

EMERISDA

Effectiveness of Methods against Rising Damp in buildings – European perspective and practice

DURATION
01/12/2013 - 28/02/2017

BUDGET
158.180 €

PROJECT DESCRIPTION

Rising damp is a recurrent hazard to ancient buildings in Europe and its relevance is expected to increase in the future, due to climate changes. The presence of rising damp in walls does not only create an unpleasant climate in buildings, but it also enhances damage processes as frost action, salt crystallization and biological growth, with possible consequences on the health of the inhabitants.

The relevance of this problem is reflected by the large variety of products on the market. This wide and differentiated offer, together with the scarce and fragmented scientific information on the effectiveness of the methods, make it difficult (even) for the professionals working in the field to choose a suitable intervention on a sound basis.

The aims of this project are to come to a scientifically based evaluation of the effectiveness of different methods against rising damp and to define decision support tool for a conscious choice and successful use of these methods in the practice of conservation. These aims will be achieved by sharing the knowledge, until now diffused over EU, and by acquiring new knowledge through the application of selected methods in case studies. The methodology is as follows: initially a list of all possible interventions, employed throughout Europe, will be established. Subsequently a selection of the most promising interventions will be made. These techniques will be tested in real cases. Additionally to these case studies, tests in controlled circumstances (scale models) are carried out, enabling a more systematic comparison between the selected techniques. This information will be completed with information obtained from building owners, regarding their experiences with these techniques.

The co-operation between research institutes, conservation authorities and SMEs guarantees: (i) easy access to documentation on case studies, (ii) independent and scientifically based evaluation of interventions, and (iii) successful dissemination of results.

The nature of this research and the ambitions of the project need a European dimension to be successful. The involvement of the selected partners is necessary when considering the diffusion of the problem at European scale and the urgency of finding effective solutions. The consortium consists partially of enterprises, as they have relevant and practical experience with the application of intervention techniques. The research institutes have a profound knowledge of the scientific principles behind the diagnostic and intervention techniques. It is remarkable how building traditions differ between different countries, which is being reflected in the difference research-tradition and competence. These differences will lead to a broader and general overview of possible intervention techniques throughout Europe.



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Collaboration between the different actors in the research allows to: (i) share knowledge and join efforts towards a common objective; (ii) guarantee a complete overview of existing methods, (iii) enhance dissemination of the research findings and (iv) build up a European network of experts with state of the art knowledge.

The following research results are expected:

- Identification and description of different intervention methods throughout Europe.
- The establishment of a universal methodology to evaluate the efficiency of an intervention against rising damp. Since the research focusses on heritage buildings, non-destructive and semi-destructive techniques are preferred.
- The establishment of a decision-tool, allowing building contractors and owners to make a correct and balanced choice regarding to their problem of rising damp. This document should give an insight in the feasibility, the limitations and risks of various interventions. By means of a decision-tree, the user will be guided towards the most suitable intervention. These decisions are not entirely of technical nature. Aspects regarding compatibility and reversibility, of the utmost importance for cultural heritage, will be brought under attention.



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