

Pirate

**Provide Instructions and Resources for Assessment
and Training in Earthbuilding**



**ECVET Earthbuilding Europe • Provide
Instructions and Resources for Assessment and
Training in Earthbuilding**

Progress Report

Public Part

Project information

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Executive Summary

Earth is a unique building material, is it easy accessible and available. Building products made of earth need little embodied energy during the whole life circle. The use of earthen building material reduces the carbon dioxide emissions and contributes to a healthy indoor climate. Moreover earth architecture is beautiful: historic and modern buildings take advantage of its ecological and its aesthetic benefits. There is a still small, but growing market in earth construction. Technical specifications and norms for earth construction techniques are about to be established, but there is little and hardly any officially recognised training in Europe.

The PIRATE project aims to disseminate both the ecological and the aesthetic benefits of modern earth construction by creating life long learning opportunities. To this end 18 organisations from eight European countries, all active in the earth construction sector as professional associations, education and training providers or small companies, have come together to develop competence standards in this sector.

The new standards comply with European Qualification Framework (EQF) and European Credit System in Vocational Training and Education (ECVET). ECVET is a European instrument to support lifelong learning, the mobility of European learners and the flexibility of learning pathways to achieve qualifications.

The three years project applies these European tools to the Earthbuilding sector by identifying learning outcomes. Project partners have analysed crafts and trades, which are using earth as a building material in eight EU countries: Czech Republic, France, Germany, Portugal, Slovakia, Spain, Serbia and United Kingdom.

The intense and dense dissemination activities of the consortium have evoked an increased interest in education and training both for craftspeople and in higher education. A growing Earthbuilding community of training providers is interested to offer outcome-orientated training and to create new qualifications by integrating these new Earth building units. Partners will recognise the units within the consortium signing a memorandum of understanding. They will offer ECVET Earth Building certificates to interested learners in future. They have been and will be contacting competent bodies and national specialists on ECVET to gain national recognition of ECVET earth building certificates. Dissemination will increase addressing both training providers and a wider earth building community.

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1. Project Objectives

The objectives of the project are to allow a more formal training for people in the construction, maintenance and repair of earth buildings. This is part of the European objectives for life-long learning.

So although we want to encourage young people and help them get training and jobs in earth building this is something a much wider range of people could and hopefully will benefit from. Different countries have different training setups, some do more with technical colleges and others deliver training on site. However it is done gaining that experience and travelling to different places to get it is vital for the wider success of the project.

Since the objectives are to increase training possibilities for people there also has to be buildings to be built, repaired and maintained.

Ensuring that people, companies and organisations know there are trained people coming into the labour market is also essential, so a key objective is the dissemination of the project as wide as we can manage.



The consortium has focused on three main construction techniques: earth bricklaying, rammed earth walls and cob building. Based on this analysis, partners have identified skills, knowledge and competences needed to perform these earth building techniques, designed units of learning outcomes and assessment criteria.

The new ECVET Earthbuilding units together with the existing ECVET units in clay plastering, which have been developed by a preceding project, form a complete matrix displaying learning outcomes for common earth construction activities practised in the participating countries. In the second half of the project partners will test the identified learning outcomes, performing and evaluating assessments of learning outcomes.

The units focus on activities performed by practitioners and craftspeople in relation to the qualification levels 3 and 4 established by EQF. Additionally a workgroup identifies learning outcomes in relation to EQF reference level 5 and 6 suited to higher education.

2. Project Approach

The approach of the project is to get as many people and organisations to take part as possible. Although earth building seems a bit unusual to many people, even in the building sector, there is a lot of activity going on across Europe.

Although it is hard to identify universities which teach earth building to engineering students or architecture students, they are out there. Part of the problem is that they don't teach a whole course on earth architecture so the course gets called something else. This is true in technical colleges as well and even in building companies. Earth building may not be the primary activity of the company, but it is something they do.



So finding all the different people who do this and capturing their experience takes quite a bit of imagination, something that happens well when dedicated earth builders and trainers get together for meetings to discuss the technical details the project needs to produce.

The more people we reach, the richer the information that gets fed into our findings. For example each of the country organisations have had a meeting where earth builders with several years' experience are invited to discuss all the issues they face, the solutions they have found and the strategies they adopt to face the future. Each of these meetings is fed back to the group through the website and discussion. Once this was done the outputs from those meetings are sent back to the national group of builders for comment. That way we can check our findings are clear and understandable to the people they are aimed at.

Like all standards our Training Standard will need to be reviewed and changed over time but with the networks we have built over this project the structure is there for change to happen.□

We also have a public website which both shows the work going on but also acts as a point for people and organisations to communicate and comment back to us. We produce a regular newsletter and this again widens the information we collect and produce to the widest audience, a key part of our approach to producing and disseminating training standards.

3. Project Outcomes & Results

The project starts by creating a virtual platform for communication and cooperation of 18 partners across Europe.

This allows sharing information, state of the art analysis of earth building and training. Each partner works and identifies competences required for masons of earth building craft in their country at their national meetings. Across the European platform the results of different earth building techniques, the description, work procedure and related learning outcomes are discussed and worked on. The result is a common Matrix for earth building ECVET Units (European Credit System for Vocational Education and Training), which will allow the assessment of knowledge, skills and competence of craftsmen in Europe. Assessed results will be comparable and the certificates would be acceptable to all European partners.

The Matrix of earth building ECVET Units will allow the development of training programs, help to set up job descriptions and to establish norms and guidelines.

The PIRATE project has a plan for continuous distribution of partial results and outcomes on project web-site, in newsletters, flyers, leaflet, booklet, at fairs, conferences and by video clips. Toward the end of project here will be effort to implement an Earth Building ECVET within existing or new qualifications. There will be mobility exchanges between schools and training centres of the wider earth builder's network, with delivery of ECVET certificates recognized within the partnership.



4. Partnerships

The Pirate project brings together professionals in the building sector, vocational training and higher education in 8 European countries. 18 Pirate project partners bring complementary skills to the project:

- SMEs and professional associations have a good knowledge of the business concerned (masons, foreman or site agent) and are therefore able to describe the skills that are necessary to be shown.
- The vocational training centres are used to develop ways to assess skills taught during training,
- Higher education institutions provide more theoretical learning in organizational, legal, technical or financial skills, knowledge and competence.

This project shows that European cooperation is very useful and productive. Each country has its cultural and administrative specificities with various levels and experience differs. When those experiences are combined, one gets a stronger reference for building rationale and definition of its own local or national development strategy.

The variety of educational systems, teaching contexts and assessment methods among the countries is a challenge for the elaboration of common qualifications that can be used in different places, transferred, and accumulated.

In Europe, there is a diversity of traditional earth building techniques with a number of variants, which has led regionally to original modern adaptations. Through establishing platforms for exchange, an European approach allows sharing the various initiatives and progress made that helps to reach more efficiency in the practice.

Finally, the size of the consortium (8 countries), the forerunner character of the partners, their grounding in the existing national and international networks is a strong advantage for the dissemination and exploitation of the project results.



5. Plans for the Future

We are in the middle of our project and the next step is a first TEST meeting in June in France. This will test the units we have created during our meetings ensuring they can be used in practice. If not, what we should change?

At the Mid-term Overall 2 meeting we will discuss these results, we will try to improve our learning outcomes and we will check where we are in the project. Then we will know what has been done and what are the next steps needed to take in achieving our aims.

A second test will be organized after Overall 2 in Leipzig, Germany. This aims to use the revised units to assess learning outcomes to re-evaluate the Matrix design in a different environment and to include mobility issues. The units will be put together, laid-out and produced as web-based materials for free download, in the partner languages before our final meeting.

The project will create a flexible Matrix of independent and standardized European wide earth building training units containing about 12 units. The Matrix provides lists of knowledge, skills and competence as well as criteria, indicators and recommendations for assessment. It will be used to develop new teaching programs and materials by 13 of the consortium partners and will continue in the future with units for the most recent earth building practices.

We will continue with the dissemination activities towards other direct users through mailing in the partners networks, leaflets and booklets, web-site, courses, fairs...

200 leaflets per country will be printed for the mid-term meeting, containing the flyer information and some first results. 200 booklets per country will be printed for final meeting, containing the main outcome of the project and as a support for both dissemination and exploitation after the end of the project. □ Four remaining electronic newsletters will be released, containing updates about main events and outcomes of the project, including focus from partners about specific aspects of the project.

Summary movies (clips) will be created from work groups and test meetings for public and internal use - these will be timed to allow the collection of precious data for the building of training contents.

We will continue maintaining our public web-site with all news and results for at least 5 years (until 2017). The website is linked to the collaboration platform that will continue to provide all tools needed for easy communication within the consortium: to facilitate management, implementation and evaluation of all parts of the project.

We would work on the Exploitation by writing Report on products' exploitation procedures (signed IPR, a proposal of Memorandum of Understanding and a proposal for implementation procedures related to both) and by participating in international fairs (2 Partners will present a stand or contribution at 2 international fairs or conferences.)



The evaluation report will include a summary of partner's progress and valorisation reports and it will present: project background, scope of the evaluation, detailed evaluation results for all activities and planned / actual impact assessment.

The final meeting will be a general review and summary of project activities and outcomes: management and evaluation tools and procedures, presentation and discussion on exploitation current outcomes. There will be a workshop on finalising, disseminating and exploiting of project final products, feedback from participants and evaluation workshop.

The final report will gather information from all partners about all aspects of the project, especially the progress summary, co-ordination and measures to ensure the activities undertaken are coherent with project goals and problems and corrective actions undertaken. It will include financial report and due deliverables.

After the completion of the project, new partners will be invited to sign the memorandum and deliver certificates, partners will publish their training and assessment offer, other networks for ecological and sustainable building will be informed by mailing, conferences, internet links, on fairs.

The project results are potentially transferable in the construction sector to other sustainable building techniques (e.g. straw bales) and existing qualifications (heritage conservation), but also to organizations and countries previously implied in the clay plaster projects.

6. Contribution to EU policies

Apart from further opportunities for life long learning, bringing skills to an even level of appreciation across Europe, the wider context is in lowering emissions, increasing sustainability in the built environment.

Currently there is a consensus that only new building technologies could be sustainable but in fact Europe has a long and rich history of producing very low emission buildings both in their construction and use and this is the area under review through this project.

Of course we have expectations of higher levels of comfort now than in the past and regulations ensure new buildings conform to energy norms which are increasingly strict. It is into this new world of standards that this project is aiming, allowing all in the construction industry, from designers to builders, regulators to funders to enjoy the benefit of a market which enjoys increasing co-operation and compliance.



