

# Software for Water Management

EFFICIENT | FLEXIBLE | FUTURE-PROOF

# Efficient Software Solutions for Water Management

Decision-makers in authorities and companies benefit from KISTERS Solutions in everyday operations and future-proof decision-making. The quality, performance and efficiency of the solutions provides best support in surface and groundwater monitoring, meteorology, flood forecasting, reservoir operation and safety, water quality and urban drainage.

KISTERS Solutions support you in the collection, analysis and publishing of your water data and the handling of your technical and communication processes. They contain advanced software technology with the proven time series management and a deep understanding of applications and markets.

And KISTERS offers much more than just a custom-fit solution: We strive for long-term cooperation and a trust-based partnership with our clients. This enables us to develop our solutions according to customer needs - for lasting state-of-the-art quality and security of investment.





**KISTERS Solutions manage and integrate the world's water resources into a single open system.**

Surface water and groundwater resources are limited and unevenly distributed over space and time. Reliable information is key to map, analyse, and manage the historical and current state of water systems as well as to forecast such systems either under daily conditions or during extreme events. Water managers and decision makers have to rely on high quality and well-integrated quantitative data and the reliable and scalable application of business processes in order to take transparent actions in an intuitive, timely and situational context.

KISTERS Solutions fully integrate professional water information management into existing data environments and landscapes - making it the integral backend to fulfil the mission to collect, analyze and share accurate information in an expedient, transparent and secure manner. The scope of application includes surface water management in connection with water supply, hydropower generation, flood protection and the public use of water bodies, groundwater monitoring, hydrometeorology and urban hydrology. The joint analysis of data from the various observation areas provides a holistic representation of the water body.



## Water Quality & Aquatic Ecosystems

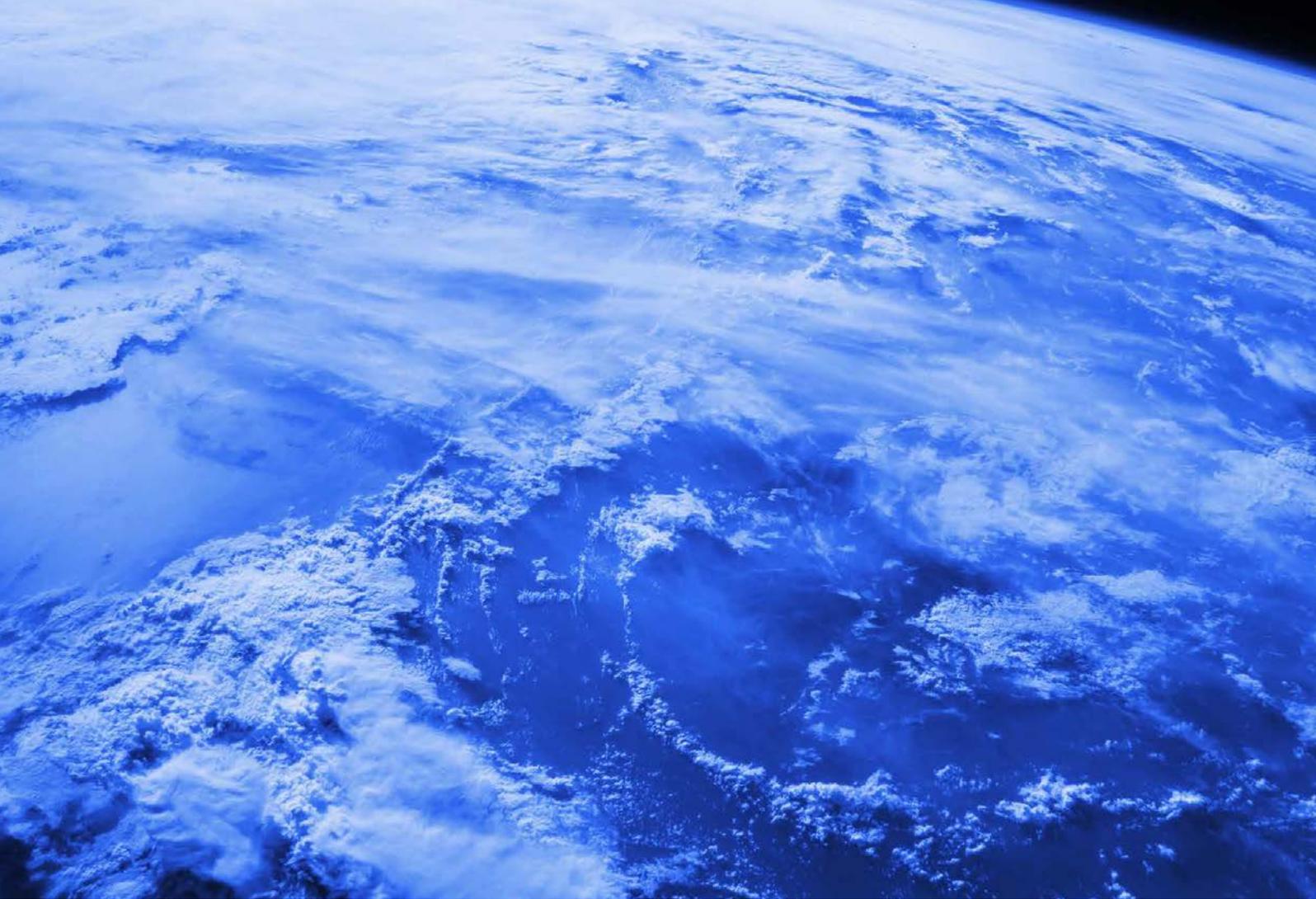


**KISTERS Solutions provide full insight and comprehensive possibilities to assess the full biotic integrity of natural and process water.**

The quality of water resources and aquatic ecosystems receive growing attention from water managers. Its assessment is essential in natural water systems like surface water bodies or groundwater aquifers, and in industrial environments, e.g. for drinking water supply, wastewater treatment, or mining. On a global scale there is a clear environmental objective and commitment to protect the water body in order to ensure public health standards and establish or maintain rich ecosystems.

KISTERS Solutions enable public organisations and industry stakeholders to generate and recognise the sustainable environmental and recreational value of water. The tools fully integrate qualitative aspects into the quantitative description of surface water, groundwater, process water, and drinking water. The combined analysis of all data provides new valuable insights to ensure a good overall state of the water.





# Meteorology and Climatology



**KISTERS Solutions combine weather and climate information with on ground processes for meaningful insights.**

Due to the intensifying process of urbanisation, population growths and in combination with climate change, the direct damage of weather events and climate to life, health, infrastructure, production and assets is more severe than ever before. A particular focus of stakeholders is the frequency and impact of severe events ranging from short thunderstorms to multi-year droughts. High impact events like extreme rainfalls as well as heat and frost waves need to be verified, cross-referenced and presented to decision makers with sufficient lead times to respond to the events.

KISTERS Solutions integrate weather and climate data over space and time, and deliver high quality information on the precipitation and runoff situations in a given catchment area to weather and water resources agencies, industry, insurers, early warning and emergency management units. Reliable, timely, and processed meteorological information are fundamental for planners, operators and decision makers – day in day out.

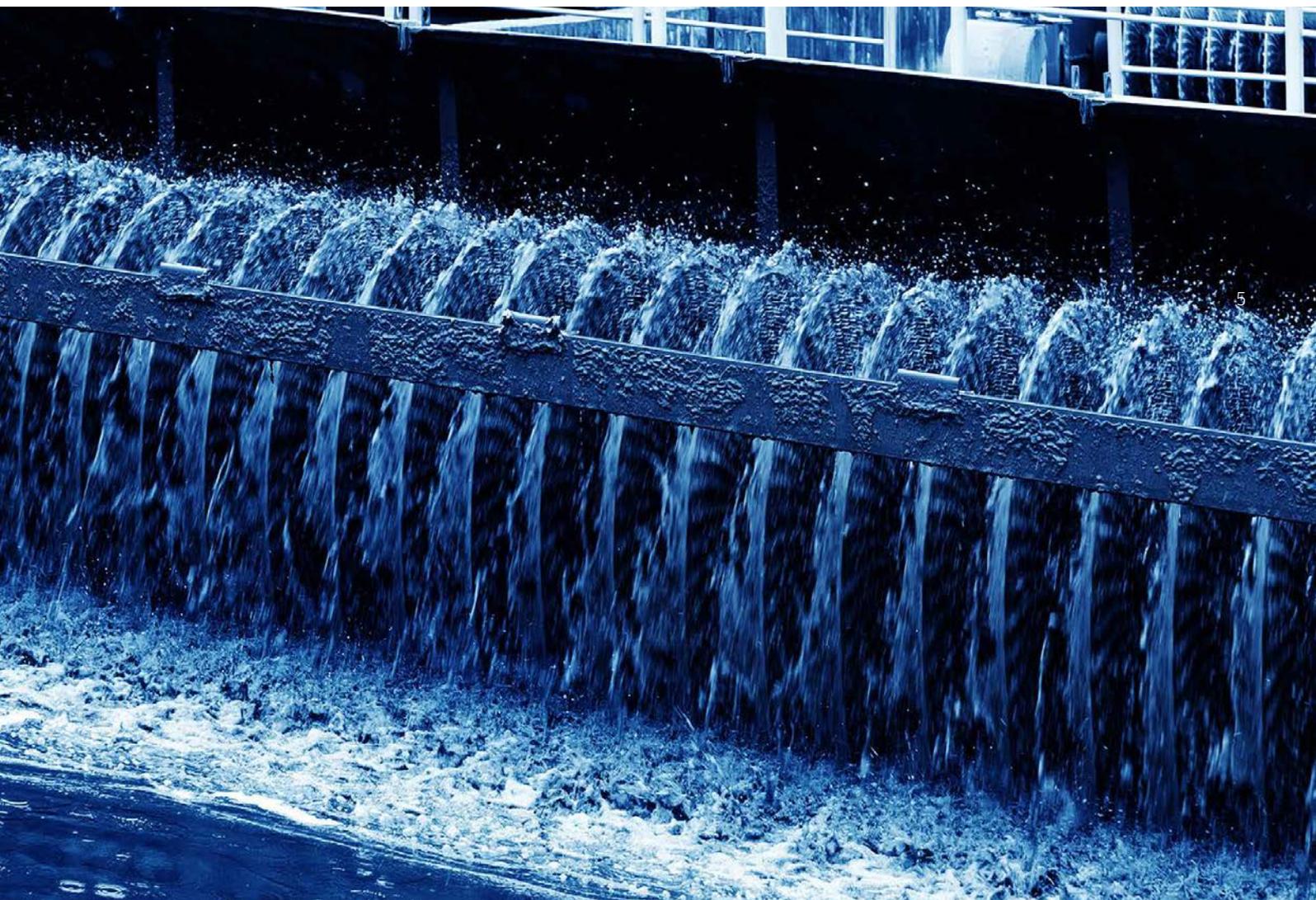
# Urban Water Systems



**KISTERS Solutions holistically integrate all urban water aspects into a single yet modular system.**

Urban areas intersect with the water domain in a variety of ways: from meteorology and hydrology to monitoring and management of drinking water, storm water, sewage and wastewater treatment. Water sensitive cities are required to manage human impact on the water cycle in urban areas. With increasing urbanisation and population growth, urban water management aims to improve water efficiency, reduce water consumption, develop water sensitive urban designs to protect communities from storm events, and protect wetlands and estuaries in urban environments.

KISTERS Solutions embed all aspects of urban water into a single system with modules for individually tailored solutions. Strong capabilities to integrate heterogeneous data streams make it a reliable backend for responding to the challenges of urban water management: Water security, protection and restoration of waterways and watersheds, sewage treatment, assurance of safe drinking water, and optimisation of water supply can only be realized on top of such integrated and reliable data streams. This provides benefits for the environment and the companies.



# Resources Management



**KISTERS Solutions optimise operations and decisions.**

Many industries heavily rely on the efficient use of water and related resources like energy. Operators of multi-purpose reservoir systems, hydropower companies, mining enterprises, agriculture, food and drink companies among others benefit from KISTERS' expertise in several business cases and related processes.

KISTERS Solutions support managing assets in a more sustainable, efficient and profitable way, meeting legal requirements and complying with environmental obligations, and optimising operations to get ahead of competition. Our industry knowledge and software include monitoring and data management as well as state-of-the-art data analytics tools for a better understanding of the current state of a system, predicting future states over multiple time scales, and making robust decisions.



# Measuring & Telemetry



Stationary in situ monitoring networks - for example, in the fields of (urban) hydrology and meteorology - can be set up with the KISTERS telemetry solution. The system consisting of hardware and software is universally suitable for all areas of application. The logged heterogeneous data are unified and made available to the KISTERS water software for further processing. The solution is manufacturer independent and operates on all communication channels from the modem to TCP/IP. Upon request, we also provide the appropriate hardware to build a monitoring network.

## Cloud Services & Data Centres



The KISTERS water solution is optionally available for „rent“ as a SaaS solution. This is particularly attractive for small and medium-sized enterprises, universities, research institutes and engineering firms. The software can be rented for use to a specific extent - for certain applications, projects or on a continuous basis with reasonable monthly use fees. You receive the individually required functions and the desired level of support without paying fees for unused parts of the software.

The cloud solution is hosted in the ultra-modern and secure KISTERS data center (ASP/SaaS mode). KISTERS' IT experts take care of all time-consuming technical services such as monitoring and updating. We also offer content services such as data validation.

## Consultancy, Training & Service



The KISTERS team with experts from the water management and IT industries support the entire life cycle of your water solution right from the beginning with extensive consulting: We select the ready-made standard modules to build and configure the exact solution that fits your business needs. Training offers and manuals tailored to your organization, round-the-clock internet support and a telephone hotline all serve to help you with any operational issues. Another benefit: the annual User Conference, during which discussions with specialists are the focus besides lectures and workshops.

#### About KISTERS

KISTERS is a group of IT companies with 500+ employees, headquarters in Aachen, Germany, and numerous national and international subsidiaries. KISTERS offers leading software solutions for the sustainable management of water, energy and air. Expertise, commitment and sector experience make KISTERS a much sought-after partner. KISTERS' Global Water Solution is a framework for building efficient customer solutions based on modern technology and in-depth understanding of application areas and markets. Solutions include, among others, surface and ground water monitoring, meteorology, water quality and urban drainage deployed at hundreds of customer sites with many thousands of licenses worldwide.