Case Study: Energy Management System for Hospitals
The Vinzenz Group is one of the largest private providers of care facilities in Austria. The group includes seven hospitals, inpatient and outpatient rehabilitation centers and two care homes.

In order to comply with European Energy Efficiency Regulations, the implementation of the ISO50001 Energy Management Standard and meeting energy consumption reduction targets, the Vinzenz Group decided to carry out an energy management project with the following purposes: to implement an advanced energy management solution to save energy, restrict consumption and increase efficiency.

The main challenges were: high energy consumption due to 24-hour operation (lighting, heating, air condition), wide usage of cooling and heating technologies, the consumption of a large amount of natural gas for heating, an enormous consumption of hot water, intensive usage of energy demanding medical equipment, and high thermal losses through the pipeline.

The main objectives of the project were: the remote control of energy consumption, implementation of an alarm system, defining and analysis of key energy efficiency indicators and the introduction of an energy accounting system.

**OUR SOLUTIONS**

Tailor-made monitoring and customisation of the software platform for targeted analysis of energy consumption, especially in cooling and heating technologies

- Total heated water consumption, consumption of heated water from solar collectors, consumption of heated water, energy consumption of boilers, temperature monitoring of sanitary water

**Energy efficiency analysis**

- Definition of key energy efficiency performance indicators

**Energy performance and targeting**

- Energy consumption and cost targeting
- Alarm in case of system, consumption or cost deviations

**Energy accounting**

- Energy consumption benchmarking
- Advanced analysis of energy costs
ENERGY MANAGEMENT FOR HOSPITALS (REFERENCE - VINZENZ GROUP)

SYSTEM ARCHITECTURE

RESULTS

Digitalization of energy data
• Systematic and real-time energy monitoring, advanced analysis, benchmarking, and forecasting

Advanced energy management and analytics
• Supporting the implementation of organizational and technical measures for effective energy management
• Targeted monitoring of energy consumption and costs

Alarming system implementation
• Identification of deviations and their causes (e.g., water leakage) in energy consumption and the possibility of quick actions

Energy efficiency improvements
• Greater efficiency and easier monitoring of the effectiveness of implemented measures

Introduction of a comprehensive energy management system and measures as a basis for achieving the energy consumption reduction target
• Energy consumption reduction in the first year of solution implementation
• Reduction of energy losses caused by water and compressed air leakages

Support in ISO 50.001 implementation