

Output factsheet: Tools

Version 1

Project index number and acronym	CE906 BOOSTEE-CE
Lead partner	Fondazione Bruno Kessler (FBK)
Output number and title	O. T2.2 - 3D Energy Management System (EMS)
Responsible partner (PP name and number)	FBK-PP1, EZVD-PP2, EUWT-PP12
Project website	https://www.interreg-central.eu/Content.Node/BOOSTEE-CE.html
Delivery date	11.2019

Summary description of the key features of the tool (developed and/or implemented)

BOOSTEE-CE developed the **OnePlace** platform (<https://oneplace.fbk.eu/>) for public authorities and energy end-users. The web platform allows to access energy-related data and among its modules, it offers the 3D Energy Management System (3DEMS). 3DEMS is a webGIS viewer that allows users to navigate a 3D urban environment, select a building of interest and retrieve energy-related information, such as energy audit, cadastral/building data, thermal images, etc. 3DEMS has harmonize different data sources in one database and visualize them within the OnePlace platform using 3D city models. The main advantage of the 3DEMS over more traditional applications is its simplicity and intuitive online solution that building operators, energy planners and municipality staff can use everywhere and every time without the need of special equipment. 3DEMS visualizes 3D buildings and linked heterogeneous information using the CESIUM web viewer.

NUTS region(s) where the tool has been developed and/or implemented (relevant NUTS level)

The online platform OnePlace has been applied and validated 8 project pilot areas:

- Emilia-Romagna Region (Italy - NUTS region ITH5), with a focus on the city of Bologna;
- Judenburg (Austria - NUTS region AT22);
- Zlin (Czech Republic - NUTS region CZ07), with a focus on Kromeriz and Holesov municipalities;
- Tolna (Hungary - NUTS region HU23);
- Plonsk (Poland - NUTS region PL12);
- Koprivnica (Croatia - NUTS region HR04);
- Velenje (Slovenia - NUTS region SI01);
- the CZ-PL cross-border region (Poland - NUTS region PL51 and Czech Republic - NUTS CZ05), with a focus on Zacler and Lubawka municipalities.

Expected impact and benefits of the tool for the concerned territories and target groups

3DEMS should facilitate the access, visualization, sharing and understanding of energy-related data in order to facilitate the realization of EE actions and implementation of Sustainable Energy Action Plan (SEAP) at city level as well as the transition towards low-carbon/smart cities. Therefore impact and benefits of 3DEMS could be many if stakeholders will take over the usage, customization and extension of the developed solution. Partners are disseminating the tool with meetings and articles, hoping that energy makers and public servants will change their attitude and traditional working approach.

Sustainability of the tool and its transferability to other territories and stakeholders

The 3DEMS tool can be transferred and adjusted to other territories and stakeholders, assuming the necessary geospatial data are available. The visualization and query tool is based on open source solutions so it can be replicated in other geographic areas. Within D.T2.1.7 - OnePlace Sustainability Guidelines it will be reported measures to sustain, preserve and widespread the created tool, in particular in the long-term and outside the consortium.

Lessons learned from the development/implementation process of the tool and added value of transnational cooperation

During the development and implementation of the 3DEMS module of the OnePlace platform, partners learned about issues related to geospatial data collection, harmonization and visualization. The transnational cooperation helped in finding common solutions and strategy to present all data available in 3DEMS and offer a tool useful in different regions / municipalities.

References to relevant deliverables and web-links If applicable, pictures or images to be provided as annex

The development and results of the 3DEMS module are reported in D.T1.4.1, D.T2.1.5 (forthcoming), D.T2.2.2, D.T2.2.3 and D.T2.2.4. The deliverable D.T2.1.7 will present the OnePlace sustainability guidelines, including the 3DEMS module.

In the Output annexes, we report examples of 3DEMS applied in the 8 PAs of the project.