Participants in the 7th MEDENER International Conference - organized in the framework of the meetMED project and hosted by the Municipality of Rhodes and the Greek Centre for Renewable Energy Sources and Saving (CRES) - discussed sustainable energy solutions for islands and remote areas as frontrunners for the energy transition in the Euro-Mediterranean region.

MEDENER members and experts in the field of energy transition acknowledged the difficulties and the challenges that islands, and remote areas face in relation to energy efficiency: the integration of large amounts of variable renewable energy sources in the power systems, energy storage, demand response systems, low carbon transportation and sustainable water treatment.

Climate change is a common concern and ‘isolated’ national solutions are insufficient to boost energy transition. Multilateral and regional cooperation, instead, has the potential for multiplying the effects of sustainable energy strategies and for disseminating technological solutions by means of technical assistance, capacity building and community engagement.

Islands and remote areas can be fueled by sustainable energy mainly thanks to wind, solar and hydro energy, coupled with biofuels and geothermal sources. The use of renewable energy sources in islands and remote areas should be promoted not only for power generation but also to meet heating, cooling and transport needs. Energy storage through batteries and pumped hydroelectric, energy micro-grids and demand-response systems underpin the integration of large amounts of variable energy in not-interconnected power systems, such as the ones in islands and remote areas.

Investments in e-mobility and charging stations fed by electricity from RE systems are also recommended to face the challenge of grid stability. Innovative solutions in energy storage include the newly EU-supported concept of hydrogen territories, including fuel cells and hydrogen technologies. The integration of renewable energy sources and energy efficiency measures with water management facilities is also important, with a focus on resource management and financial sustainability.

All the afore-mentioned technology solutions serve the successful outcome of the transition of islands and of remote areas to clean energy. Policy decision-making should consider them according to their life cycle assessment, regarding costs, affordability, and sustainability.

The concrete experiences of smart strategies and innovative solutions implemented in the islands of Djerba (Tunisia), Salina (Italy), Ai Sratis, Tilos, Ikaria Kythnos (Greece), Canary and Balearic Islands (Spain), Azores (Portugal), and the virtual island of Heliosthana, highlighted that islands give the best evidence that a technological revolution towards clean energy is possible in the short term. The successful planning and the implementation of renewable energy and energy efficiency solutions and investments will require building up strong social acceptance and involving local communities through appropriate schemes like energy communities.
The EU supports the energy transition in the EU islands with initiatives like the Clean Energy for EU Islands. Such experiences and tools are useful to support relevant projects in the islands and/or remote areas of the Mediterranean region. Synergies among EU-funded projects should be further exploited, including those focusing on the role of circular economy investments, economic self-sufficiency and inclusive growth. Among others, the Clima-Med project, which supports sustainable local actions implementing the Sustainable Energy Access and Climate Action Plans (SEACAPs) and promotes access to financial mechanisms, such as innovative public private partnerships. Regional cooperation shall embody the water-energy-food nexus, due to the growing demand for water and its scarce availability as well as the difficult access to freshwater in the remote areas of the Mediterranean region.

The cooperation among national energy agencies, authorities and regional associations, like MEDENER and RCREEE, plays a key role in building the technical capacity required to implement sustainable energy solutions both in islands and remote areas.

In response to the need to create inclusive jobs and to mobilize sustainable investments, regional cooperation should focus on the professional training for energy managers, auditors and service providers across all sectors (appliances, buildings, power generation, industry and transport) as well as on removing barriers to - and risks for - private investments, including facilitating guarantees, funding, regulatory stability and market confidence.

Since markets for energy efficient equipment and systems are not isolated, on the one side, regional cooperation shall likewise contribute to building a regional network of quality infrastructures - including laboratories, testing facilities and inspection, certification or accreditation bodies. On the other side, the regional interconnections cooperation shall pave the way for setting up a plan for regional trade, aimed at harmonizing the national standards as well as the monitoring and evaluation tools.

Rhodes, Greece - Thursday, 26 September 2019