

DELIVERABLE D.T4.1.2

Pilot actions preparation	Version 1 11/2020
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D.T4.1.2: Pilot actions preparation

A.T4.1 PA preparation and investments

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1. Introduction

The data collected in this document will present the energy condition of the building, what actions should be taken to improve its energy efficiency during the pilot actions and will outline the implementation plan for the pilot action in Bassa Romagna. This document can be seen as an abridged version of the building energy characteristic made to implementation of the pilot action. It also presents what tools will be used in the activities and what steps should be taken for this purpose.

The aim of this document is to indicate the actions that should be taken in order to successfully implement the pilot action and to present the problematic aspects that must be solved at the initial stage of implementation.

Pilot Action title:

“Implementation of capitalized pilot action solutions in 25 pilot buildings in Bassa Romagna (Italia)”

Objective of Pilot Action

The objective of Pilot actions in Bassa Romagna is to capitalize different solutions, as for BOOSTEE-CE the aim is to data collection of buildings and their representation in order to let users/stakeholders retrieve relevant energy/building information and take this as source information on energy planning.

Energy@school App will be implemented in 8 first grade secondary school that cover all the municipalities of the Union a part from Fusignano that already tested it during Energy@school project. In this way we reach all the student of the territory to arise awareness on energy saving and efficiency.

Green Soul capitalization aims to involve public employees with a cultural campaign. People will be part of the management and energy saving procedures and will be central through a behaviour change at their workplace.

2. Buildings energy data

2.1. pilot building energy data of three pilot buildings is attached in excel-table

D.T4.1.2 Pilot action preparation_UCBR.xlsx

3. Spatial/non-spatial data availability for region.

Spatial data were collected for all 25 buildings included in the project, while energy data were recovered from the diagnosis of 5 buildings. With reference to the Green Soul project, the data relating to electricity consumption were monitored thanks to the analysis of the electricity bills of 2019, 2020 and part of 2021.



4. TARGET-CE tools planned to be used in buildings

No.	Name of building	Type of building (school, public utility ect.)	Tools used in PA	Scope of tool usage (<i>what will be done by using the tool (training, visualizations, behavior change ect.)</i>)
1	First Grade Secondary School "A.Oriani" - Alfonsine	School	BOOSTEE-CE, Energy@school App	- Visualisation and query of energy audits; - Training in order to trigger a behaviour change.
2	Free to Fly Youth Center	Public utility	BOOSTEE-CE	- Visualisation and query of energy audits.
3	Library /Museum and Historic Institute of Resistance / Cinema Gulliver	Public utility	BOOSTEE-CE	- Visualisation and query of energy audits.
4	First Grade Secondary School "Graziani" – Bagnacavallo	School	BOOSTEE-CE, Energy@school App	- Visualisation and query of energy audits; - Training in order to trigger a behaviour change.
5	Primary School "BERTI" Bagnacavallo	School	BOOSTEE-CE	- Visualisation and query of energy audits.
6	The Civic Museum of the Capuchins of Bagnacavallo	Public utility	BOOSTEE-CE	- Visualisation and query of energy audits.
7	Municipal building of Bagnacavallo	Public utility	BOOSTEE-CE	- Visualisation and query of energy audits.
8	First Grade Secondary School San Francesco d'Assisi - Bagnara di Romagna	School	BOOSTEE-CE, Energy@school App	- Visualisation and query of energy audits; - Training in order to trigger a behaviour change.
9	Municipal building of Bagnara di Romagna	Public utility	BOOSTEE-CE	- Visualisation and query of energy audits.
10	Multipurpose hall - Bagnara di Romagna	Public utility	BOOSTEE-CE	- Visualisation and query of energy audits.
11	First Grade Secondary School Stoppani – Lavezzola	School	BOOSTEE-CE, Energy@school App	- Visualisation and query of energy audits; - Training in order to trigger a behaviour change.
12	Primary school "FORESTI F." - Conselice	School	BOOSTEE-CE	- Visualisation and query of energy audits.



13	Primary school "ALIGHIERI D." - Lavezzola	School	BOOSTEE-CE	- Visualisation and query of energy audits.
14	First Grade Secondary School "L. Varoli" – Cotignola	School	BOOSTEE-CE, Energy@school App	- Visualisation and query of energy audits; - Training in order to trigger a behaviour change.
15	Primary school "Gli Angeli del Senio" - Cotignola	School	BOOSTEE-CE	- Visualisation and query of energy audits.
16	First Grade Secondary School "Renato Emaldi" - Fusignano	School	BOOSTEE-CE	- Visualisation and query of energy audits.
17	Municipal building of Fusignano	Public building	BOOSTEE-CE	- Visualisation and query of energy audits.
18	First Grade Secondary School "Gherardi" - Lugo	School	BOOSTEE-CE, Energy@school App	- Visualisation and query of energy audits; - Training in order to trigger a behaviour change.
19	Primary School "A. Codazzi - Gardenghi" - Lugo	School	BOOSTEE-CE	- Visualisation and query of energy audits.
20	School building of Voltana - Lugo	School	BOOSTEE-CE	- Visualisation and query of energy audits.
21	Unione dei Comuni della Bassa Romagna Offices - Carmine building . Lugo	Public utility	BOOSEE-CE, GreenSoul	- Visualisation and query of energy audits; - Communication campaign in order to trigger a behaviour change
22	First Grade Secondary School "S. D'Acquisto" - Massa Lombarda	School	BOOSTEE-CE, Energy@school App	- Visualisation and query of energy audits; - Training in order to trigger a behaviour change.
23	Municipal building of Massa Lombarda	Public utility	BOOSTEE-CE	- Visualisation and query of energy audits.
24	First Grade Secondary School "G. Pascoli" - Sant'Agata sul Santerno	School	BOOSTEE-CE, Energy@school App	- Visualisation and query of energy audits; - Training in order to trigger a behaviour change.
25	Social Center Ca' Di Cuntaden - Sant'Agata sul Santerno	Public utility	BOOSTEE-CE	- Visualisation and query of energy audits.



5. PA implementation schedule

UNION OF BASSA ROMAGNA MUNICIPALITIES					
No.	Phase	Phase description	Start of phase	End of phase	Resources needed
1.	Data collection	Collection of data to prepare documentation regarding monitoring system	September 2020	December 2021	External Expert
2.	Local Vision in Buildings	Assessment of the possibility of implementing a pilot action and designing a monitoring system	April 2020	March 2022	Involvement of Public Works
3	Selection of external expert by public procurement to purchase the equipment and install it in the chosen buildings	A public procurement will be held starting from May and it will be consistent both with national and international regulations.	May 2021	October 2021	External Expert

6. Collaboration with stakeholders

How target groups/stakeholders will be engaged in actions/phases mentioned above?

Stakeholder groups	Role and responsibility	Involvement
Unione of Bassa Romagna Municipalities (Urban Planning, Energy and Mobility Department)	Responsible of data storage	Data management, collection, and analysis.
9 members of Union of Bassa Romagna Municipalities (Public Works)	Responsible of data storage	Data management, collection, and analysis.
First Grade Secondary School and teachers	Pilot users	Communication and training
Unione Bassa Romagna Employees (Carmine Building)	Pilot users	Communication campaign

7. Foreseen problems and possibility of mitigation actions implementation

The most relevant problem is strongly connected to the current health situation which prevents the ordinary course of events and activities.



- Specifically, in Bassa Romagna, schools are currently closed due to Covid-19, this is the reason why training activities cannot be carried out at the moment in the 8 pilot schools included in the project. However, to cope with this problem, an online training package will be produced and made available to teachers. The collection of energy consumption data will start when schools will be reopened, nevertheless the data may be affected by some distance learning periods.

- As for GreenSoul, the problem is related to the introduction of work from home which inevitably affects the data collected on energy consumption that will not be comparable to those collected during a normal working period. In any case, a strong communication campaign addressed to the employees of the "Carmine" pilot building will be carried out. In addition, a survey has been conducted before and will be conducted after the communication campaign to understand its effectiveness.

8. Monitoring strategy

Due to the Covid-19 issues mentioned above, the monitoring activities will not be related to energy saving, but they will be strongly linked to the training activity and the resulting change in behavior. The goal will therefore be to raise the awareness of students, teachers and public buildings employees about energy consumption through educational programs. With regard to Green Soul, it will be easier to monitor any changes in behavior and in the knowledge acquired thanks to the survey that will be administered to the employees of the "Carmine" building before and after the communication campaign.

Conclusion

The activities will go on during next months and for Green soul and Bostee-CE almost everything is ready for the implementation. As for Energy@school APP,, at the end of the summer and at the beginning of the new school year in September 2021, the smart-meters will be installed in the 8 pilot schools; in the meantime, training activities will be carried out.