



GreenBuilding

Minimising Energy Consumption for Green Buildings respecting present uses and public needs



Dear Readers,

Welcome to our first issue of GreenBuilding Newsletter that we would like to share with you! It is our pleasure to introduce you to our new project, funded by the European Union under the ENI CBC Med Programme that brings together seven organizations from five Mediterranean countries, Greece, Spain, Lebanon, Tunisia and Jordan. Within this issue, the partnership of the project entitled “Minimising Energy Consumption for Green Buildings respecting present uses and public needs (Acronym: GreenBuilding)” would like to inform you about the progress of the aim of the project and its activities implemented so far.

We will regularly update you with the latest news on the project. If this project lies within your interests, you are strongly encouraged to visit our website: <http://www.enicbcmed.eu/projects/greenbuilding> and follow us on Facebook and Twitter.

Yours Sincerely,
The GreenBuilding Consortium

Start Date: 30 August 2019 – End Date: 29 August 2022 – Duration: 36 Months

Introduction

GreenBuilding project is co-funded by the European Union under the European Neighborhood Instrument (ENI), through the ENI CBC Mediterranean Sea Basin Programme (ENI CBC Med Programme) 2014-2020 in the framework of the call for standard projects, thematic objective B.4 - Environmental protection, climate change adaptation and mitigation (Address common challenges in environment), priority B.4.3 - Support cost-effective and innovative energy rehabilitations relevant to building types and climatic zones, with a focus on public buildings.

Aim of the Project

The project, started in August 2019, aims at reducing energy consumption and adverse environmental impact, by using Renewable Energy Sources and Energy Efficiency measures in public buildings, since renewable energies represent a natural competitive advantage for MED area. The GreenBuilding Consortium is composed of 7 partners from 2 EU - Mediterranean Countries (EUMCs) (Greece, Spain) and 3 MPC - Mediterranean Partner Countries (MPCs) (Lebanon, Tunisia, Jordan).

Project Goals

The project will:

- Plan/support the cost-effective energy refurbishment of 3 public buildings in Greece, Tunisia and Jordan, respecting present uses/public needs, and monitor its effectiveness using energy measuring devices.
- Promote ecological use of public buildings, abiding by their traditional use and social role, changing building users' & society existing way of thinking into a more environment-friendly perspective.
- Identify cost-effective energy refurbishment approaches; and strengthen learning processes; thus, ensuring a sustainable transition to low carbon economy.
- Provide innovative energy refurbishment plans/measures for buildings, to increase the capacity of public institutions in responding to negative environmental impacts.
- Enhance knowledge/experience exchange between involved bodies, which is necessary for the high energy-efficiency refurbishment activities.
- Plan/implement sustainable energy policies at high decision levels, developing a unified strategic framework of EUMCs/MPCs for environment protection and energy efficiency.

Highlights



What will be improved?

The project will plan and support the cost-effective energy refurbishment for 3 public buildings based on renewable energy sources and energy efficiency. In addition, it will develop a remote-control tool for monitoring the energy status of the public buildings in real-time, highlighting any improvement in energy consumption. The project will also develop a set of technical documents, studies and guidelines to support future efforts in reaching nearly-zero-energy and high-energy-performance buildings.

Who will benefit?

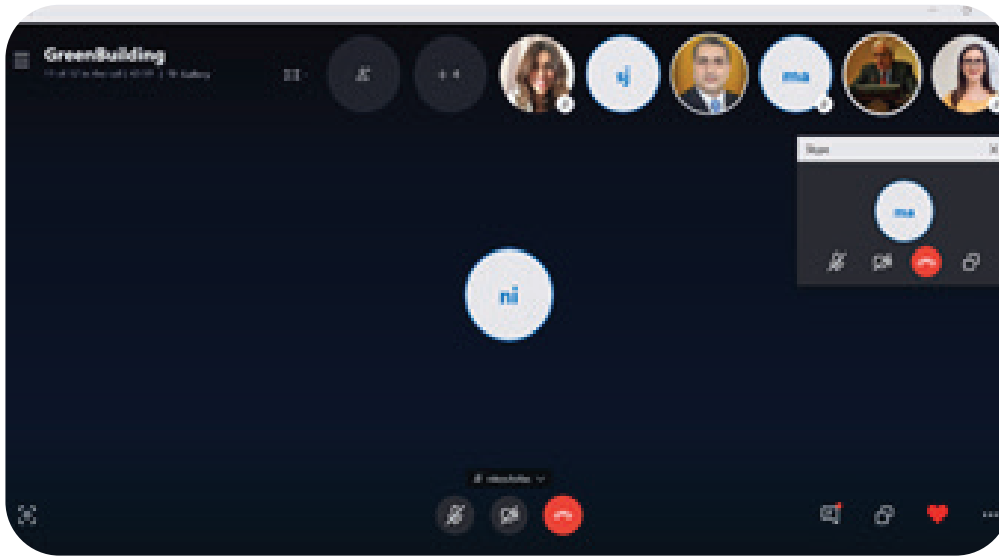
- 4 higher research institutions
- 40 energy SMEs
- 5 building contractors
- 10 business support organisations
- 50 public administrations with nearly-zero-energy and high-energy-performance buildings

Expected achievements

- 5 training seminars dedicated to SMEs and public authorities
- 1 manual for the energy refurbishment of buildings towards Nearly Zero-Energy Buildings
- 3 pilot projects for the energy refurbishment of public buildings in Greece, Tunisia and Jordan
- 3 energy audits carried out on the refurbished buildings
- 7 best practices identified and analysed in the field of energy refurbishment of buildings
- 1 e-tool for monitoring the energy performance of refurbished, nearly-zero-energy and high-energy-performance buildings

Project Meeting

The kick-off meeting of GreenBuilding project was held in Tripolis, Greece on 20, 21 and 22 November 2019. The meeting was hosted by the Lead Beneficiary (LB) of the project, Region of Peloponnese, and took place in the Conference Room of Mainalon Resort hotel in Tripolis, Greece. The other project meetings were mainly organized online with the participation of all partners, due to the travel restrictions caused by the pandemic.



2nd Project Meeting
on Tuesday,
21st of April 2020

1st Steering
Committee Meeting
Wednesday,
22nd of April 2020

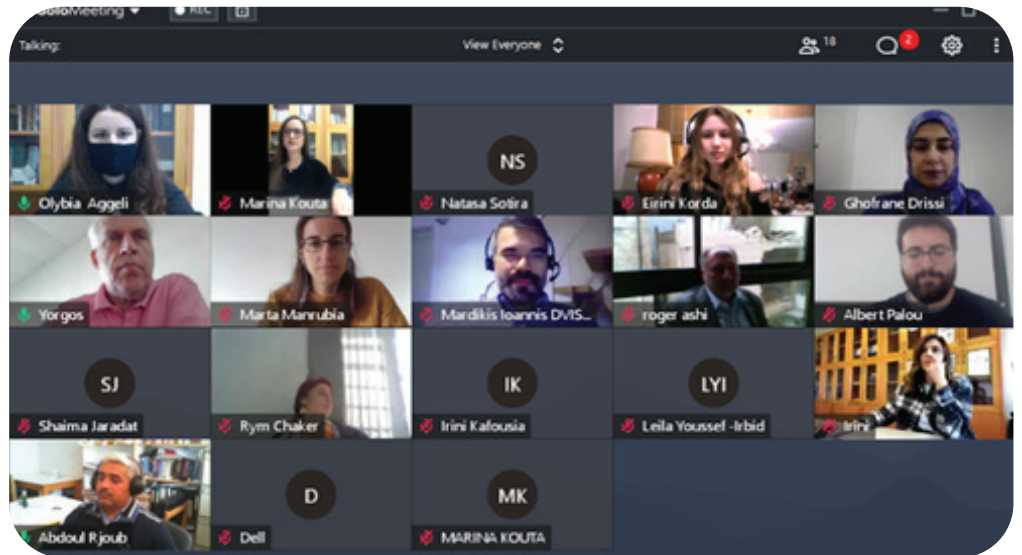


LB decided to systematize the Steering Committee and Technical Committee Meetings, due to COVID-19 pandemic. More specifically, a Steering Committee (SC) meeting and a Technical Committee (TC) meeting is organised every second month, starting from October 6, 2020 and more specifically, every first Tuesday of every second month, at 11:00 am CET. The systematization of the committees' meeting will ensure the achievement of better project results. These meetings last for about one hour and are performed through teleconference applications.

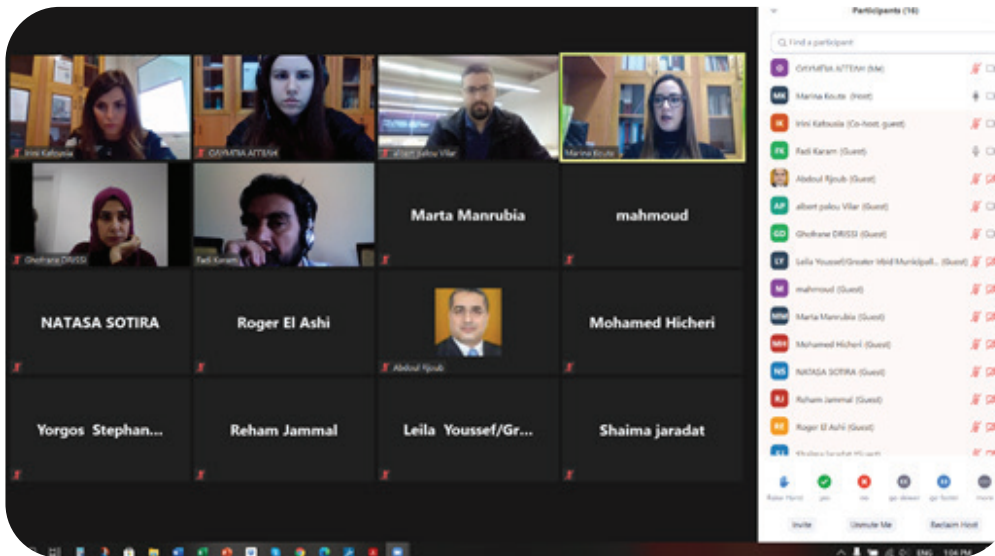


2nd Steering Committee,
1st Technical Committee
Meeting, Meeting
on Tuesday,
6th of October 2020

3rd Steering
Committee Meeting,
2nd Technical
Committee Meeting
on Tuesday,
1st of December 2020



3rd Project Meeting,
4th Steering
Committee Meeting,
3rd Technical
Committee Meeting
on Tuesday,
2nd of February 2021



The 3rd meeting intended to serve as a formal introduction to the work that will be performed in Semester 3 and Semester 4 of the project implementation its Activities and Outputs

Participation in Events

Med-EcoSuRe webinar of BeX.Live LL

A webinar organized by Med-EcoSuRe and hosted by MEDREC (Mediterranean Renewable Energy Centre) in collaboration with: ENIT (National Engineering School of Tunis) and ANME (National Agency for Energy Management) which took place on June 23, 2020. The topic of the event was "How to implement sustainable policies with a cost-effective approach for construction and building renovation?". Mrs. Kouta Marina, from the University of Patras (Project Partner 1), presented the GreenBuilding project, the specific objectives and expected results, the three pilot buildings, some tips on what to include in Building Renovation within the scope of supporting sustainable energy-policies in public buildings.

ENI CBCMED
Project funded by the EUROPEAN UNION
MEDREC
Mediterranean Renewable Energy Centre

Invited Projects:
GreenBuilding
ESMES

MED bex live
Mediterranean Cross Border Living Lab
live the experience of university building environment

Mediterranean University as Catalyst for Eco-Sustainable Renovation WEBINAR

How to implement sustainable policies with a cost-effective approach for construction and building renovation?

Tuesday, 23 June 2020 11:00 - 13:00 AM CEST

link to connect: <https://meet.google.com/vyn-poci-hsb>

Organized by: MEDREC (Mediterranean Renewable Energy Centre)
in collaboration with: ENIT (National Engineering School of Tunis) - ANME (National Agency for Energy Management)

European Researchers' Night

The Management Company of Borj Cedria Technopark "PP04" participated in the second edition of the European Researchers' Night on November 27, 2020. The event was organized by The Ministry of Higher Education and Scientific Research in order to bring researchers closer to the general public. The event was funded from the European Union's Horizon 2020 Research and Innovation Programme. This year's event of the Researchers' Night in Tunisia is named "Tunisian Researchers and Citizens, Green Deal - GREEN NIGHT", and was carried out online due to the COVID-19 pandemic. The PP04 participated by presenting the project in the EU Corner which was dedicated to the European projects. The participation was through a virtual stand that contained the project title, logo, a roll-up, a flyer, and a promotional video of 3 minutes.



You can navigate to the website of the event:

<https://www.green-night.tn/public/e-green-night>

and to see the reference in our project

<https://www.green-night.tn/e-green-night/projet-minimising-energy-consumption-for-green-buildings>

2nd International Conference of Microelectronics (ICM2020)

The team of the University of Jordan organized the IEEE 32nd International Conference of Microelectronics (ICM2020) at Jordan University of Science and Technology, in Jordan. At this conference, more than 600 scientists from around the world submitted more than 130 papers for publication. Six international personalities were invited as keynote speakers in various fields of microelectronics research. The conference organized 4 workshops, 3 seminars and a plenary session entitled "Industry Academia Bridge the Gap". GreenBuilding was presented at this event by a special booth at the conference halls. The authors presented their papers using Zoom teleconference tool.



Greater Irbid Municipality organized an Info Day on 28/7/2020 in the main hall of the Municipality

Greater Irbid Municipality organized an info day for the project in Municipality main building. Mayor of the Greater Irbid Municipality (GIM), Eng. Hussein Bani Hani, stated that the importance of the project lies in its contribution to the reduction of the energy bill of about four million dinars annually, providing clean energy at a low cost and green spaces free of pollutants resulting from the present energy uses. The project



manager, Eng. Reham Al-Jammal, explained that the goal of the project is to effectively reduce energy use in public buildings, to alleviate current uses and public needs and to provide three cost-effective energy refurbishments. The info day was a great opportunity for specialists, representatives of other institutions to meet each other, discuss and exchange information regarding the GreenBuilding project. Three specialists had the opportunity to present their papers regarding topics related to the GreenBuilding project through 3 lectures. The specialists in the fields of renewable energy and artificial intelligence, presented the energy-positive buildings and an introduction to the National Building Council codes and energy savings in buildings.

Upcoming Events & Actions

Jordan University of Science and Technology (JUST) first workshop in Green Energy

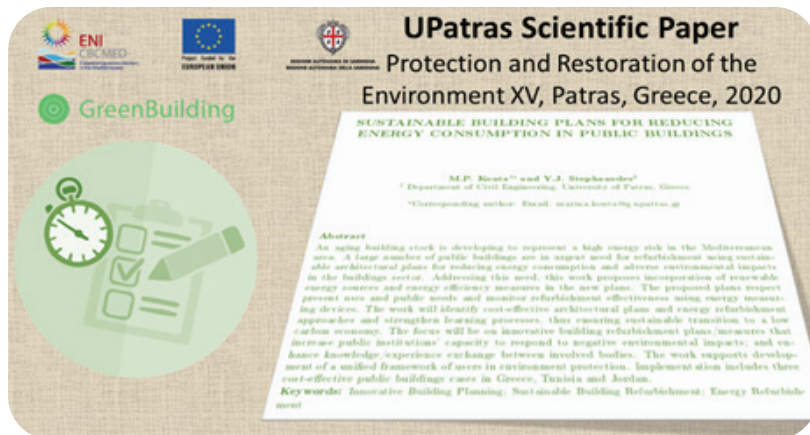
JUST will organize the first workshop in the Green Energy field next March. In this workshop, regional and national enterprises will be invited to speak on green energy issues. It is expected to invite keynote speakers from Jordan to discuss on the green energy roadmap in Jordan. Representatives from Ministry of Energy, Green House and National Center of Energy will be also invited. A special invitation will be also sent to all GreenBuilding project partners to jointly present the project to participants.

Municipality of Moukhtara communication campaign

The municipality of Moukhtara through the commitment of its local governance council, has adhered to the Covenant of Mayors Mediterranean (CoM-Med) and is committed to reduce its emissions to at least 15 % by 2030 in line with the unconditional target of Lebanon Intended Nationally Determined Contribution INDC, against the baseline emissions in year 2017. The overall target being set by the Local Government Unit of Moukhtara places emphasis on working closely with all community actors. Both CoM-Med and GreenBuilding project, led the Municipality to launch a communication campaign for the energy refurbishment of the public building. Stay tuned and you will be informed about their latest news!

Participation in Scientific Conferences

XV Scientific Conference "Protection and Restoration of the Environment"



GreenBuilding is represented at the XV Scientific Conference "Protection and Restoration of the Environment". The team of the University of Patras (Project Partner 1) presented their study on the "SUSTAINABLE BUILDING PLANS FOR REDUCING ENERGY CONSUMPTION IN PUBLIC BUILDINGS".

You can freely download the e_Proceedings by the following the websites

www.eel.civil.upatras.gr/?page_id=1577

www.prexv.civil.upatras.gr

Shortly, you may freely download the volume of the e-Proceedings from the site of the <https://web.stevens.edu/pre/>, where the Proceedings of all previous PRE Conferences are also available for free download.

Highlights of this scientific work:

An aging building stock is developing to represent a high energy risk in the Mediterranean area. The proposed plans of this research respect present uses and public needs and monitor refurbishment effectiveness using energy measuring devices. This paper focuses on (1) incorporating renewable energy sources and (2) energy efficiency measures for proposing sustainable plans to reduce energy consumption and adverse environmental impacts in the buildings sector, using KPIs that optimise buildings energy performance and respect present uses and public needs. The proposed method encourages use of renewable energy sources (RES) and energy efficiency measures in public buildings, a natural competitive advantage in Mediterranean (MED) area. The method integrates planning and implementing public building renovations in 12 phases and presents the key features of the three GreenBuilding pilot buildings in Greece, Tunisia and Jordan.

GreenBuilding partners' wins

Project Partner 5, Jordan University of Science and Technology (JUST), wins a PRIMA project in ICT for irrigation. The PRIMA Platform (<https://prima-med.org/calls-for-proposals/>) announced last October three objectives of the call for proposals: Management of Water, Farming System and Agro-food Value Chain. The project entitled SUSFORAGE will start next June for 36 months and the kick-off meeting will take place at Catalonia – Spain. The coordinator of this project is Spain and the other partners comes from Germany, Slovenia, Italy, Jordan and Lebanon. JUST team is expected to play a main role in the ICT software and hardware implementation.

Pilot Site Visit

Visit to the Tunisian pilot of Mohamed-Kassab Orthopedics Institute

A visit to Mohamed-Kassab Orthopedics Institute took place on October, 10th 2020. The PP04 team made a site visit to inspect the project pilot location. They also had a meeting with the Institute staff to validate the preliminary report of the energy audit.

Online meetings with the National Agency for Energy Management (ANME) for the pilot in Tunisia Virtual meetings with Mr. Samir Amara, representing the National Agency for Energy Management (ANME), were held on November 18, 2020 and December 24, 2020. The main purpose of these meetings was to discuss the possibility of getting an energy certification for Mohamed-Kassab Orthopedics Institute. In fact, Mr. Amara confirms the non-existence of a certificate allocated to the classification of health buildings referring to the National Laws.

Project Website & Social Networking

Learn more about us! <http://www.enicbmed.eu/projects/greenbuilding>

Through our Newsletter you can gain an overall perspective on the progress of GreenBuilding project. You can also be informed on the GreenBuilding progress and news via its Twitter and Facebook accounts.

Project Partners



Hellenic Republic
Region of Peloponnese

Region of Peloponnese (PPEL)

<https://www.ppel.gov.gr/>

Peloponnese, a region in southern Greece, includes the prefectures of Arcadia, Argolida, Korinthia, Lakonia, and Messinia. It covers most of the Peloponnese peninsula, except for the northwestern subregions of Achaea and Elis which belong to Western Greece. The Region focuses on the following fields: Tourism, Food & Beverage, Energy.

Contact person: Nick Fifas, nikffas@ppel.gov.gr, nikffas@otenet.gr



UNIVERSITY OF
PATRAS
ΠΑΝΕΠΙΣΤΗΜΙΟ ΠΑΤΡΩΝ

University of Patras, Special Account for Research Grants (UPAT)

<https://www.upatras.gr/en/research>

One of the main objectives of the University of Patras is the creation of knowledge through the promotion of international scientific research. University research and innovation activity is supported by its workforce and the state-of-the-art infrastructure, and represents the most significant factor for the improvement of Education and Learning in the region.

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UVIC
UNIVERSITAT DE VIC
UNIVERSITAT CENTRAL
DE CATALUNYA



Technological Center on Biodiversity, Ecology and Environmental Technology, BETA (UVIC-UCC)

<http://www.betatechcenter.com>

The University of Vic - Central University of Catalonia was founded on 30 January 2014, when the Balmes University Foundation and the Bages University Foundation signed a federation agreement. The UVic-UCC has become a driver of knowledge and innovation for the territory, with international reach.

Contact person: Albert Palou Vilar, albert.palou@uvic.cat



Moukhtara Municipality (M.M.)

<http://www.moukhtara.org/>

Moukhtara is a small town in the Chouf District of the Mount Lebanon Governorate of Lebanon. The town's inhabitants are 50% Druze and 50% Christians. It is the hometown of Walid Jumblatt, the leader of Lebanon's Progressive Socialist. The municipality is looking to implement green energy in all public buildings as well as street lighting.

Contact person: Roger G. El Ashi, ashiro@terra.net.lb

Project Partners

**Management Company of the technopole of borj cedria (SGTBC)**

<https://ecopark.tn/>

The Borj-Cédria Technopole has a strong research, development, R&D, training and technical education potential that can accommodate innovative companies or encourage their creation, and is also at the heart of the national strategy for the promotion of Renewable Energies, Sustainable Development and Materials.

Contact person: Klai Ridha, ridha.klai@tunisia.gov.tn

**Jordan University of Science and Technology (JUST)**

www.just.edu.jo

An internationally renowned university for quality education, community development, and creation and dissemination of knowledge. Its mission is to deliver high caliber education, and provide professional services that contribute to the progress of knowledge and the development of local communities and humanity.

Contact person: Abdoul Rjoub, abdoul@just.edu.jo

**Greater Irbid Municipality (GIM)**

<https://irbid.gov.jo/>

Greater Irbid Municipality, part of the northern region of Jordan, enjoys a strategic location connecting neighboring countries (Iraq, Syria and Palestine), while also being a center for northern governorates (Ajloun, Jerash & Mafraq). It is the second largest metropolitan population after Amman, and the highest population density in the kingdom.

Contact person: Reham Jammal, rjammal@ymail.com

For more information, please contact the project coordinator Mr. Nick Fifas, Research Fellow, Region of Peloponnese, email: nikfifas@ppel.gov.gr, nikfifas@otenet.gr

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