





## GreenBuilding

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



#### Dear Readers,

Welcome to our fifth 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

For more information, please contact the project coordinator Mr. Nick Fifas, Research Fellow, Region of Peloponnese, email: nikfifas@ppel.gov.gr, nikfifas@otenet.gr; and Mrs. Marina Kouta, Project Manager, University of Patras, tel: 0030 2610996524, email: marina.kouta@g.upatras.gr.







#### 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, 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

TThe 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).

#### Highlights



#### **Project Meetings**

8th Steering Committee Meeting and 7th Technical Committee Meeting on Tuesday, 12th of October 2021. 5th Project Meeting, 9th Steering Committee Meeting, 8th Technical Committee Meeting and 2nd Environmental Monitoring Committee Meeting on Thrursday, 26th of December 2021 focused on the activities to be held during Semester 5 and Semester 6 of project implementation. 10th Steering Committee Meeting and 9th Technical Committee Meeting on Tuesday, 1st of February 2022.







#### Creating synergies with other projects & initiatives

On 27th October 2021, the BorjCedria Technopark Management Company (Tunisia), partner in the GreenBuilding project, participated in the workshop entitled "Micro-Grids as decentralized energy generation and management solutions", which took place in the National Engineering School of Tunis and was organized by MEDREC, the lead benefi-



ciary of MedEcoSure project financed by the EU under the ENI CBC MED Programme. The main objective of this workshop was to highlight the technical and regulatory levers and to expose the best practices for the implementation of micro-grids in the Mediterranean context.



On 23rd and 24th September 2021, Tunisian partners joint the conference of National Determined Contribution (CDN) under the Paris Agreement on Climate Change, organized in cooperation between the Ministry of Environment and Local Affairs and the United Nations Development Program (UNDP).

On 26th and 27th October Greater Irbid Municipality (GIM) in Jordan, participated in the Regional Workshop on lessons learned and perspectives of the Istanbul Environment Friendly City Award which took place in Barcelona, organized jointly by UNEP/MAP and the Mediterranean network of cities, MedCities. During October 2021, GIM won the grant for "C4C: Climate for Cities-Cleaner Energy Saving Multi Use Building" as lead applicant and also grant for the project "Integrated tools and methodologies for sus-



tainable Mediterranean cities - Sustainable MED Cities" with Government of Catalonia (as Applicant).

#### Going further with energy studies

Moukhtara Municipality, project partner in the GreenBuilding project, has adhered to the Mediterranean Covenant of Mayors and is committed to reduce its emissions to at least 25% by 2030. Moukhtara is in





and is on the upper side of the Chouf Caza. The Municipality of Moukhtara has its buildings under its direct control and management, comprising main municipal buildings, and other buildings. Overall, the municipality of Moukhtara is consuming 87.2 MWh per year, for lighting, space heating, cooling and other electromechanical devices operation in the municipal buildings and facilities. The supplied electricity comes from the national electricity grid. The following table shows the annual electrical consumption of the municipal buildings, equipment & facilities, and CO2 emissions.

Site Category	Annual consumptions in MWh	Annual Emissions in tCO2-eq
Municipal Buildings & Facilities	87.2	45.74

#### **Project Events**

On 6th September 2021, the BorjCedria Technopark Management Company (Tunisia), Tunisian partner in the GreenBuilding project, signed a technical assistance contract with the ASSELEC technical assistance office for the building of Mohamed Kassab Orthopedic Institute which will be refurbished under GreenBuilding project. The signed contract includes a planning of implementation which consists of 4 phases that will be proceeded in a parallel manner: 1. Initial Report, 2. Preparation of the tenders, consultations and evaluation of the bids, 3. monitoring of the progress, and 4. Savings assessment and summary report.



مشروع GreenBuilding: توقيع عقد الدعم التقني لتنفيذ إجراءات ..الكفاءة الطاقية و تنويع مصادر الطاقة في معهد محمد القصاب



The Tunisian partner organized an info day at the Kassab Institute on Wednesday, September 15th, 2021. The day focused on the achievements and goals of the project while signing the energy renovation of the building based on the measures of renewable energy and energy efficiency. On 28th September 2021, they co-organised a half-day event briefing at the Research and Technology Centre of Energy (CRTEn) with the Technology and Engineering Transfer Unit "U2TIP" and on 30th September 2021, they organised a half-day event briefing at the Higher Institute of Environmental Sciences and Technologies (ISSTE). Both events were an opportunity to share the achievements and goals of the project. On 3rd November 2021 they organised a half-day event briefing at the at the National School of Advanced Technologies and Sciences (ENSTAB).







On 30th of September 2021, Jordan University of Science and Technology organized a workshop, titled "Challenges of Green Energy in Developed Countries". Jordan like many other Mediterranean countries needs to reduce energy consumption and adverse environmental impacts due to the high dependence on fossil fuels. GreenBuilding project intends to tackle this challenge by promoting the use of renewable energy sources and energy efficiency measures in public buildings. SMEs and academia were present in this workshop.

#### 10 main benefits of energy monitoring of public buildings!



Would you consider including energy monitoring in your office building? GreenBuilding team is here to show you 10 reasons to do so! Look at the list of benefits and then decide accordingly!

- Benefit 1 Allows access to building users to monitor energy flows and energy consumption All these energy consumption components are available online through the e-tool application.
- Benefit 2 Allows access to the demand and supply of energy Allows access to the demand and supply of energy when using renewable energy sources.
- Benefit 3 Facilitates building users' acceptance and commitment Urges building users to comply with recommendations for reducing energy consumption.
- Benefit 4 Allows the identification of energy risks and opportunities It is crucial to include a method of identifying and evaluating energy and environmental aspects and refraining from energy and environmental risks.

#### Benefit 5 - Leads to reduced energy consumption and energy costs

The more information users of building have about energy consumption, the more convinced they are to make energy-efficient changes.





#### Benefit 6 - Minimises maintenance and repair costs

It will demonstrate the importance of an annual preventive maintenance operation that will ensure energy savings.

#### Benefit 7 - Improves comfort levels

Combined with an automated intervention in office equipment, will certainly lead to improved comfort levels for building users.

#### Benefit 8 - Allows the certification and validation of savings

The visualization of comparison analysis through charts, allows the certification and validation of savings in an objective way and make the energy management process even more comprehensible to the building users.

#### Benefit 9 - Drive carbon emissions reduction

Drive carbon emissions reduction through decreased energy and contribute to ambitious climate targets.

#### Benefit 10 - Facilitates the decision-making process

Contribute to the decision-making process for the energy interventions measures in the building. Click here *(https://www.enicbcmed.eu/greenbuilding-which-buildings-will-be-included-project-e-tool)* to see which buildings will be included in GreenBuilding e-tool? More news about the e-tool will be announced soon!

**Tip Guide for Office Building Users!** 

# GreenBuilding introduces 7 tips for better use of your office equipment to reduce energy consumption!







Are you wondering what to do to reduce energy consumption in your office building by making better use of your office equipment? Make a note of the following 7 tips and you will measure significant energy savings.

- Tip 1 Choose laptops instead of desktops Laptops typically consume less energy compared to desktops, so keep this in mind! This can save 80-90% of your electrical cost!
- Tip 2 Switch off all printers, scanners, microwaves, air conditioners, coffee vending machines during weekends or holidays

Appliances left on standby still use up to 50% of the energy they use when in operation, and appliances continue to draw power even if they're just plugged in.

- Tip 3 Replace your old devices with new ones Energy-efficient devices cost more in advance, but based on the life cycle costing, they save money and energy.
- Tip 4 Choose an inkjet printer instead of a laser printer Inject printer consumes 90% less energy than a laser printer.
- Tip 5 Use energy-saving setting if applicable Use it as default!
- Tip 6 Set up a maintenance schedule Well-maintained equipment is more efficient and lasts longer!
- Tip 7 Go paperless

Print only when necessary. Extra tip: Add any documents you want to share with others to a shared drive instead of printing out a copy!

#### **Project Website & Social Networking**

#### Learn more about us! http://www.enicbcmed.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**





#### **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. *Contact person:* Nick Fifas, nikfifas@ppel.gov.gr, nikfifas@otenet.gr

#### 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.

Contact person: Yorgos Stephanedes, ystephanedes@upatras.gr



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

#### http://www.betatechcenter.com

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

# ختارة



### Moukhtara Municipality (M.M.)

#### http://www.moukhtara.org/

Moukhtara is a small town in the Chouf District of the Mount Lebanon Governorate of Lebanon.

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



#### 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 in Renewable Energies, Sustainable Development and Materials. *Contact person:* Zakaria Hamad, z.hamad@tbc.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. *Contact person:* Abdoul Rjoub, abdoul@just.edu.jo

#### **Greater Irbid Municipality (GIM)**

#### https://irbid.gov.jo/

Greater Irbid Municipality is the second largest metropolitan population after Amman in Jordan and the highest population density in the kingdom *Contact person:* Reham Jammal, rjammal@ymail.com



