

# TEAM AquaSmart – Water Leaks

## The challenge

Water leaks are usually the largest component of distribution losses for a drinking water utility provider all across the globe. Clear regulations and acceptable parameters still need to be provided by most governments. The result is an economic and environmental loss. Shown below some key figures of the Turin aqueduct business case:

**22 mc/km/day** – Turin area average pipe water loss

**14,1 M€/year** – Total cost for domestic water supply

**4,2 M€/year** – Total cost due to leakages (avg 30%)

Random process to detect leakages

Matrix structure of the pipelines

## Our Focus

Our project is focused on **“Invisible”** water leakages:

- Small-medium size leakages
- Invisible water flows
- Detection price: <90€/km
- Prevention of water leaks



## The Solution

Our solution is a complete package water leakage detection service based on three main steps:



### Intelligent SW macro detection

- Historical/real time pipe and water flux data
- Urban macro area

### Georadar (GPR) local detection

- Fast GPR soil analysis
- Urban local area
- Precise leak positioning

### Water utilities report delivery

- Leaks location and optimum repair solution is provided to the utility

## Why Invest?

- Global scalable problem
- Highly qualified multidisciplinary Team
- Full support and partnership with CERN, POLITO and SAFM

## Advantages

- Cost: Strong cost reduction for water utilities
- Potential positive economic benefits for final customers
- Environmental: Decrease drinking water waste

## Our Target Market



Policy makers & Regulators



Water & District Heating utilities



Companies

## The Team

- **Alessandro Ferraris**
- **Davide Lora**
- **Giulia Balmativola**
- **Luca Venturini**
- **Luigi Piccarreta**
- **Massimo Verini**

## Achievements and Next steps

- Partnership with HERA group Modena testing facility for field tests (dates are TBD)
- WIP: Survey of Italian water companies water leakages situation
- WIP: Definition of a more focused solution by analysis of competitors and state of the art
- WIP: Definition of a very long term solution-vision