

Modernization of the energy metering system in the municipalities of Lazio

Business Proposal



V.A.D Technical Engineering and
Investment
s.r.o.

Introduction

The Lazio Region is launching an initiative to improve the energy efficiency of public buildings, financed by the ERDF 2021-2027 programme.

The main objective is to reduce energy consumption and increase transparency in resource use. To this end, it proposes the implementation of an intelligent system for monitoring and metering energy resources in 39 municipalities with a population of over 20 thousand people.



Project Goals



Implementation of a digital system for accounting and monitoring energy



Reducing energy consumption costs of public buildings (schools, sports facilities, etc.)



Automation of collection, processing and analysis of data on resource usage



Simplify reporting and integrate with regional and national energy efficiency



Increasing the environmental sustainability of the region

Key Benefits



Saving energy resources

Reduction of costs for electricity, gas and water by 15-30%



Transparency and control

Digital reporting for municipalities and regulatory authorities



Innovative technologies

Using IoT sensors and predictive analytics



Flexibility and scalability

The possibility of adapting the system to different types of buildings

System Functionality

Data collection

- Integration with smart meters (electricity, gas, water).
- Connection of IoT sensors to monitor temperature, humidity and other parameters.

Analytics and prediction

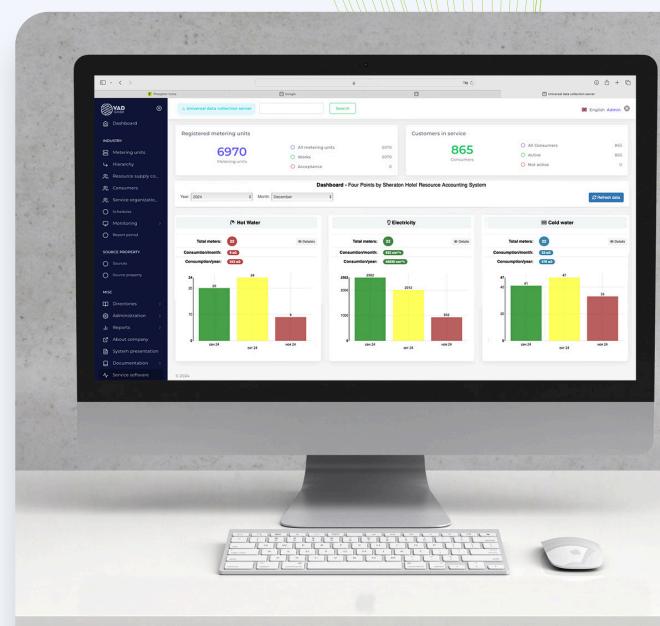
- Detection of anomalies and leaks in energy consumption.
- Automatic analysis of energy efficiency.
- Generating recommendations for cost reduction and equipment modernization.

Visualization and reporting

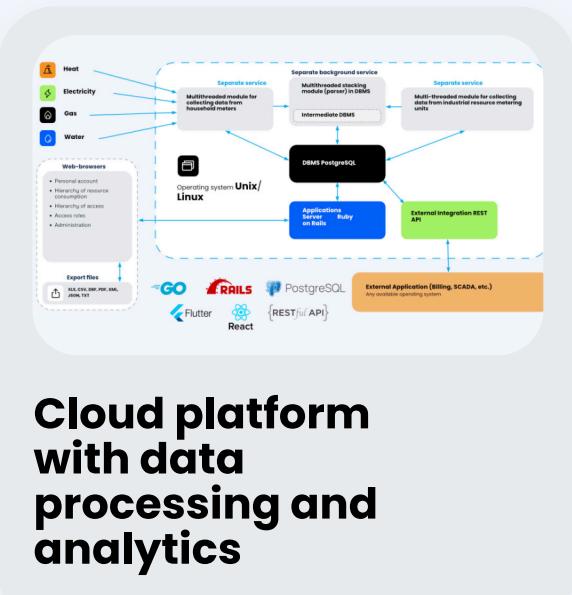
- Interactive dashboards with graphs and analytics.
- Automatic generation of reports in accordance with ERDF requirements.
- Flexible reporting settings for different user levels.

Integration and security

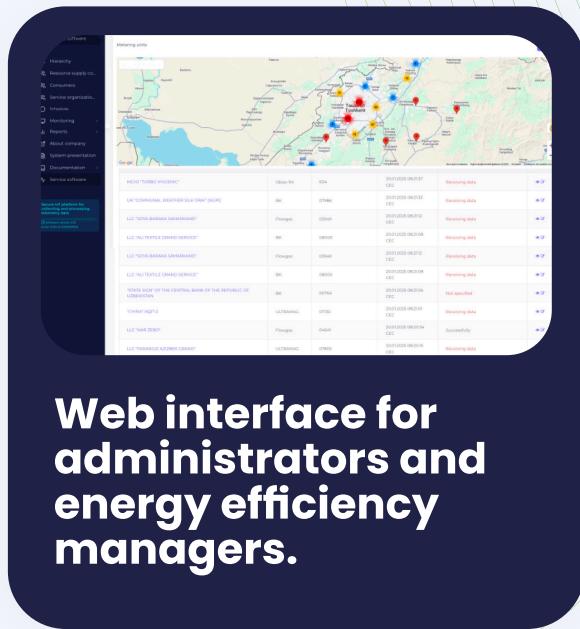
- API for interaction with regional systems.
- Data encryption and access control in accordance with GDPR.



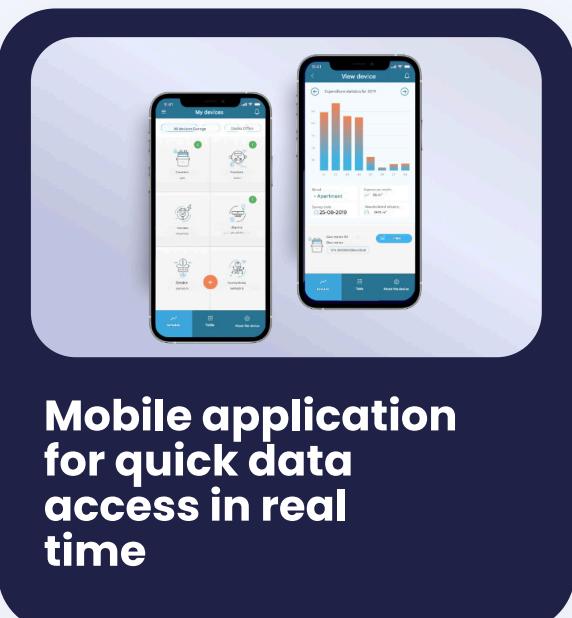
System Architecture



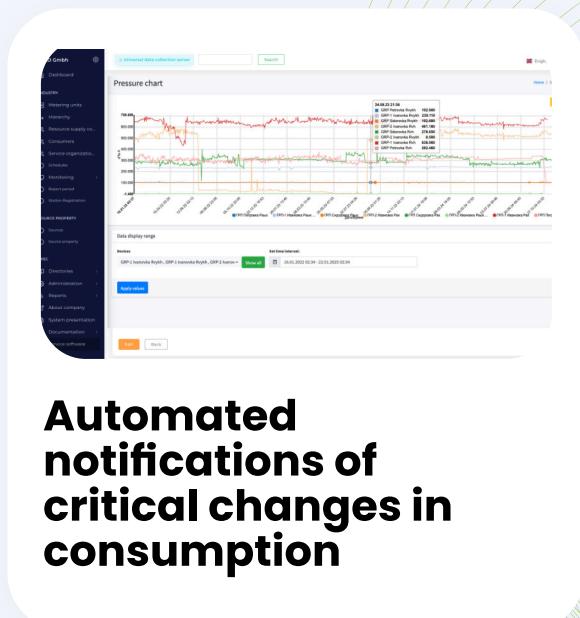
Cloud platform with data processing and analytics



Web interface for administrators and energy efficiency managers.



Mobile application for quick data access in real time



Automated notifications of critical changes in consumption

Implementation Stages

01

**Analysis of current energy
consumption in municipalities**

02

**Development and testing of a
system prototype**

03

**Integration with energy networks
and existing accounting systems**

04

**Pilot launch in test
municipalities**

05

**Scaling the system to all 39
municipalities of Lazio**

06

**Personnel training and
technical support**

Expected Outcomes



Reduced energy consumption and utility costs



Optimization of infrastructure operation through intelligent management



Simplifying reporting and reducing bureaucratic burden



Improving the environmental situation and reducing CO₂ emissions



Creation of a digital energy efficiency centre for Lazio

Conclusion

The proposed system will be the basis for sustainable energy consumption and the modernization of municipal facilities.

The implementation will allow the Lazio region to achieve the objectives of the ERDF 2021-2027 program, improve resource management efficiency and become an example of digital transformation in the field of energy efficiency.





[**Watch Video Presentation**](#)

[**Read about IoT Platform**](#)

[**Read about User Interface**](#)



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