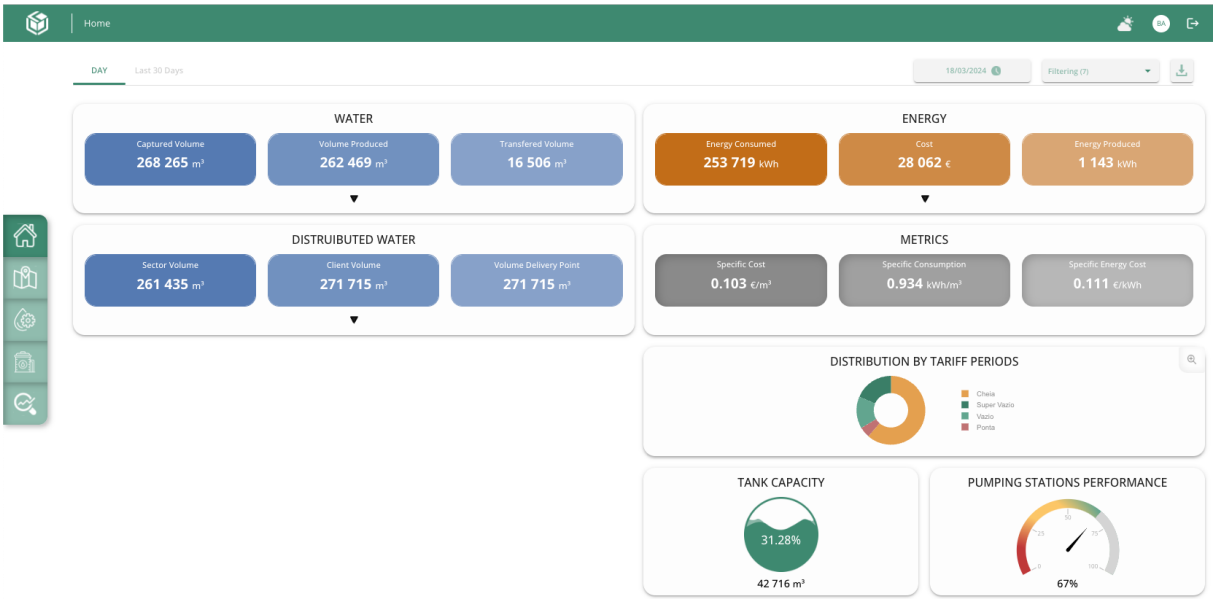
Product factsheet

SCUBIC WATER SYSTEM

Software solution



Description

SCUBIC Water System (SWS) is a suite of solutions that help water utilities optimize the Water-Energy-Data nexus. By combining decentralized databases with advanced machine learning, optimization techniques, and digital twins, SCUBIC solutions can forecast water demands, reduce energy consumption, improve the daily decision-making process, optimize pump performance, and calculate all major performance metrics automatically. SCUBIC process optimization can be connected directly to the SCADA system transforming it from a reactive system to a predictive system that can anticipate changes in the process and make decisions automatically.

Target audience

water utilities, wastewater utilities, intensive water-energy industries

Actors, their roles and interactions

water utilities, energy utilities

Unique selling points

SCUBIC WATER SYSTEM is one of the king solutions that make decisions autonomously controlling the entire water production and transport process to improve the water-energy nexus.
Water utilities are intensive energy consumers with complex networks and systems to control. At the same time, they have unique data covering most of the entire water process. However, combining decentralized databases and creating real-time information that can automatically improve daily decision-making has proven to be a complex problem to solve.
SCUBIC dedicated machine learning and optimization algorithms can: recognize patterns and identify trends; predict water demands aiding in managing water resources efficiently; detect anomalies in processes and sensors enabling rapid response to potential incidents, and maximize efficiency in water treatment and distribution process autonomously.

Technical requirements

SWS just needs access to the utilities databases.

Software data

- Version: 2.0 (Last update: 2024-03-19)
- Initial release: 2020
- Operating environments:
  - SaaS - Web application
- License type: Commercial

URL

http://www.scubic.pt

Technologies applied by the product

- **AI techniques**
- **Backend and Frontend Services**
- **Cloud-based systems**
- **Control Systems and Automation**
- **Cost-Benefit Analysis**
- **Data Analysis and Modeling**
- **Database Management Systems**
- **Data Collection and Aggregation**
- **Data harmonization, synchronization, integration, and analysis**
- **Data quality evaluation**
- **Data Science and Analytics**
- **Data Visualization and Rendering**
- **Decision Support Systems**
- **Digital Twin**
- **Energy Consumption Optimization**
- **Energy Cost Reduction**
- **Energy Management and Efficiency**
- **Machine learning**
- **Optimisation**
- **Optimization Algorithms**
- **Water Demand Prediction and Forecasting**

Related tags

autonomy | energy | water | Circular Economy | Water demand tool | Environmental impact | Economic impact | Creative data to build awareness | efficiency | digital solution | decision making | water efficiency | water-energy nexus | climate adaptation | drinking water | water usage | dashboards