

Interreg

CENTRAL EUROPE



European Union
European Regional
Development Fund

TARGET-CE

4 Aprile 2023

Interreg-CE Info Day, Padova, Italia

TAKING
COOPERATION
FORWARD

Il progetto TARGET-CE e i suoi strumenti per l'efficiamento energetico

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Progetto TARGET-CE



- **Programming period 2014-2020**, Capitalization call 2019
- **TARGET-CE** ha raccolto e migliorato (“**capitalizzato**”) varie soluzioni ICT, modelli finanziari, piani di intervento, linee guida e materiale formativo relativi all'efficientamento energetico di edifici al fine di mettere a disposizione tutte queste soluzioni e materiali a nuove regioni e municipalità
- **TARGET-CE** aveva l'obiettivo di diventare un hub di soluzioni tecnologiche relative all'efficientamento energetico
- Le soluzioni (da 8 progetti) sono disponibili all'interno del portale web **OnePlace** (<http://oneplace.fbk.eu>) realizzato con il progetto Interreg-CE BOOSTEE-CE (2017-2020).



Progetto TARGET-CE



<https://www.youtube.com/watch?v=jOl21eNKxzs>

https://www.youtube.com/watch?v=VZlp_y1ulds



<https://www.interreg-central.eu/Content.Node/TARGET-CE.html>



<https://www.facebook.com/TARGETCE2022>



<https://twitter.com/CeTarget>



Capitalizzazione e cooperazione



The Online Energy Platform

OnePlace

Tecnologie + interdisciplinarietà + cooperazione + end-users + + sfide locali + disseminazione

<p>BOOSTEE-CE</p> <p>The BOOSTEE-CE project aimed to improve the governance of energy efficiency in existing public buildings and, ultimately, to reduce energy consumption. It intended to tackle these territorial challenges offering innovative solutions and best practices to undertake actions for improving energy performance of buildings and accelerate the transition to low-carbon cities. Capitalized TARGET-CE solutions will support the public sector challenges in playing an exemplary role in undertaking EE actions and upgrade their infrastructures.</p>	<p>PANEL 2050</p> <p>PANEL 2050 is a project financed from Horizon2020 Programme. Its main output was to create sustainable energy network at local level, where stakeholders collaborate for the creation of energy strategies for the transition towards low carbon communities in 2050. Panel 2050 multi-stage strategy for implementing solutions, will be used to prepare 9 action plans for public utilities. Those solutions will support the smooth conduct of pilot actions in all regions of TARGET-CE</p>	<p>EMPOWER</p> <p>EMPOWER is a project financed from Interreg Europe programme, which main output is improving governance to mobilize new projects that apply energy monitoring with usage of innovative financing mechanisms and new technology. EMPOWER Good Practice Register is a database on good examples of projects related to energy monitoring and innovative financial instrument, which will help improve the action plans carried out in TARGET.</p>	<p>ENERGY@SCHOOL</p> <p>ENERGY@SCHOOL project worked on increasing the capacity of public sector to implement Energy Smart Schools. This was done by an integrated approach which brought together education of schools staff and pupils. They became Junior and Senior Energy Guardians. In their new roles they learnt more about energy efficient measures, gained more responsibilities and experienced the implementation of technical energy efficient solutions, facing the shift towards low carbon Europe every day.</p>	<p>eCentral</p> <p>The eCentral project offered support to key stakeholders to realize the benefits of the standard for the renovation and construction of public near-zero-energy buildings. The main results of the project were targeted at regional and local public authorities that do not have sufficient technical and financial knowledge to develop complex energy efficiency projects. The experiences will be upgraded and continued in the TARGET project, which will collect, adapt and use new ICT tools, financial models, action plans and trainings.</p>	<p>FEEDSCHOOLS</p> <p>The project aims to provide local authorities with new solutions, both technical and financial, which will help them to implement 'nearly Zero Energy Building' (nZEB) renovation activities in schools. The innovative approach consists in developing a transnational and holistic support toolkit and a web database of innovative best practices for nZEB renovation. Activities: Development of energy reviews of representative school facilities, Preparation of preliminary plans for renovation of representative school facilities.</p>	<p>CITIENGOV</p> <p>The CitiEnGov project has contributed to improve the capacities of Central Europe Public Authorities, especially Municipalities, in dealing with energy planning and strategies. Moreover it has promoted an innovative approach for organizing and managing the energy topic within local administrations, which is based on an integrated and horizontal structure, easing the public administrations' processes. The results will be deepened during the TARGET-CE project. Also the CitiEnGov wiki-</p>	<p>GREENISOUL</p> <p>The GreenSoul project aimed to surpass the energy saving targets of the EU Energy Efficiency Directive (-20% by 2020) with a cost-effective and energy-efficient ICT platform. This ICT platform is equipped with a number of tools and a socio-economic and behavioural model that will jointly guide the energy consumption practices of public buildings.</p>
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TAKING COOPERATION FORWARD



La piattaforma OnePlace

The Online Energy Platform

OnePlace

<http://oneplace.fbk.eu>



La piattaforma OnePlace

Piattaforma / **Portale web** che include 5 moduli che offrono contenuti e soluzioni relative all'**efficientamento energetico** (best practices, database di device e esperti, soluzioni finanziarie, strategie, tool di visualizzazione 3D, ecc.) per favorire una migliore governance e pianificazione degli interventi.

La piattaforma e' **liberamente accessibile** a policy makers, energy planners e cittadini



La piattaforma OnePlace

Capitalized Projects **Marketplace** EE Cities EE Strategies EE Finances EE Tools

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 products that you are considering buying this kind of products.

[View more](#)



Experts Database

Contains database of links to experts in the field of architecture and energy efficiency, creating a connection point between customers interested in energy efficiency.

[View more](#)

Living Energy Marketplace vuole **collegare** i **clienti** interessati ai progetti di efficienza energetica a **esperti** qualificati (architetti, ingegneri, revisori, artigiani, tecnici e installatori, agenzie energetiche ecc.) al fine di aumentare gli investimenti nell'efficienza energetica e ridurre le barriere informative.

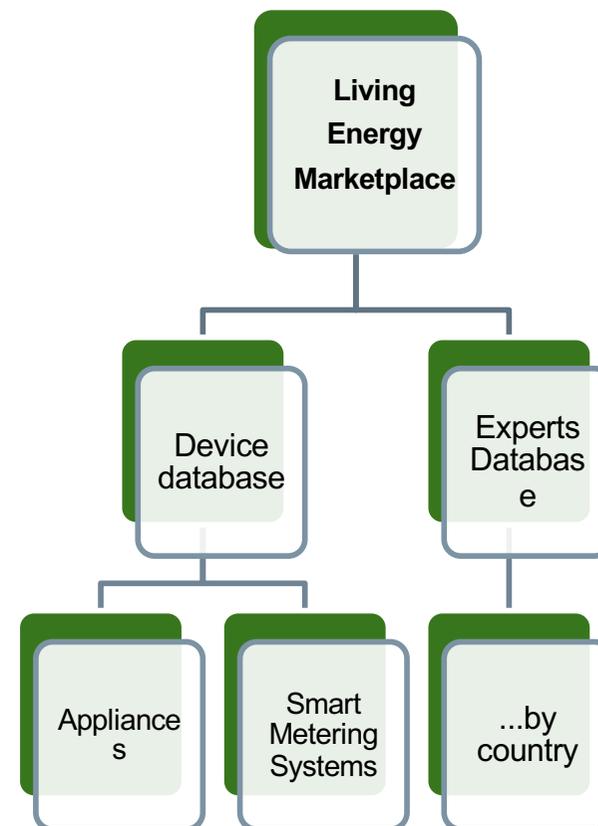


La piattaforma OnePlace

Capitalized Projects **Marketplace** EE Cities EE Strategies EE Finances EE Tools

Il modulo contiene:

- ❑ link e informazioni riguardanti gli **apparecchi elettronici ed elettrici** per consentire ai potenziali investitori di prendere migliori decisioni sul tema energetico.
- ❑ database di collegamenti ad **esperti** nel campo dell'architettura, ingegneria, efficienza energetica, fonti rinnovabile, ecc. Il database serve come punto di collegamento tra i clienti interessati a progetti di efficienza energetica e appaltatori qualificati.



È un **database**, organizzato per paesi, di dispositivi ed esperti per consentire ai potenziali investitori di prendere decisioni sagge in termini di energia.

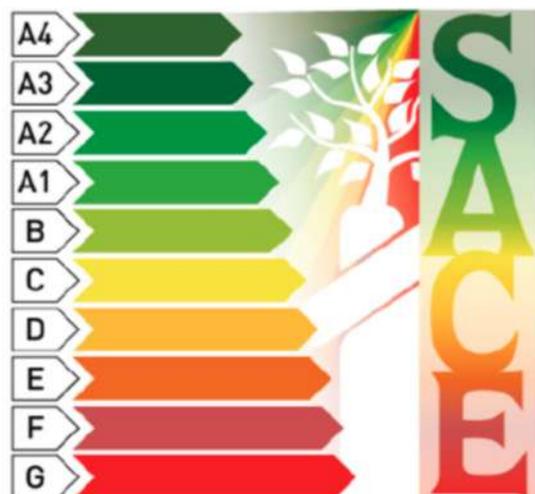


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Italy

SACE



Sistema Accreditamento Certificazione Energetica



ORGANISMO DI ACCREDITAMENTO REGIONALE



La Regione Emilia-Romagna sostiene e disciplina la riqualificazione energetica degli edifici, promuovendo programmi per l'uso razionale dell'energia, il ricorso alle fonti rinnovabili, la riduzione delle emissioni di CO2...

BuildLab



BuildLab è il laboratorio regionale dove sperimentare azioni innovative per il rilancio degli investimenti in efficienza energetica e sostenibilità nel settore delle costruzioni. La sua cornice è il progetto europeo BUILDINTEREST, avviato ad aprile 2016 con l'obiettivo di rendere più attrattivi gli investimenti in riqualificazione energetica riavvicinando domanda, offerta, policy maker e investitori al fine di:

- avviare e facilitare un dialogo strutturale tra gli stakeholder provenienti dall'ambito finanziario e dal settore delle costruzioni
- definire una roadmap attraverso cui identificare le barriere agli investimenti, le best practice regionali, nazionali ed internazionali e le soluzioni da implementare e replicare a livello locale
- supportare lo sviluppo di strumenti e modelli operativi per facilitare gli investimenti nel settore
- mettere a sistema l'esperienza avviata in Emilia-Romagna i partner nel progetto europeo BUILDINTEREST

AESS



L'Agenzia per l'Energia e lo Sviluppo Sostenibile (AESS) è una associazione legalmente riconosciuta e senza scopo di lucro per lo sviluppo energetico sostenibile del territorio. AESS è certificata secondo la Norma UNI CEI 11352 quale Società di servizi energetici (ESCO). Attualmente la compagine dei soci AESS è integralmente costituita da enti facenti parte della Pubblica Amministrazione.

AESS è stata fondata nel 1999, con il supporto del programma della Commissione Europea SAVE II, su iniziativa di Comune e Provincia di Modena, insieme ad altri tre soci fondatori (Camera di Commercio di Modena, l'allora multiutility locale META e l'allora azienda pubblica per il trasporto locale ATCM). AESS fa parte della rete europea delle agenzie per l'energia ManagEnergy e della rete italiana delle agenzie per l'energia RENAEI.

→ Visit the page

Tags: Energy agencies

EGE - Esperti in Gestione dell'Energia



La piattaforma OnePlace

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Energy Efficient Cities - best practices

Search

Search...



Smart metering system in kindergarten Optica

Koprivnica, Koprivnicko - krizevacka County, Croatia

The whole process of SM system implementation in kindergarten Optica started with the first possibilities of available SM systems. In April, tech guys...[Read More](#)



Low energy reconstruction and repurpose of existing building in fc

Koprivnica, Koprivnicko, Croatia

The subject of this project was the reconstruction and repurpose of existing building in the former business and management studies in media. Former military...[Read More](#)



Smart metering system in public building Music Scholl Fran Korun Koželjski Velenje

Velenje, Savinjsko-Saleška region, Slovenia

Within the pilot action, Municipality Velenje with help of selected external experts, installed the smart meters in the Music framework and the financial aid of project BOOSTEE-CE, which...[Read More](#)



Energy Management System for Piastów Community

Piastów, Mazovian, Poland

Before the implementation of the investment, a stocktaking was carried out. Stocktaking included energy consumption points, power, phase voltages, power frequency) with a frequency of 33 kHz, thermal parameters (supply and return temperature...[Read More](#)

Il modulo **Energy Efficient Cities** è una piattaforma di scambio di **esperienze e buone pratiche** nel settore dell'efficienza energetica per pubbliche amministrazioni e altri utenti pubblici.

Include una gamma di approcci e soluzioni che varie città Europee hanno usato per intraprendere miglioramenti dell'efficienza energetica e quindi puo' essere di aiuto nella progettazione di politiche e programmi di efficienza energetica urbana.

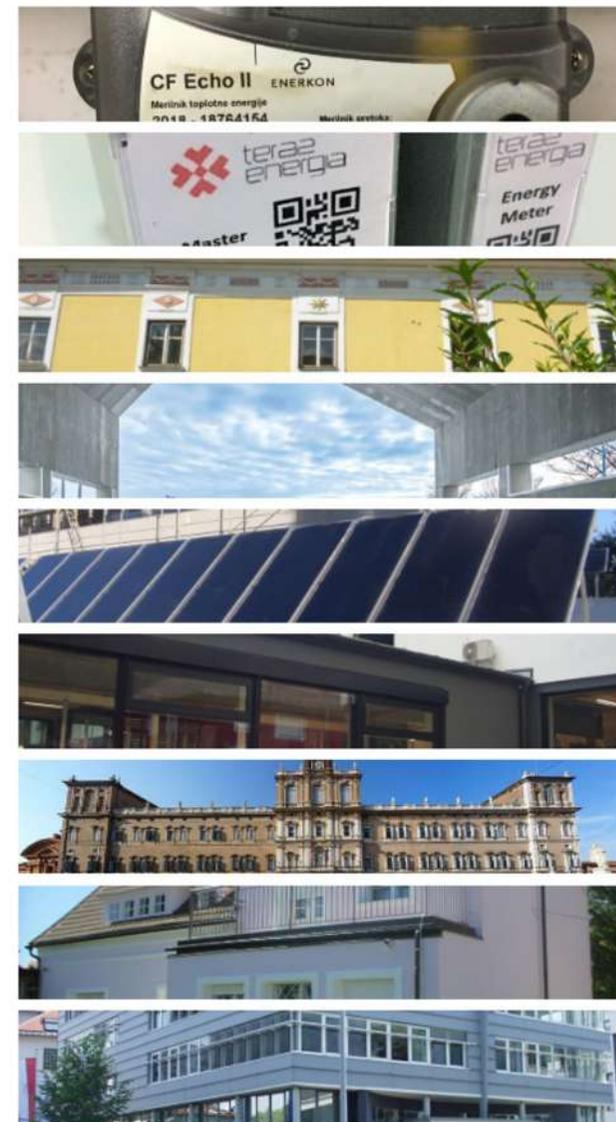


La piattaforma OnePlace

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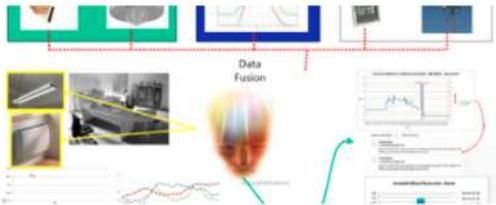
Contiene:

- ❑ **55 Best Practices da 11 paesi CE** che racconto di efficientamento energetico e smart meters in edifici pubblici.
- ❑ Ciascuna best practice contiene informazioni di base, tipo: caratteristiche del sistema, fonti finanziarie e dettagli di finanziamento, benefici per l'attuazione del progetto, ecc.



La piattaforma OnePlace

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'Sesto Senso': patented smart multisensory metering system with self-learning capability

Bologna, Emilia-Romagna, Italy

Intelligent multisensory system with totally open and scalable learning capacity both in the hierarchical levels and in the potential of the single element. In addition to monitoring energy carriers, the system includes: a sensory device able to count access to a room and therefore manage attendance so as to be... [Read More](#)

Bologna



An innovative approach of energy requalification: use of community funds (EEEF) and application of Energy Performance Contract for the Ducal Palace, headquarters of the Military Academy of Modena

Modena, Emilia-Romagna, Italy

The building was built in 1291, but the current architectural appearance was conferred by the architect Avanzini in 1634. State-owned, with a restriction of scientific restoration, it is currently the headquarters of the Military Academy. The palace hosts several use destinations with different energy needs: is equipped with a centralized... [Read More](#)

Modena



Reducing greenhouse gas emissions through the energy conversion of social housing

Reggio Emilia, Emilia-Romagna, Italy

The building was built in 1936 and consists of 51 social housing dwellings, representing a great condominium with a series of issues to be dealt with. The presence of low income tenants has driven many common goods into misuse and sent the building into degradation and vandalism. The thermal dispersions... [Read More](#)

Reggio Emilia



Refurbishment and insulation of San Benedetto del Tronto hospital

San Benedetto del Tronto, Marche, Italy

The various buildings of the complex were built in different periods, starting with an Art Nouveau villa which was, following a donation, the first nucleus from which, over time, the entire hospital complex evolved, from the blocks of the 60s to the more recent ones dating back the 80s... [Read More](#)

San Benedetto del Tronto



Green Hospital Project

Arezzo, Italy

It's called "Project Green Hospital" and is the initiative implemented by the USL Tuscany Southeast to make more efficient and friendly hospitals. The center of this activity are the management and the reduction of consumption of heat and energy and the attention for illumination. The main action that was... [Read More](#)

Arezzo



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Energy Efficiency Strategies, Roadmaps and Action Plans

Interreg
CENTRAL EUROPE
ENERGY@SCHOOL
European Union
European Regional
Development Fund

EE strategies in schools (Energy@School)
[View more](#)



Roadmaps for Energy Future 2050 (Panel 2050)
[View more](#)

Energy-related behaviour in public buildings

This survey will focus on energy-behaviour of public building users (employees & visitors). It is known that individual energy-consumption behaviour patterns in public buildings are different from individual behaviour patterns in residential buildings.

**HELPING CITIES IN CEE REGION
ON THEIR WAY TO CREATE
AND IMPLEMENT SECAPS**



Questionnaire example to change users' behaviour and achieve higher EE (GreeSoul)
[View more](#)

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How to turn a public building into a NZEB (eCentral)
[View more](#)

**D.T2.2.1 Downstreaming eCentral tools
and schemes for better management and
renovation of public buildings**

Il modulo **Energy Efficiency Strategies** raccoglie **strategie, piani d'azione e linee guida** sviluppate in progetti passati e che potrebbero aiutare municipalit , regioni e agenzie per l'energia nelle loro pianificazioni e decisioni.



La piattaforma OnePlace

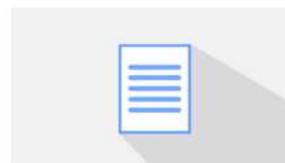
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Financing Energy Efficiency



Analysis of innovative financing schemes for deep renovation of public buildings (eCentral project)

[View more](#)



Transnational methodological framework

[View more](#)



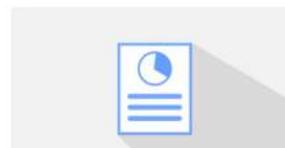
Comparative analysis

[View more](#)



EE financing roadmaps for public infrastructures

[View more](#)



Best practices and investments return models

[View more](#)

Il modulo **Financing Energy Efficiency** presenta risultati di varie strategie transnazionali sul tema efficientamento energetico, con tabelle finanziarie, best practice e esempi su come utilizzare le risorse nazionali e dell'UE.



La piattaforma OnePlace

Capitalized Projects Marketplace EE Cities EE Strategies EE Finances **EE Tools**

Energy Efficiency Tools



3DEMS

The 3D energy management tool (3DEMS) serves as seedbed for in building models for energy-related needs.

[View more](#)



Energy Ghost simulation game

Energy@school app developed as an educational tool to train students

[View more](#)



The Living EPC Tool

The Living EPC Tool is a complex interactive web-based application for public authorities to identify investment opportunities, by

[View more](#)



Energy Dashboard

[View more](#)



EE Stickers



Main page Discussion

Main Page

Welcome to the CitiEnGov Toolkit

The CitiEnGov Toolkit has a focus composed of two parts:

- the first part contains information about energy data in different regions of Central Europe (regions of project partners), and
- the second part describes a **role of energy topic within Public Authorities**

The topics of the Toolkit are the three main sectors that CitiEnGov project is dealing with:

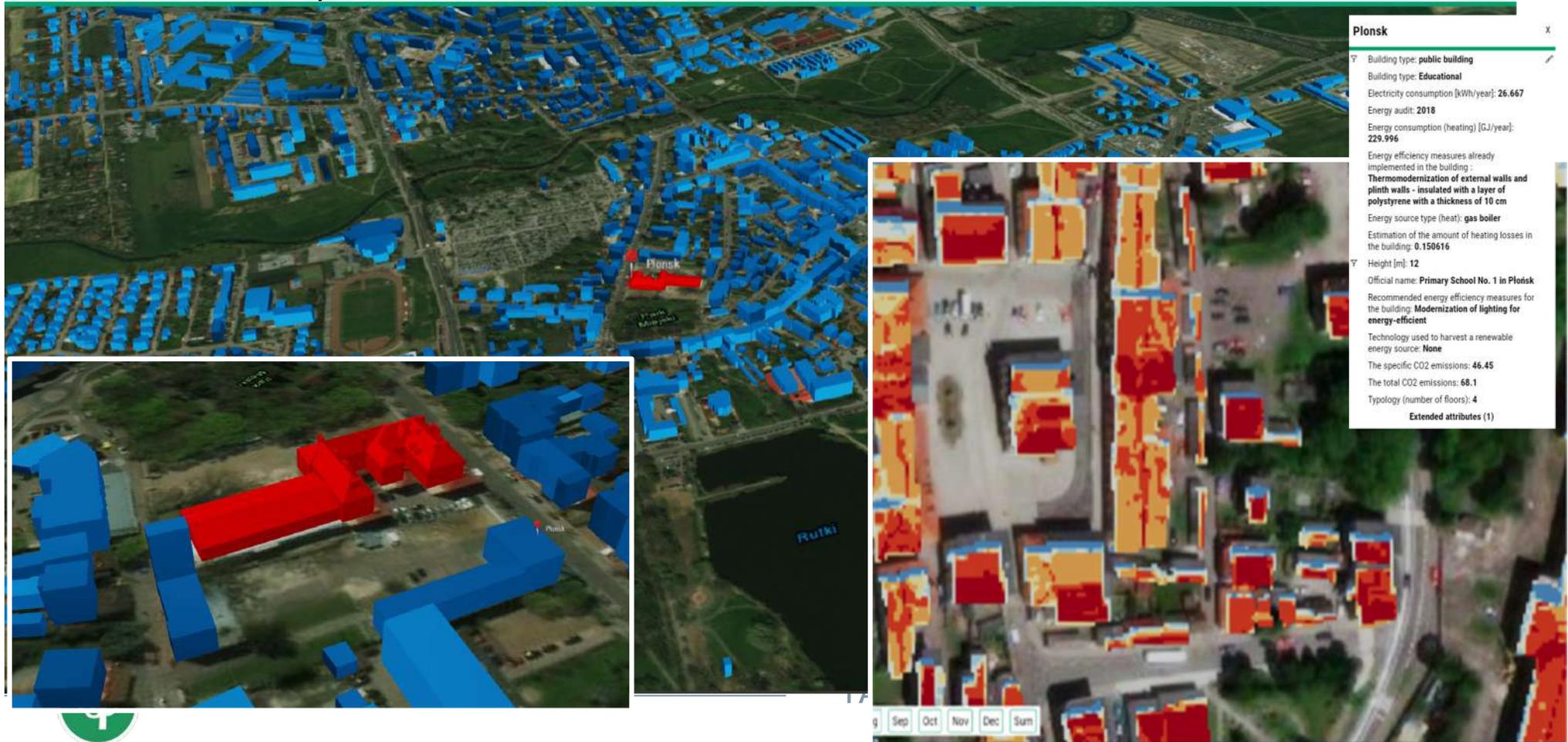
- **Buildings**

Buildings
Mobility
Public lighting

National sections
Österreich
Hrvatska
Deutschland
Magyarország

OnePlace - 3D Energy Management System

3D Energy Management System (3DEMS) e' un modulo ICT (**WebGIS**) per visualizzare, analizzare e confrontare informazioni legate all'energia degli edifici (certificati, PV, consumi, dispersioni, CO2 emessa, ecc.) attraverso modelli 3D del costruito.



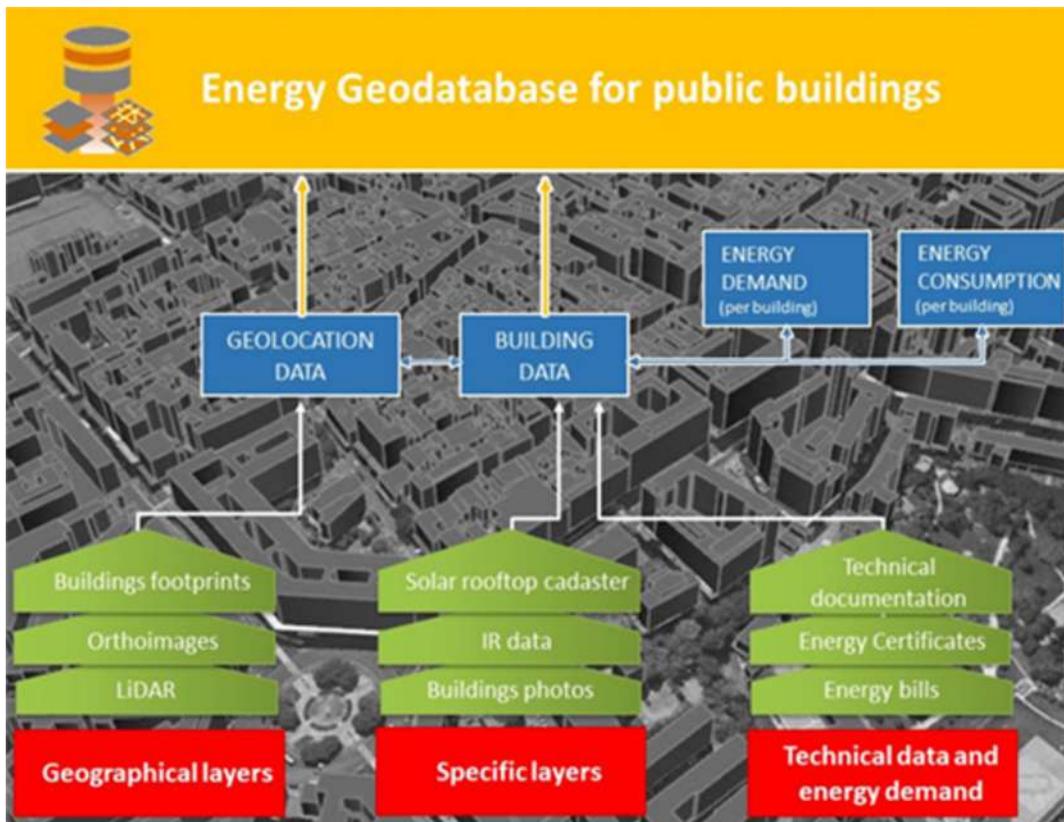
OnePlace - 3D Energy Management System

Nelle varie aree pilota, modelli 3D degli edifici e database geospaziali sono stati creati ed integrati per permettere un migliore accesso e visualizzazione delle informazioni



OnePlace - 3D Energy Management System

Partendo dai dati colletti / prodotti / armonizzati, il tool **3DEMS** dentro OnePlace:



(i) navigare in una città in 3D e visualizzare il costruito a diversi livelli di dettaglio (**LOD1 e LOD2**)

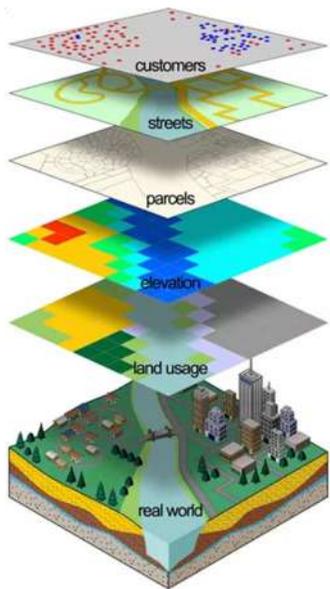
(ii) **selezionare un edificio** e visualizzare le informazioni associate a questo edificio (energetiche e non)

(iii) **eseguire analisi** sui dati disponibili (emissioni, consumi, potenziale fotovoltaico, tipo di riscaldamento, ecc.)



OnePlace - 3D Energy Management System

LOD1/LOD2 di edifici 3D con associate info eteogenee



Piu' di 10,000 edifici ricostruiti in 3D e visualizzati in ambiente 3D



OnePlace - 3D Energy Management System

TARGET-CE

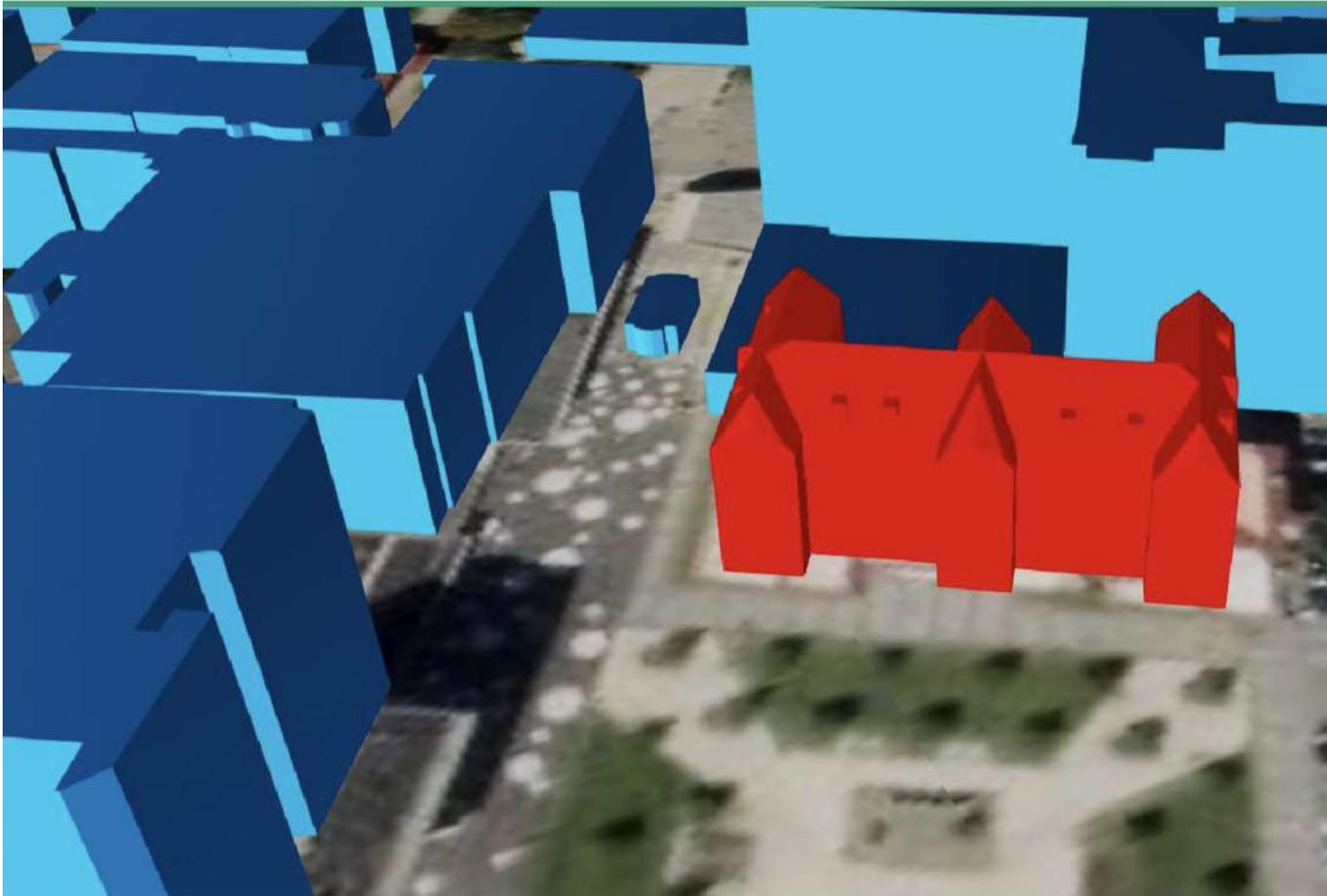


LOD1 vs LOD2



OnePlace - 3D Energy Management System

TARGET-CE



Zlin Region

X

Building type: **Building of civil equipment**

Building type: **Educational**

Electricity consumption [kWh/year]: **59.7**

Energy audit: **YES**

Energy consumption (heating) [GJ/year]:
791.3

Energy efficiency measures already
implemented in the building : **reducing
heating demand: improving the insulation**

Energy source type (heat): **District heating**

Estimation of the amount of heating losses in
the building: -

Official name: **Grammar school and secondary
medical school Vsetín**

Recommended energy efficiency measures for
the building: **not applicable**

Technology used to harvest a renewable
energy source: **not applicable**

The specific CO2 emissions: -

The total CO2 emissions: **17.617**

Typology (number of floors): **3**

Extended attributes (10)

LOD1 vs LOD2

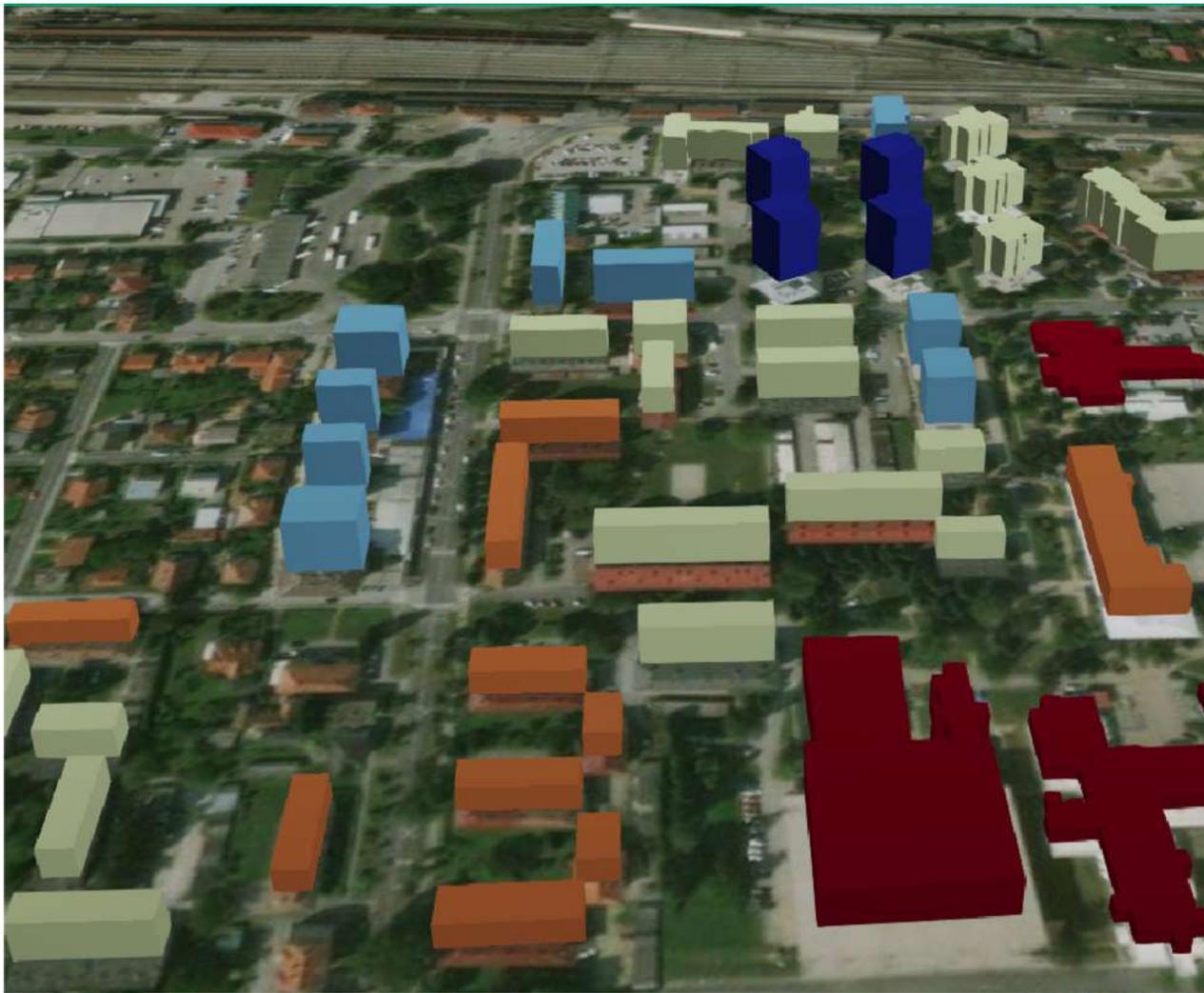


Esempi di aggregazione di dati in 3DEMS:
viz delle fonti di energia usate per il riscaldamento degli edifici



OnePlace - 3D Energy Management System

Esempi di aggregazione di dati in 3DEMS:
viz degli edifici in base al numero di piani



Koprivnica

X

Building type: **Residential building**

Height [m]: 15.5

Extended attributes (8)

Area [m²]: 300

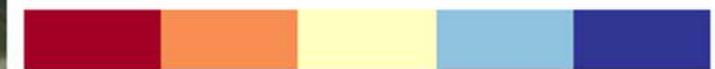
Building ID: 17956

Building name: **Building 54**

Number of floors: 7

Steps

Red, Yellow, Blue



Roof: 18.4

Roof slope (angle in degrees): 45 / Gable

Type of roof: **Gable**

Year of construction: 1993



Esempi di aggregazione di dati in 3DEMS:
viz degli edifici in base alla loro altezza



OnePlace - 3D Energy Management System

Esempi di aggregazione di dati in 3DEMS:
viz del potenziale fotovoltaico dei tetti delle case



Esempi di aggregazione di dati in 3DEMS:
viz degli edifici in funzione del materiale di costruzione



OnePlace - 3D Energy Management System

Esempi di aggregazione di dati in 3DEMS:
viz degli edifici in funzione del tipo (pubblico / privato)



Take-away message



- Importanza della cooperazione e interdisciplinarieta
- Risposte concrete e operative per sfide e bisogni dei target groups / end-users
- Replicabilita, trasferibilita e sostenibilita delle soluzioni
- Sinergia e collaborazione con altri progetti



Home Capitalized Projects Marketplace EE Cities EE Strategies EE Finances EE Tools

The Online Energy Platform

Grazie per l'attenzione

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OnePlace

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