

EDUCATE

Environmental Design in University Curricula and Architectural Training in Europe

CONSORTIUM PARTNERS

- University of Nottingham – School of the Built Environment (*Coordinator*) (UK)
- Architectural Association of London – School of Architecture (UK)
- Catholic University of Louvain – Architecture et Climat, Faculté des Sciences Appliquées (Belgium)
- Technical University of Munich – Fakultät für Architektur (Germany)
- University of Rome La Sapienza – Dipartimento ITACA, Facoltà di Architettura (Italy)
- Seminario de Arquitectura y Medioambiente – SAMA, S.C. (Spain)
- Budapest University of Technology and Economics – Faculty of Architecture (Hungary)

In addition, an Advisory Board composed by international practitioners and representatives of Chambers of Architects within each of the participating countries will support the Action as subcontractors of the project.

ABSTRACT

Widespread awareness of climate change together with the technical demands arising from new regulations such as the Directive on Energy Performance of Buildings has triggered professional demands for architects with advanced skills in sustainable design and energy efficiency. This paradigm shift in professional responsibility has subsequently required that a robust environmental education sits at the core of the architectural curriculum at university and professional level. Unfortunately, the successful integration of technical subjects into a creative design process has proven elusive and, consequently, both education and the profession at large have been slow to respond to the demands of enhanced energy efficiency in buildings. To meet the challenges that the current environmental crisis poses to professionals and educators, this Action will:

- Propose, implement and disseminate an integrated pedagogical framework, academic curriculum, teaching method and course structure which bridge the divide between sustainability-related building sciences and architectural design in secondary and professional education;
- Develop, test and implement an intelligent educational Portal on environmental design and energy efficiency in architecture that facilitates such successful integration at university level, as well as within the professional practice (e.g. supporting CPD activities) and the public at large (e.g. encouraging change in behaviour);
- In collaboration with European Chambers of Architects, propose the harmonisation of the criteria for accreditation of university curricula fostering the implementation of environmental design in higher education, and recommend a new set of European-wide registration requirements establishing the level of knowledge, understanding and ability in terms of environmental awareness and energy efficiency that practitioners must acquire in the process of qualifying as architects.

MAJOR OUTPUTS AND EXPECTED RESULTS

The Action will deconstruct the pedagogical barriers to the integration of environmental design and energy efficiency in university curricula and in the practice of architecture, disseminate know-how and exempla of best practice on sustainable design and energy efficiency in building practice and propose a harmonisation of educational systems, course structures, accreditation and qualification prescriptions in Europe.

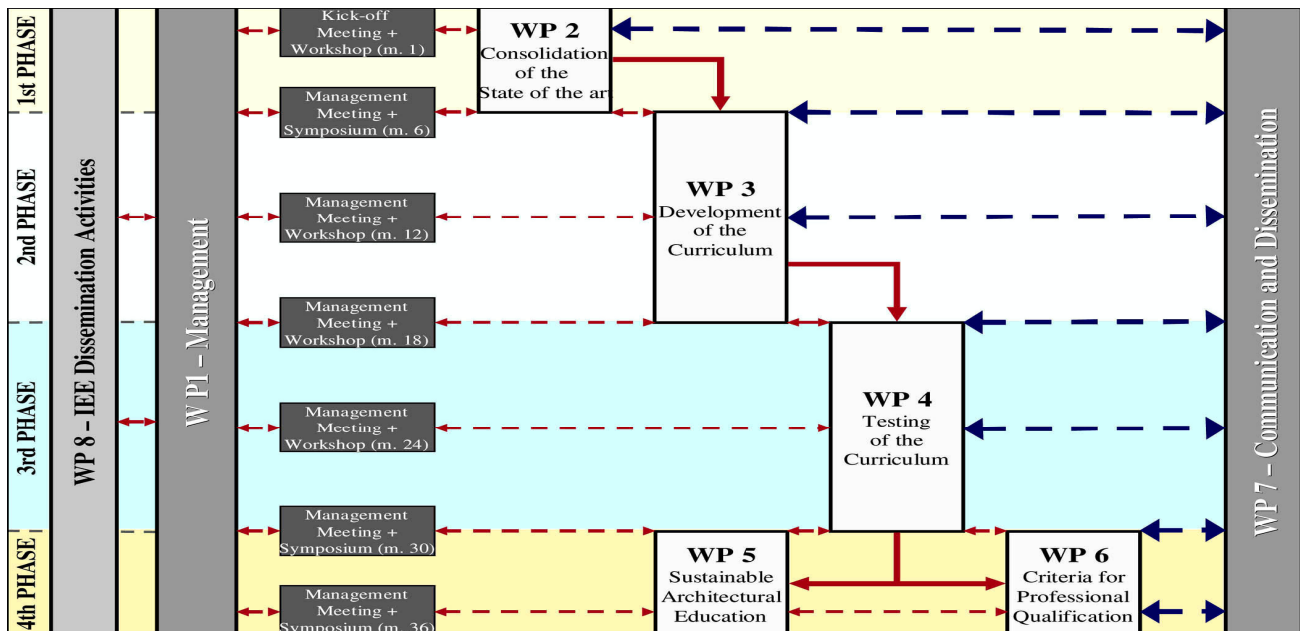
The project is set to have significant impacts, in the short as in long term, on the sustainability of built environments and the successful application of European regulations such as the Directive on Energy Performance of Buildings, the Action Plan on Energy Efficiency and the Energy Policy for Europe.

These impacts could be measured, among other indicators, by significant advances in:

- Integrated learning outcomes of students and architectural professionals on environmental design, energy efficiency and architectural practice;
- Increase of environmental awareness and energy-efficient building practices and change of behaviour by the general public (e.g. homeowners);
- Number of academic institutions and professional bodies signing up to the proposed pedagogical method, course structure and accreditation and qualification criteria;
- Achievement of targeted environmental objectives in Europe.

SUMMARY OF THE WORK PROGRAMME

- **Stage 1 (WP2): State of the Art** (6 months). The first six months of EDUCATE will be devoted to the consolidation of the state-of-the art of environmental design in architecture, looking at assets and liabilities of current educational systems (within participating countries but also looking at paradigmatic exempla from centres of excellence worldwide). The level of integration/awareness of environmental design in teaching courses and amongst the profession will be appraised, looking at the structure of the academic curricula and analysing validation and qualification criteria in collaboration with local chambers of architects. Concurrently, the Action web page and a prototype of the educational Portal will be developed.
- **Stage 2 (WP3): Development of the Curriculum** (12 months). During the second stage of the project, a knowledge-base of environmentally sustainable design will be consolidated in a homogenous format and will be uploaded on the public area of the Portal for disseminating knowledge of environmental design in architecture. Concurrently, an integrated pedagogical framework will be developed basing on exploration of inter-, intra-and extra-disciplinary contributions and a restructured curriculum will be formulated to be tested in studio at undergraduate, graduate and postgraduate level. This phase will foster continuous interactive exchange of information between project partners, and will involve external specialists in a series of events that, remotely, will support an integrated teaching structure.
- **Stage 3 (WP4): Testing of the Curriculum** (12 months). In the third stage of the project, the results of the initial testing phase will be evaluated in terms of integration of environmental design in architectural curricula, getting feedback from the profession to fine tune teaching methodologies. At this stage, an Advisory Board composed of external practitioners and representatives of professional bodies across Europe will formulate common design briefs to run a European competition amongst participating institutions at undergraduate, graduate, postgraduate and professional level (CPD). The outcomes of the competition will be judged by an international panel of experts so as to measure the validity of the learning outcomes as well as the professional value of the results obtained.
- **Stage 4 (WP5 and WP6): Sustainable Education and Professional Qualification Criteria** (6 months). On the basis of the results achieved, the Action Consortium will split in two groups during the last six months of the project in order to formulate and propose general principles/pedagogical framework/course structures to be embraced for sustainable education by European schools of architecture and, in collaboration with Chambers of Architects across participating countries, recommend principles for harmonisation of validation and qualification criteria at a European Level.



The domain name for the EDUCATE Portal and public webpage is <http://www.educate-sustainability.eu>

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