

TOWARDS EFFICIENT AND SUSTAINABLE UNIVERSITY BUILDINGS

Newsletter issue #4 - December 2021



Med-EcoSuRe project (*Mediterranean University as Catalyst for Eco-Sustainable Renovation*) aims at implementing innovative and **eco-sustainable energy renovation solutions for university buildings in the Mediterranean**, while introducing an **active collaborating approach for decision support**, among key actors involved.

The fourth newsletter issue of the project focuses on the main **tools, instruments and training programmes** developed to support the energy retrofitting planning within university buildings.



2.9
M€

TOTAL BUDGET

2.6
M€

ENI CONTRIBUTION

3
YEARS

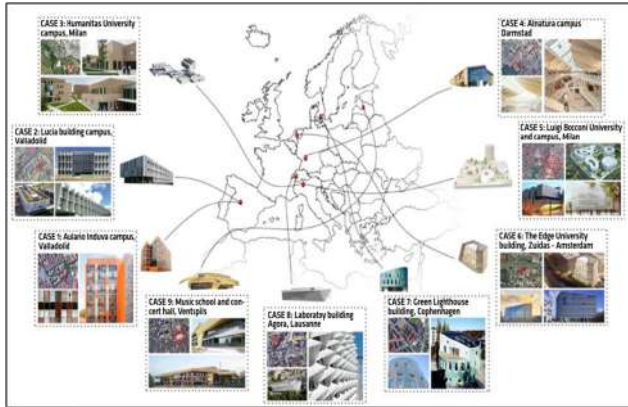
DURATION

TOOLS DEVELOPED

Tools and instruments to support building energy retrofitting

University of Florence created an **Abacus of existing relevant Mediterranean building passive renovation solutions** which was presented on the 5th of May 2021, during an online event. The aim of this action was to propose effective and user friendly tools and instruments supporting the renovation decision process of the project stakeholders.

[Read more](#)



Decision aid tool for the planning of energy refurbishing in university buildings

University of Seville developed a decision aid tool to support the universities energy management staff, as a first target group, in identifying and implementing the **best options for building refurbishing** and improving operation control for achieving significant energy savings, while maintaining the occupant's comfort.

[Read more](#)



DEMONSTRATION

Solar demonstration power plants in Palestine

An Najah National University acquired a **Solar Photovoltaic Carport system**, with a capacity of **70 kW**, and a **Solar Power Tree**, with a capacity of **3 kW**, to be installed at the New Campus of the university in Palestine.



Innovative technologies and solutions for the three pilot university buildings

On the 20th of July 2021, the Solar Energy Cluster - SOLARTYS, in collaboration with University of Seville, organized an awareness raising event in Barcelona, to lay out the **innovative technologies and solutions** proposed within Med-EcoSuRe that will be adopted and implemented in the pilot university buildings with the aim to improve their energy performance.

[Read more](#)



TRAINING

Palestine: Design, implementation and operation of photovoltaic systems

An Najah National University, has successfully concluded a training program on the **design, implementation and operation of Photovoltaic systems** for a group of 16 engineers in Palestine.

[Read more](#)



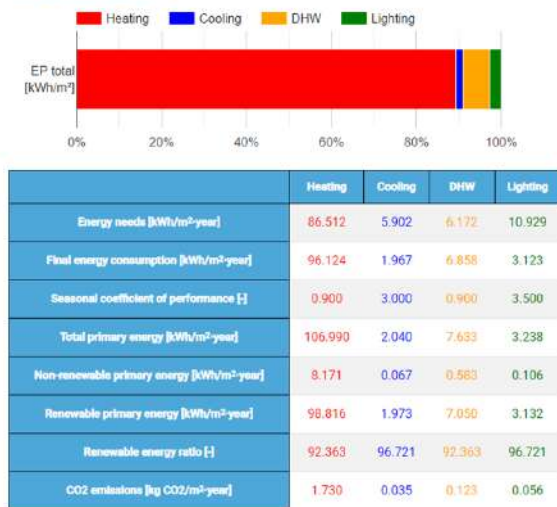
Italy: Design of architectural energy retrofit solutions

University of Florence, launched a thematic seminar including training workshops and a design competition, for architecture students, in order to identify the best architectural energy retrofit solutions for the pilot building of Med-EcoSuRe, Santa Verdiana in Italy. The main objective of the seminar was to give students the opportunity to deal with a **"real"** energy retrofit projects of existing buildings.

[Read more](#)



Total primary energy



Training of trainers on the planning of building energy retrofiting

Med-EcoSuRe team launched, on the 16th of November 2021, a training to support the project partners and stakeholders, in identifying and implementing the best options for building refurbishing and improving operation control for achieving significant energy savings, while maintaining the occupant's comfort. The training is designed and will be conducted from November 2021 until January 2022, based on an interactive decision aid tool, developed by University of Seville.

[Read more](#)

SYNERGIES

CO-EVOLVE 4BG

Collaboration actions

On April 30th 2021 the coordination teams of Med-EcoSuRe and Co-Evolve4BG projects organized a working session to start the concretization of the collaboration actions in the framework of a synergy agreement asigned in October 2020. The synergies include involving Co-Evolve4BG members in Med-EcoSuRe's Living Lab community and the participation of Med-EcoSuRe to a seminar to engage stakeholders in Co-Evolve4BG.

[Read more](#)



Sharing the participatory and innovative approach with local tourism sector in Tunisia

On the 25th and 26th June 2021, the Mediterranean Renewable Energy Centre, was invited in a seminar (info event and workshop) organized by Co-Evolve 4BG, to share the living lab participatory approach developed within the project. This action is organized as a result of the synergy agreement signed between the National Institute of Marine Sciences & Technologies (INSTM) and MEDREC.

[Read more](#)



CLEAN

Reinforcing synergies with CLEAN project

The Mediterranean Renewable Energy Centre and Naples Agency for Energy and the Environment participated in the final conference of CLEAN (Open technologies for low-carbon regions) project, which was held on November 8th 2021, to share knowledge and best practices on public building retrofitting in the Mediterranean region.

[Read more](#)



EURO-MEDITERRANEAN INITIATIVES

Exploring opportunities and challenges for the development of decentralized energy generation in Tunisia

On 27th October 2021, Mediterranean Renewable Energy Centre and the National Engineering School of Tunis convened decision makers, academics and private companies from the Mediterranean, as well as initiatives such as Interreg MED Renewable Energy community and SUNREF (Sustainable Use of Natural Resources and Energy Finance) for a workshop on “Micro-Grids as decentralized energy generation and management solutions”, with the aim to explore the potential of scaling-up a Micro-Grid platform equipped and implemented within Med-EcoSuRe, called **SMARTNESS** (Smart Micro Grid Platform with an Energy Management System).

[Read more](#)



DISSEMINATION

RESEARCH PUBLICATION

Scientific and research publications realized and published within Med-EcoSuRe project

Human centred design: participated energy retrofit for educational buildings

By Department of Architecture and Industrial Design, University of Campania "L. VANVITELLI"- Italy and Energy Research Center of AnNajah National University- Palestine, published in Sustainable Mediterranean Construction journal.

[Read more - Read the full scientific publication](#)

Micro-Grid Solar Photovoltaic Systems for Rural Development and Sustainable Agriculture in Palestine

By Energy Research Centre, Electrical Department, An Najah National University - Palestine, published in Multidisciplinary Digital Publishing Institute.

[Read more - Read the full scientific publication](#)

Experimental evaluation of different natural cold sinks integrated into a concrete façade

By Thermothechnics Group at Thermal Energy Engineering Department, University of Seville- Spain, published in ScienceDirect

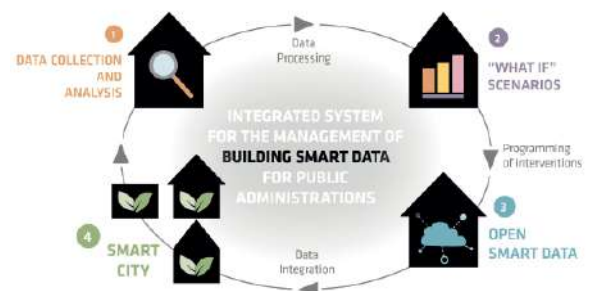
[Read the full scientific publication](#)

Advance smart cities through Digital Twins. Expanding the knowledge and management capacity of public buildings stock for energy efficiency rehabilitations

By Department of Architecture, University of Florence - Italy, published in CONTESTI - CITTA', TERRITORI, PROGETTI, urban planning magazine of the University of Florence

[Read more - Read the full scientific publication](#)

**HUMAN-CENTRED DESIGN:
PARTICIPATED ENERGY RETROFIT
FOR EDUCATIONAL BUILDINGS**



BEST PRACTICES

[Read the full research paper](#)





Imad Ibrik,
Director of Energy Research Center, AlNajah University



How to reform and finance local policies towards energy retrofit?

During a webinar "Sustainable Energy: Renewable Energy Technologies. PV Solar Systems, Challenges & Opportunities in Palestine" organized by Moustadama - UNIDO Palestine Programme on Sustainable Energy for Industry, on the 24th June 2021, An Najah National University-Energy, was invited to share studies and surveys on existing financing schemes as well as opportunities and barriers to Renewable Energy investment in Palestine developed within the project.

[Read more](#)

Energy empowerment of communities through training and capacity building

On November 10th 2021, The national Engineering School of Tunis and the Mediterranean Renewable Energy Centre , took part in a seminar on "L'eau, l'énergie et l'électrification dans les pays en développement" organized by La Conférence Internationale des Formations d'Ingénieurs et de Techniciens d'Expression Française (CITEF), and réseau institutionnel «Sciences de l'Ingénieur» de l'Agence Universitaire de la Francophonie (AUF). The intervention highlighted that the pilot micro-grid, implemented within the project, is a platform that serves for Education, Research and Training.

[Read more](#)




Guideline videos: energy-saving occupant behaviour within university buildings

A series of animation videos were created, to raise occupants' awareness of building energy consumption and improve the indoor environment as well as the overall performance of educational buildings.

Watch the series of the videos below:

[Part I: Tips on how to save energy in "Classrooms"](#)

[Part II: Tips on how to save energy in "Offices"](#)

[Part III: Tips on how to save energy in "Kitchens & sanitary facilities"](#)



PARTNERSHIP



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Disclaimer

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