BOOSTEE-CE

"**Boo**sting **E**nergy **E**fficiency in **C**entral **E**uropean Cities through Smart Energy Management"

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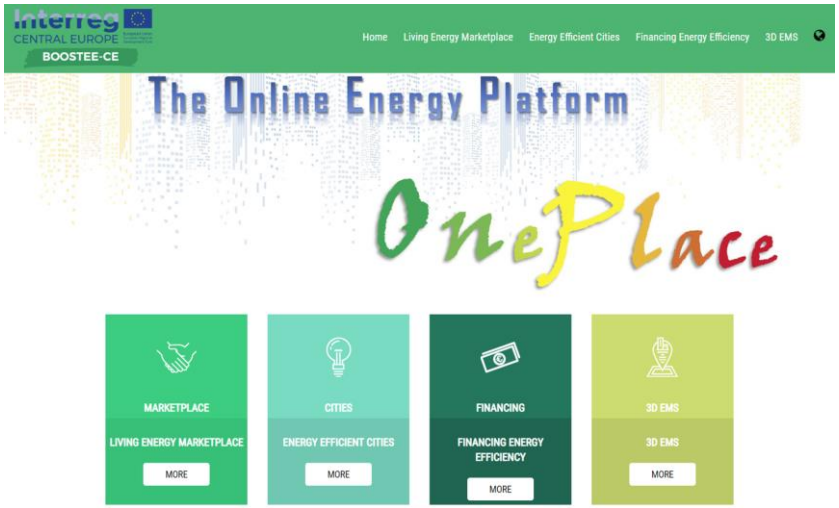
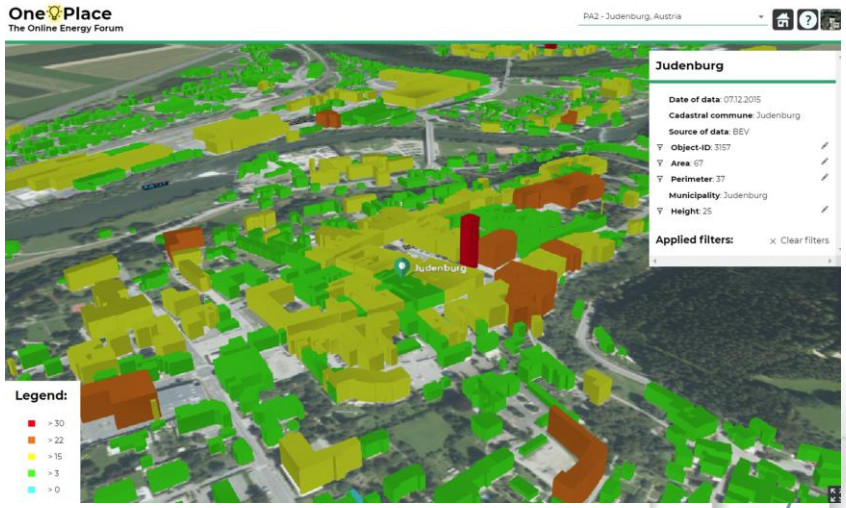
BOOSTEE-CE - what is about?

- The project deals with **ENERGY EFFICIENCY** in public buildings
- The project aims to offer **ICT solutions** (i.e. 3D city models) to facilitate the governance of energy efficiency in existing public buildings and reduce energy consumption
- BOOSTEE-CE solutions include the **OnePlace web-platform** and a transfer of knowledge to other regions of Europe
- Timeline: 1 Jun 2017 - 31 May 2020
- Budget: 2.2 mil Eur



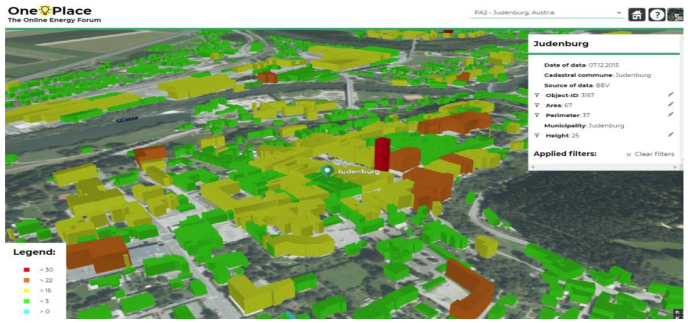


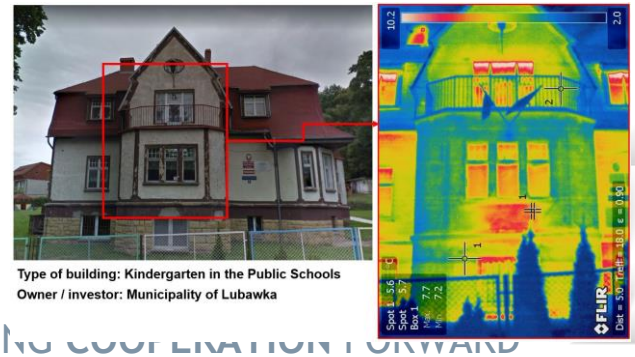
BOOSTEE-CE - video

BOOSTEE-CE - overall objectives

- Provide innovative ICT solutions, best practices, financing roadmaps and guidelines to improve the governance of EE in existing public buildings and reduce energy consumption
- Raise public awareness related to EE / energy saving
- Reducing know-how disparities in CE and disseminate the EE concepts
- Realize a web-based platform (OnePlace) in order to

  (i) collect energy-related info (consumptions, requests, losses, etc.)
  (ii) facilitate energy audit based on 3D buildings and webGIS technologies
  (iii) visually present transnational energy strategy
  (iv) showcase good practices for policy / energy makers
  (iii) transfer knowledge and solutions to other regions





Type of building: Kindergarten in the Public Schools
Owner / investor: Municipality of Lubawka

BOOSTEE-CE - Work Packages

WPM - Management

WPT1 (FBK) - Transn. tool for energy audit of public buildings

- collect and harmonize geospatial data
- realize a geoDB
- create 3D building models in PA areas
- create PV potential map & heating losses information

WPT2 (EZVD) - The Online Energy Platform "OnePlace"

WPT3 (MAE) - Boosting energy efficiency in pilot actions

- PA preparation and guidelines
- OnePlace testing
- Handbook for energy planner about OnePlace

WPT4 (EAZK) - Energy efficiency financing strategies in CE

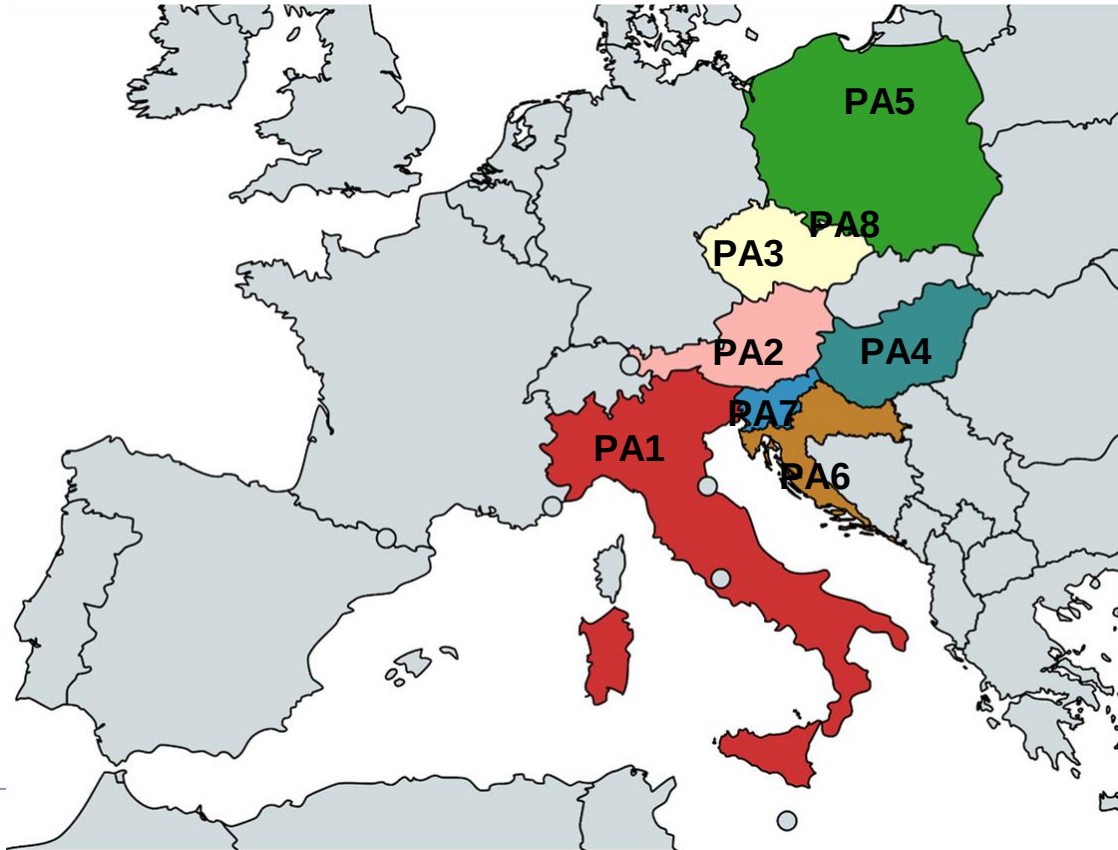
- EE financing strategies
- EE financing roadmap
- Inclusion of results in OnePlace

WPC - Comm

BOOSTEE-CE - Pilot Actions

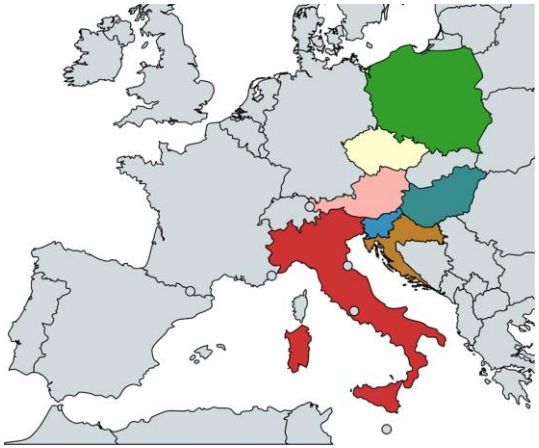
- 8 Pilot Actions (5 with funds for investments, *2 without funds* and 1 with internal funds) where
  - implement EE solutions in public buildings
  - test / validate OnePlace project platform & widespread / disseminate the concept of EE

PA1	Italy
PA2	Austria
PA7	Slovenia
PA5	Poland
PA3	Czech Republic
PA4	Hungary
PA6	Croatia
PA8	Poland / Czech Republic



BOOSTEE-CE - Consortium

- Research institutes: FBK (PP1/Coordinator), Italy; EZVD (PP2), Slovenia;
- Sectoral agencies:
  - Energy agencies: EAZK (PP3), CZ; REAN (PP4), Croatia; MAE (PP5), Poland; EAO (PP11), Austria*;*
  - Development agencies: TCDA (PP6), Hungary; EUWT/NOVUM (PP12), Poland
- Public authorities:
  - regional: RER (PP7), Italy;
  - local: Velenje (PP8), Slovenia; Koprivnica (PP9), Croatia; Judenburg (PP10), Austria; Plonsk (PP13), Poland; *Zlin (PP14), CZ; Tolna (PP15), Hungary;*



BOOSTEE-CE - Liaisons

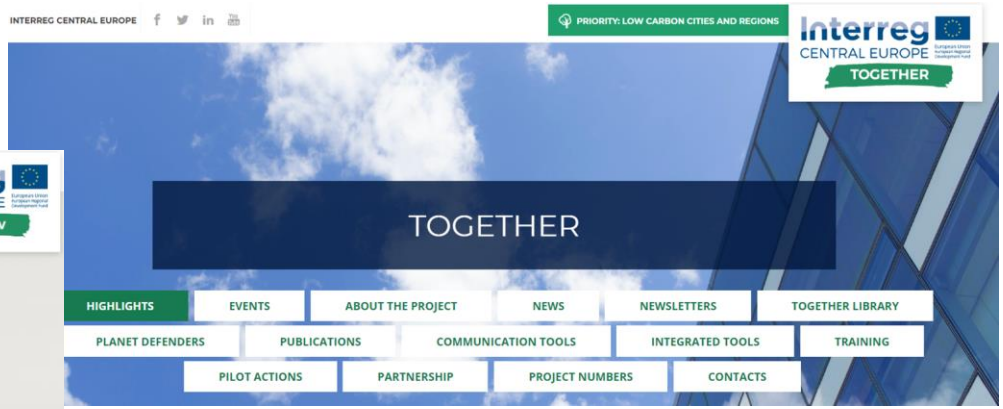
Liaisons with other Interreg CE projects to exchange good practices, data and participate at joint events:

- TOGETHER:

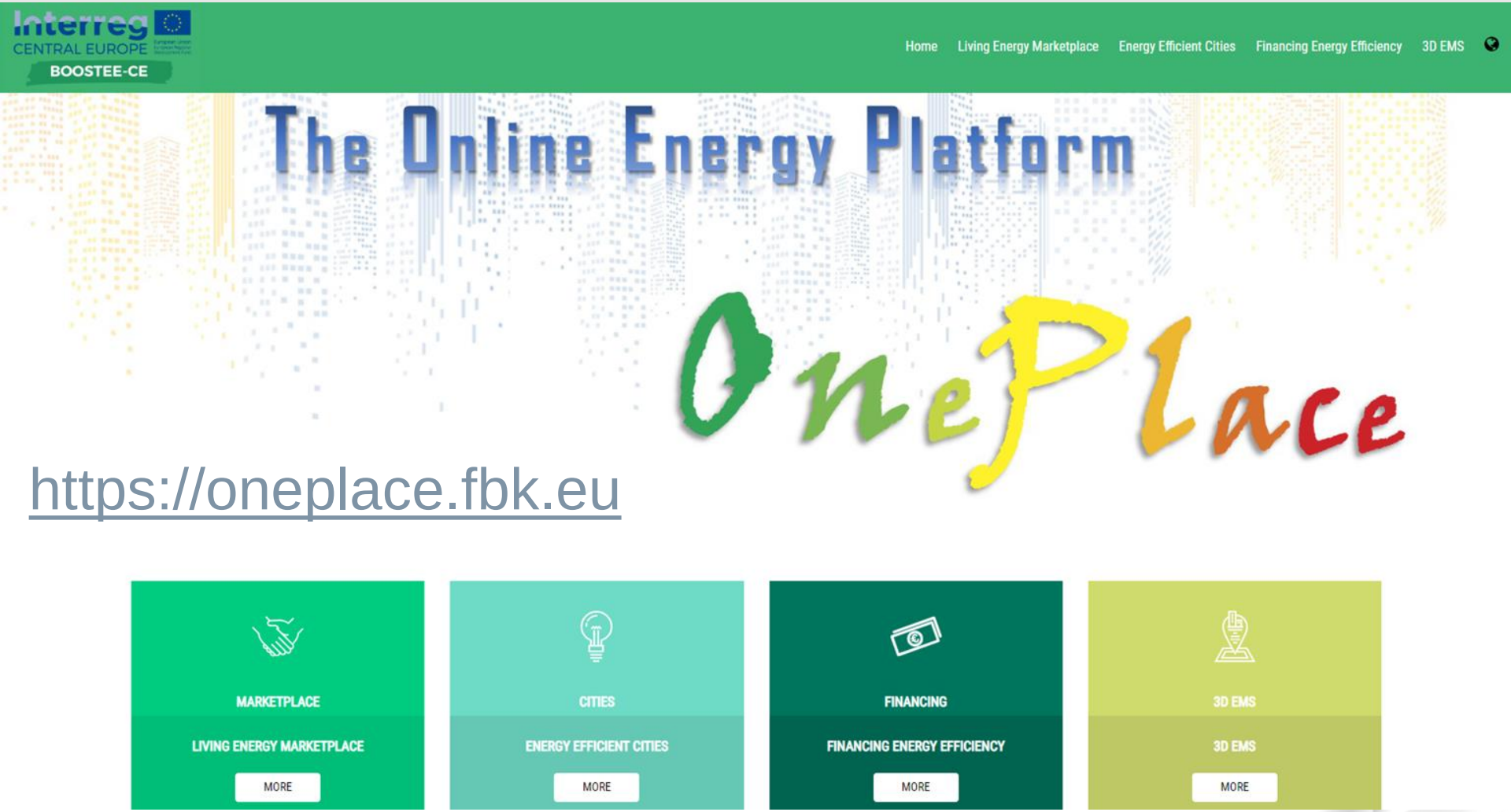
  https://www.interreg-central.eu/Content.Node/TOGETHER.html

- Citiengov

  http://www.interreg-central.eu/Content.Node/CitiEnGov.html

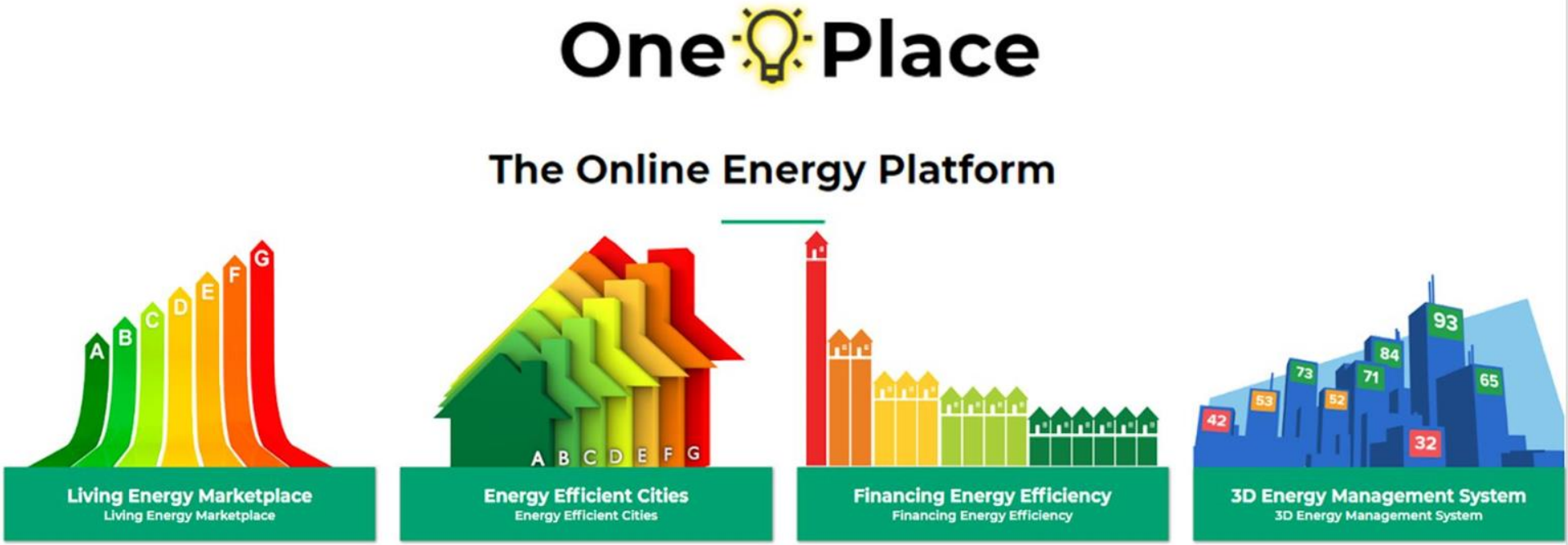


BOOSTEE-CE - OnePlace web platform



https://oneplace.fbk.eu

BOOSTEE-CE - OnePlace modules



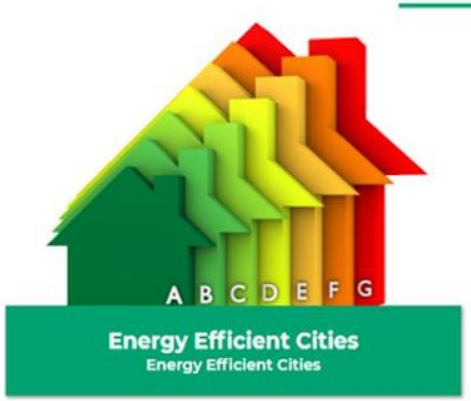
4 interlinked modules, freely accessible to citizens, policy makers, scholars and energy planners in order to improve the governance and understanding of energy efficiency in (public) buildings.

Modules provide (i) information on energy devices and experts, (ii) good practices within energy efficiency sector, (iii) national & EU resources for energy efficiency planning and (iv) 3D city models to access and visualize energy-related data

BOOSTEE-CE - OnePlace - LEM

One Place

The Online Energy Platform



Living Energy Marketplace (LEM) aims to connect customers interested in energy efficiency projects to qualified contractors (architects, engineers, auditors, craftsmen, technicians and installers, energy agencies etc.) in order to scale up investments in energy efficiency and to reduce information barriers. It is basically a **database of devices and experts** to empower potential investors to make energy-wise decisions.

BOOSTEE-CE - OnePlace - LEM

Home | Living Energy Marketplace | Energy Efficient Cities | Financing Energy Efficiency | 3D EMS

Living Energy Marketplace

Living Energy Marketplace aims to connect customers interested in energy efficiency projects to qualified contractors (architects, engineers, auditors, craftsmen, technicians and installers, energy agencies etc.) in order to scale up investments in energy efficiency and to reduce information barriers. It also contains links and information covering the electronic & electric appliances to empower potential investors to make energy-wise decisions.

Device database

Here you can find links to databases covering the electronic & electric appliances. This databases can help you to make energy-wise decisions if you are considering buying this kind of products.

View more

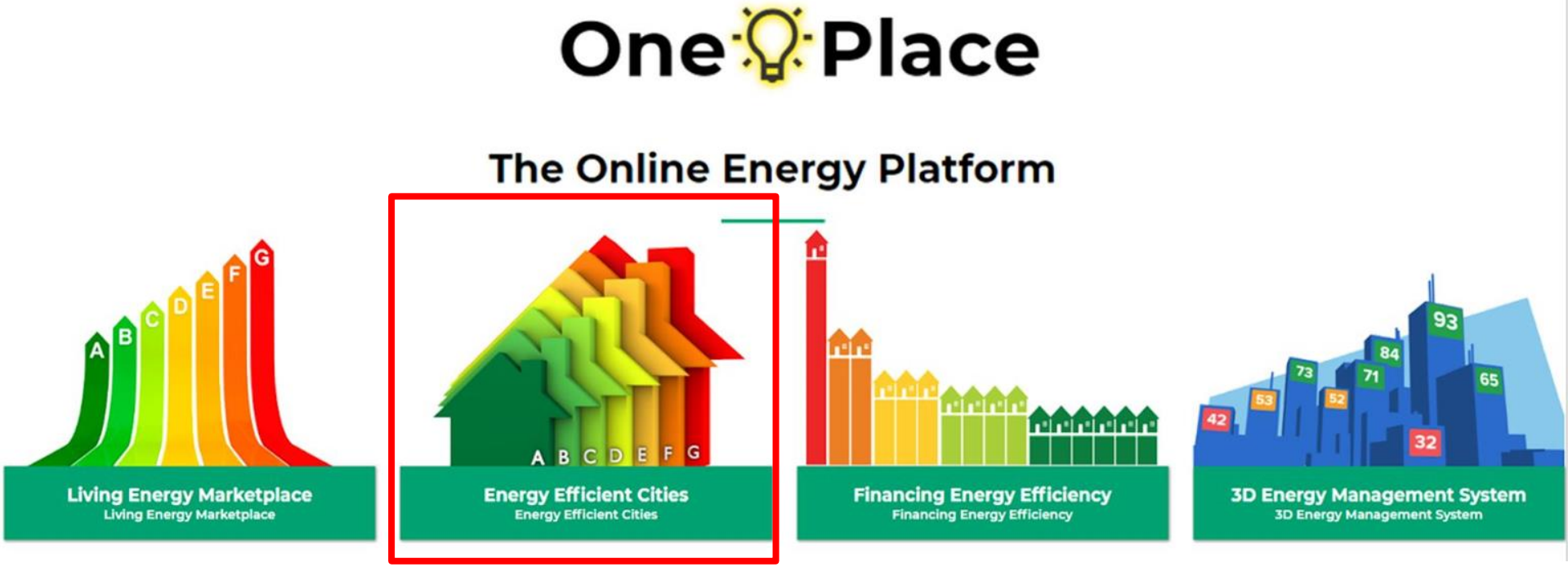
Experts Database

Contains database of links to experts in the field of architecture, engineering, energy efficiency, renewable energy sources etc. This database is meant to serve as a connection point between customers interested in energy efficiency projects and qualified contractors.

View more

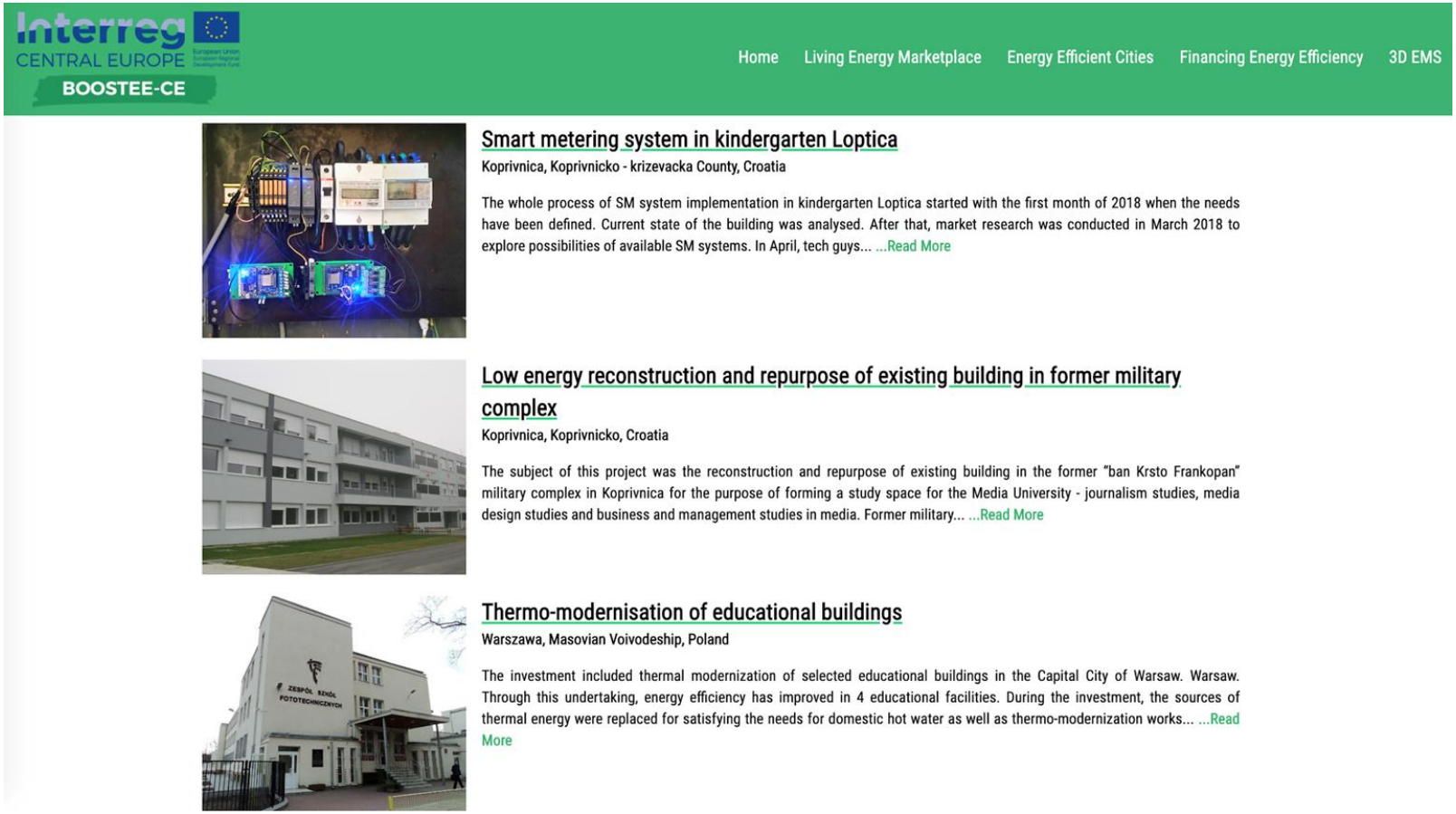
It contains links and information about the electronic & electric appliances to empower potential investors to make energy-wise decisions as well as links to experts in energy efficiency projects and qualified contractors.

BOOSTEE-CE - OnePlace - EEC module



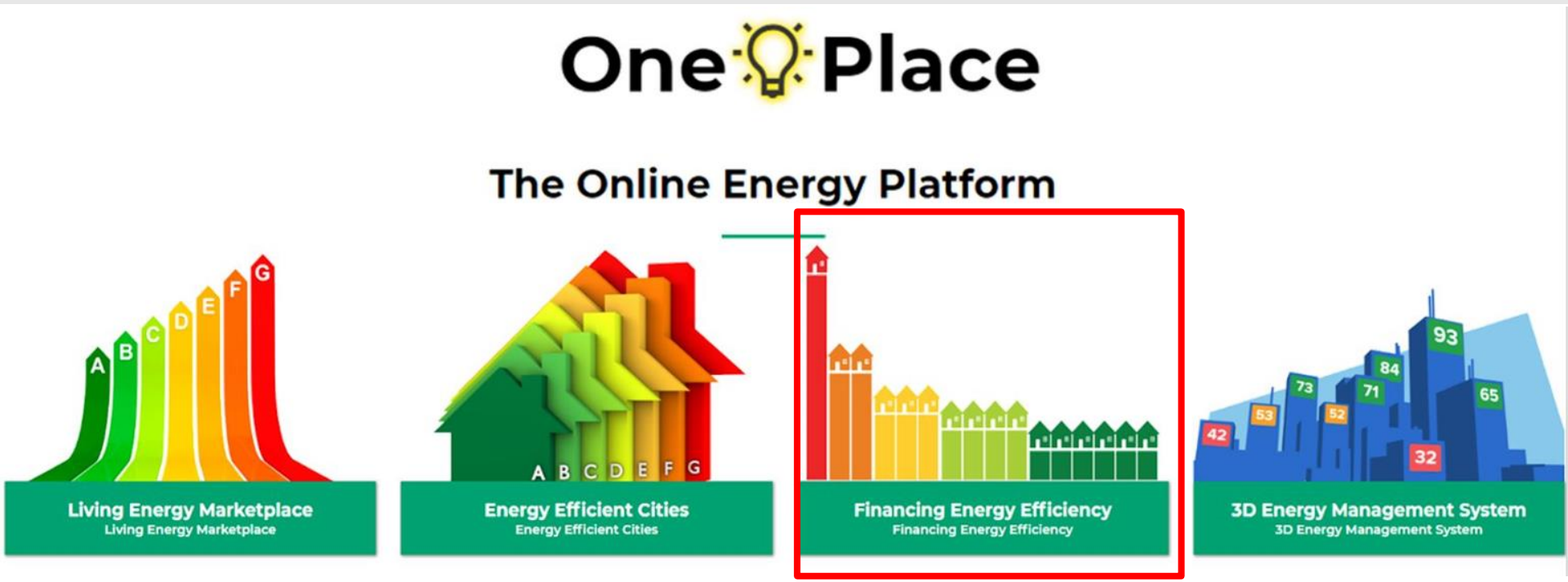
The **Energy Efficient Cities** (EEC) module is an **exchange platform of experiences** and identification of **good practices** within energy efficiency sector for public authorities and other public users. It demonstrates the range of approaches and measures various cities have used to undertake efficiency improvements and thus helps to guide cities in designing effective urban energy efficiency policies and programs.

BOOSTEE-CE - OnePlace - EEC module



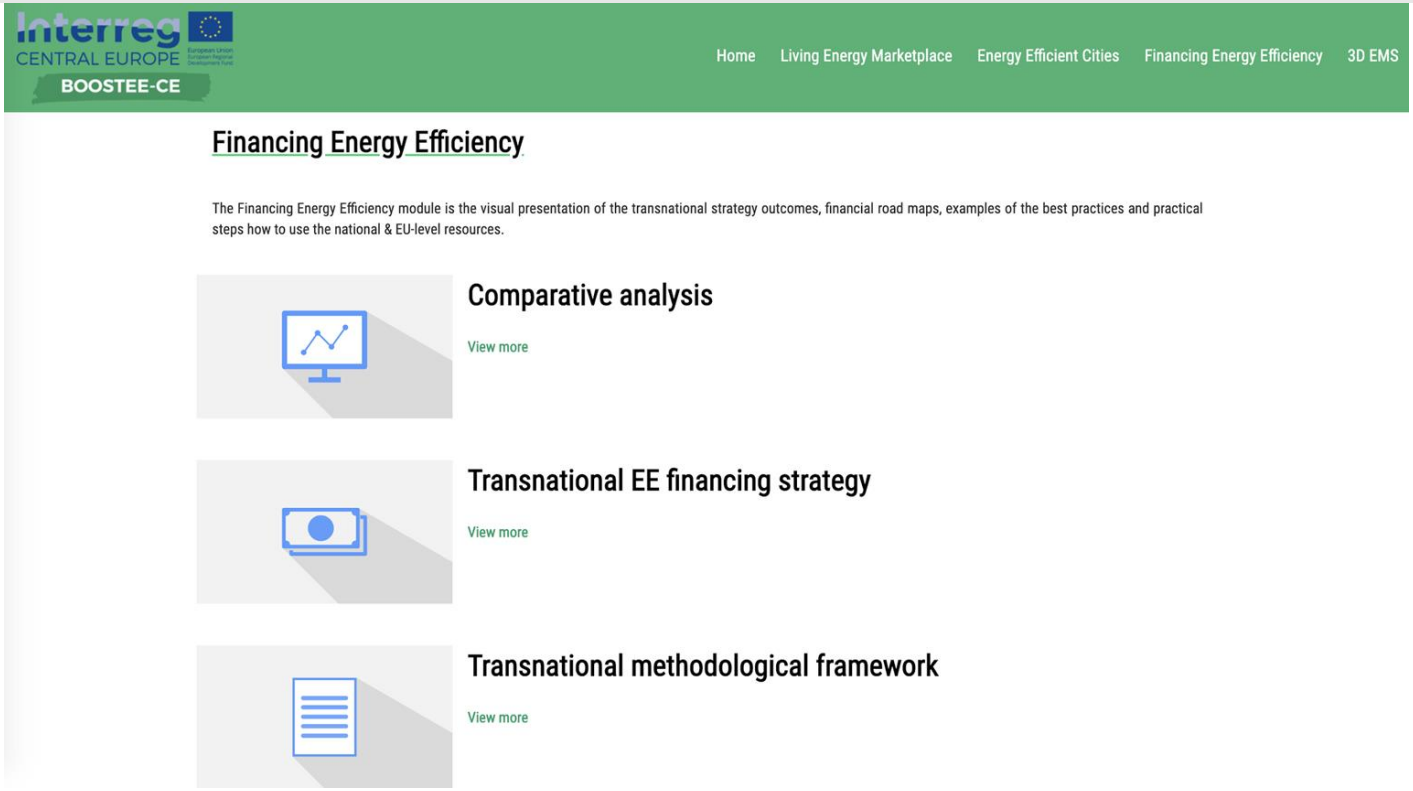
It contains some 20+ (constantly updated) Best Practices from 7 CE countries about energy efficiency of buildings and smart metering. Each best practice contains basic information, system characteristics, financial sources and financing details and project implementation benefits.

BOOSTEE-CE - OnePlace FEE module



The **Financing Energy Efficiency** (FEE) module is the visual **presentation** of the transnational **strategy** outcomes, **financial road maps**, examples of the **financial best practices** and practical steps how to use the national & EU-level resources.

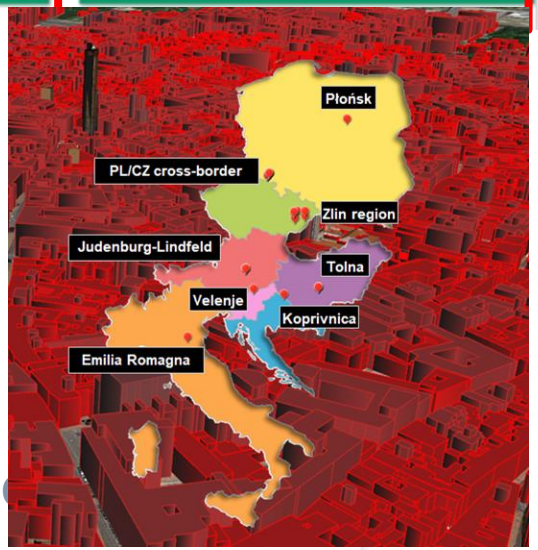
BOOSTEE-CE - OnePlace - FEE module



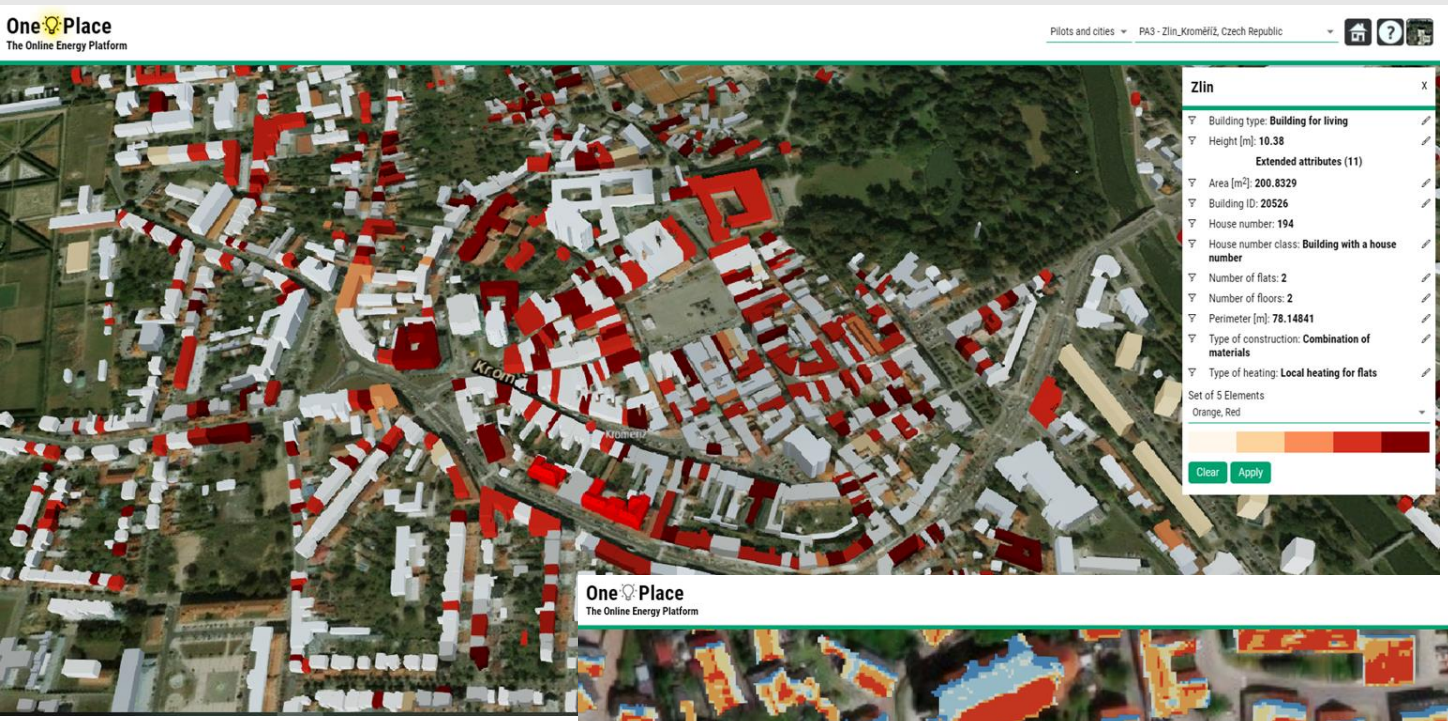
It contains comparative analysis of financial schema in CE countries, transnational EE financing strategy, EE financing roadmaps for public infrastructures in CE municipalities, best practices and investments return models in energy efficiency financing, an EE financing project calculator to plan investments, etc.

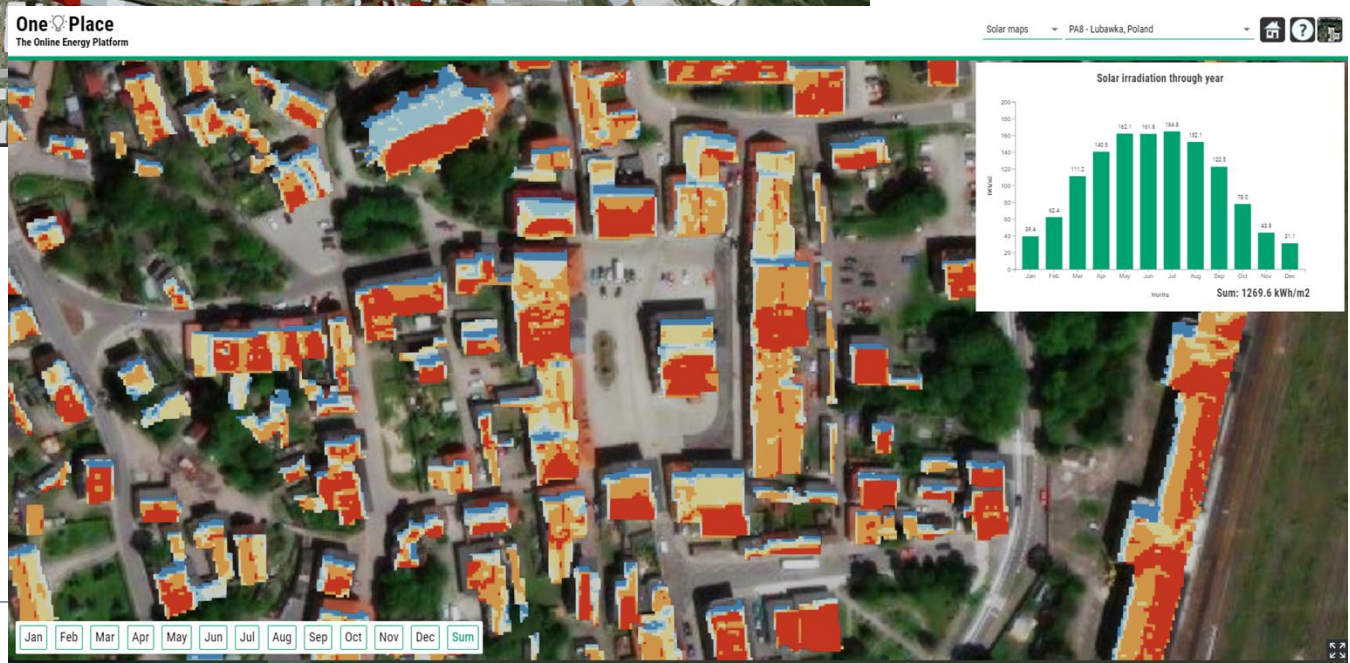
BOOSTEE-CE - OnePlace - 3DEMS module

3D **Energy Management System** (3DEMS) is a module (viewer) to visualize energy information / uses / looses / PV potential / audit certificates of (public) building using 3D building/city models.



BOOSTEE-CE - OnePlace - 3DEMS module





BOOSTEE-CE - Scientific paper overview

- Publications
- Archives
  - Volumes
  - Title and author search
  - Full-text search
- Annals
- ISPRS Journal
- ISPRS Journal Geo-Info
- ISPRS eBulletin
- ISPRS Highlights
- Book Series
- Brochure
- ISPRS Profile
- Annual Reports
- Related Publications
- Booklets

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GEOSPATIAL DATA FOR ENERGY EFFICIENCY AND LOW CARBON CITIES – OVERVIEW, EXPERIENCES AND NEW PERSPECTIVES –

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Keywords: GIS, energy efficiency, light pollution, spatial planning, geodatabase, 3D city modeling

Abstract. The use of Geographic Information Systems (GIS) and their integration with 3D city models have become a common and powerful asset of cities for planning, visualization and decision-making operations in the fields of energy management, energy efficiency as well as transportation, public infrastructures, etc. The use of such solutions in urban spaces is still confined and mainly applied to visualization purposes (e.g. Google Earth) although geodata and spatial analyses can solve many problems towards the creation of smart cities. This paper presents an overview of various activities using spatial and non-spatial energy-related data integrated with 3D city models into GIS environments. It reviews existing solutions and reports two ongoing projects which deal with geospatial data for better planning and management of energy efficient public lighting and almost zero-consumption public buildings.