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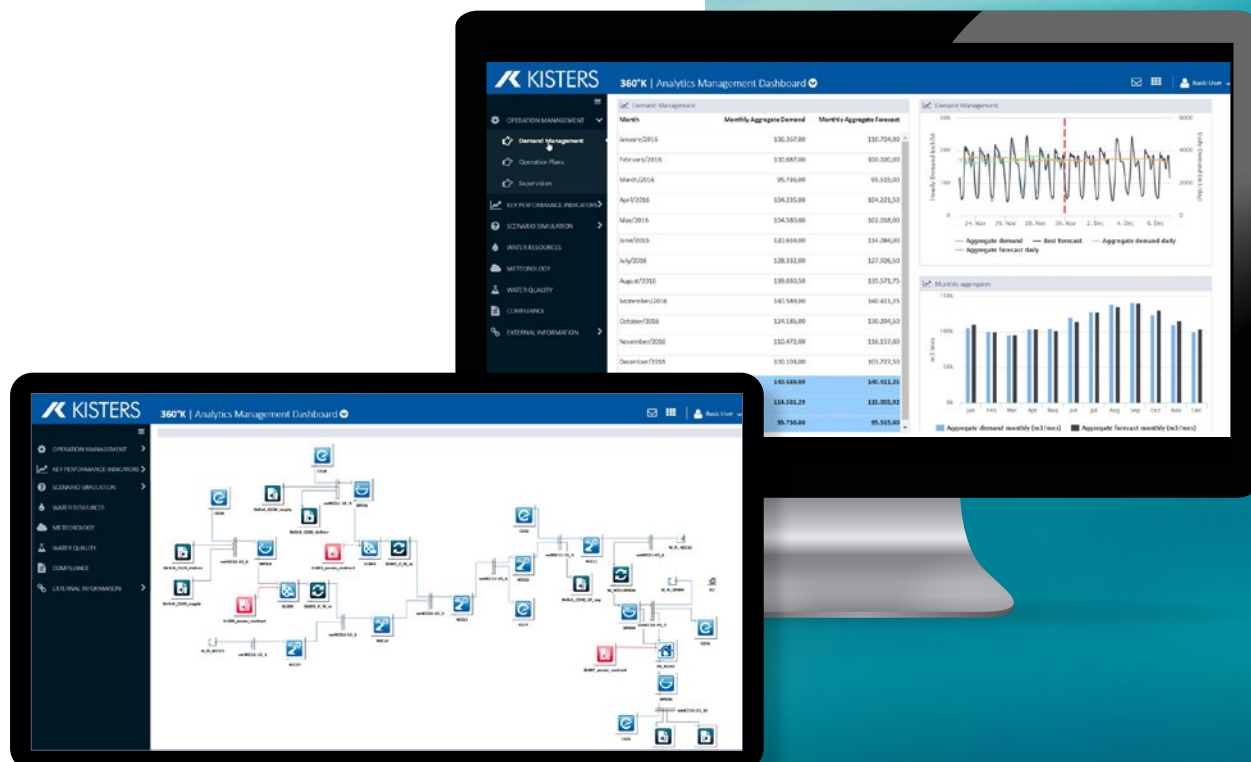
Operational Data Management for Water Utilities

K KISTERS

Empowering decisions of tomorrow

360° view of your water business performance – for the best decisions.

In times of growing populations, strong climate variations affecting the predictability of water resources, and increasing numbers of regions facing water scarcity, water utilities are under pressure to become as efficient as possible. Operations of this magnitude must rely on real-time data of high quality for more defensible decision making: from raw water intake to drinking water treatment, from maintenance of the water supply network to conveyance of treated wastewater.

KISTERS Operational Data Management offers a continuous 360° view of water processes to address non-revenue water loss, energy efficiency, water quality, intelligent asset management and hydrometeorological impacts. Consequently water utilities of operational excellence are well aware of opportunities and threats, so they improve on customer service and meet business objectives.

Our solutions provide you with the best answers to your challenges.

KISTERS Operational Data Management

Data-driven decisions increase the odds of meeting your business goals and staying competitive. KISTERS Operational Data Management software empowers you with descriptive, predictive, and prescriptive insights into water specific processes and water resource management. Powerful conclusions from data generated along the value chain (e.g. increased monitoring due to Internet of Things) helps answer important operational and strategic questions and address challenges related to the water-energy nexus.

Our solutions provide the best support for your tasks and decisions.

Data mine your data silos
Leverage the data your organization already collects and stores in its data silos. KISTERS Operational Data Management allows you to conveniently manage the variety of data and data sources. When you integrate disparate date sets, you have more opportunities to discover areas for time and cost savings.
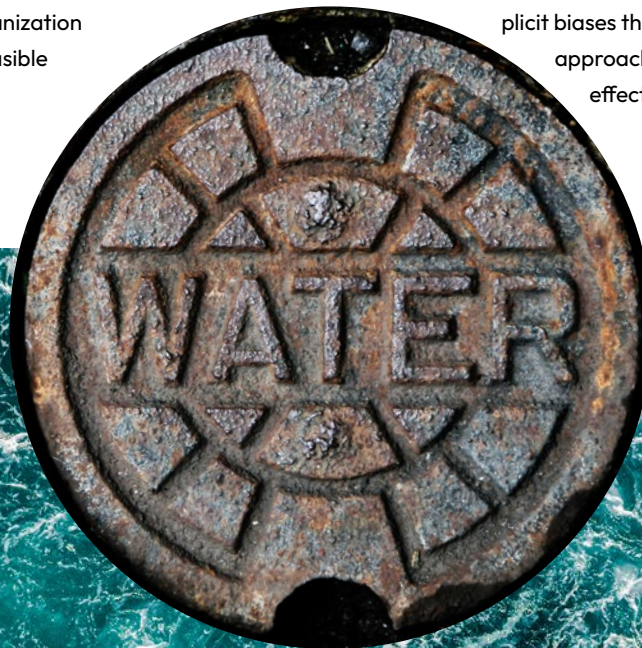
Transform raw data into actionable insights
Data mining techniques unleash the real value buried within your data. KISTERS cares for the quality of the data and visualizes it in several options, so you can more easily identify the most pressing challenges your organization is currently facing and the most feasible options you can take to respond.

Look into the future
Discover how your business and stakeholders will be affected by future trends. Integrate internal and external data sources, and then apply our state-of-the-art predictive algorithms. Test assumptions and minimize risks before making decisions that could become costly mistakes.

Improve your business outcome
Get the best possible advice on what action to take in your operational environment. KISTERS provides prescriptive analytics with scientifically proven optimization techniques. Free from implicit biases that compromise simulations, KISTERS' approach allocates assets in the most effective and most efficient way possible.

Locate and minimize non-revenue water.

Fast detection and localization of water losses as well as the prioritization of actions are critical for water utilities that desire to avoid direct impacts on costs, efficiency, and service quality. KISTERS Operational Data Management presents essential information based on centralized data management (flows, metering, pressures, acoustic, etc.), key performance indicators, automatic comparison of measurements versus trends, and different scenarios. These analyses are displayed as user-friendly web dashboards, allowing operators and de-cision-makers to create effective action plans and follow results in terms of cost and energy savings, cus-tomer satisfaction, and utility-specific terms.

Analyse drinking water quality.

Water quality affects service quality, customer satisfaction, and compliance with the regulatory framework in place. KISTERS Operational Data Management offers continuous and direct insight into the water quality status along the water processes. The software manages both sensor data and laboratory samples in one single system, allows for an easy analysis of different variables, applies specialized algorithms, compares data to expected patterns and triggers warnings when thresholds are exceeded. Thus KISTERS Operational Data Management enables the management of water quality along the complete value chain and give an overview on events affecting water quality.

Reduce carbon footprint and increase energy efficiency.

Improving energy efficiency is a key challenge for water utili-ties. Pumping and other energy-intensive activities represent some of the highest impacts on operational expenditures and weaken a company's commitment to reduce its carbon footprint. KISTERS Operational Data Management combines data from different sources, e.g. water, energy, energy contracts and own generation assets (hydropower, solar, biogas, etc), network and equipment characteristics, multiple boundary conditions. The software reveals insights on efficiency of processes and equip-ment, simulates the impact of corrective actions on efficiency ratios, and proposes optimal operation plans. The result: Optimal asset management, improved energy efficiency and procure-ment – and last but not least environmentally-friendly actions.
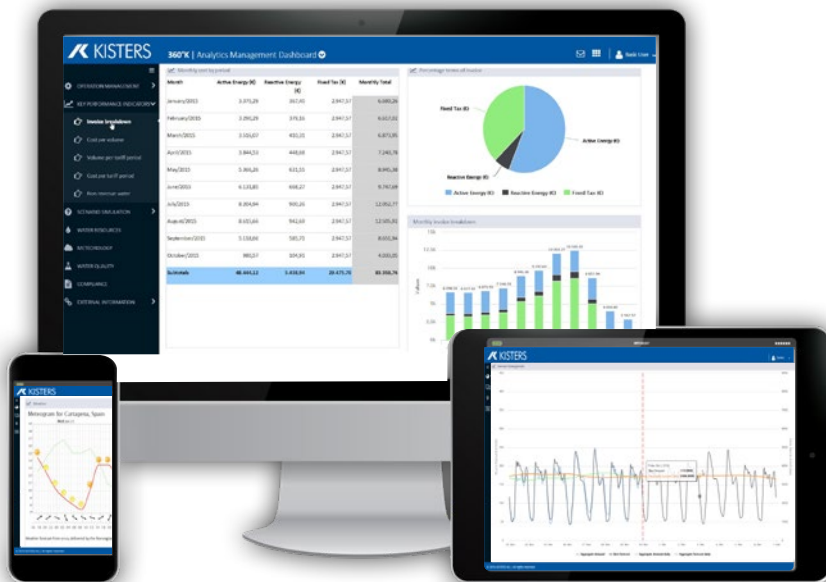
Smart asset management.

Aging infrastructure represents a severe deterioration in the efficiency and quality of service. In order to plan and prioritize investments in maintenance, repair, and replacement of existing assets, all affected aspects have to be considered from a global perspective. KISTERS Operational Data Management continuously calculates key performance indicators to monitor the status of infrastructure and equipment, and simulate scenarios to estimate the return on investment, the impact of corrective actions on efficiency, cost of operation, quality of service.

Build your climate resilience.

Hydrometeorological conditions inevitably affect the business processes of water utilities. High quality information is fundamental to properly manage infrastructure. For example, tanks can capture stormwater and create new supplies of non-potable water, and combined sewage overflows (CSO) can be avoided. KISTERS Operational Data Management combines sensor data and radar data, integrate high accuracy weather forecasts and perform specific statistical evaluations. You get a complete overview of past, current, and future status of water resources to drive decisions about the long-term sustainability of water.

About KISTERS

Using water and energy more sustainably, mitigating the effects of climate change and counteracting them preventively – that is our passion and our motivation. We develop digital solutions to advance the monitoring and forecasting of water and the environment, so environmental managers have salient information to plan for and face difficult decisions about flooding and drought as well as ensuring the delivery of clean water. Our goal is to develop sustainable and efficient software solutions, including databases or forecasting and decision support systems, based on state-of-the-art technology and a thorough understanding of our customers' requirements. Our solutions are used for a variety of purposes, including dam operation and safety, surface and groundwater monitoring, meteorology, flood warning, water quality, and urban drainage. They are employed by hundreds of customers worldwide, with several thousand licenses in use. KISTERS is a medium-sized IT company with 750 employees, headquartered in Aachen (Germany) and numerous national and international subsidiaries.

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