partial syllabi that can equalise qualifications and skill levels between countries.

For the purposes of the TRECVET project an FE is defined as follows:

- An FE is the smallest subdivision of examinable content that in itself constitutes a complete logical and coherent learning block.
- FEs can contain knowledge only (Theory) or be a combination of knowledge and skill (Practical).
- An FE is autonomous and does not contain or depend on other FEs for its existence.
- The minimum pre-knowledge required to assimilate an FE is that of an average 16 year old school leaver.

A syllabus is considered to be the contents of a training curriculum, a list of subjects in a training course or the list of subjects that are required to be understood in an examination.

By highlighting the problem within a sample group of three countries and developing the tools described above it is intended that the project will not only be of benefit to the SCV sector but will also have great significance within the wider European VET sector and aid the implementation of the EU's ECVET principles.

To this end the project will produce a scalable system so that the tools developed will be immediately available to accept FEs from other VET sectors.
The software will:

- allow cross national and cross industry comparisons of qualification offering workers the opportunity to migrate between sectors and countries with the minimum of retraining,
- allow employers to compare skill sets available in workers from other industry sectors facilitating better human resource utilisation; and

- allow examining bodies to objectively compare international qualifications.

In the current financial and technological situation employers and employees alike are having to make major re-assessments. The single skilled will be at a great disadvantage in the post crisis workplace. Employers and employees will need a means to identify, record, communicate and demonstrate skill sets as requirements or as assets. This is why the TRECVET project is of such importance.

2. Project Approach

The technical success of this project is totally dependent on the outcome of the development of methodologies. This task includes extracting syllabi fundamental element data from the three sample countries under investigation.

Without the acquisition of sound input data the project stages covering the Data Analysis and Software Development would provide inadequate and, more problematically, inaccurate results. Consequently great care and effort was taken with the implementation of the development of the extraction methodologies.

It was originally intended that the UK syllabus would be used as the reference against which the other two syllabi would be compared. The partners agreed at the kick-off meeting to change from this approach to analysing all three syllabi independently in parallel. This was considered preferable as, any problems associated in the extraction methodology would be addressed sooner rather than later in the development process.

As would be expected with a development project the methodologies evolved from an initial premise to a final working system over a number of progressive stages which have been chronologically documented in the project journal.

A methodology was developed and a Standard Analysis Procedure Handbook (SAPH) was completed, but practical application showed shortfalls primarily due to the complexity of the methodology. It was therefore decided that the methods had to be reviewed and further developed. To complement the final methodology an on-line software extraction tool, designated 'fexTool', was developed to speed up and standardise the extraction process. Each country expert was allocated a password protected version of this tool that placed their results into a common database. The low risk development of this tool was justified because it standardised the extraction process, allowed the coordinators to view in real time the FE extractions as they occurred, and resulted in a viable database structure that could be passed directly to Danmar Computers. To date the database holds 1,786 raw data extractions.

(Note. fexTool, which was developed to optimise and speed up the FE extraction process, should not be confused with the final TRECVET public version Software Tool which will be the actual FE comparison software and one of the main deliverables of the project).

The project website with forums and on-line Project Management System (PMS) was launched on 21 November 2011. The website can be found at www.trecvet.eu. The website has evolved into a very profesionally presented, comprehensive dissemination and exploitation tool. The secure on-line PMS with its file repository has proved an indespensible tool for diseminating results, ideas and information amongst the project partners. In addition to the website the project has an online presence at www.linkedin.com (http://www.linkedin.com/groups/TRECVET-Project-4458856?gid=4458856&mostPopular=&trk=tyah) and www.facebook.com/trecvet. A press release and two news letters have been distributed to relevent publications in English, Spanish, German and Polish. In addition to this and extra to project requierments an informative flyer has been produce for partners to distribute at meetings, exhibitions and other suitable events. A downloadable version of this flyer

can be found in the public section of the project website at:

http://www.trecvet.eu/dissemination/downloads.html

A project brochure and a short demonstration video are planed but these will not be initiated untill closer to the end of the project.

To disseminate information on the fexTool throughout the consortium and to a wider audience a dummy online extraction tool with its own independent database has been produced for the project website for trial use by the partners and other intersted parties. The three links below are country/language specific Germany(DE), Spain(ES) and UK(EN)

http://trecvet.eu/demo/de/fexTool.php
http://trecvet.eu/demo/es/fexTool.php
http://trecvet.eu/demo/uk/fexTool.php

Each of these demo fexTools can be opened using the common username and password shown here:

Username:	partners
Password:	Chopin_1838

It is hoped that this will greatly contribute to the sustainability of the project by introducing to a wider ECVET audience, in a practical way, the extraction methods adopted by the project.

The project initially identified three maritime Target Groups within the Small Commercial Vessel (SCV) sector. However as the project progressed it became apparent that its outcomes would prove extremely important tools for application in a broader ECVET context. The consortium therefore decided that the Dissemination, Exploitation and Sustainability activities and the planned end of project conference would be expanded to include not only the original target groups but also more general ECVET experts. To promote the tools developed and enhance the sustainability of the TRECVET project, selected National licensing authorities and ECVET experts from National Agencies will be identified and contacted before the projects end. These experts will be invited to the end of project conference and introduced to the concept of the Fundamental Element, methods of extraction and to the online tools developed.

3. Project Outcomes & Results

Data Matrix Table:

The main achievement of the project to date has been the extraction of 1,786 raw data elements from the three sample countries syllabi. This has been accomplished using the on-line software tool 'fexTool'. This software tool was developed in-house by Sea Teach and is based on the improvement to earlier methodologies which are recorded in the Standard Analysis Procedure Handbook. Individual password protected fexTool software has been allocated to each of the projects experts. This software was presented to the experts in there own language and delivers the extracted data to a common database. The fexTool provides a simple, standard and objective method of FE extraction. With the large number of extractions now made the project is well on the way to achieving its goal of full FE extraction from all three countries' syllabi and producing the Data Matrix Table on schedule by the end of January 2013.

Detailed information relating to the Fundamental Element principle employed by this project can be found in the public section of the website at:

http://www.trecvet.eu/project/developments/fundamental-elements.html

The Extraction Methodology flow chart, which graphically demonstrates the FE extraction process has been completed and published in the project journal and can be found by authorised users at:

http://www.trecvet.eu/project-management/2-trecvet/filemanager_pro/10-project-journal.html

The Standard Analysis Procedure Handbook (SAPH):

This document, used by the partners involved in the syllabi analysis and software development, has been completed and can be found by authorised users at:

http://www.trecvet.eu/project-management/2-trecvet/filemanager_pro/11-confidential-files.html

TRECVET Provisional Software tool:

Dummy matrix table data has been passed to Danmar Computers to begin developing the provisional software tool, database and database queries required to carry out and present FE comparisons on a country by country basis. A graphical representation of the principles involved for this software development can be found in the public section of the website at:

http://www.trecvet.eu/project/developments/comparability-methods.html

The provisional layout for the Graphical User Interface (GUI) has been designed and is now under development. The GUI is the public access point, or front end, of the TRECVET software tool.

The Software Sustainability Institute, EPCC, University of Edinburgh, JCMB, Edinburgh, EH9 3JZ, UK, is being contracted to undertake quality testing of the provisional software tool and its final public version which is due for completion the end of July 2013.

The TRECVET provisional software tool is on schedule for completion by the end of March 2013.

Impact of project outcomes.

Although TRECVET software tool is being developed using the case study of three similar tri-national marine qualifications, it was always intended in the long term to be scalable into a crossover skill comparator to incorporate all VET sectors.

Since its original conception and the granting of funding for the project, the world economic crisis has had a major impact on the employment landscape. In the current financial and technological environment, employers and employees alike have to make major re-assessments. The tools being developed in the TRECVET project can be applied in a wider VET context to identify where skills in one employment sector can be identified and migrated into other sectors offering greater mobility of labour and a fuller utilisation of the EU's human resources. An article explaining this conclusion can be found in the public section of the website at:

http://www.trecvet.eu/project/developments/future-workplace.html

At the time of presenting this report there are no apparent reasons why the project should not achieve all of its expected results within the time scales allotted.

4. Partnerships

The TRECVET project brings together a consortium of five partners from four European countries that together have a wide range of VET experience in the maritime and IT sectors. They will share these experiences with other partners in the project. Three of the partners are experienced in EU funded projects within the Lifelong Learning Program which will provide further benefits to the project management, quality, execution, evaluation and dissemination.

Although each partner was given responsibility to perform a range of tasks for the project, certain partners were selected because of their expertise at national level in the maritime field and were therefore tasked to perform specific roles based on that national expertise. This is shown in more detail by the roles of each partner in the sections below.

Besides, the benefits of creating and working together in a project partnership, the consortium is also establishing and enlarging their own national networks by involving national authorities in the final project meeting workshops. Therefore, as the national decision-making bodies will be involved in the project outcomes, the TRECVET project will be guaranteed sustainability beyond its duration.

The TRECVET Project Partners are:

From Spain:

Sea Teach S.L. is a Spanish Limited Company registered and based in the Port of Cala D'or, Mallorca, Spain and is the coordinator of the project.
The company has operated within the marine sector for over 11 years both as a Sea School and as a Motor Boat Charter Business.
The Sea School is recognised by the Royal Yachting Association (RYA). The RYA is the UK's national organisation responsible for issuing certificates of competence for professionals operating vessels up to 24 meters, known as the ‘Small Commercial Vessel' (SCV) Sector.

Their Role:

As the Coordinator of the project, Sea Teach manages the project execution and monitors the work of the partnership consortium. Sea Teach is also the lead partner in the Evaluation and Monitoring Group and expert for the UK syllabus. Sea Teach is working together with FNB and Seebär (who are the experts for the Spanish and German syllabi for their respective professional qualifications) in order to create and test a methodology of analysing and comparing these three syllabi. So far Sea Teach has developed and produced a software tool (fexTool) that allows the experts to breakdown their own syllabi in their own language into individual Fundamental Elements (FEs).

From Germany:

Seebär GbR is a Sea School located in Hamburg, Germany. The school offers vocational training for various qualifications within the Small Commercial Vessels category alongside pleasure boat qualifications for adult students. Seebär has worked closely with the German umbrella organisations DSV and DMYV for the last 15 years and also works in cooperation with one of the largest Sailing Clubs in Hamburg.

Their Role:

Seebär is a member of the Management Group and the Evaluation and Monitoring Group. They are the national experts with regard to the German National qualification system and syllabi; but also have a profound knowledge with regard to the diversity of rules, regulations and systems that their experience has brought them from their sail training cruising. Seebär is attending meetings, providing evaluation and dissemination and making considerable progress in breaking down their own German syllabus into FEs.

From Spain:

The Faculty of Nautical Studies Barcelona (FNB) belongs to the Polytechnic University of Catalonia. This University has 15 Faculties and schools of all engineering areas (computer, telecommunication, civil, naval, architectural, etc) and also offers courses of continuous education for both in house and e-learning study. The Faculty of Nautical Studies offers to its students the following qualifications: Diploma in Maritime Navigation; Diploma in Marine Engineering; Diploma in Ship Systems and Propulsion; Bachelor's degree in Nautical Studies and Maritime Transport; Bachelor's degree in Marine Engineering.

The Faculty of Nautical Studies is therefore an institution that is directly involved in educating students for the marine sector within Spain and offers knowledge about requirements regarding the qualifications to operate vessels professionally within Small Commercial Vessel (SCV) sector.

Their Role:

FNB is a member of the project's Management Group and the Evaluation and Monitoring Group. The main role of FNB in this project is to attend the meetings, offer evaluation and dissemination and provide expert analysis for the Spanish national qualification “Patrón Profesional de Embarcación de Recreo" and its pre-qualifications. To date, FNB have been successfully breaking the Spanish syllabus down into FEs using the latest version software tool (fexTool) already developed by Sea Teach S.L.

From Poland:

Danmar Computers is an organisation providing vocational training in the field of IT from year 2000. The company mainly deals with training, developing programs and training materials, counselling, implementation of computer systems, designing web pages, e-learning and e-business. Danmar has extensive experience of both coordinating and involvement in many EU funded educational project programs, including Minerva, Lingua, Grundtvig and Leonardo. Danmar Computers’ technical team has extensive experience in developing modern web-based e-learning applications for use in areas of education, research, process management and PLM systems, including integration with web 2.0 environments and multimedia technologies. Danmar Computers’ mission is promoting life-long education and assuring equal opportunities of access to education for everyone with the use of modern technology and with innovative training methodologies.

Their Role:

Danmar Computers is a member of the Management Group and the Evaluation and Monitoring Group. They are responsible for creating and maintaining the project web site, and are the lead developer for TRECVET web application software that will

compare the data collected by the National experts from UK, Germany and Spain. Danmar also participate in all common tasks, like meetings, evaluation and dissemination.

U.K:

Centre for Factories of the Future (C4FF) Maritime Education division has many years of experience in developing programmes for the education and training of merchant navy officers based on the international standards. C4FF, together with other major European maritime institutions of further and higher education, have established maritime education partnerships and networks called MariFuture (www.marifuture.org) and MarEDU (www.maredu.co.uk). MariFuture and MarEDU have established programmes of cooperation to improve education and training practices in Europe, and undertake the harmonisation of merchant navy officers education and training across Europe. C4FF have instigated several EU funded projects to address specific deficiencies or problems in the maritime sector and through these projects C4FF has built up a solid network of contacts at all levels within the maritime sector.

Their Role:

C4FF is a member of the Management Group and the Evaluation and Monitoring Group and support and participate in all meetings and other common tasks of the project. C4FF is the lead partner for the dissemination work package and responsible for dissemination products and activities such as project Press Releases, Flyers, Newsletters and Brochures. C4FF manages and controls the dissemination activities of the other project partners with regard to contact with project target groups.

5. Plans for the Future

ECVET (The European Credit system in Vocational Education and Training), which is being implemented in all Member States from 2012, aims to foster recognition and transparency of qualifications by creating learning credits that are transferable between borders and qualifications. This process is often held back by a lack of trust between competent institutions.
TRECVET is aiming to overcome this problem by offering a system where qualifications and learning outcomes become transparent and comparable. The TRECVET software tool will break down qualifications into their smallest parts and call these parts Fundamental Elements (FEs). The three (SCV) qualifications from Germany, Spain and UK are exemplary of a situation where mobility of suitably qualified personnel is restricted through lack of mutual recognition by national authorities.

The Remaining work of the project will be to:

- Complete the FE extraction process for the three countries, UK, Germany and Spain and store the data on the projects database for next step processing.
- Develop the TRECVET software tool that will objectively compare FE data. This FE data is currently being extracted from the three SCV qualifications by using the already produced TRECVET fexTool.
- Promote the project and its outcomes to its target groups.
- Invite European Maritime bodies, National Authorities and remaining target groups to attend the final project conference.
- Finalise the programming of the Graphical User Interface (GUI). This will allow the public to use the software comparison tool through the TRECVET website in a most innovative and convenient way.

At this point in time there are no apparent reasons to believe that all deliverables will not be delivered on schedule as planned.

The TRECVET software tool is being designed to be scalable to accept syllabi from all SCV qualifications, other maritime qualifications and in the long term any VET industry within Europe. Therefore, a discussion on a follow up project in the Lifelong Learning Programme has currently started.

6. Contribution to EU policies

The promotion of mutual recognition of qualifications between EU Member States and the implementation of the ECVET framework on a European scale is high on the list of priorities in Europe as laid down in the Copenhagen Process, Lisbon Treaty and most recently, the Bruges Communiqué.

The objectives of the TRECVET project are to strengthen European cooperation, support European policy decisions like ECVET and promote workers mobility across Europe.
The project explicitly does not aim for harmonisation between Member States and specifically recognises various national approaches and cultural differences with regard to qualifications in VET; but with growing trans-national mobility of European citizens, the project also sees the need for more and easier European cooperation. By highlighting commonalities, it is hoped to demonstrate to decision makers that differences are smaller than anticipated and therefore mutual recognitions of qualifications are easier to grant. Such activity would not be possible at the national level and needs the cooperation of experts from different EU countries to bring together different approaches, knowledge and experience.
ECVET, which is being implemented in all Member States from 2012, aims to foster recognition and transparency of qualifications by creating learning credits that are transferable between borders and qualifications.
This process is often held back by a lack of trust between competent institutions. TRECVET is aiming to overcome this problem by offering a system where qualifications and learning outcomes become transparent and comparable.
For learners, trainees and workers (Target Group b and c), the project aims to provide information, that makes it easier to decide on career paths and which offer European mobility and thereby greater chances of employment.
Furthermore, the software tool has been designed to be scalable and flexible to accommodate **any** VET syllabus. Decision makers from all Member States and from all VET industries will benefit from the opportunity of having a tool for objective analysis of their own and other countries curricula. It is hoped that this will encourage a more positive approach towards implementation of the ECVET principles.