

## PRISMI FINAL PUBLISHABLE REPORT

Context	
<b>Call for projects</b>	1 <sup>st</sup> call for proposals INTERREG MED <input checked="" type="checkbox"/> Modular <input type="checkbox"/> Horizontal
<b>Project Typology</b>	<input checked="" type="checkbox"/> Studying <input type="checkbox"/> Testing <input type="checkbox"/> Capitalising
<b>Programme priority axis</b>	Priority Axis 2: Fostering low-carbon strategies and energy efficiency in specific MED territories: cities, islands and remote areas
<b>Programme priority specific objective</b>	2.2: To increase the share of renewable local energy sources in energy mix strategies and plans in specific MED territories

Project description	
<b>Project number (ID)</b>	1099
<b>Acronym</b>	PRISMI
<b>Project title</b>	Promoting RES Integration for Small Mediterranean Islands
<b>Partnership</b>	PRISMI project is coordinated by Sapienza University of Rome and it has 6 partners: Centre for Renewable Energy Sources and Saving, University of Zagreb, Cyprus Energy Agency, Piraeus University of Applied Sciences, Malta Intelligent Energy Management Agency and Municipality of Favignana.

<p><b>Project vision</b></p>	<p>EU islands are facing common challenges in terms of high energy costs and local CO2 emissions, security of supply and system stability. In the EU many islands have become a site of energy innovation, where betting on renewable energy sources (RES) exploitation is a winning choice to meet their energy needs. In Mediterranean area, despite the high potential of renewable energy, this green transition goes slowly, and Mediterranean islands (Misl) still maintain a great dependency on fossil fuel.</p> <p>PRISMI aims at tackling these key challenges by supporting the transition of Misl to an autonomous, clean, secure, low-carbon energy system – in line with the overall EU Energy Union package and EU 2020-30 Strategies – through the development of an integrated trans-national approach to assess and exploit local RES potential.</p> <p>The setting up of this new model for local renewable energy production will be based on the integration of three pillars:</p> <ul style="list-style-type: none"> <li>• the scientific knowledge;</li> <li>• the local authorities work;</li> <li>• the citizens' involvement.</li> </ul> <p>Merging these three different bases, the new approach will be able to assess, map and finally promote the use of new hybrid systems that combine RES and last generation's storage devices, in order to increase the share of RES, contributing to sustainable development and inclusive growth in the MED Programme area. This approach aspires to change the current energy model characterized by the use of fossil fuels and strongly centralized, towards a new energy pattern based on distributed generation from RES and focused on territorial resources and local community's needs.</p>
<p><b>Specific Objectives</b></p>	<ol style="list-style-type: none"> <li>1. Develop an integrated toolkit able to assess and map local renewable energy sources for the targeted elaboration of energy scenarios and related techno-economic feasibility analysis in MED islands;</li> <li>2. Support effective design and implementation of Sustainable Energy Action Plans (SEAPs);</li> <li>3. Establish a Network of specialized agencies, public authorities and scientific institutions able to increase and exchange knowledge, skills and acceptability of RES in MED islands.</li> </ol>

<b>Study Areas</b>	<p>PRISMI methodology is applied to 5 Mediterranean islands taken as case study:</p> <ul style="list-style-type: none"> <li>• Akamas Peninsula - CYPRUS</li> <li>• Korčula &amp; Vis Islands - CROATIA</li> <li>• Tilos Island - GREECE</li> <li>• Favignana Island - ITALY</li> <li>• Gozo Region – MALTA</li> </ul>
<b>Project Start Date</b>	01/11/2016
<b>Project End Date</b>	30/04/2018

### Project contacts

<b>Website</b>	<a href="https://prismi.interreg-med.eu">https://prismi.interreg-med.eu</a>
<b>Facebook page</b>	<a href="https://www.facebook.com/Prismi-project-249321535489626">https://www.facebook.com/Prismi-project-249321535489626</a>
<b>Twitter page</b>	<a href="https://twitter.com/prismiproject">https://twitter.com/prismiproject</a>
<b>ResearchGate page</b>	<a href="https://www.researchgate.net/project/PRISMI-Promoting-RES-Integration-for-Smart-Mediterranean-Islands">https://www.researchgate.net/project/PRISMI-Promoting-RES-Integration-for-Smart-Mediterranean-Islands</a>
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### Project achievements

<b>Load-flow analysis for RES integration in island grid</b>	<p>The tool consists of a software application able to use GIS data jointly with electrical grid characteristics.</p> <p>The aim of this tool is to facilitate the analysis of the abovementioned energy plans and solutions by providing the user with specific implementation examples and recommendations regarding operating challenges for the electricity grids of islands. By means of this analysis, the user can identify cases in which the installation of RES plants at specific points of the island grid could cause violation of the operating limits.</p> <p>The use of the tool is free of charge and the requirements for installation and running the application are minimal, rendering the tool easy-to-use</p>
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	<p>even by non-experts.</p>
<p><b>GIS geo-database</b></p>	<p>A GIS database has been developed; it contains data layers and queried thematic maps showing the RES data and potential in case studies. The GIS geo-database will contain data about RES potential (solar, wind, wave and tidal) but will also show information about environmental constraints (SCI and SPA sites, Ramsar areas, etc.), the existent energy systems (thermoelectric plants, PV plants, wind turbine generators, etc.) and buildings. Moreover, thematic maps have been designed.</p> <p>The GIS database is free of charge and can be used by partners and PRISMI Network members. Thematic maps are downloadable directly from PRISMI website.</p>
<p><b>RES feasibility study and comparative analysis</b></p>	<p>The approach for energy scenarios modelling has been developed, pre-processing tools have been identified or implemented, i.e. PRISMI Wind calculator; EnergyPLAN has been identified as main simulation tool for energy scenarios; post-processing tools have been developed to facilitate the understanding of EnergyPLAN results and thus to ease the development of SEAPs. A user guide for each of the aforementioned tools has been also developed to support users.</p> <p>The methodology has been applied to each of the case study areas, 6 in total, covering each of the countries. Elaborate includes description of case study and input data, results of modelling with discussion, socio-economic feasibility of adopted solutions and environmental considerations. All the energy scenarios analysed the diversification of RES production and the positive synergies between transport and energy sectors by studying the introduction of EVs in both public and private mobility.</p>
<p><b>Preliminary SEAPs</b></p>	<p>Guidelines to help users to develop preliminary <i>Sustainable Energy Action Plan (SEAP)</i> or <i>Sustainable Energy and Climate Action Plan (SECAP)</i> have been developed. Such guidelines will be of great help to all local authorities that are interested in producing a SEAP. Then, partners have completed a draft SEAP/SECAP for the 6 study areas. Thus, the inventory of demands and emissions has been carefully developed, mitigation actions have been identified and their impact on islands evaluated.</p> <p>Many interesting measures have been identified and then proposed for the different case study areas and some joined key elements have arisen. All SEAPs aimed at: 1) diversifying the energy production by using PVs, biomass and wind energy where possible; 2) increasing energy efficiency</p>

	<p>in buildings and in lighting systems (both indoor and public street ones); 3) promoting the use of EVs, biomass, car sharing and in general the shift to alternative mobility such as walking and cycling and; 3) raising the public awareness.</p>
<p><b>Results transferability report</b></p>	<p>In the developed deliverable (D 3.6.1), the main activities that have been carried out during the project in order to establish the PRISMI Network, the two surveys and the regional engagement events have been introduced and their outcomes have been shown. Regarding the community survey, it arises that the majority of respondents have a medium knowledge about RES in general and about the situation in their Country; and that they think that the most important barriers to RES deployment are the lack of money (and thus more should be done to support RES) and the legislative framework that is too complicated and discourages investments. Regarding the Stakeholders survey, it arises that the main barriers are the weak commitment of the public authorities, the lack of financial instruments and the poor awareness. Moreover, they confirmed that incentives should be increased. A specific chapter is dedicated to the use of the user-friendly PRISMI toolkit and the transferability methodology after the project's conclusion.</p>