

EduFootprint School Low carbon footprint in Mediterranean cities

https://edufootprint.interreg-med.eu

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Welcome

A warm welcome to the second issue of the Newsletter of the EDUFOOTPRINT project, which is funded by the European Union under the Interreg Mediterranean Programme aiming at raising the capacity of owners and managers of public buildings for better management of energy in the MED Area.

This issue of the newsletter will introduce you to the activities, the relevant advances of the project and the partnership, providing also an insight on related technical topics, as well as a more detailed focus on the regions where the project pilot activities will take place and the main outcomes of the Efficient Buildings Community networking activities.



Update on EDUFOOTPRINT project

Activities with the school communities

Calculating the environmental footprint of schools: baseline

The consortium has closely collaborated with the selected schools in each pilot area to calculate their environmental footprint in the 2015-2016 scholar year, using the Edufootprint environmental calculator developed in the project. For this purpose, a *School Environmental Footprint Guidelines* (SEFGs) has been produced to guide the project partners, school owners and energy managers in the implementation of the EduFootprint model and calculator in the schools.

The results obtained in each school set the baseline on which to make the pertinent improvements in order to reduce their environmental footprint.

The involvement of the project associated partners and other relevant stakeholders, has been essential for this activity.

Training the trainer

As part of the preparation actions of the pilot activities of the project, Ambiente Italia has organised and held **6 webinars** on different issues related to EduFootprint, in order to train all those responsible for local training in the project pilot areas: Energy Efficiency in buildings, Life Cycle Approach, Solar Energy in buildings, Circular Economy Environmental Footprint and Sustainable mobility.

Such webinars are recorded and accessible through the project website: https://edufootprint.interreg-med.eu/tutorials/

First steps towards the Energy Action Plans of the schools

Once the first results of the environmental footprint in the schools have been obtained, the project partners are working together with the schools analysing the main areas of improvement in order to design and implement an integrated Energy Action Plan for each school from a Life Cycle Approach. For this purpose both technical improvement and behaviour changing actions aimed at improving energy efficiency and reduce the environmental footprint.

A *Guideline for energy efficiency monitor and management in public buildings* has been produced in the project aimed at supporting the definition of the school energy action plans and their integration with the corresponding local SEAPs. This document is available in the project website.

Storytelling videos

Several storytelling videos have been produced in collaboration with some of the schools involved in the pilot activities of the project in Sicily and Ljubljana, explaining different issues related to the project main thematic: environmental footprint and energy efficiency in public school buildings.

EDUFOOTPRINT consortium meetings

The Edufootprint consortium has met twice from May to October 2017 in its 2^{nd} and 3^{rd} coordination meeting.

The **2nd project meeting** and **Steering committee** was hosted by Efxini Poli on the 3rd and 4th of May 2017 in Messini (Greece). The partners presented and discussed about the status of the activities and planned the next ones. The environmental calculator, the selection of schools and the involvement of stakeholders in each pilot area were at the focus of the meeting. Possible obstacles and difficulties in the development of the planned project activities were discussed among the partners and some solutions were taken. The 1st reporting exercise was also tackled in the meeting.



The **3rd project meeting** and **Steering committee** took place on 17th-18th October 2017 in Ljubljana (Slovenia) and was hosted by the project Slovenian partner, IRI UL, at the Rectorate building of the University of Ljubljana.



The main issues tackled in this meeting were the final version of the School Environmental Footprint Guidelines (SEFGs), the Guideline for energy efficiency monitor and management in public buildings, the first results of the calculator for the 62 involved schools, the results of the training activities addressed to the partners, the developed communication material and the structure of the mobile APP foreseen in the project. The consortium had the opportunity to visit the buildings of the University of Ljubljana involved in the pilot activities.

MED Programme event: "We are MED - Going beyond thematic communities"

One-hundred-plus representatives of 68 projects within MED Thematic Communities meet at the Museum of the University in Alicante, a community building event organized by the Interreg MED Programme on the 17th of May 2017.

The event was a full day of strongly interactive activities among the representatives of the various projects under the MED thematic communities.

After the welcoming addresses, a very lively ice-breaking community building session saw the participants joining efforts in very practical tasks such as building a bird house, painting a graffiti or kicking off on kick scooters. Horizontal projects then had the opportunity of presenting, in a concise but creative way, what their respective thematic communities are about. In the afternoon, participants engaged in a world café activity and discussed in 16 small groups their views about the methodology for work between Modular and

Horizontal projects, and capitalisation and communication. The main conclusions were presented at the final plenary session.



The event provided also the occasion for a significant symbolic moment: the signature of a Memorandum of Understanding by the modular projects, horizontal projects and the Joint Secretariat, which marked officially the commitment to the goals of the Programme and to their respective tasks.



Focus on the pilot areas: Italy

Veneto - Province of Treviso

Veneto is a very industrial and flourishing area, characterized by the presence of a lot of factories, roads, cars, people and business. The area around Treviso, where the project takes place, is the perfect example for that. Lots of students go to school and there are many school buildings.

The Municipalities manage the school buildings for kindergartens, primary and middle schools, while the Province is responsible for the management of high schools.



A total of **8 municipalities** are involved in the pilot activities in the project: Treviso, Castelfranco Veneto, Silea, Caerano San Marco, Paese, Godega di S. Urbano, Conegliano and Valdobbiadene, all of them having **an approved SEAP or approaching to it**.

15 secondary schools, consisting of middle schools and high schools with students aged between 11 and 19, from these municipalities are taking part in the

project pilot activities. They account for 8.393 students and represent 18,9% of all High Secondary Schools and 12.1% of all Comprehensive Schools in the province.

The project partners involved in the pilot activities to take place in the Province of Treviso, namely **Ambiente Italia, Provincia di Treviso** and **Rete Iside**, will work together to analyse and develop an area of improvement for each school (15), among those included in the project 'environmental calculator', in particular:

- Energy consumption (electric energy, thermal energy, water consumption);
- Product consumption (paper products, stationery products, toilet and cleaning products, equipment, chemical used in labs, gardening);
- Mobility (internal vehicles, home-school, travel excursions);
- Food (canteen, cafeteria, dispensing machines);
- Waste.

A **protocol** will be signed to encourage the definition of the **School Energy Action Plans**. Although EduFootprint project does not foresee this step, Rete Iside, the responsible of the testing activity, think to facilitate the future work and to have a model to follow. By the end of November every school will undertake a detailed investigation of the consumption current situation and will consequently define an improvement action plan.

Sicily - Province of Syracusse

The pilot area is located in the **South-east part of Sicily**, in province of **Syracuse**, involving 9 municipalities located up in the valley "Monti Iblei". The total population is about 63.000 inhabitants. The main activities are linked to the trade at small medium level, taking in account the size of the involved municipalities; the bigger city, Floridia, is the only that host larger companies and SMEs. Generally these towns, in particular Ferla, Palazzolo Acreide, Sortino and Buccheri have a touristic propension

related also to the natural Park and necropolis of "Pantalica". (UNESCO site).

At environmental level, this union of Municipality is very active for saving water, reduce and manage waste and trying to find common solutions for saving energy. In this sense they decided to collaborate for a joint **Sustainable Energy Action Plan (SEAP)** called ATS **"Obiettivo Zero Valle degliblei"** (approved in 2015). The main actions of the SEAP are

intended to the improvement of energy efficiency in Residential housing, the main energivorous sector in the Area of Joint SEAP. In fact, an info-point for citizens and families was planned to provide information and facilitate the purchase of Renewable Energy Sources, Rational Use of Energy devices, funding opportunity.



In this sense the objective of the project EDUFOOTPRINT is in line with the aim to work at educational level on the behaviours of citizens, school staff, students and their families. Particular attention is given to mobility behaviors, taking in account the geographical position of the municipalities and its size.

Ferla and Palazzolo Acreide are the municipalities hosting the pilot schools: 1 primary and 2

secondary first level schools located in 2 buildings. They have 422 students and represent 6% of the total school buildings.

Among the activities, led by **SVIMED** in this area, it is foreseen to implement a demonstration room in order to provide students, citizens and final users in general an EXPO area where they can observe how some technologies work, have information on innovative technologies for energy saving and efficiency, share books on different sustainable matters and interact with funny mechanisms. Mainly this expo area is addressed to students for educative purpose.

During the pilot activities, some classes will be involved in implementing **best practices** and **awareness raising actions** to do in the schools. They will select in the class the waste manager, the energy manager and/or the water manager in order to follow a Sustainability path that will lead them to monthly monitoring their own behaviours and therefore their own consumptions.

With the secondary school of Palazzolo some homemade video will be recorded by the students for transferring key message to other students at monitoring and behaviour level.



A technical approach: OEF

The Organisation Environmental Footprint (OEF)

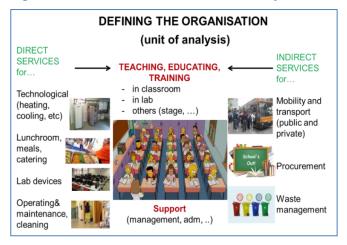
The **environmental footprint** is the effect that a person, company, activity, etc. has on the environment, for example the amount of natural resources that they use and the amount of harmful gases that they produce: every organization should work towards a zero-environmental footprint by conserving, restoring, and replacing the natural resources used in its operations.

Recommendation 2013/79/EU has officially introduced a methodology that defines the rules to calculate, evaluate, validate by a third part and communicate to the stakeholders the environmental footprint of a product or organisation. The main aim

is to define a set of indicators related to the most important environmental impact categories (greenhouse gas emissions, resources use efficiency, water depletion, etc..) that a Company may use, upon validation, for marketing communication. The basic methodology is the **Life Cycle Assessment** considering the flows of material and energy, resulting emissions and waste streams produced by a product or organisation activities.

EduFootprint project aims to calculate the Environmental Footprint of an Organisation, and particularly the "education service", using the EduFootprint calculator.

OEF method needs to define the **Product Portfolio**, a term referring to the amount and nature of goods and services provided by the Organisation over the reporting interval, which should be one year. As far as EduFootprint is concerned, it is *one student (or child, or pupil)* registered in one school or one university.



After defining the services to consider and the type of relationships with the school in subject, the

entire system (educational service with the other interconnected services) is divided into three modules named *upstream*, *core* and *downstream*. The *upstream* module is related to the phases that are before the "educational process", the *core* module is related to the education service, provided inside the school, while the downstream is associated with the management of the generated waste.

After collecting all the data throughout the supply chain and inserting the data into the calculator, the school will calculate its Footprint in the world. From that point on the challenge begins! It is necessary to identify its own weakness and, consequently, some specific training activities to implement in order to change people behaviour and to address the school community towards sustainability.

Only acting like this the Environmental Footprint, after one year, may decrease!



Efficient Buildings MED Community: Activities

MEDNICE Community Event

Following the activities developed during the MEDNICE kick - off meeting, and taking the opportunity of the event organized by the Programme in May, a community building event was organized on the 16th of May 2017 in Alicante (Spain). Eight out of ten Modular Projects coordinated by MEDNICE attended the event.

A map of interactions showing all the possible synergies existing between the Horizontal Project (HP) and the Modular Projects (MPs) and between the MPs themselves have been described.

The Energy Efficiency Building Taskforce was presented and inputs from the MPs were collected to fix the definition of its role and finalize a calendar of activities. EEB Taskforce will enable to set-up different activities and training mechanisms which will ensure an effective communication among the EEB modular projects' partners while building a community between modular EEB MED projects' partners and their associated partners.



Based on the thematic groups identified in the map of interactions (Tools and Systems, Financing, School buildings), a new working methodology was proposed. To work more efficiently and to propose specific activities, but also for managing reasons, the idea is to set up three working groups.

The annual congress is planned in Nice on October, 4th - 6th. The idea is to give the MPs the opportunity of presenting their results or at least their ongoing work. That's why the HP needs to know where the MPs are in the implementation of their projects. This is one of the purposes of the bilateral calls between HP and MPs.

1st EEB Community Annual Congress: "Choosing the route to Energy Efficiency in Public Buildings in the Med area: a pathway to policies and practices.

EduFootprint has actively participated in the 1st EEB Community Annual Congress, which was organized by the MEDNICE horizontal MED project from 4th to 6th October in Nice, France.



The project representatives had the opportunity to network with the rest of the MED projects dealing with energy efficiency in public buildings, aiming at creating synergies and sharing knowledge and good practices.

The first day EduFootprint took part in a series of round tables where the different projects of the Efficient Buildings community shared their first outcomes, as well as the problems encountered and solutions provided to overcome them.

On the second day in the morning, a roundtable with high level speakers provided the projects with an insight of EU policies and financing opportunities for energy efficiency. Mr. Dominique Ristori Director General for Energy, EU Commission, Mr. Julien Guerrier Director of EASME and Mr. Pierre-Emmanuel Noel, Senior Banker of EIB composed the discussion panel.



Following this session, the attendees could also learn from the experience and results of some completed EU projects on Energy Efficiency in public buildings. In the afternoon the projects attended an interesting, practical workshop on "Internal contracting", an innovative financing schemes for implementing energy efficiency projects in public buildings.

Finally, an internal meeting of the MEDNICE project was held on the third day, where all modular projects of the Efficient Building Community were invited.



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