

ENEPLAN: DEVELOPING SKILLS IN THE FIELD OF INTEGRATED ENERGY PLANNING IN MED LANDSCAPES



Description

The project tackles the lack of interdisciplinary approaches in energy planning by focusing on the enhancement of capacities of future professionals (university students in their last years, and the newly graduated). Quite often, higher educational institutions (HEI) provide skills and competencies in renewable energy sources (RES), energy, planning and landscape in separate specializations, limiting the potential of an integrated approach. Moreover, energy efficiency strategies are often simplistically traced to a mere list of technologies, while their elaboration should require the integrated development of technical skills and environmental and landscape sensitivities (especially in ecologically valuable contexts). These integrated skills need to be developed within a dedicated HE program. Hence, the project aims at developing collaborative open education resources (OER), which can be used to improve the capacities of teachers, students and researchers in energy planning from a sustainability perspective, and to foster collaboration among HEI, research institutions, public administration and business. The project consortium has been built accordingly, involving 18 partners who can provide significant contributions according to their perspective and specific expertise: universities, research centers and energy agencies.

Main Objectives

- Fill a gap in higher education programs, focusing on RES development and planning.
- Respond to the emerging need for a professional profile able to work with an interdisciplinary approach that integrates urban and regional planning, environmental impact assessment and landscape design on one hand, and energy planning and RES development on the other.
- Merge the theoretically separated disciplines in an organic framework for the definition of effective and sustainable implementation strategies, following a holistic approach in which Environment, Technology, Planning and Landscape move together towards an increasingly integrated vision.
- Respond to the need for interdisciplinary educational tools in this field, through the development, testing and circulation of collaborative “Concept maps” as Open Educational Resources.

Concept maps are a way of representing relationships between ideas, images, or words, and, as OERs, they can be a useful tool for teachers, students and researchers, and enterprises.

Main Outputs

The project envisages the development of OER, open-licensed material that can be freely used, diffused, improved and exchanged by users.

The project is divided into 5 main work packages (WPs) extending over 3 years:

- State of the art and case studies report which aims to present a preliminary assessment of energy planning in each country and the education offer available at the participating universities. (WP1)
- Online platform that includes Cmaps and GIS database from all partner countries (WP1)
- Cmap 1.0 – basic conceptual map OER in English, later upgraded to Cmap 2.0 by incorporating the results of the thematic workshops on energy planning and GIS tools; environmental and landscape assessment; RES new technologies; Life cycle analysis and energy potential; innovation, applied research and relationships with SMEs. It will be released in English and Arabic. (WP2)
- Final conference proceedings (as guidelines for integrated energy planning) (WP4).

Other work packages include the management and the quality assessment of the project ensuring its success.

Partners

Institution	Country			
Università degli studi Roma Tre	Italy			
Università degli studi di Siena	Italy			
Università degli studi di Camerino	Italy			
Malta Intelligent Energy Management Agency	Malta			
Universidade do Algarve	Portugal			
Universidad Pablo de Olavide	Spain			
American University of Beirut	Lebanon			
Lebanese University	Lebanon			
Association Libanaise pour la Maitrise de l'Energie et l'Environnement	Lebanon			
Medgreen	Lebanon			
Zewail City of Science and Technology	Egypt			
Ain Shams University	Egypt			
Al-Balqa' Applied University	Jordan			
Jordan University of Science and Technology	Jordan			
Princess Sumaya University for Technology	Jordan			
University of Jordan	Jordan			
University of Petra	Jordan			
National Energy Research Center -Royal Scientific Society	Jordan			