

MARIE TRAINING PROGRAM FOR IMPROVEMENT IN ENERGY EFFICIENCY (EE) OF EXISTING BUILDINGS

F1 | BEST PRACTICES COLLECTION

Best Practice Name:	Sustainable Campus – Green University
Code:	PO_TE_EN_10

Best Practice Description:

Type:	<input checked="" type="checkbox"/> Action for improvement in the EE	<input type="checkbox"/> Training experience (*)
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Description:	<p>This is the largest project of decentralized energy production in the city of Lisbon, and it will allow this institution to attain patterns of energy efficiency and renewable energy use in line with the best practices of reference educational institutions around the world.</p> <p>This decentralized production of renewable energy is assured by four photovoltaic plants. The construction of these plants involved the installation of 2627 photovoltaic panels with an individual unit capacity of 245W, resulting in an installed potency of 644kW and a connection potency of 556 kW.</p> <p>The installation of the photovoltaic plants also promoted the energetic certification of some of the building in campus. With this, the University of Lisbon proceeded to energy audits where some improvement measures were identified, that would reduce the energy consumption.</p> <p>The plants were installed on the roofs of some buildings and also in parking and recreational areas, where they also function as shading structures.</p> <p>The energy produced will be sold and injected into the grid in its entirety, and the part of the revenue belonging to the University of Lisbon will be applied directly in the implementation of the energy efficiency measures identified in the audits.</p> <p>These plants only correspond to the first phase of the project. At the end it is expected to have an installed capacity of 2MW. In a next phase of this project it is intended to constitute a laboratory of energy efficiency knowledge, which will become a workspace and idea center, taking advantage of this privileged location within the University.</p> <p>The project also includes the construction of a roof garden, populated by various botanical species, which connects two building at the University.</p>
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Location:	Lisbon	Country:	Portugal
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Contact (team):	<p>Márcia Vila, Universidade de Lisboa Alameda da Universidade, Cidade Universitária, 1649-004, Portugal Telephone: 00351 210443426 e-mail: mvila@ul.pt Web @ www.ul.pt</p>
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Type of building:	<input checked="" type="checkbox"/> Tertiary	<input type="checkbox"/> Residential	<input type="checkbox"/> Mixed
Property:	<input checked="" type="checkbox"/> Public	<input type="checkbox"/> Private	<input type="checkbox"/> Mixed
Management:	<input checked="" type="checkbox"/> Public	<input type="checkbox"/> Private	<input type="checkbox"/> Mixed
Fields of action:	<input type="checkbox"/> Construction	<input type="checkbox"/> Maintenance	<input type="checkbox"/> Use
	<input checked="" type="checkbox"/> Energy generation and distribution		<input type="checkbox"/> Other
	<input checked="" type="checkbox"/> Replacement or implementation of renewable energies		<i>Which ones?</i>

Please, evaluate if the following processes take place in the Best Practice that you are describing in this form:

	Yes	No
The data collection has been complete and rigorous	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Communication and awareness processes have been developed to disseminate this practice	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Training actions have been provided	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Product and services have been improved	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Jobs have been created	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Sustainable financial models have been applied	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Agreements or collaboration models have been defined between parties	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Positive impact tested in the following fields (add quantitative data if you have):

ENERGY EFFICIENCY IMPROVEMENT (EE)	644 kW of Installed Potency which results in the production of 1028480 kWh/year
FINANCIAL COVERAGE	Joint project of the University of Lisbon, Galp Energia and CAPA energy. The initial investment is supported by Galp Energia, which is also responsible for the maintenance of the equipment during the contract. Revenues are shared between the University of Lisbon and Galp Energia
EMPLOYABILITY POTENTIAL	Full-time 3 person team for managing and maintaining all the facilities.
OTHER	Reduction in emissions: 11662 tons/CO2 during the lifetime of the panels. The roof garden has benefits ranging from the protection of the buildings, retention of precipitation, carbon capture in the plant biomass to the promotion of biodiversity.
DIFFICULTIES	

Agents involved in this experience:

<input type="checkbox"/>	Legislation agencies
<input checked="" type="checkbox"/>	Public promoters
<input checked="" type="checkbox"/>	Private promoters

	Technical public institutions
X	Technicians of the private sphere (professional associations ...)
	Builders
	Industrial
X	Facility Managers (property managers, cleaning companies ...)
X	Energy supply companies
X	Users/owners (homeowners association, schools ...)
	Other:

GAPS	
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(*) **RR_BB_FF_NN**

RR Country: **CY** (Cyprus), **FR** (France), **GR** (Greece), **IT** (Italy), **MA** (Macedonia), **MT** (Malta), **PO** (Portugal), **SL** (Slovenia), **SP** (Spain)

BB Type of building: **RE** (residential), **TE** (tertiary), **MX** (mixed)

FF Field of action: **CO** (construction), **MA** (maintenance), **US** (use), **EN** (energy generation and distribution), **OT** (other)
(in case of affecting more than one field of action choose the most relevant)

NN Number of the practice: **01, 02, 03...**