DELIVERABLE D.T4.1.2

Pilot actions preparation	**Version 1** **11/2020**

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 Weiz. 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 three pilot buildings in Weiz (Austria) PA07"

Objective of Pilot Action

The W.E.I.Z. pilot actions main focus is on the BOOSTEE-CE 3D Energy Management System (3DEMS) which includes building data on the municipality of Weiz and specific data on the three pilot office buildings (W.E.I.Z. 1-3). The 3DEMS system will include spatial and non-spatial data on the buildings and provide energy-related data to the public and public authorities to analyse relevant energy data within a building, a local area, the municipality or all areas included in the system. Simple spatial data include location and building dimensions. Simple non-spatial data include year of construction, type of building, heating source, heat consumption, energy consumption, etc. Information on the pilot buildings is more detailed with information on roof type, renewable energy source, etc. With this data collection of buildings, users/stakeholders can retrieve relevant energy/building information and take this as source information on energy planning.

Other pilot actions implemented in W.E.I.Z. will be the living EPC tool created in eCentral and the Energy Dashboard from CitiEnGov. The living EPC tool provides information on how to reach near zero emission in public buildings (NZEB) with specific measures. Therefore building data of the pilot buildings will be input into the tool and then automatically generates measures on how to reach NZEB-status with the approximate costs. The objectives for the pilot actions of the CitiEnGov energy dashboard can be incorporated into the objectives of the 3DEMS. As for the CitiEnGov toolkit objectives have yet to be defined.

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 appendix - WEIZ.xlsx

3. Spatial/non-spatial data availability for region

Specific spatial data on the 3 pilot buildings from Weiz (plus current basic data on most of the buildings in the municipality of Weiz) have been collected and provided to be included into BOSSTEE´s 3EDMS database.

Table 1. Source of spatial and non-spatial data for Pilot Action in Weiz

Country / Pilot action	Dataset / Source	Types of data	Owner	Access	
				Public	For PA
Austria Weiz (W.E.I.Z. – PA7)	Topographic database	GIS building data in shp format (Arc-GIS)	**National/Local Authority** (Federal Office of Metrology and Surveying (BEV))	NO	YES
	Technical documentation of PA buildings	Data about construction, used materials, electrical installations, building layout, etc.	**PA1 W.E.I.Z.** (data collection and available data from W.E.I.Z.)	NO	YES
	OpenStreetMap	2D geometries of building footprints *(vector data with attributes)*	Open Access platform	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 (training, visualizations, behavior change ect.)*
1	W.E.I.Z. 1	office building / tertiary building	- BOOSTEE-CE - eCentral Living EPC Tool - CitiEnGov Energy Dashboard	- Visualisation and query of energy audits - evaluation of NZEB status (and measures to implement) - Implementation of building data into 3DEMS
2	W.E.I.Z. 2	office building / tertiary building	- BOOSTEE-CE - eCentral Living EPC Tool - CitiEnGov Energy Dashboard	- Visualisation and query of energy audits - evaluation of NZEB status (and measures to implement) - Implementation of building data into 3DEMS
3	W.E.I.Z. 3	office building / educational building	- BOOSTEE-CE - eCentral Living EPC Tool	- Visualisation and query of energy audits - evaluation of NZEB status (and measures to implement)

			- CitiEnGov Energy Dashboard	- Implementation of building data into 3DEMS

5. PA implementation schedule

BOOSTEE-CE, Living EPC Tool (eCentral), Energy Dashboard (CitiEnGov)					
No.	Phase	Phase description	Start of phase	End of phase	Resources needed
1.	Data collection	Collection of data to be implemented	April 2020	September 2020	Internal expert
2.	Planning of PA´s in pilot buildings	Designing a monitoring system for the PA buildings	September 2020	December 2020	Internal & External Expert
3	Input data into Living EPC tool	Data collection and input of Pilot building data into Living EPC tool	December 2020	March 2021	Internal Expert
4	Selection of external expert by public procurement to purchase the equipment and install it in the chosen buildings	Installation and implementation phase for the PA monitoring system	December 2020	December 2021	External Expert

6. Collaboration with stakeholders

Stakeholder groups	Role and responsibility	Involvement
local authority	Data management and access	Help in collecting data on the pilot buildings and providing necessary access to pilot buildings for implementation of monitoring system installation

7. Foreseen problems and possibility of mitigation actions implementation

Depending on Covid-19 restrictions in Austria there could be difficulties for access to the pilot buildings but at the moment for the three pilot buildings no access restrictions can be foreseen. As for the implementation of the monitoring system of the building data: after the implementation is complete, data is available online so access to the buildings is no necessity. Also the energy consumption data may be unique as the building occupancy is generally not comparable to previous time periods. But this data may become comparable to future time periods as “home office” will be an increasing factor in the work environment.

8. Monitoring strategy

Monitoring of the solutions will be done by an installed monitoring system to collect relevant energy data on the pilot buildings (electricity consumption, etc. and also produced electricity by installed PV systems).
Due to the unpredictability of Covid-19 restrictions monitoring of users (like behaviour etc.) is not seen as a relevant information source. Therefore a solution could be a monthly comparison of consumption data.

9. Conclusion

For the 3DEMS tool from BOOSTEE-CE the necessary data for the W.E.I.Z. pilot sites is included in the tool. If data updates for the pilot site become necessary the W.E.I.Z. will provide all available data.

The pilot building data input into the living EPC tool is completed, next steps will be defined in the next period in coordination between W.E.I.Z. pilot site and tool provider in Target-CE KSSENA.

As for the data collection of electric energy, generation of renewable energy (PV-system), etc. for the pilot buildings: after the implementation of the necessary equipment is done the monitoring activities of the pilot actions can start.