

CZECH REPUBLIC

PA3. Zero-energy public buildings in Zlin Region

Introduction

The **BOOSTEE-CE** (*Boosting Energy Efficiency in Central European Cities through Smart Energy Management*) project will develop and implement technical solutions, strategies, management approaches & financing schemes to achieve higher Energy Efficiency (EE) in public buildings. This will be achieved through a transnational cooperation and using geospatial data, smart energy management tools and energy audit to facilitate the implementation of EE buildings. The final aim is to improve the governance of EE in existing public buildings (within Pilot Actions) and ultimately reduce energy consumption.



Aims

The pilot action to improve energy efficiency is implemented in 6 buildings. The **Uherské Hradiště hospital** (surface 10 171 m² and capacity 38 261 m³) is to be built in modern standards. **Grammar school in Holešov**, **Secondary pedagogical and social school Kroměříž**, **Basic school 1. Máje Kroměříž**, **Grammar school Valašské Klobouky**, **Grammar school Vsetín**

The following objectives have been agreed as part of the pilot:

- energy management in the whole hospital
- hospital building connection to existing central boiler room
- thermo-modernization of 5 protected buildings
- increasing the comfort of the building use
- easier operation of the building
- promoting and disseminating knowledge about energy efficiency measures in buildings



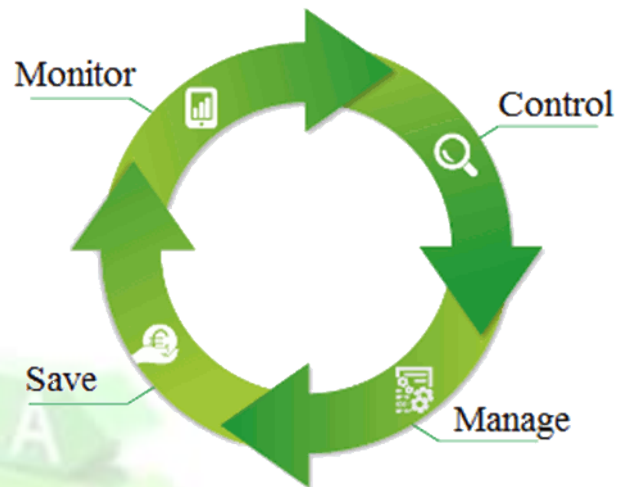
Solutions

The pilot action includes an investment in the **energy management system** in the hospital building and connection to existing central boiler room. **Modernization of 5 buildings** is carried out, consisting in the replacement of windows (heat transfer coefficient (U) after thermo-modernization = 0.9 W/m²K).



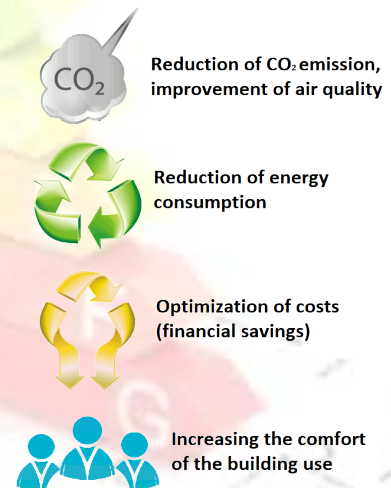
PA idea (MONITOR -> CONTROL -> MANAGE -> SAVE)

The implementation of the energy consumption **monitoring and management** system contributes to a significant reduction in the value of energy bills. The data collected by the system, which constantly **controls** the level of energy consumption, allow to optimize the level of contracted capacity, which in turn generates **annual savings**. The system constantly monitors the level of energy consumption, provides information about where it is distributed, where it is lost. The tools provided by the system allow to easily analyze this data and draw conclusions about ways to reduce the costs associated with the use of energy. Energy **management** allows to optimize the contracted capacity, selection of a cost-effective tariff, energy monitoring and provides knowledge about energy flows in the building.



PA indicators & results

- _ investment period
- 18.1 million EUR investment cost
- _ people involved in PA implementation
- _ tools / instruments used
- _ trainings, meetings, seminars etc.
- 623 GJ annual reduction of energy consumption
- _ annual cost savings
- 124 tonnes annual reduction of CO₂ emission
- change in people's behavior



Added values for replication and dissemination

The activities can be transferable and replicated in other cases and regions. Information about the pilot action is promoted and disseminated in the region and beyond.

Contact

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