

DELIVERABLE T3.1.9

D.T3.1.9 – Testing the project platform (PA8) in
PL/CZ cross-border regions (PL/CZ)

04/2020





D.T3.1.9: Testing the project platform (PA8) in PL/CZ cross-border regions (PL/CZ)

A.T3.1 Implementation of pilot actions for EE improvement

Issued by: Partner Nr. 05

Date: Apr 2020

Circulation RE – Public

Authors		
	Name (organization)	Name, e-mail
WP leader	Mazovia Energy Agency (MAE), PP5	Aleksandra Luks, a.luks@mae.com.pl
Contributing participants	European Grouping of Territorial Cooperation NOVUM (EGTC NOVUM), PP12	Anna Nowacka anna.nowacka@euwt-novum.eu Klaudia Buss klaudia.buss@euwt-novum.eu Monika Kozłowska monika.kozlowska@euwt-novum.eu



1. Introduction and aims

This deliverable is a kind of activities report that contains information about implemented pilot action. This document discusses the testing of the OnePlace platform as a project tool supporting the acquisition and dissemination of knowledge on the improvement of energy efficiency in buildings. The aim of the document is to present activities and goals to be achieved as part of the tasks undertaken for pilot action.

2. PA aims

Because the border area, due to its location in the mountainous area, constituting a natural barrier (e.g. for transport, emergency medical services) but at the same time showing great potential (e.g. for tourism, employment, and education and as well for spas) for development. To revive this region the multi-track activities focused on investments in rail and road infrastructure, education, spatial planning, environmental protection, and energy efficiency are necessary. EGTC NOVUM, through implementation the pilot action within the BOOSTEE-CE project, is increasing the level of cooperation between institutions and communities by building new and more active networking in order to raise public awareness, inducing behavior change, and implements energy management ICT tool in existing public buildings to increase energy efficiency and use of renewable energy sources.

The pilot action aimed to optimize the services by bringing them together in a single web platform, where to respond to the needs of:

1. interactively consult a map of the urban environment, selecting a building of interest, displayed in 3D, to retrieve its main features, from energy diagnostics to registry information;
2. offer to potential customers interested in energy efficiency projects a list of qualified suppliers and technological instruments in the Czech-Polish border cities / municipalities;
3. enable the exchange of experience and good practice related to identification of possible solutions to effectively improve the energy efficiency;
4. identify and develop analysis / research of rooftop PV potential;
5. providing financial tools for analyzing the profitability of investments in improving energy efficiency and presenting available models / instruments for financing energy efficiency.

3. OnePlace platform testing

Implementation of the pilot action consists of social / promotional aspect like OnePlace platform use. This chapter describes the testing and structure of the project platform below. The OnePlace platform consists of 4 different modules: **Living Energy Marketplace; 3D Energy Management System; Energy Efficient Cities; Financing Energy Efficiency.**



The first one (**Living Energy Marketplace**) is an online database helping to understand all different kinds of energy efficiency measures, electronic devices and offering qualified contractors who can carry out energy efficiency investments.

The second one (**3D Energy Management System - 3DEMS**) is a webGIS system which can navigate a map of an urban environment, select a 3D building of interest and retrieve the energy audit and other cadastral/building information. The 3D Energy Management System aims to harmonize the different data sources in one database and visualize them. The developed 3DEMS tool covers Lubawka municipality on the Polish side and the Zacler municipality on the Czech side. The total of **1725 buildings were reconstructed** (Figure 1 and Figure 2) and visualized in 3D environment, the photovoltaics maps were also designed (for Lubawka and Zacler).

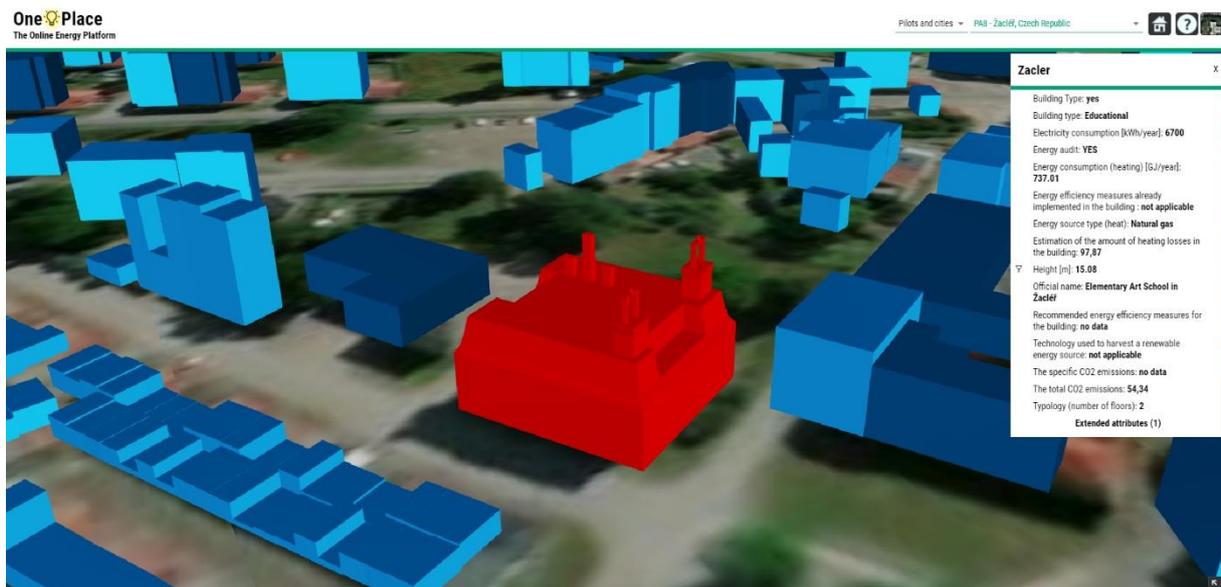
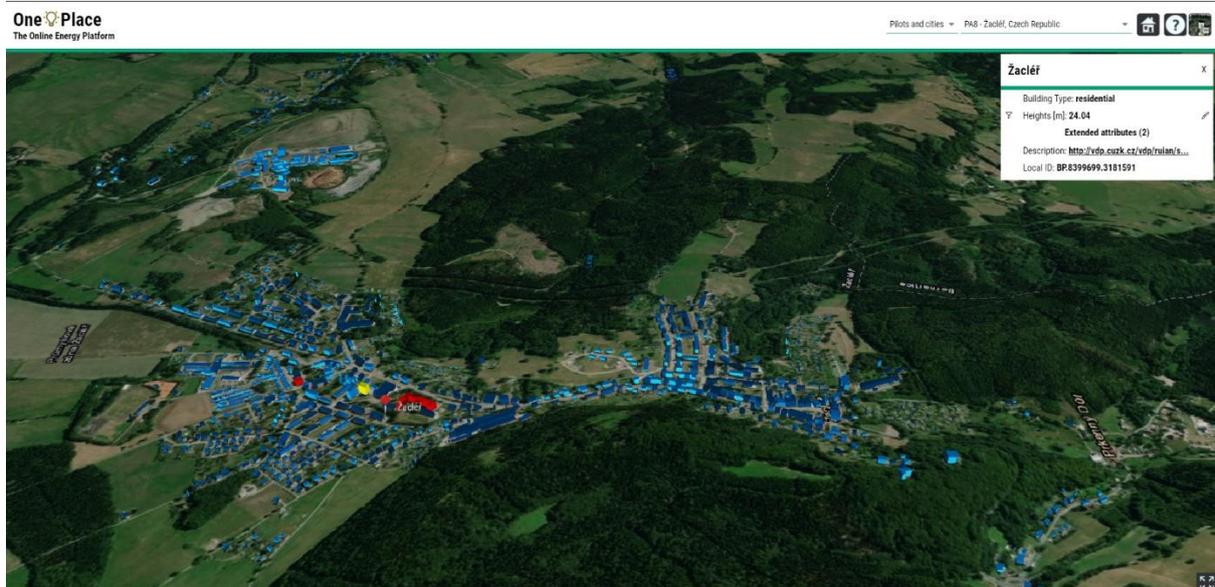




Figure 1. Generated 3D building models for PA8 – the CZ-PL cross-border region (PP12) – Zacler municipality.

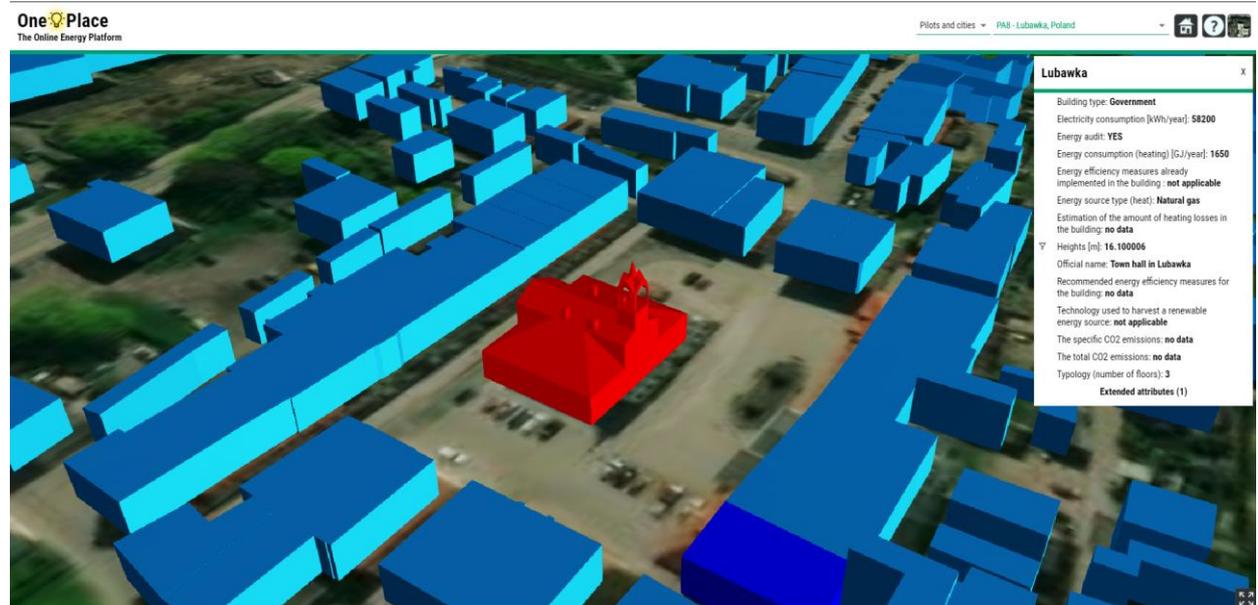
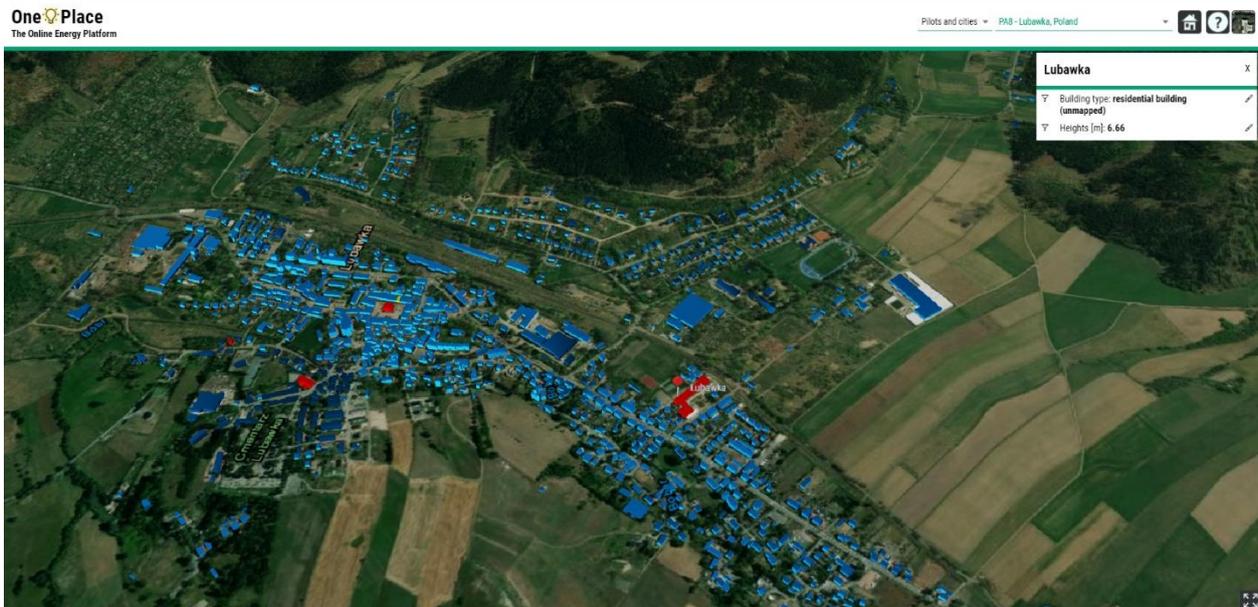


Figure 2. Generated 3D building models for PA8 – the CZ-PL cross-border region (PP12) - Lubawka municipality.

Next module (**Energy Efficient Cities**) enables the exchange of experience and good practices between regions for public authorities and other public actors.

The last one (**Financing Energy Efficiency**) is an attractive visual presentation of the transnational strategy outcomes (financial roadmap), examples of best practices and practical steps to use the national and EU-level resources. This module also tries to capture and present the methods of financing energy efficiency investments that will be transferred to the participating regions' Energy Efficiency Roadmaps.



BOOSTEE-CE

The two **Focus Group Meetings** for public authorities (Lubawka – March 6th, 2019 and Zacler- February 26th, 2019), **seminar** in Jelenia Góra (November 6th, 2019), and **cross-border training** in Liberec (February 18th, 2020), were organized in order to accelerate the implementation of energy efficiency measures and present the OnePlace platform. Apart from planned dissemination actions in the project, the pilot action, and as well outcomes of the project such as OnePlace platform were presented during the final conference of "CLIMATIC TOWN Energy Revitalization of Cities" in Bolesławiec (September 4th, 2019). The discussion after the presentation was mainly focused on the 3DEMS tool. The audience was interested in how to design the PV maps and as well as how to start the development that kind of the 3D system for the energy audit (Figure 3). The audience also often drew attention to the need to create such tools and educate people involved in energy/energy savings in the commune, as well as the authorities, thus assessing the pilot action.



Figure 3. The final conference of "CLIMATIC TOWN Energy Revitalization of Cities" in Bolesławiec.

The interest in the BOOSTEE-CE project spread out among other municipalities, which resulted in signing the "Letter of Intent" by five Czech municipalities (Figure 4.).



Figure 4. Letters of Intent

The results of Pilot Action gave the opportunity to improve, share and extend local and regional experiences in case of energy efficiency actions and use of the 3D webGIS solutions to better manage and analyse energy data. The developed OnePlace platform, which is the main core of the presented pilot action, can be easily replicated by other stakeholders and as well transfer to other territories. The pilot action will be replicated within the TARGET-CE project on two new cross-border municipalities.

4. Planning future EE investments

The OnePlace platform can also serve and support the process of planning further investments in improving energy efficiency. In this pilot action, new locations were proposed to carry out investments based on the results of the tools. Within the OnePlace platform, there is also a financial calculator for investment projects in energy efficiency, thanks to which the municipality having basic data on the planned investment can easily determine its payback period.

The pilot action's indicated a useful location to be analysed for further measures to be implemented the Kindergarten at ul. Szymrychowska 7 in Lubawka (Poland). Based on the OnePlace platform and pictures taken as part of the project with a thermal imaging camera (Figure 5.) show that the installation of screens and thermal insulation lagging will have the effect of reducing heat loss in the building, and therefore reducing expenditure on heating the building. The financial model "Self-financing through energy savings" was suggested in order to perform thermomodernization and as well replacement of a furnace in the building.

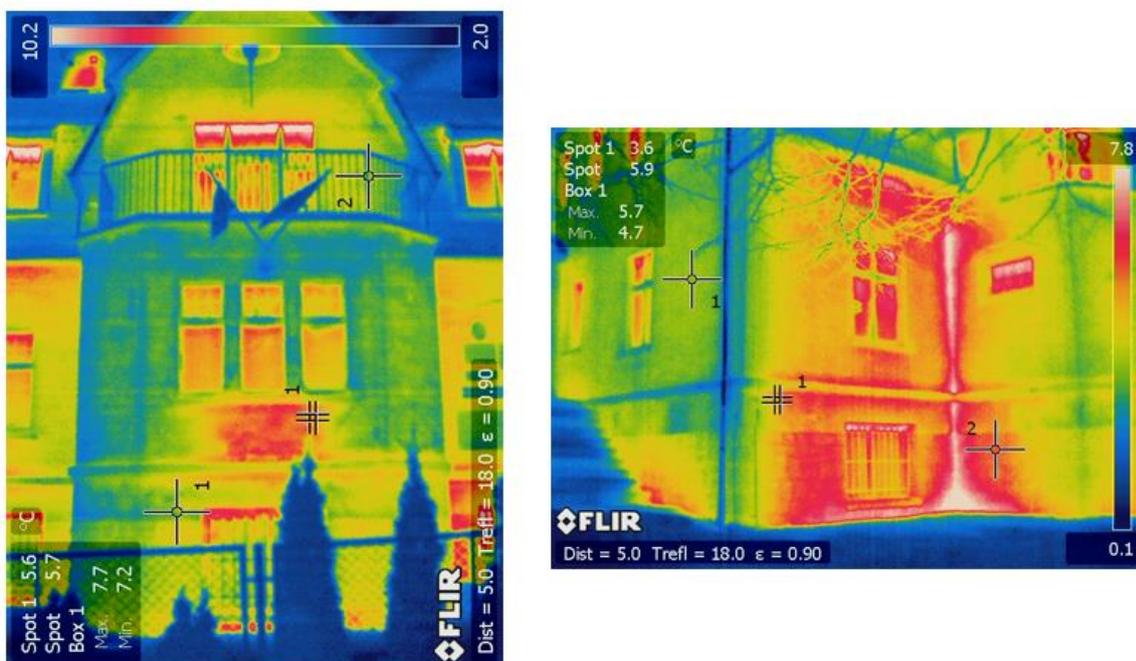


Figure 5. Thermal imagery showing heat losses in the kindergarten building at ul. Szymrychowska 7.



5. Conclusions

The activities described in the pilot action in Polish-Czech cross-border area represent a good practice. The results of Pilot Action gave the opportunity to improve, share and extend local and regional experiences in case of energy efficiency actions and use of the 3D webGIS solutions to better manage and analyse energy data. The developed OnePlace platform, which is the main core of the presented pilot action, can be easily replicated by other stakeholders and as well transfer to other territories.