

OUTPUT FACT SHEET

Pilot actions (including investment, if applicable)

Version 2

Project index number and acronym	CE906 BOOSTEE-CE
Lead partner	Bruno Kessler Foundation
Output number and title	O.T3.1 Pilot actions for EE upgrade in public buildings
Investment number and title (if applicable)	PA5 - PA5 to monitor and control energy flows in a public building in Plonsk (PL)
Responsible partner (PP name and number)	City and Municipality of Plonsk (PP13)
Project website	https://www.interreg-central.eu/Content.Node/BOOSTEE-CE.html
Delivery date	10.2019

Summary description of the pilot action (including investment, if applicable) explaining its experimental nature and demonstration character

The pilot action in Plonsk consists in installing the EE LED system with motion sensors in 2 classrooms and 2 toilets (2 energy monitoring systems and 2 lighting control systems) with similar parameters in terms of location in the building and dimensions. Smart metering system is connected to the WI-FI Network and is able to send the gathered data on e-mail or allowing user to view the data in “real-time”. The intelligent remote energy meters enable automatic data transmission on energy consumption. The owner of the building receives bills for actual energy consumption, not forecasted. In addition, it can monitor energy consumption on an ongoing basis, which in turn will allow to manage this consumption and reduce electricity bills. Control of the level of energy consumption will allow to optimize the level of contracted power, which in turn will generate savings. The equipment installed includes four LED lamps (light source power 56W, color temperature 4000-4500K, luminous flux 7650 lm, color rendering index > 80), three LED lamps 12W (light source power 12W, color temperature 3600-4200K, luminous flux 850 lm, color rendering index 80-89), four measurement systems LE-01M MID (single phase, active import, electricity meters, with RS485 comms.) and two converters ATC-1000 (low cost TCP/IP to RS-232/422/485 Converter).

NUTS region(s) concerned by the pilot action (relevant NUTS level)

NUTS 3 - PL922 Ciechanowski

Investment costs (EUR), if applicable

Investment costs (total) - 16 639,55 EUR:
External expert support (energy audit) - 3346,24 EUR
Thematic equipment - 6577,90 EUR
Installation works - 6715,41 EUR

Expected impact and benefits of the pilot action for the concerned territory and target groups and leverage of additional funds (if applicable)

Improving energy efficiency in Plonsk.
Increasing public energy awareness.
1787,76 kWh annual reduction of energy consumption
241,10 € annual cost savings
1,39 tons annual reduction of CO2 emission
Building users will gain experience in how smart metering works and how it should be monitored.
On the example of the implemented investment it will be possible to make similar systems in other public buildings

Sustainability of the pilot action results and transferability to other territories and stakeholders.

The building where the works were carried out is in the ownership of the beneficiary - the City and Municipality of Płońsk, so the guarantee of durability is maintained. The beneficiary has a statement confirming that the City and Municipality of Płońsk is the owner of the School building in which PA was implemented. The building was transferred to permanent management the City and Municipality of Płońsk.
The contractor was obliged to monitor the system for one year after acceptance of works. In addition, the purchased equipment is covered by a 24-month warranty.
The solution can be replicated in the other three primary schools, which are similar in energy consumption habits and building parameters or can be extended to other rooms in the pilot building.

Lessons learned and added value of transnational cooperation of the pilot action implementation (including investment, if applicable)

The effect of investments and the added value in the transnational dimension is the exchange of experiences and practices of carrying out similar investments in various political, social and technical conditions. It will be best practice solution which can be shared by partners, and partner can learn from this example. The goal is starting with smart metering to get detailed data, data analyses and auditing, excavation of measures for energy saving, cost saving and CO2-saving, tendering and implementation of measures.

Contribution to/ compliance with:

- relevant regulatory requirements
- sustainable development - environmental effects. In case of risk of negative effects, mitigation measures introduced
- horizontal principles such as equal opportunities and non-discrimination

The investment was carried out on the basis of technical documentation prepared by authorized persons. The contractor provided post-completion documentation containing declarations of conformity and devices technical sheets. It was small investment into the metering system, which doesn't need special approvals.

The investment will have a positive impact on the environment and climate due to the reduction of energy consumption. There is also the potential to increase this impact through raising environmental awareness and change society's bad energy habits. The investment will serve as a model for others, showing what can be done and how it can be done to properly monitor and reduce energy consumption.

The project has a positive impact on gender equality. Actions taken in the implementation of the project cause positive changes in the area of gender equality policy. This project should be classified as equality, i.e. one whose activities generally contribute to ensuring gender equality. Both women and men will have equal access to the project regardless of age, gender, disability, race, religion, nationality, political views and sexual orientation. Both men and women are involved in the project. The school building in which the pilot action was carried out is also adapted for the disabled.

The activities implemented in the project equalize the chances of the territory in the region and the country by implementing energy efficiency improvement measures affecting the quality of the climate and the environment, and Płońsk's position as a city and municipality increases, where the energy monitoring and management system has been installed as a modern area and following European trends.

References to relevant deliverables (e.g. pilot action report, studies), investment factsheet and web-links

If applicable, additional documentation, pictures or images to be provided as annex

Deliverables: D.T3.3.1 Pilot actions preparation, D.T3.3.2 Pilot actions guidelines, D.T3.1.6 PA5 to monitor and control energy flows in a public building in Płonsk, D.T3.2.1 Evaluation report on pilot actions implementation, D.T3.2.2 Pilot action reports, PA5 fact sheet

Web-link: <https://www.interreg-central.eu/Content.Node/PA/PA5.html>