

OnePlace: the new online platform to improve energy efficiency of our cities

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The restoration of existing buildings and the improvement of energy management are among the targets required by the European Union. These goals led FBK to coordinate the BOOSTEE-CE project in collaboration with 13 other partners from 7 European countries

Funded by the **Interreg Central Europe program**, [the project](#) focused on creating a useful tool to improve the energy efficiency of public buildings in Central Europe. A technological platform has been created to gather in a single virtual place of reference ([OnePlace](#)), good practices, a database of industry experts, financial instruments and a 3D map for displaying the Energy Efficiency (EE) of the buildings inside of individual cities. **The results of the project allow administrators to easily view the energy information of buildings**, so as to plan new investments to reduce emissions and consumption. *“Our research experience in the field of 3D reconstructions – explains Fabio Remondino, FBK researcher and head of the 3DOM unit – allowed us to find **an innovative solution to make consumption data or energy performance of buildings visually accessible within a specific territory.** For example, you can ask how many buildings exceed a certain consumption threshold and the map will highlight the individual houses or corresponding buildings. We currently know that buildings are responsible for around 40% of energy consumption and 36% of CO2 emissions and we believe that the BOOSTEE-CE project has developed useful tools to improve the sustainability of our cities.”*

In detail, the *OnePlace* platform has four main features:

- a **webGIS tool (3DEMS)** for better assessment and visualization of energy consumption in public buildings through 3D city models. The webGIS viewer allows its users to navigate in a 3D urban environment, select a building of interest, retrieve energy-related information (such as energy audit, cadastral / building data, thermal images, photovoltaic potential of building roofs, etc.) and perform analysis with energy data. 3DEMS has harmonized different data

sources in a single database and displays them, compared to more traditional applications, with extreme ease for constructors, energy planners, municipal staff or citizens;

- **financial roadmaps** with examples of good practice and practical indications for using national and European financial resources: the various financing solutions will assist local authorities and public bodies in their commitment to energy efficiency;
- a **database** with a list of experts in the energy sector and with a rich information load, at national level, on electronic and electrical appliances;
- an **archive** of experiences, good practices and guidelines at national level, relating to energy efficiency: a series of approaches and measures used in the various European cities involved in the project provide a guide for other cities in the design of effective policies and programs for urban energy efficiency.

*“Currently – Remondino continues – **the operation of the platform** is limited to the public buildings of the 8 pilot cities of the project, but it **is designed to be replicated to other inhabited areas**. The only thing the platform needs are topographical data to create 3D cities and data relating to energy consumption which, even if still with difficulty, begin to be made available by public and private structures (eg: energy suppliers).”*

The BOOSTEE-CE partnership involved 7 countries and 13 partners:

FBK Trento (Italy – coordinator)

E-institute (Slovenia)

Energy Agency of the Zlín region (Czech Republic)

Regional Energy Agency North (Croatia)

Masovia Energy Agency (Poland)

Obersteiermark Energy Agency (Austria)

Tolna Region Development Agency (Hungary)

European Grouping of Territorial Cooperation NOVUM (Poland)

Emilia-Romagna Region (Italy)

Plonsk Municipality (Poland)

Velenje Municipality (Slovenia)

Judenburg Municipality (Austria)

Koprivnica Municipality (Croatia)

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