

energy efficiency

Are there energy-wasting buildings in your city, resulting in major environmental burden?

Have you found buildings to be overheated or undercooled in transitional periods?

Tango is the solution you're looking for.

Tango is a modern information solution to ensure cost-effective planning, and efficient control and management of systems in smart cities.

Tango solves the challenges of modern **business**, as it constantly monitors the situation and changes in the physical system, and helps you respond to the current situation with quick and smart decisions.



Challenges in the energy management of buildings

HIGH ENERGY AND MAINTENANCE COSTS

ENVIRONMENTAL BURDEN THE STANDARD OF COMFORT (overheated/undercooled rooms due to improper settings)

In energy-renovated buildings, Tango establishes uniform **near real-time operation control**, thus enabling more **efficient management and electricity savings**. With Tango, we establish a single database that is the basis for effective decision-making. We help managers achieve a **reduction in environmental burden**, and also maintenance and management costs.

In the city municipality of Ljubljana (Slovenia), the energy efficiency of buildings was improved, and CO₂ emissions were cut by 3,000 tonnes per year.

Within the project, the municipality of Ljubljana **renovated 48 buildings** (with 25 of them completely renovated), which includes kindergartens, elementary schools, sports halls and other public facilities. **With this, we have achieved:**



MORE EFFICIENT MANAGEMENT

- Uniform control of operation
- Correct use and maintenance of new systems after renovation
- Increased comfort

REDUCTION OF ENVIRONMENTAL BURDEN

- Reduction of CO₂ emissions by approximately 3,000 tonnes per year, comparable to the amount absorbed by 150,000 trees annually
- All energy-refurbished facilities are supplied with at least 25% of the share of energy from renewable sources

SAVINGS

- More than a million euros annually, which is sufficient to cover the energy costs of 500 households
- Reducing energy use and maintenance costs

KEY ADVANTAGES OF TANGO

- Based on **artificial intelligence** and the data collected in near real-time, a **heating curve** can be improved for the transition periods (spring, autumn) when buildings are most often overheated or undercooled due to improper settings, thereby ensuring **maximum user comfort**
- data visualisation (dashboards and reports)
- near real-time control 24/7

In the municipality of Ljubljana in the field of energy efficiency, we have been performing energy renovation of buildings in our possession since 2013, and since 2017, the number of renovations has been growing through a public private partnership model. In the framework of the Ljubljana energy renovation project (EOL1), together with our partners Petrol and Resalta, we have fully renovated 25 buildings, following the approach of energy performance contracting. The project has been extremely demanding, as we have been breaking new ground in this area. But today, the energy renovation project in Ljubljana is not only a case for good practice in Europe, but also more broadly. We are very proud of the project, and we will continue with such projects and partnerships in the future.

Alenka Loose, energy management

