



integrated watercare solutions

# INTEGRATED WATERCARE SOLUTIONS

**CHINA EUROPE** Water Platform  
30 March 2021



Camera di Commercio Italiana in Cina  
中国意大利商会  
China-Italy Chamber of Commerce

**IWS** is a Business Network born in January 2013 and it is composed of 3 companies that, after working together for years, decided to take a further step towards an even closer cooperation, i.e. the Network Contract, that entails integration of products and sharing of the commercial network.

For all the founding members, the target market is the **WATER MARKET** with high focus on the urban drainage networks, the drinking water networks and the water treatment plants; the environment protection is a key point in the daily activity of **IWS**.

All the founding members of **IWS** are highly specialized in the offered product/service, they have a strong leadership in the market and their aim is to act as a single interlocutor with integrated urban water managers.



**B.M. Tecnologie Industriali: INDUSTRIAL COMPANY** - in the Integrated Urban Water Management it mainly supplies instruments to measure water flow, level and pressure and to calculate chemical-physical water parameters. It also realizes flow measuring campaigns to search for extraneous waters and create water districts for aqueducts.

[www.bmtecnologie.it](http://www.bmtecnologie.it)



**IDROSTUDI: ENGINEERING CONSULTANCY COMPANY** - in the WATER SUPPLY network and in the SEWER SYSTEM it supplies highly specialized services aimed at their MANAGEMENT OPTIMIZATION. The combination of a strong scientific background and the distinctive expertise acquired over the years allowed Idrostudi to become a reference in the sectors of numerical modelling, design, and technological networks optimization.

[www.idrostudi.it](http://www.idrostudi.it)



**2F Water Venture: LEAK DETECTION COMPANY** - a distribution company of innovative products for the integrated water service market. We deal with leak detection in aqueducts using satellite images, thanks to an exclusive contract, for the Italian market, with the Israeli company Utilis Ltd.

[www.2fwaterventure.it](http://www.2fwaterventure.it)



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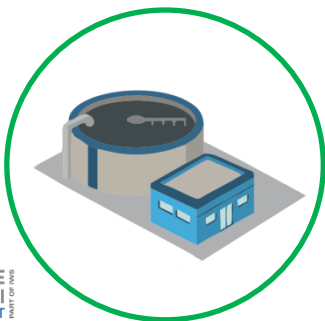
## CAPTATION



**BM** TECNOLOGIE INDUSTRIALI  
WATERCARE SPECIALIST  
PART OF IWS

**idrostudi**  
watercare engineering

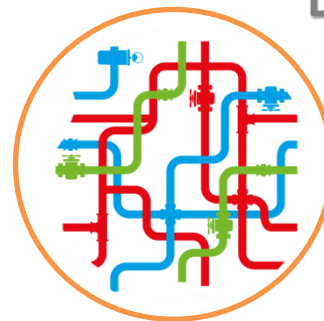
## TREATMENT



**BM** TECNOLOGIE INDUSTRIALI  
WATERCARE SPECIALIST  
PART OF IWS



## DISTRIBUTION



**BM** TECNOLOGIE INDUSTRIALI  
WATERCARE SPECIALIST  
PART OF IWS

**idrostudi**  
watercare engineering

**2F**  
WATER VENTURE

## SEWAGE



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we meet water every day  
we take care of it any time



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## Italian Leader Company

- ✓ In Water Flow, Level, Pressure and Quality measuring instruments;
- ✓ In Manufacturing of battery-powered data loggers with data transmission, suitable for heavy use in water and sewage networks;
- ✓ In short, medium and long-term monitoring campaigns in sewages and water networks;
- ✓ In offering engineering solutions for the reduction water losses, extraneous waters and for the development of numerical models allowing predictive functions of the behavior of the networks;
- ✓ In managing and validating large masses of data through an appropriate software and allow field maintenance of the units that transmitting data.



MISSION

- ✓ Deep knowledge of customers processes;
- ✓ Development of Water and Sewage Networks Management culture;
- ✓ Define water balances in Italy and around the world, aiming for excellence and energy saving;
- ✓ Development of a worldwide distribution;
- ✓ Give our contribution to a better quality of life and a more rational use of water for a healthier environment.



## Data Logger for Water Cycle in long or short-term monitoring campaigns



*Flow Modules for part-filled pipes and open channels*



*Multi-functional battery powered Data-Logger BJONG*



*Ultrasonic Transit Time flow modules for full pipes*



*Water quality measurement*



*Hydrostatic Level Measurement*



*Radar for Level Measure*



*Pressure Module*



**...with one synergy,  
yet two souls: B.M.  
watercare instruments...**



## Ultrasonic Transit Time Flow Meters with clamp-on or insertion sensors.

Suitable for pipes from DN15 to DN6000

Max pressure 20 bar

Max temperature +160°C

Stationary or Battery powered Portable units

For clean fluids with max 20 mg/l of suspended particles.



## Cross-Correlation Ultrasonic Flow Meters with insertion sensors.

Suitable for pipes from DN1000 to DN2000

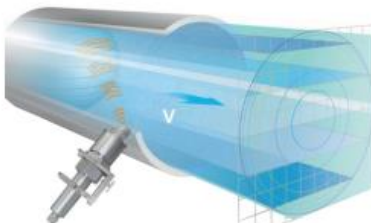
Max pressure 4 bar

Max temperature +45°C

Stationary or Portable units

Field or Panel mounted

For fluids with a low, medium or high amount of suspended particles.



## Electromagnetic Flow Meters with threaded, flanged, wafer or insertion sensors.

Suitable for pipes from DN3 to DN2000

Max pressure 64 bar

Max temperature +130°C

Compact or Separate converter

Mains or Battery powered

For Clean or quite polluted fluids.





**Ultrasonic and Cross-Correlation Area-Velocity Flow Meters with wedge or insertion velocity sensors, with or without built-in level measurement.**

Suitable for open channels or small, medium and big pipes

Max temperature +45°C

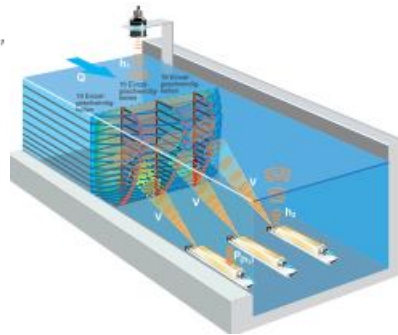
Max pressure 4 bar

Stationary or battery powered portable units  
Field or Panel mounted

Installation of max three sensors

simultaneously, for large open channels

For fluids with a low, medium or high percentage of irregular suspended particles, even in difficult hydraulic conditions.



**Flow Meters for Open Channels with Ultrasonic Level Measurement for rectangular and "V"-shaped weirs, Venturi, kafagi and parshall.**

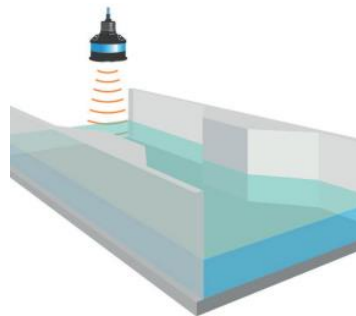
Suitable for small, medium or large channels

IP68 Level sensors from 3 to 6 mt

Cable length up to 500 m

Max Accuracy +/- 1%

Panel or field mounted main units.



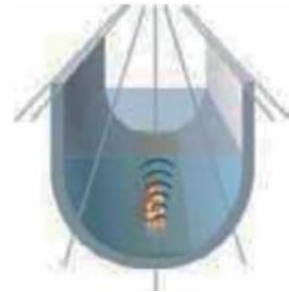
**Doppler Area-Velocity Flow Meters with wedge sensors, with or without built-in level measurement.**

Suitable for small or medium channels

Max temperature +45°C

Stationary or Battery powered units

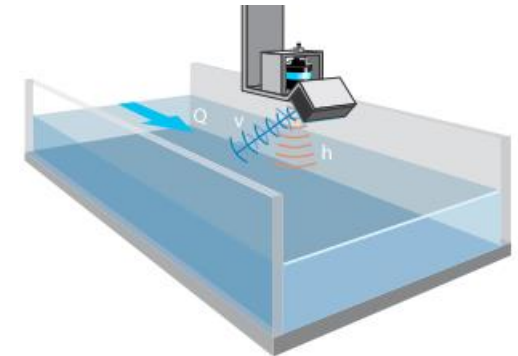
For fluids with a low, medium or high percentage of irregular suspended particles, even in difficult hydraulic conditions.



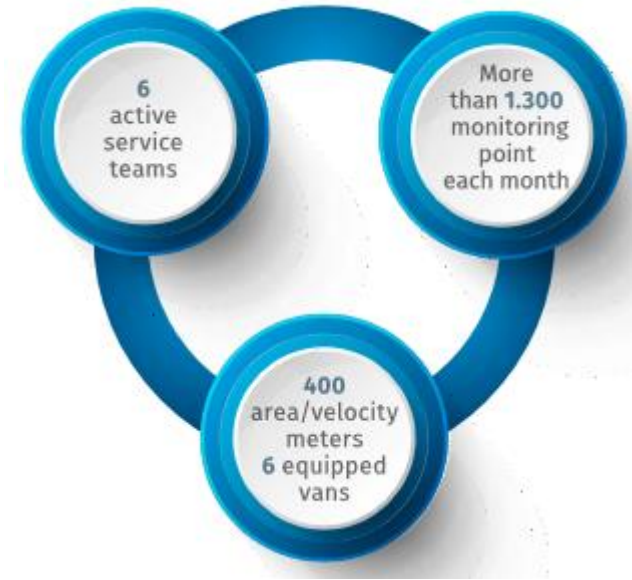
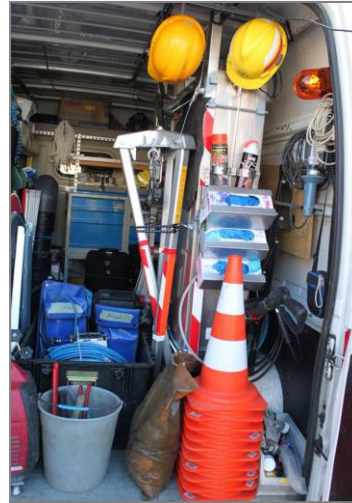
### Radar Technology with no-contact surface velocity measurement of fluids.

Suitable for critical installations with high possibility of sensors soiling or dangerous for workers.

Mostly suitable for high-sloped channels, with high velocity and superficial fluid wrinkles.



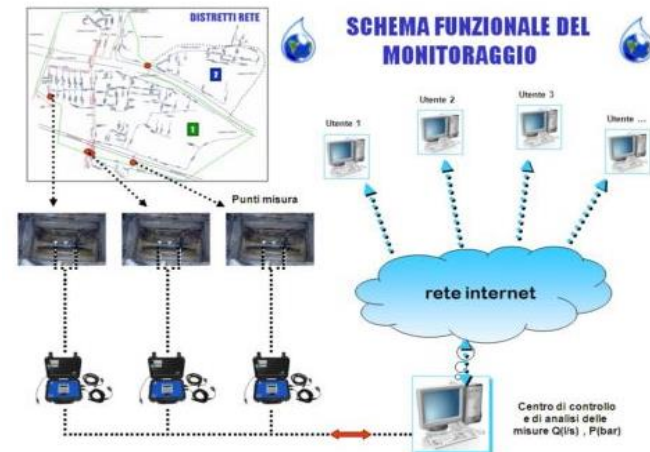
## ... and B.M. watercare support.



## Sewage Quality Monitoring



## Water Losses Management



Project &  
Development

Installation and  
Removal of Measuring  
devices and Data  
Loggers



Service &  
Maintenance

Data Analysis





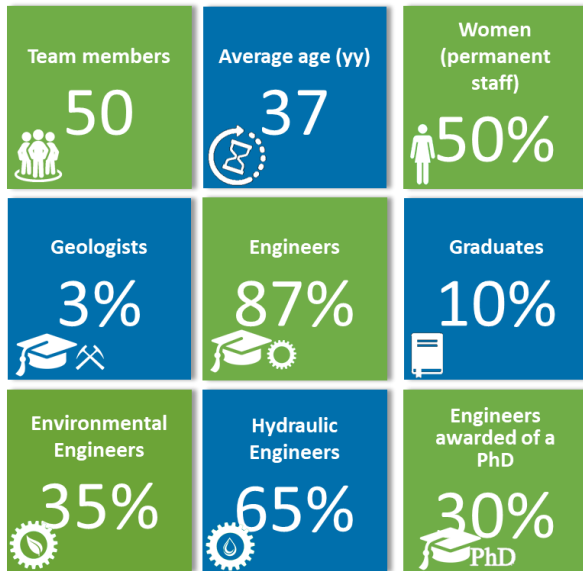
## Leader in Italian Water Market with the most important Italian Water Utilities

**CAP**Acque del Champo s.p.a.  
Servizio Idrico Integrato



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Italian excellence with a team of **50 people** highly skilled in **hydraulic** and **environmental engineering**





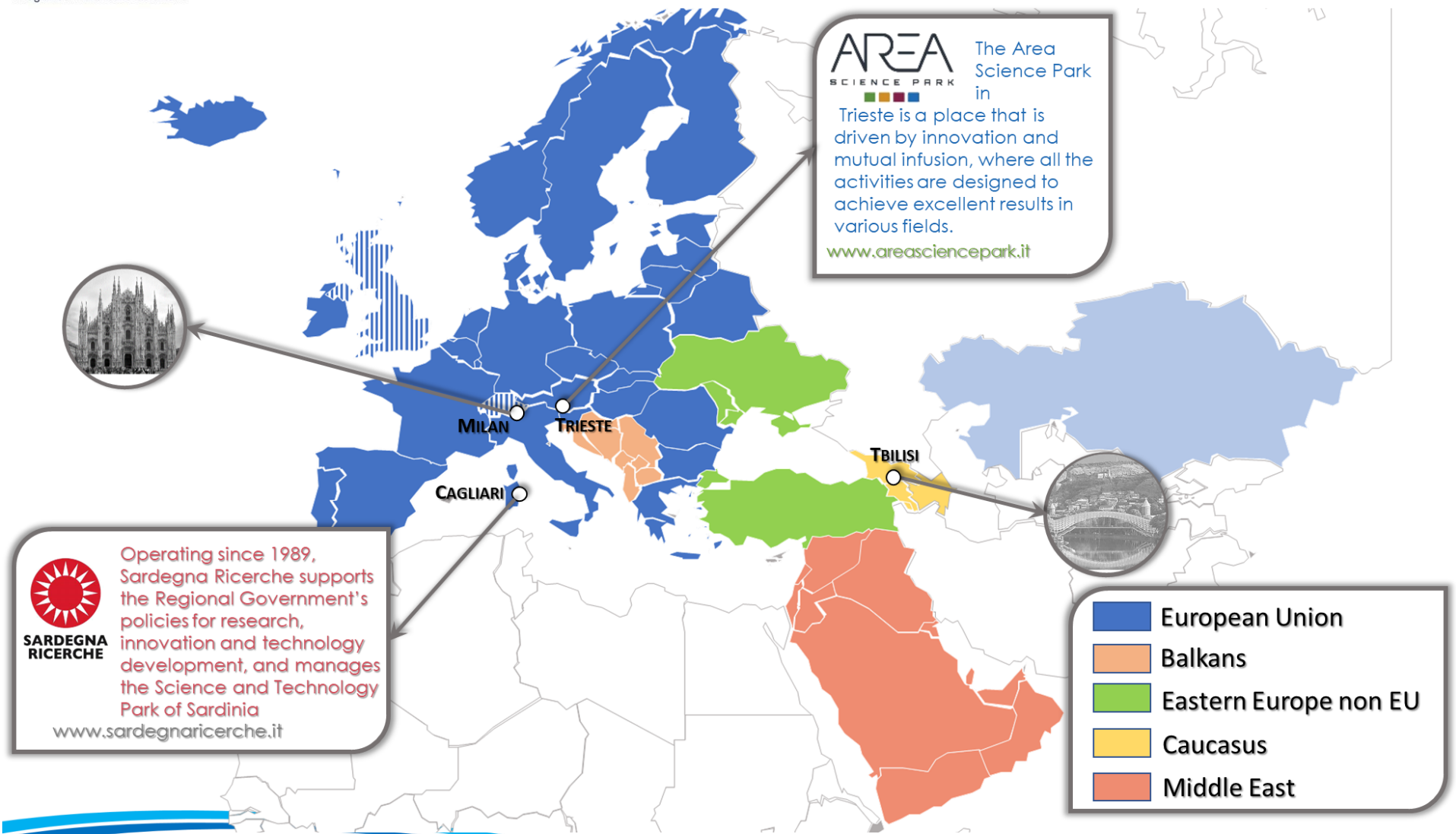


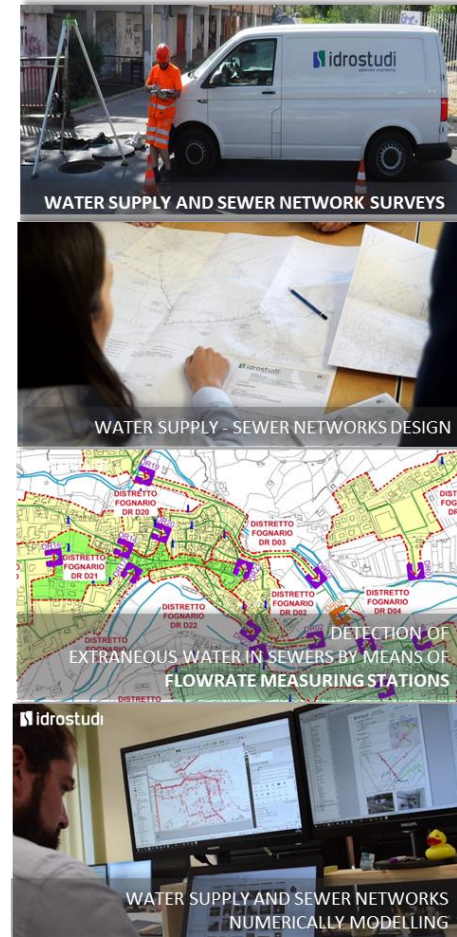
A World in which water challenges are no longer a barrier to an inclusive, sustainable access to water looking at the most cost-beneficiary action in WS and WW systems



Providing services that help improve the water infrastructures efficiency and resiliency by reducing water leakage and increasing reuse of treated wastewater









hydrologic cycle

water networks GIS

urban flood management

WS & WW network surveys

Sewer networks

DMA design

Measuring campaign

Aqueduct

sustainability

Energy optimization

Leakage management

IUWM

NRW

Environment

network resiliency

PMZ

Groundwater hydrology

IUWM

water loss reduction

SuDS

Numerical modeling

extraneous water

rainfall-runoff

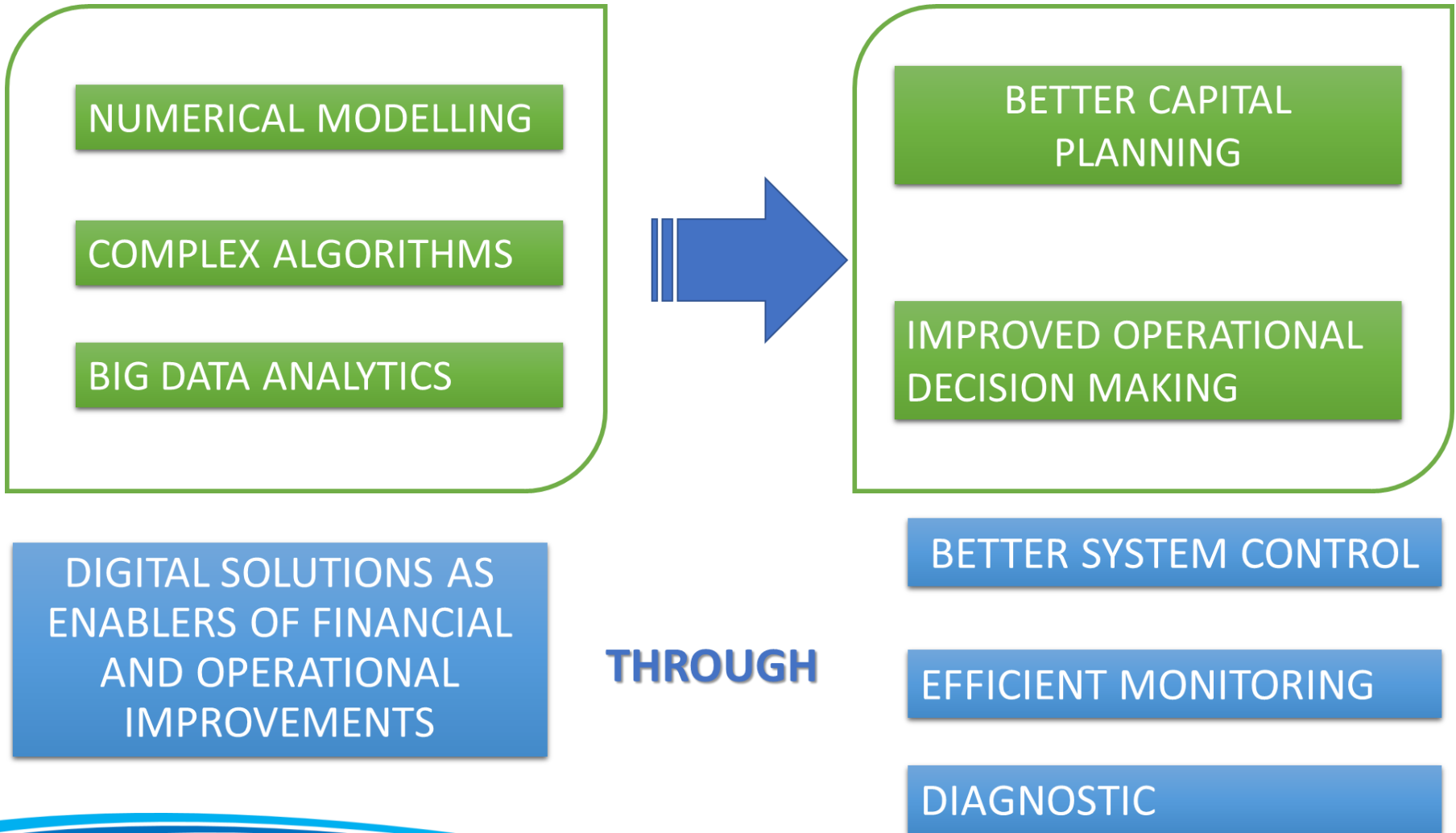
hydrology

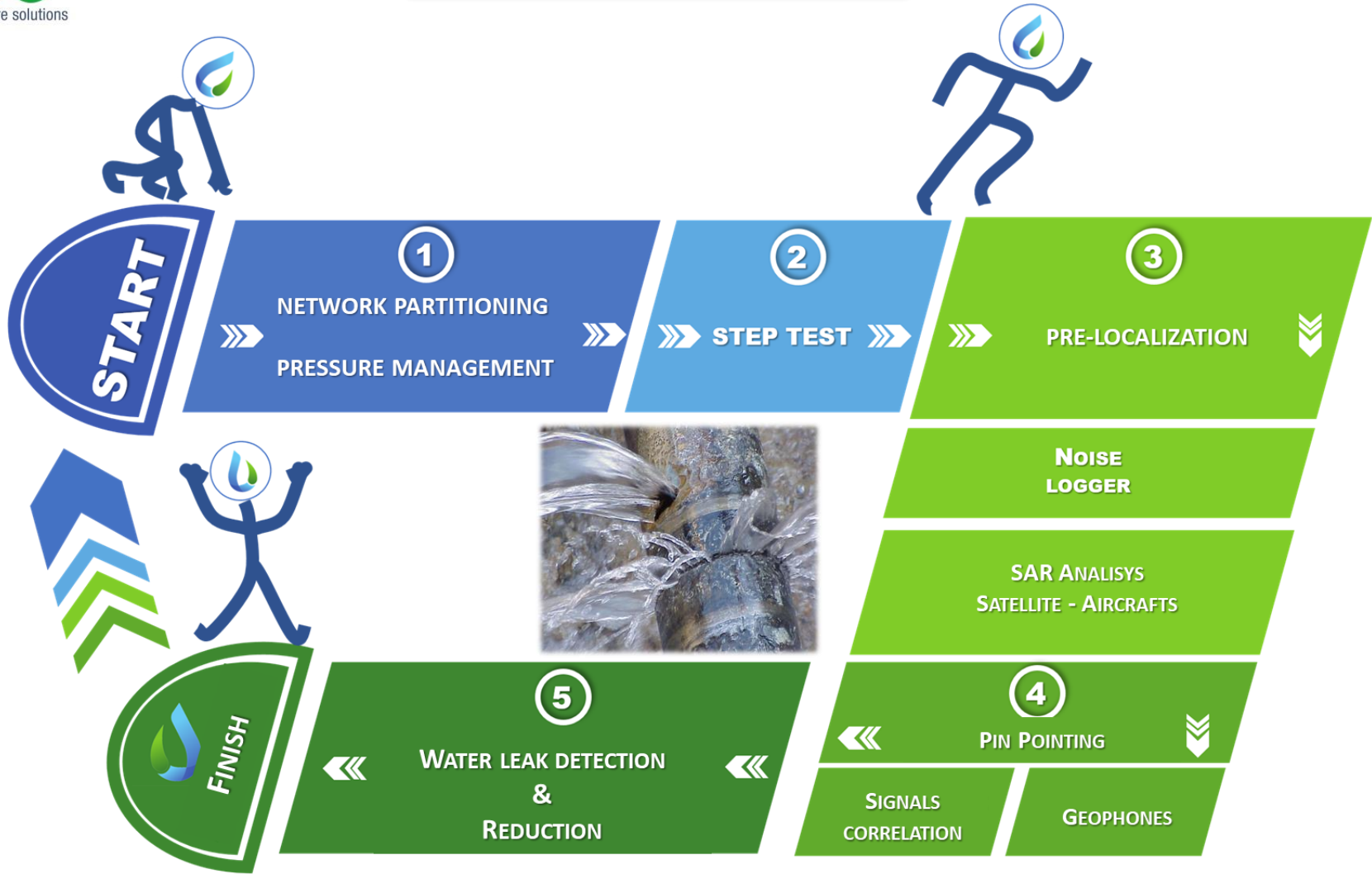
R&D

Climate change

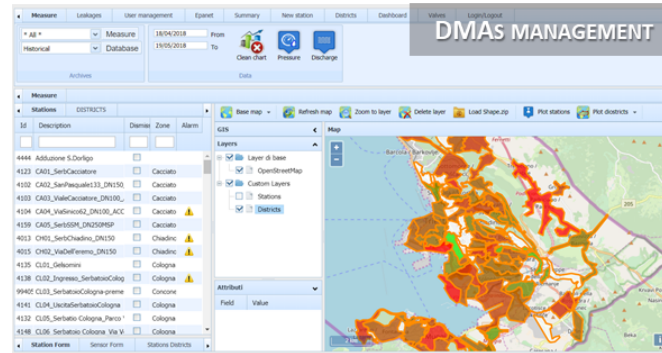
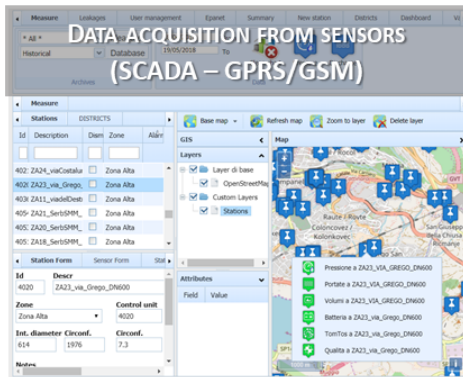
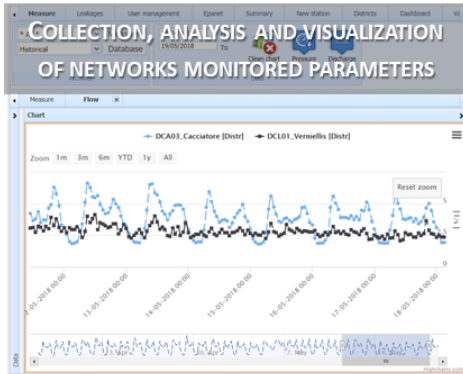
excellence

Inflow and Infiltration in sewerage



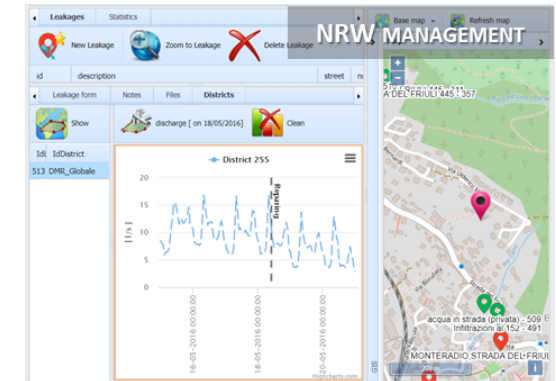
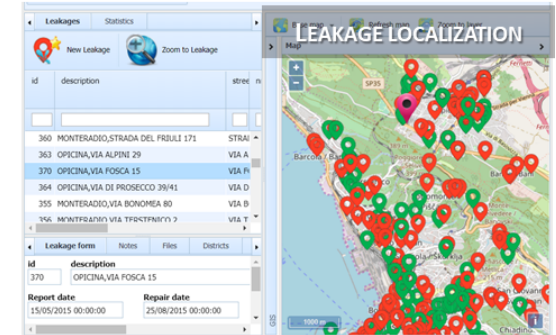
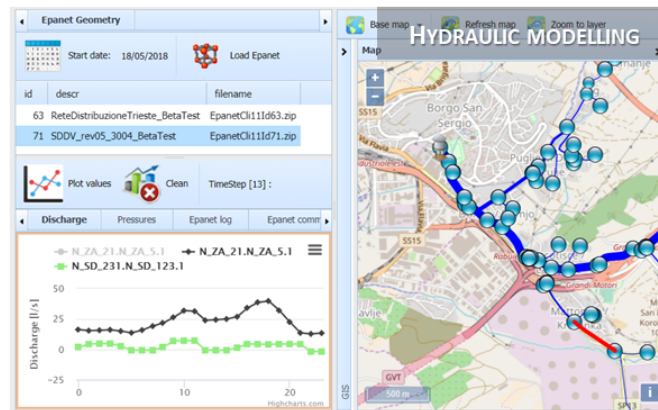




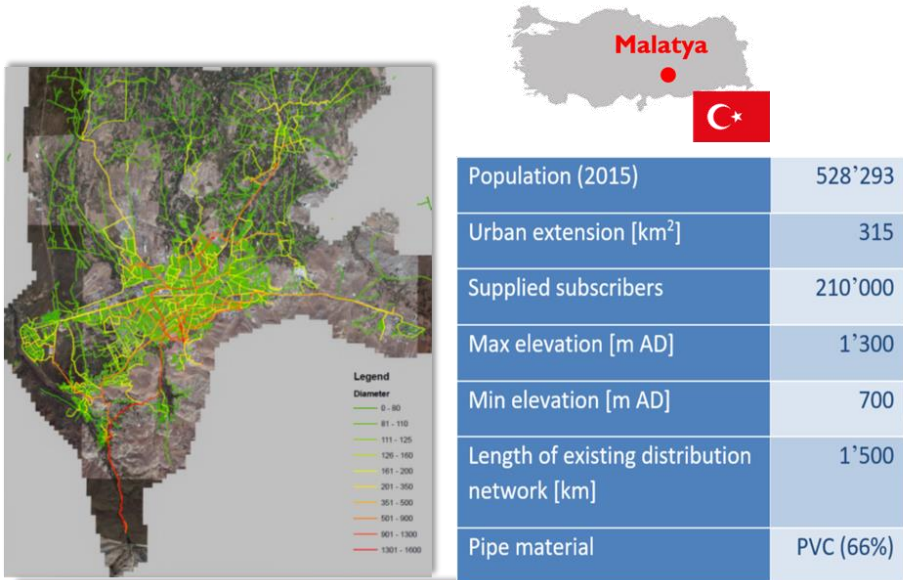


# Waterguard

monitoring for Hydraulic Urban Networks



## Rehabilitation of the Malatya (TR) water supply network



### OBJECTIVES

1. Draft of the Masterplan
2. Water losses decrease and pressure management
3. Optimization of the network management

Client:



Partner:



Approximate value of the contract: 400'000 €

### ACTIVITIES

- 1 Analysis of the existing water supply system, survey, monitoring and numerical modeling, critical points identification
- 2 Non revenue water analysis (NRW)
- 3 DMA design
- 4 Monitoring of 17 pilot DMA pilota and on site water leaks identification
- 5 Master Plan (water demand scenario in 2071): identification of alternative supply zones, water mains, pressure zones and DMA design
- 6 Knowledge transfer and Training of the MASKI technicians
- 7 Long term Water losses reduction strategy



**SERVICED  
IMPROVED**



**WATER LOSS REDUCED  
ENERGY – MONEY SAVED**



**CO2  
REDUCED**

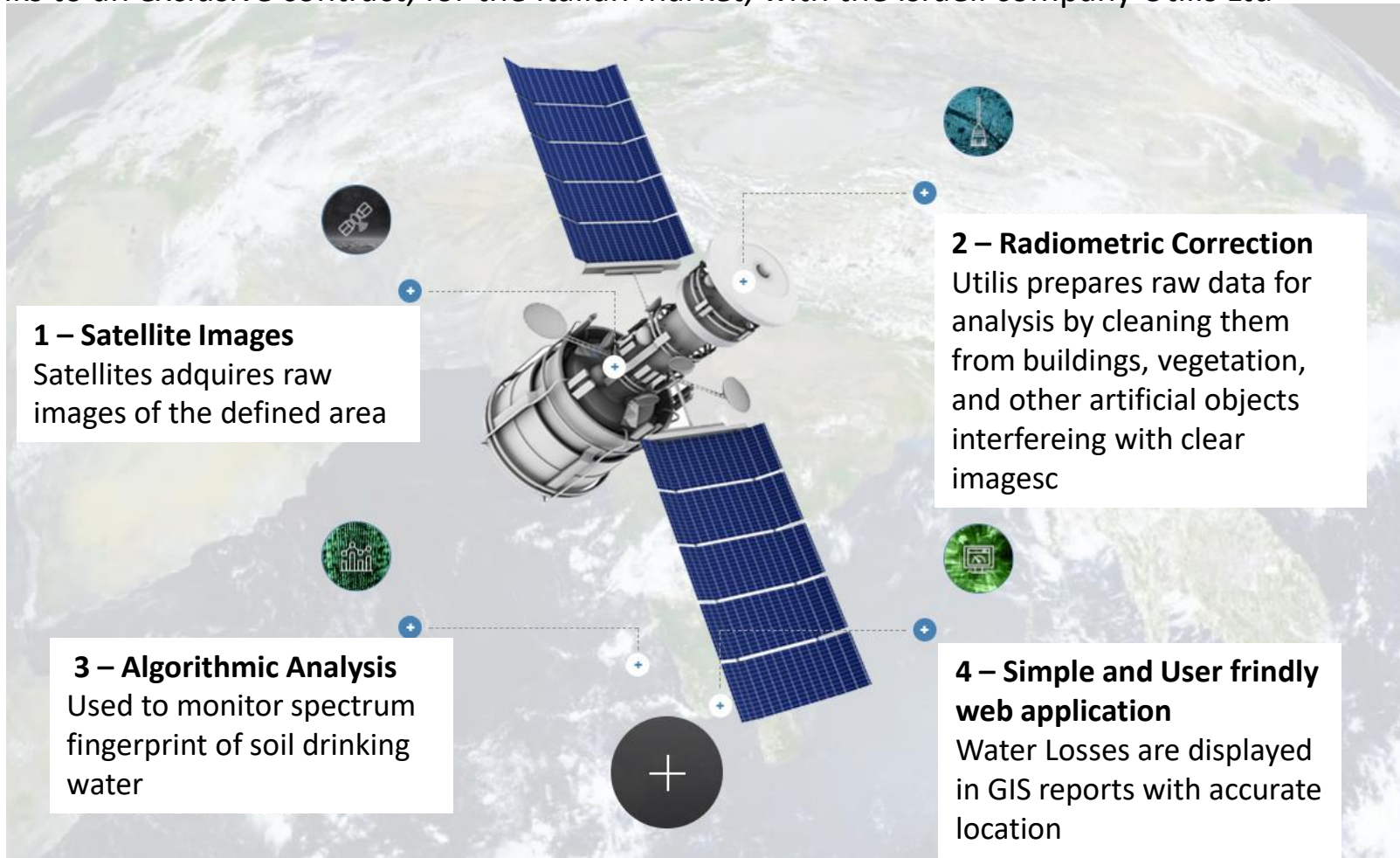


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# Search for Water Losses

## 1 – Pre – Localization

With a satellite 637 km far from Earth, using SAR (Synthetic Aperture Radar) Technology.



## 2 – Localization

- Programming field activities
- Daily reports



## 4 – Repair the damage and restore Water Cycle



## 3 – Dig

With our field technician and specific tools and devices





# In 4 years only, 2f Water Venture become one of the leader Companies in Italy for Water Losses Management

**4  
Years**

**> 40  
Projects**

**Investigation of  
>50.000 km water  
Network**



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## Thank you!

