

## DIGITAL INTEGRATION

Beyond deploying these 15 individual solutions, digital-water.city seeks to integrate the development of these technologies within a dedicated guiding protocol that can cover existing gaps in three key areas:

### GOVERNANCE AND PUBLIC INVOLVEMENT:

We want to improve inclusive decision-making in urban water management, citizens' quality of life and environmental awareness. So, we screen existing policies, governance frameworks and stakeholder networks.

### CYBERSECURITY:

We provide services that are safe, trustworthy and secure and value data protection and privacy. That is why we ensure robust cybersecurity, interoperability and resiliency of our digital solutions.

### MARKET UPTAKE:

Our communities of practice foster co-creation and innovation. We also provide dedicated business development support to innovators and create new spin-offs.

Interested to find out more? Dive into our digital solutions by visiting:

[www.digital-water.city](http://www.digital-water.city)

### PROJECT PARTNERS:

- Arctik
- Berliner Wasserbetriebe
- Biofos
- Gruppo CAP
- DHI
- Ecologic Institute
- Fluidion
- IRSTEA
- ICRA
- ICATALIST
- IOTSENS
- iPEK
- Istituto Superiore di Sanita
- Kando
- Kompetenzzentrum Wasser Berlin (project coordinator)
- PARTNERS4URBANWATER
- SINTEF
- Sofiyska Voda
- Sorbonne Université
- Strane Innovation
- SIAAP
- Università degli Studi di Milano
- Università Politecnica delle Marche
- Vragments



Leading urban water management to its digital future.

A clean, safe water supply is essential for the health and wellbeing of all city-dwellers. And this supply depends on a robust and efficient water and sewage infrastructure. Every year, €45 billion is invested in this infrastructure across the European Union. To modernise and cope with climate change, this figure that will need to double over the next decade. Digital technologies will play a key role in ensuring our water systems can deliver for citizens throughout the 21st century.

digital-water.city develops and demonstrates 15 advanced digital solutions designed to lead urban water management to this future – from augmented reality, mobile technology and cloud computing, to sensors, real-time monitoring, artificial intelligence and predictive analytics.

## 3 objectives



Health protection



Performance and return on investment



Public involvement



Berlin



Copenhagen



Milan



Paris



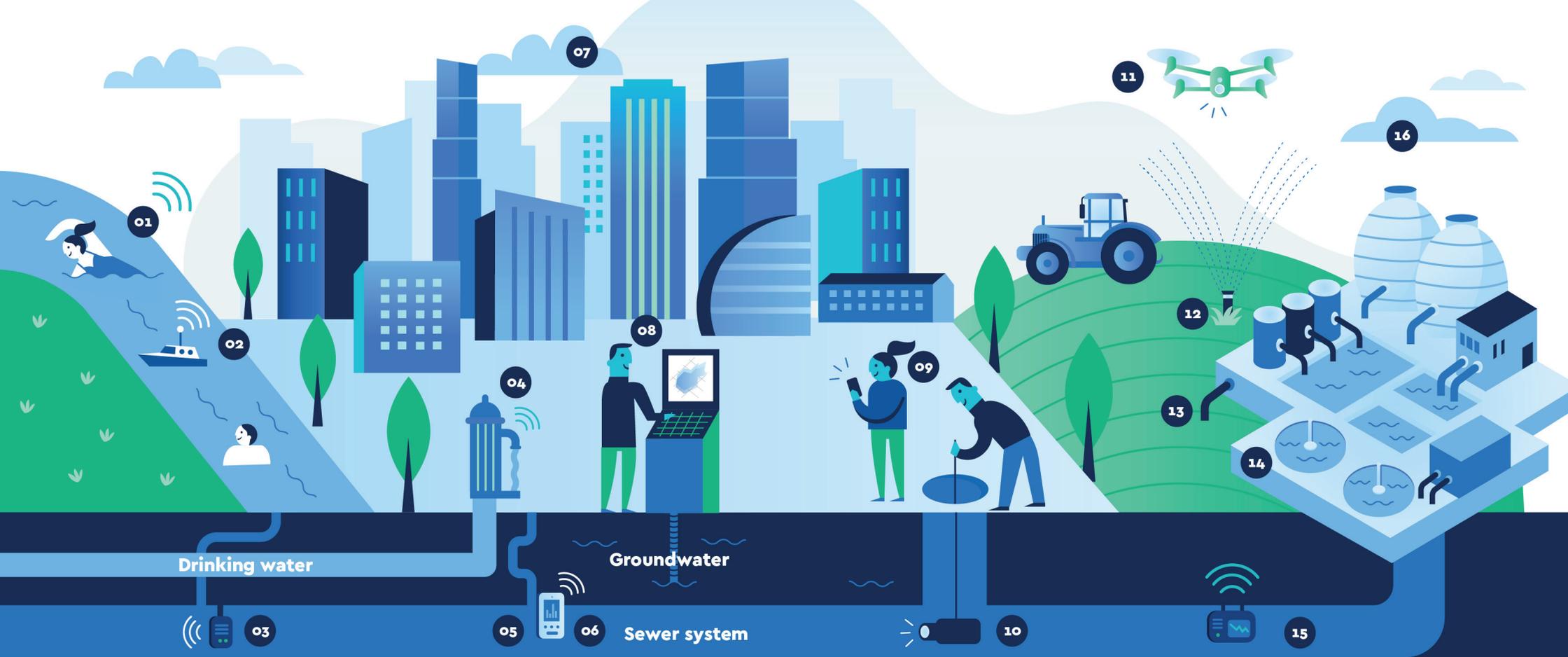
Sofia

## 5 cities

digital-water.city is active in five European urban and peri-urban areas, serving over 30 million citizens.



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## digital-water.city solutions

- 01** Machine-learning-based early warning system for bathing water quality
- 02** Sensors for real-time in situ e.coli and enterococci measurements
- 03** Low-cost temperature sensors for real-time combined sewer overflow (CSO) and flood monitoring
- 04** Mobile application for asset management of drinking water wells
- 05** DTS sensor for tracking illicit sewer connections
- 06** Sensors and smart analytics for tracking illicit sewer connections hotspots
- 07** WebGIS platform for improved decision making in water reuse
- 08** Augmented reality mobile application for groundwater visualisation
- 09** Serious game on the water reuse, carbon, energy, food and climatic nexus
- 10** Smart sewer cleaning system with HD camera and wireless communication
- 11** Active unmanned aerial vehicle for analysis of irrigation efficiency
- 12** Match-making tool between water demand for irrigation and safe water availability
- 13** Early warning system for safe reuse of treated wastewater for agricultural irrigation
- 14** Interoperable decision-support system (DSS) and real-time control algorithms for stormwater management
- 15** Sewer flow forecast toolbox
- 16** Web platform for integrated sewer and wastewater treatment plant control

## Digital technologies

-  Artificial intelligence  
01, 04, 13, 15
-  Decision-support systems  
12, 14
-  Smart sensors  
02, 03, 05, 06, 11
-  Open data platforms  
07, 16
-  Augmented reality  
08
-  Robotics  
10
-  Cloud computing  
01, 02, 03, 06, 07, 16
-  Mobile technology  
01, 04, 08, 09, 12