

## SMART WATER MANAGEMENT

### Introduction

It's easier to understand climate change when you experience challenges yourself. Consider unpredictable water supply, worsening water scarcity, and water pollution. Whether you're an agricultural firm or city administrator, all these affect you. And if you're looking to become more efficient and boost your green credentials, you might not know where to turn.

This is where smart water management using IoT could make all the difference.

Among the many benefits of IoT technology, it helps keep water quality high. Smart sensors can provide peace of mind that equipment like pumps and pipelines is highly functional, and with IoT services, you can dispose of wastewater safely and in line with regulations.

Let's take a closer look at the most common real-world examples that illustrate the impressive advantages of smart water management systems.

### Smart City water management:

City administrators need to keep a close eye on water supply, consumption, and equipment. With IoT, the whole water supply chain can become more transparent and easier to control.

With the help of sensors, a smart city water management system can enable you to collect real-time data—information that helps you visualize water distribution across the network. Residents with smart meters can make more informed decisions as a result, leading to a more sustainable city overall.

Water waste and disrupted water supply chains are a drain on the city's budget. IoT can help you watch the health of water equipment and detect problems, like leaks in pipes. This allows operators to receive alerts and start fixing issues immediately. In the meantime, AI predictions allow you to nip problems in the bud by preventing failures before they cause severe incidents. With AI, city administrators can also watch the watershed and predict which areas are likely to flood, information that will help local authorities warn residents, manage traffic, and keep the city on its feet.

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## Water quality management system:

Watching the quality of water that comes into our houses is crucial. Rivers, lakes, and reservoirs may contain contaminants that are dangerous to us, and the increasing world population combined with urbanization has also worsened water quality. In our changing world, IoT can help monitor and analyze distributed water and ensure it complies with regulatory standards.

### Real-Life Example: Smart Irrigation Management

The Galileo System from Galco aids and optimizes irrigation in open farmlands and greenhouses. An open-field version has about 200 irrigation programs. Farmers can watch up to 50 main irrigation lines, change flow intensity, and schedule their activities. What's more, the software shows a realistic picture of the watered field.

### Perspectives:

With such expansive and varied use cases, the potential of smart water technologies is clear to see. We also have optimistic estimates on the global smart water management market value which is developing rapidly.

The smart water management sector will see a 160% increase by 2026



### The global smart water management market

### Conclusions:

This application will improve the water sustainability and management, as well as the policy of smart cities adequately adapted considering different constraints. The selected techniques and actions depend on the considered threshold, the capital investment, and the availability of techniques and equipment.