



## 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 Slovenia. 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 eight pilot buildings in Nazarje (Slovenia) PA06”**

#### **Objective of Pilot Action**

One of the implemented pilot actions will be including eight pilot buildings from municipality Nazarje in the BOOSTEE-CE 3D Energy Management System (3DEMS). After the initial data collection and insertion in the system the platform enables to provide energy-related data to the public and public authorities to analyze relevant energy data within a buildings that are included in the system.

Eight public buildings will also be included in the eCentral pilot action solutions. The results obtained from the eCentral Living Lab Tool helps in demystification of nZEB standard in renovation of buildings, defining the energy and other parameters for each building and showing which energy efficiency measures and renewable sources systems implementation measures should be combined in cost-optimal way, in order to achieve nZEB standard.

Pilot building Primary school Nazarje will also be a part of E@S project solutions. School staff, teachers and pupils will be a part of energy teams and will be working with E@S application with the aim to lower energy consumption and to raise awareness of energy efficiency amongst colleagues, school mates and also in their homes.

## 2. Buildings energy data

**Pilot building energy data of eight pilot buildings are attached in excel-table**

D.T4.1.2 Pilot action preparation - KSENA.xlsx



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

Specific spatial data on the 8 pilot buildings in Slovenia have been collected and provided to be included into BOSSTEE's 3EDMS database.

Country / Pilot action	Dataset / Source	Types of data	Owner	Access	
				Public	For PA
<b>Slovenia – KSSENA (PA6)</b>	Topographic database	LiDAR data by sector	<b>National Authority</b>	YES	YES
	Technical documentation of PA buildings	- age of construction - type of energy system (electricity and heat consumption) - envelope materials - high of the building - etc.	<b>National Authority</b>	NO	YES
	Energy efficiency of PA building	Data only in pdf form: Energy certificate (quantity of energy use, source of energy, energy class, ...)	<b>National Authority</b>	YES	YES

### 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 (what will be done by using the tool (trainings, visualizations, behavior change ect.)
1	Gallery "Jakijeva galerija"	Educational/cultural	- BOOSTEE-CE - eCentral Living EPC Tool	- visualization of energy related attributes - evaluation of possible scenarios to reach the nZEB standard
2	Kindergarten Nazarje	Educational	- BOOSTEE-CE - eCentral Living EPC Tool	- visualization of energy related attributes - evaluation of possible scenarios to reach the nZEB standard
3	Sports hall Nazarje	Sports	- BOOSTEE-CE - eCentral Living EPC Tool	- visualization of energy related attributes - evaluation of possible scenarios to reach the nZEB standard
4	Primary school Nazarje	Educational	- BOOSTEE-CE - Energy@school App - eCentral Living EPC Tool	- visualization of energy related attributes



				<ul style="list-style-type: none"> <li>- implementation of investment and training of senior and junior energy guardians</li> <li>- evaluation of possible scenarios to reach the nZEB standard</li> </ul>
5	Cultural center Nazarje	Cultural	<ul style="list-style-type: none"> <li>- BOOSTEE-CE</li> <li>- eCentral Living EPC Tool</li> </ul>	<ul style="list-style-type: none"> <li>- visualization of energy related attributes</li> <li>- evaluation of possible scenarios to reach the nZEB standard</li> </ul>
6	Vrbovec Castle	Cultural	<ul style="list-style-type: none"> <li>- BOOSTEE-CE</li> <li>- eCentral Living EPC Tool</li> </ul>	<ul style="list-style-type: none"> <li>- visualization of energy related attributes</li> <li>- evaluation of possible scenarios to reach the nZEB standard</li> </ul>
7	Health Center Nazarje	Medical	<ul style="list-style-type: none"> <li>- BOOSTEE-CE</li> <li>- eCentral Living EPC Tool</li> </ul>	<ul style="list-style-type: none"> <li>- visualization of energy related attributes</li> <li>- evaluation of possible scenarios to reach the nZEB standard</li> </ul>
8	Fire station Nazarje	Public	<ul style="list-style-type: none"> <li>- BOOSTEE-CE</li> <li>- eCentral Living EPC Tool</li> </ul>	<ul style="list-style-type: none"> <li>- visualization of energy related attributes</li> <li>- evaluation of possible scenarios to reach the nZEB standard</li> </ul>

## 5. PA implementation schedule

BOOSTEE-CE, Energy@school App, eCentral Living EPC Tool					
No.	Phase	Phase description	Start of phase	End of phase	Resources needed
1.	Review of building selections	Review of 8 buildings that were selected for pilot buildings	April 2020	August 2020	Internal expert
2.	Data collection	Collection of data for energy attributes	August 2020	December 2020	External expert
3.	Data collection and local vision in buildings	On site energy audit of 8 pilot building	December 2020	March 2021	Internal expert
4.	Equipment for E@S implementation	Selection of external expert by public procurement to purchase the equipment and install it in the chosen buildings	May 2021	July 2021	External expert
5.	E@S trainings	Organization of E@S activities in Primary school Nazarje	September 2021	December 2021	External/ Internal expert



## 6. Collaboration with stakeholders

Stakeholder groups	Role and responsibility	Involvement
Local authority	Provide necessary data and access to pilot buildings	Help in collecting data on the pilot buildings and providing necessary access to pilot buildings
Schools	Participation in trainings and E@S activities	Participation in trainings, events, promotions and working with E@S application.

## 7. Foreseen problems and possibility of mitigation actions implementation

We are foreseeing the delay in the E@S project activities, because of the closure of the Primary school Nazarje in the autumn 2020. That is why we have postponed the implementation of planned activities in the 3. and 4. period. We are planning to install necessary equipment during the summer holidays 2021 and then at the beginning of the next school year 2021/2022 start with activities such as app promotion, trainings, events.

## 8. Monitoring strategy

Monitoring of the eCentral solution will be done by detailed review of the obtained scenarios offered by eCentral Living lab tool and by assessment of possibilities implementation of the proposed measures. In the building that is included in E@S project the monitoring will be done by Energy@school application where Energy guardians monitor and evaluate the electrical and heat consumptions.

## 9. Conclusion

We have successfully provided the necessary data for 3DEMS tool from BOOSTEE-CE. For the eCentral tool we have provide all the necessary data for the Living lab. The plan is to finalize the data entry by the end of period. We are not for seeing any major problems to occur. During the summer holiday we will be in contact with Primary school Nazarje to finalize the installation of necessary equipment. And after the successful implementation we will start with E@S activities in the next school year 2021/2022. In case of re-closure of schools due to Covid, we will organize all the necessary activities online.