



# ZagEE - Zagreb Energy Efficient City

## THE CITY OF ZAGREB



## Objectives

- to reduce total energy consumption of the city administration through increasing energy efficiency and using renewable energy sources on objects owned by the City of Zagreb
- to find and use financing models for energy efficiency applicable to the city administration
- to acquire knowledge and experience necessary for all participants of the energy refurbishment process through examples of energy efficiency implementation on a large number of objects of various purposes



- to educate the building managers on efficient use of objects
- to influence positive changes in the economy
- to share the acquired skills and experiences and influence energy efficient development in other cities of the region and beyond
- to contribute to climate protection and sustainable development through a reduction of greenhouse gas emissions



## Methodology

- Establish Project Core team named by the Mayor: experts from different city offices responsible for implementation of action
- Buildings register and database (validated and updated data from all energy audits, selection of buildings, the list of RUE and RES measures)
- Production of the City of Zagreb Lighting Masterplan
- Production of quality technical documentation with a feasibility study
- Find various financing sources
- Performing public tenders for documentation and works on the energy refurbishments of objects



- Procedure of public procurement for documentation, works and supervisory activities
- Refurbishment of buildings and modernization of public lighting
- Education of users





## Financial resources

The value of the ZagEE project amounts to EUR 1.813.438, and total planned investment worth of work on the realization of planned measures for which the technical documentation will be produced amounts to EUR 29.379.114.

Financing energy refurbishment is planned from various sources, i.e. the city budget, EU funds, favourable bank loans and other sources acceptable for the city administration.



## Barriers

- Define financial sources and set up in the city budget according the regulations
- Public procurement (long and complicated process)
- Preparations a lot of tender documentation and procedure of public procurement in a short time
- Catch the summer holidays for refurbishment of buildings (in kindergartens and schools)
- Estimated costs for works (there is no experience)



## Benefits/Results

- Refurbished 87 public buildings and modernized 3000 outdated luminaries in the public lighting system by LED luminaries with time based lighting control system
- Realization of average energy saving amounting to 49% in buildings and 72% in public lighting, i.e. an annual energy saving of 33.526 MWh,
- Using energy from renewable sources in an amount of 490 MWh annually in buildings
- Reduction of greenhouse gas emissions by 8.390 tCO<sub>2</sub> per year
- Satisfied users of buildings and citizens





## THANK YOU

Contact: [melita.boric@zagreb.hr](mailto:melita.boric@zagreb.hr) (CZG)

