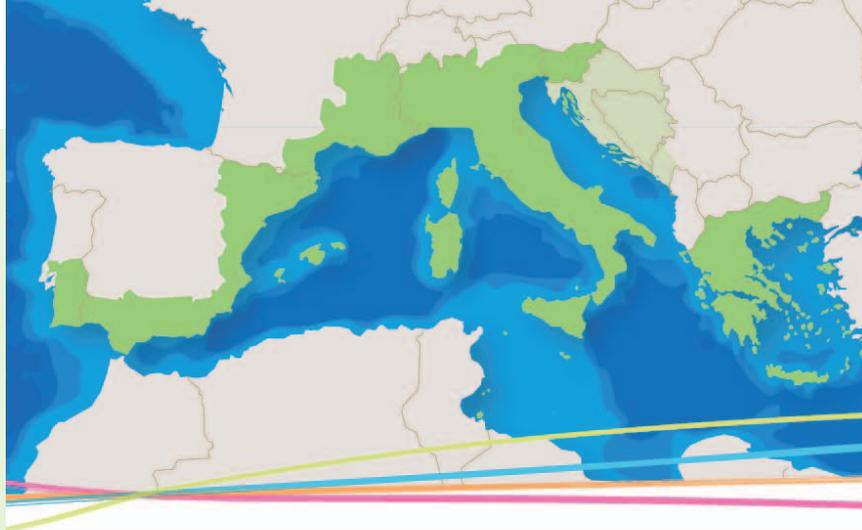


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HIGHLIGHTS

THE GREEN CITY ENERGY ONTHESEA INTERNATIONAL FORUM HOSTS THE FINAL EVENT OF THE SCORE PROJECT

The SCORE project participated in the second edition of the conference **Green City Energy ONtheSEA** which took place in Genoa on 29 and 30 November with over 1500 visitors. Green City Energy ONtheSEA has turned its attention to three **key issues** in the development of a sustainable future:

- **management and requalification models for urban-port waterfronts** and a debate at European level on the path of redevelopment of the waterfront of the Porto Antico area in Genoa, in comparison with the cases of Naples, Barcelona, Trieste, Bilbao, Dublin and Porto.
- **evolution of Smart Grid management**



systems for the exploitation of distributed generation and from renewable energies

- **energy requalification, sustainable building** and public and private projects for the development of energy efficiency and renewable energy in urban areas

Thanks to this opportunity for discussion of projects and technologies for the production of renewable energy in the coastal cities, ports and marine water spaces, **the partners of SCORE project illustrated the achieved results and the work carried out during the project.**

Case studies and new assessment tools for sustainable construction were the main focus that animated the conference, rich in international contributions and experiences. Antonio Schizzi, the Project Coordinator for the Province of Savona, lead partner of the SCORE Project, showed how the project has enhanced the MED architecture and established new governance

strategies **to promote sustainable construction** with the aim of improving the efficiency energy and protecting the environment.

Andrea Giachetta, the Scientific Coordinator of the Project, presented the analysis tools that all partners have developed and used **to evaluate the systems and energy-efficient building technologies** in relation to environmental, historical and cultural heritage of the Mediterranean area.

These were the spokesman for the **international cooperation** that has supported the development of the project SCORE: Sophie Marin Putcrabey, delegate from "Chambre des Métiers et de l'Artisanat du Rhône" (France), Pablo Morales, from "Camara de Sevilla" (Spain) and Štefan Žohar, representative of the Local Energy Agency Pomurje - LEA Pomurje (Slovenia).

The project partners SCORE showed the public their case studies, pilot sites of traditions/innovations in energy efficient building practices supporting the architectural integration and enhancing MED identity.

The partners finally have shown that SCORE project is an opportunity **to face specific problems and constraints to the diffusion of green technologies and systems and propose common solutions to be implemented locally, even in different territorial realities.**



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FIRST ELEMENTS FOR CONFRONTATION: THE LEGAL FRAMEWORK IN PARTNER COUNTRIES AND SCORE CASE STUDIES



One of the first steps while working within the SCORE project was the identification by the different Partners, of the **legal framework applicable to the project at national and local level**, in order to compare it with other countries. If, generally, the framework of European Directives ensures a certain uniformity of the law in different countries, local implementation regulations for the same laws may vary significantly, thus providing a different effectiveness and flexibility for territorial management tools. Since these regulations are a key node for disseminating technologies and systems for the planning and construction of sustainable buildings, it is important to compare the impact they may have on the different territories where they apply in order to assess the need for amendments or integrations; the same is true also if we consider that **SCORE partners are public entities with**

decisional power, if not direct competence, **in the drafting of this regulations.**

Another important action implemented by the different partners in order to compare the best results achieved at local level by current norms and regulations was the identification of case studies to highlight the best local practices concerning the architectural integration of sustainable technologies and systems.

Case Studies mainly refer to building complexes and existing buildings - in the different territories of the partner countries involved - where particular relevance is given to factors such as: the adoption of bioclimatic strategies (for the natural climatic control of solar radiation and wind exposure for passive heating and cooling), the integration of particular installations (thermal-solar, photovoltaic, geothermal plants or biomasses), the adoption of solutions to reduce energy consumption or, again, the use of natural materials (no oil derivatives, low energy content), management strategies for environmental resources, correct integration with the existing natural and anthropic context. The project also covers case studies of a different nature concerning, for instance, specific didactic experiences on sustainability for future designers based on learning by doing approach, or local environmental certification systems for buildings.

This presentation of the different case studies is articulated in several cards that describe and critically analyse the studies, **highlighting the transfer potential of the adopted methodologies and strategies**; the latter being, clearly, a key element within the scope of the SCORE project.

The research and sharing of the case studies allowed the different partners not only to **gain knowledge of interesting urban and construction activities** in similar areas of other countries, but also to discover some situations of great interest within their own territory that were still relatively unknown and which deserved, however, to be promoted due to their innovative features.

This led to discover an unexpected situation, mainly in connection to the heterogeneity of the experiences that were analysed and which referred to settlements of various sizes (from single houses to entire districts); to buildings with different destination for use (housing, tourism, production), in different contexts (urban areas, ports, agricultural areas, mountains), newly built or resulting from the renovation of existing buildings, both modern or with an historical value.

The work of local partners: focus groups and international meetings

In the identification of case studies and of the issues connected to the implementation of norms and regulations by different stakeholders in the building process (designers, builders, suppliers of raw materials, building systems and plants, resellers and engineers working with these systems) a fundamental role was played by local focus groups (also called "Local Information Seminars"). These are indeed a series of meetings - in the form of conferences, roundtables and workshops - organised within the SCORE project. These *focus groups* were held locally by different SCORE partners and involved the above-mentioned stakeholders of the construction sector and the associations representing them (professional orders, trade associations) together with local authorities, training and research institutes, universities and

environmental associations in order to provide a positive opportunity for confrontation. The *focus groups* meetings concentrated on presenting SCORE and its several phases of development, thus providing, for instance, the above-mentioned possibility to identify some case-studies, still unknown to the SCORE partners, but also to point out specific issues common interest highlighted by the SCORE project. The *focus groups* represented an opportunity not only for abstract speculation on the possibilities of integrating sustainable systems and technologies on buildings in the different territories of interest, but they also represented the **opportunity to effectively face specific problems and analyse the limits** to the dissemination of these systems and technologies and **find the best possible solutions**. In parallel to local meetings, the different partners, benefited from repeated opportunities of international exchange, thanks to

ongoing correspondence, the website and, above all, a number of meetings - the so-called *Steering Committee*. During these meetings, they developed work and communication methodologies, paid on-site visits concerning the most interesting case-studies, shared training experiences and the results of the focus groups, thus **creating a network of networks**, which is strategic in order to successfully develop the right governance strategies on the projects themes.





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THE MAIN PROJECT TOOL: The SCORE Matrix, a model for the international evaluation of sustainable technologies applied to existing buildings

The analysis of norms and case-studies, like the local focus groups, allowed each SCORE partner to perform a first selection of the building systems and technologies with high energy and environmental efficiency that are already in use or potentially available or which may be suitable for development and diffusion in their own territory of reference, while taking into account the historical-environmental value and fragile landscape of coastal and rural areas.

After highlighting these systems and technologies, it was necessary to develop a tool (defined as “eco-construction tool” in the project) that the operators of the local network could easily use and navigate. At the same time, this should represent an **effective model for the assessment, comparison and transfer of information among different partners**. This process leads to the development of the so-called “Matrixes” developed by each partner and based on a common scheme to ensure a constant confrontation with each other. The common scheme of the *Matrix* and the different possible systems and applicable technologies open the way to possible application conditions.

These systems and technologies are: aggregation and exposure systems of the settlements for natural climatic control; passive solar Systems; thermal solar systems; photovoltaic systems; mini-micro wind-power systems; biomasses; geothermal systems, shading devices, natural ventilation; natural lighting; automatic control systems (smart buildings); coating systems (hyper-insulation and use of phase-change materials, PCM); eco-friendly

materials; use of vegetation for microclimatic control; water management. The possible applications are: new constructions; renovation of recent buildings; recovery/renovation of historical buildings; ex-novo activities in historical contexts.

The various systems and technologies are cross-evaluated in each matrix together with possible implementations (i.e.: passive solar systems for the refitting of recent buildings). Each partner then worked on specific projects containing analysis and proposals on the most-relevant cross-points.

These documents, available for download from the project website (starting from the Matrix) in the language of each partner (for better understanding by local network operators) and

an abstract in English (for international comparison) have been organised as follows:

- **Short description of the system and technology** with reference to the specific context and the state of implementation considered case by case.
- **Reference to case-studies**, relevant norms and regulations, with their possible critical

evaluation in the annex;

- **Strengths and advantages of the relevant system and technology**, with reference to the specific context and nations in relation to the following aspects: Resource consumption reduction; reduction of the environmental burden; improvement of the quality of the internal environment; economical aspects; management; other factors;
- **Weaknesses/disadvantages of the relevant system and technology** in relation to the following aspects: issues related to the architectural integration, cultural differences (connected to the landscape perception of mainstream culture in the local context), differences in the legal framework (linked to local norms and to the presence of bureaucratic issues and similar); technical difficulties for installation/assembly linked to the local production context (lack of manufacturers, supply difficulties, economic and environmental difficulties/transport costs, lack of engineers with suitable qualification, etc.); other factors;
- **Proposals to overcome the above-mentioned weaknesses**, also with reference to the results of the focus groups, to case-studies, to the solutions already implemented by other partners.

The English abstract of each document is organised according to the following scheme:

- **Definition of guidelines** according to the strengths and weaknesses highlighted in the system/technology and to the proposed solutions. These *Guidelines* highlight the **conditions of local areas in order to point out specific lines of actions based on the issues recorded.**
- **Indications to develop an action plan**

IT	GR	ES	FR	SI	CY	PT
THEMES						
This matrix is an eco-construction tool aimed to allow local planners and building practitioners to use criteria to make energy-efficient choices: newBuild, conversion & renovation/retrofitting.						
DECLINATIONS						
New constructions						
Requalifications of recent buildings						
Renovation and retrofit works of historical buildings						
Works "ex novo" in historical contexts						
Aggregation/exposure for micro-climatic control	■	■	■	■	■	■
Passive solar	■	■	■	■	■	■
Solar thermal collector	■	■	■	■	■	■
Photovoltaic	■	■	■	■	■	■
Small wind turbine	■	■	■	■	■	■
Biomass	■	■	■	■	■	■
Geothemic	■	■	■	■	■	■
Different system of renewable energy	■	■	■	■	■	■
Sun screen control	■	■	■	■	■	■
Natural aeration	■	■	■	■	■	■
Natural lighting	■	■	■	■	■	■
Automatic control system	■	■	■	■	■	■
Involucre (insulation, mass, PCM)	■	■	■	■	■	■
System (heating, conditioner)	■	■	■	■	■	■
Eco-compatible materials	■	■	■	■	■	■
Microclimatic and environmental control through vegetation	■	■	■	■	■	■
Water resource (rain collection, etc)	■	■	■	■	■	■

- (“Bio-construction Action Plan”) to **effectively implement the proposed solutions**, also by means of further research programmes and pilot projects;
- **Indications for developing an environmental quality certification**, applicable in the partner countries involved, making reference to the possible weaknesses highlighted in the existing models of environmental certification for the relevant system and technology

The comparison of the elements highlighted for each system/technology and for the different applications thanks to the information provided to the Matrixes by various partners will allow to define the guidelines for action plans and quality certifications. These plans and certifications could then be considered at local level and, therefore, be implemented by single partners (also adapting the solutions described in the Matrix by other participants). Moreover, they can be used to define which actions are common to two or more partners, with the possibility to adopt common action strategies.



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ACHIEVED RESULTS AND PERSPECTIVES FOR THE FUTURE

Among the achieved results, attention is drawn in particular to the following:

- to guarantee the **diffusion and the application of energy saving solutions** in the building sector and in town planning as for reference territories;
- to define **development and research projects** that need to be implemented at local, transnational and European level through the identification of potential resources to foster such projects;
- to establish **mutual exchange of good practices** at procedural, regulatory, management and educational level;
- to identify **criteria for an environmental certification system** applicable in the countries of partners involved;
- to **disseminate the results achieved by SCORE** and the ability to use the SCORE processed by individuals acting locally in the field of urban planning, building design and construction.

The most **important result of the project** is that it has **developed a methodology** that seems very effective for local government interested in creating a network among themselves and with others in the area, in order to **deal effectively and in a participatory way with the theme integration of sustainable building technologies and innovative solutions in areas of high landscape value.**



In this historical moment, in fact, the challenge of sustainability is no longer - at least not only - to identify the technologies and systems to be applied (there are already many, very advanced and effective),

it is rather finding strategies for the **concrete and widespread application of these technologies and systems**, able to overcome the strong resistance and unfortunately still existing legal, regulatory, bureaucratic, productive, cultural and local

resistances.

In this context, we believe that the SCORE project, having developed a run-work system and achieved significant results with positive feedback both locally and in relation to international comparison, constitutes the basis and framework for further developments privileged applications on the territories of reference area MED.

● INFO & CONTACTS



WEB

For further information about the Programme, project news, procedures and reference documentation visit: www.scoremed.eu

MAIL

Please contact us: info@scoremed.eu

Project cofinanced by



European Regional Development Fund



Lead Partner



Province of Savona (ITALY)

Project Partners



• Read S.A. - South Aegean Region (GREECE)



• Official Chamber of Commerce, Industry and Shipping of Sevilla (SPAIN)



• Chamber of Commerce and Industry Drôme (FRANCE)



• Local Energy Agency Pomurje (SLOVENIA)



• Rhône Chamber of Crafts (FRANCE)



• Cyprus Chamber Of Commerce and Industry (CYPRUS)



• Agência Regional de Energia do Centro e Baixo - Alentejo (PORTUGAL)



• Development Company of Kefalonia & Ithaki S.A. Kefalonia (GREECE)



• Chamber of Commerce & Industry Marseille Provence (FRANCE)



• Chamber of Commerce and Industry Drôme (FRANCE)