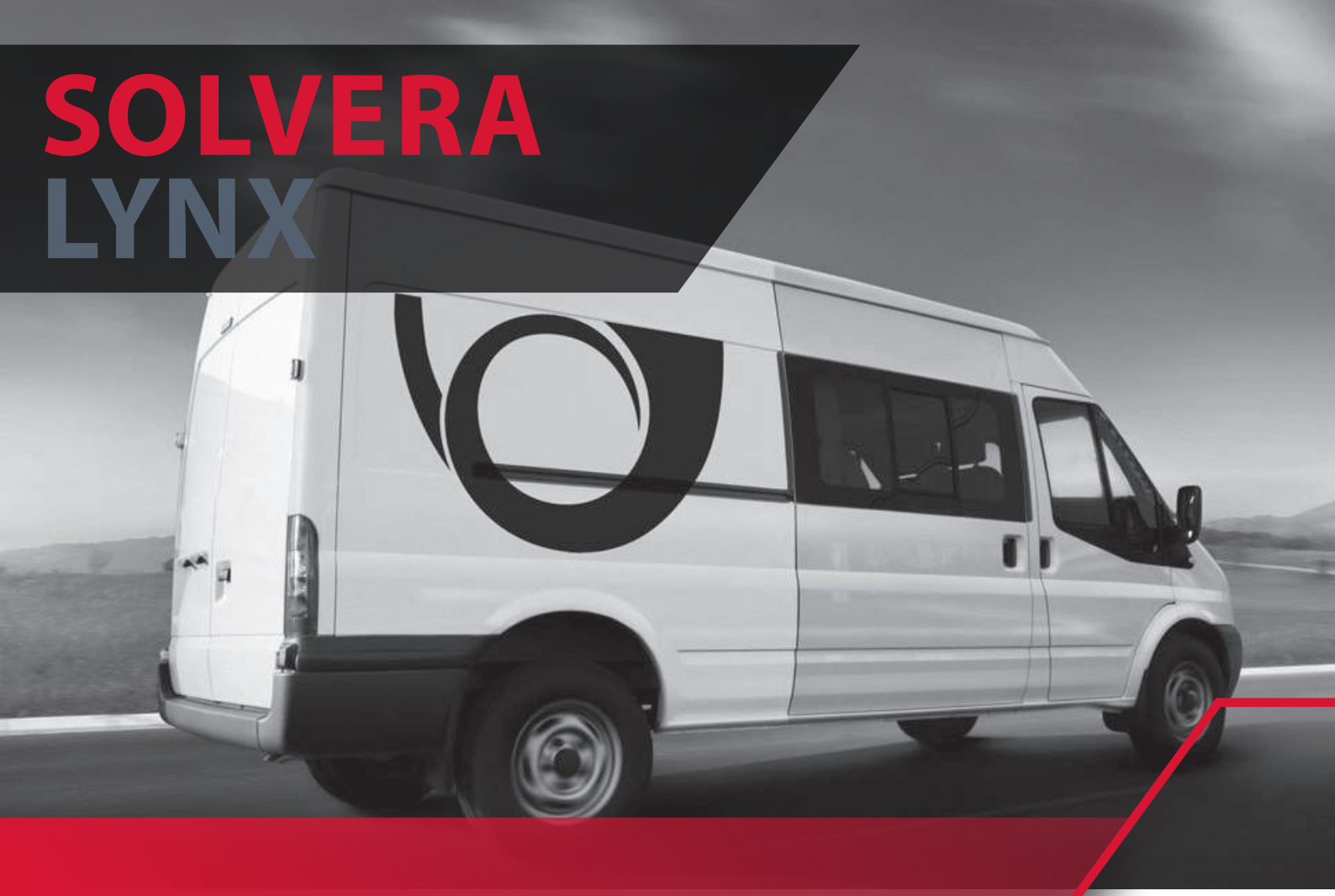
SOLVERA
LYNX



# CASE STUDY

## INTRODUCTION OF ENERGY MANAGEMENT SYSTEM AND ISO 5001 STANDARD

**Sector:**
Public Sector

**Client:**
Pošta Slovenije
(Slovenian Post)

**Tools:**
GamaLogic Platform

# The Project Intro

Pošta Slovenije (Slovenian Post Office) - the primary and largest provider of the postal and associated logistics services in Slovenia has joined efforts with Solvera Lynx to introduce ISO 50001 Standard for Energy management and increase energy efficiency at more than 350 postal facilities in the total area of more than 150.000 sq. m.

## WHY?

Slovenian Post has decided to implement ISO 50001 Standard for the benefits it provides: better use of resources and assets, fewer costs, and consumption that lead to energy savings.

Facility energy management was one of the Postal Service's important business strategies for the reduction of total operating expenses. The Postal Service cannot afford to waste energy. The inefficient use of energy affects the Postal Service's ability to be competitive.

## CHALLENGES

A major challenge for Postal Service Facility managers was the fast and painless introduction of the ISO 50001 Standard and reduction of energy use/costs without jeopardizing operational requirements or reducing the quality of working conditions for Postal Service personnel.

# The Solution

**In order to develop and orchestrate the implementation of ISO 50001 Standard, Slovenian post has introduced facility energy management Platform GemaLofic designed to improve energy efficiency and eliminate energy waste.**

The following subsequent steps involved:

**1. Introduction of Energy accounting system**

On the basis of monthly bills, we have analyzed consumption and costs for different energy products. We have also connected GemaLogic to the SCADA system. So the real-time data on energy consumption were available. So, more than 1000 measurements for electricity, water, natural gas and district heating were recorded and analyzed in the energy accounting system.

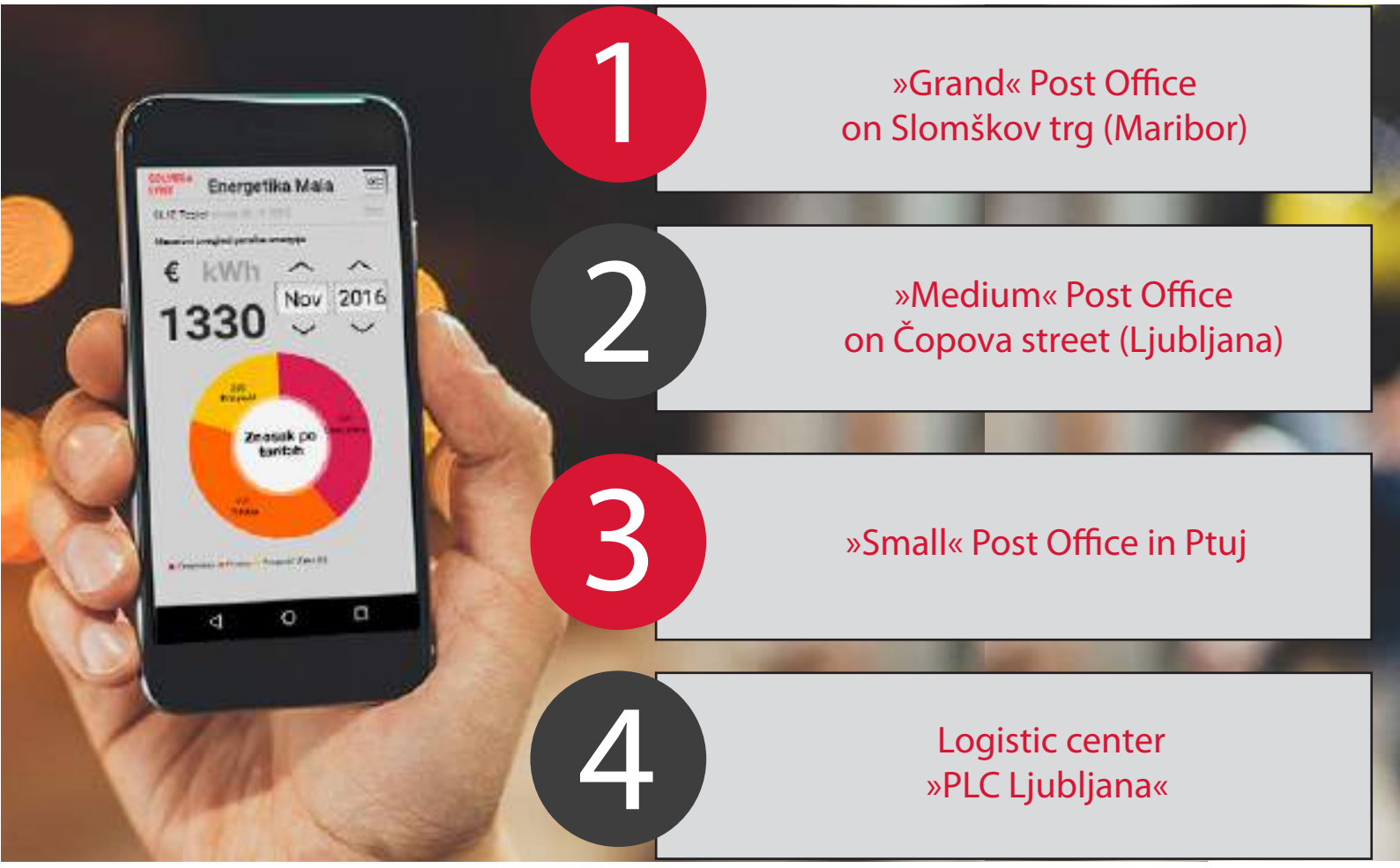
Introduction of comprehensive, but easy maintainable GemaLogic Platform has provided the energy managers with needed data to better understand energy patterns, get information about trends and anomalies in energy use, see the current data vs. historical data comparison, study analytics and review the immediate savings achieved.

# The Solution

**2. Energy audit covering more than 350 post offices.**

The primary purpose of the energy audit was the inspection and identification of the energy efficiency, safety, and environmental soundness of lighting, steam systems, chilled and hot water systems, HVAC systems, electrical energy, temperature and humidity, Combustion Systems.

Due to the big number of the locations, the facilities were segmented by size and consumption characteristics into four different groups:




For each post office, we have established KPI (key performance indicators) according to their surface area and consumption characteristics (electricity / natural gas/heat for heating). Performed the analyses we have grouped facilities from the least to the most energy efficient and suggested to the client, which are recommended for the renovation.

As the result, energy losses from leaks, uninsulated lines, and maladjusted or inoperable systems would be minimized and many no-cost and low-cost opportunities will be identified through the energy audit.

# The Solution

**3. Energy Audit for a car fleet (1.300 vehicles)**

The energy audit was performed on the entire Pošta Slovenije fleet, excluding delivery motorcycles.

Developer


**The purposes of the audit:**

- A detailed overview of the fuel consumption, by specific indicators such as liter/km/ton transported.
- Cost-benefit analysis and suggestion of the feasible solutions for reducing the fuel consumption.

Designer

**The energy audit was performed in the following steps:**

- Collecting and analyzing historical consumption data. the data were captured during the reference period of three years 2014, 2015 and 2016. Based on the reference data, the analysis of the fuel consumption was carried out.
- Determining performance indicators - KPIs.
- Benchmarking.
- Identifying solutions for increased efficiency and reduced consumption.

Manager

**Suggestions**

Post of Slovenia is an example of good practice in car fleet management. Just a few suggestions were formed in order to reduce energy consumption:

- Using of higher energy tires in trucks, light delivery vehicles, and personal motor vehicles;
- Filling tires to an optimum value for personal motor vehicles with an internal combustion engine,
- Adding fuel additive.

# Results

"Energy management made sense. We had already put some effort into efficient equipment, so for us, the greatest ISO 50001 benefit was that it helped our employees to become aware of the importance of saving energy at every step. It helped us introduce a culture of energy efficiency."

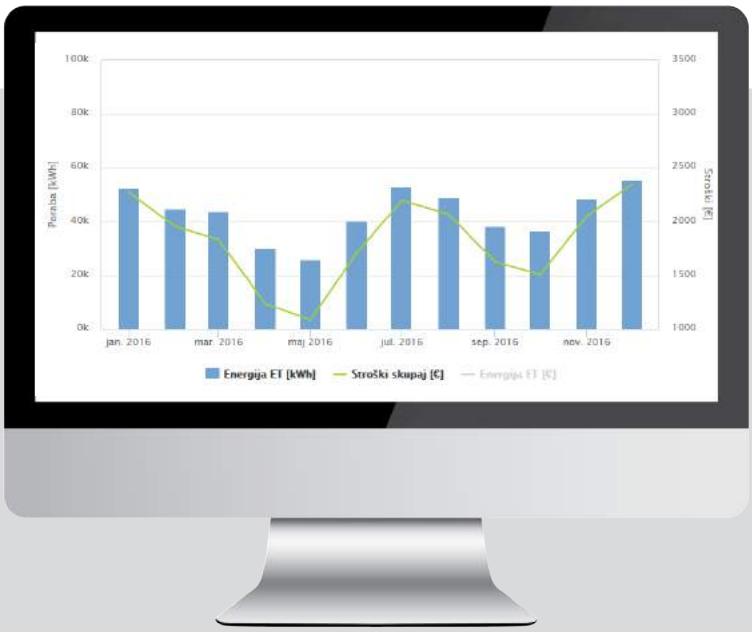
The precise data analysis enabled by the GemaLogic showed trends and areas where a change is required. Based on this, the company has a better insight into their energy use and can more effectively manage it.

GEMALOGIC

- Introduction of an energy management system with real-time monitoring and analyses functions;
- Establishment of an energy accounting system;
- Energy audits covering 350 locations;
- Consulting during the introduction of ISO 50001 Standard and successful implementation of the standard in the company

# Benefits

Introduction of an energy management system and ISO 50001 Standard Pošta Slovenije has adopted a systematic approach to energy efficiency that is superior to ad hoc or traditional project-based approaches to improving energy performance.




Solvera Lynx tools made it easier to integrate energy management into their overall efforts to improve quality and environmental management.

Adaptation of internationally recognized standard for energy management has brought the following benefits: A significant improvement of the energy performance level from an initial energy baseline.

A systematic approach (plan-do-check and act) that leads to continuous energy efficiency improvement.

The case with Slovenian Post and many other other clients is a proof that even organizations with mature energy efficiency programmes can still make energy improvments up to 7%.