

June 2022



## MONITORING THE HEALTH OF WATER SEWERAGE NETWORKS

### >>> A few years later

In the past few years, the solution has been adopted by several other utilities companies in Italy, in Europe and worldwide such as HERA, VEOLIA, Municipalities of Santiago del Chile and Madrid and others.

*Vincenzo Massimi, Planetek Italia Srl Società Benefit*



BENEFICIARIES	Planetek Italia Srl Società Benefit	Milan Municipality; MM SpA; Hera; ACEA; Iren; ABC Napoli; Aquafin; MPWIK	Integrated Water and Wastewater Services; Technical operators of water and sewage networks	Citizens and Society
SERVICES	<b>TIER 1: SERVICE PROVIDER</b> Sentinel-1	<b>TIER 2 PRIMARY USER</b> The measurements of velocity, acceleration and coherence of Persistent Scatterers (PS) are updated and delivered to users with extremely intuitive Business Intelligence tool.	<b>TIER 3 SECONDARY USER</b> Immediate and reliable geo-information; Facilitated and less costly field measurement campaigns (inspection and repair of infrastructure); Improved workforce efficiency; A comprehensive overview of the system fully remotely.	<b>TIER 4 END USER BENEFICIARIES</b> Increased security of water and sewage networks (security of streets and pedestrian areas); Optimisation of possible water wastes.

Value chain definition following SeBS Methodology - <https://earsc.org/sebs>

### The space-based solution

This Copernicus-based solution was produced by a commercial company for other users such as companies, professionals, agencies, associations, single citizens. From technical perspective, there were some significant performance and automation improvements In the past few years.

### The Usage Maturity Level

The solution is consolidated at a high UML 5. The main reason for this is found in an increased recognition about the effectiveness of the solution at decision making level based on the achieved results and return-of-experience.

Thematic Area



TRANSPORTS, CIVIL INFRASTRUCTURE AND SAFETY

Region of Application



LOMBARDY

Sentinel mission used



S1

Copernicus Service used



-

Usage Maturity Level



5

**ECONOMIC**

- Capital expenditure has been reduced or avoided
- Cost savings of operating expenditure have been registered
- Efficiency gains have been registered
- Reduction of risk has been registered
- The replicability of the solution was achieved

**ENVIRONMENTAL**

- Reduced depletion of natural resources
- Improved risk assessment

**REGULATORY**

No noticeable additional modification/impact on the functioning of the public administration nor on the lives of the citizens since 2018.

**INNOVATION**

- The solution has helped to introduce some innovation in the functioning of the public administration.

**SCIENCE**

- There was an increase in technical/scientific expertise related to Copernicus/EO within the PA

**SOCIETAL**

- Improved coordination and governance has been registered
- Civil security has improved
- Strategic added value was registered for the involved actors
- An increased overall quality of life for citizens has been detected

Benefits classification following SeBS Methodology - <https://earsc.org/sebs>

**Interesting facts...**

The collaboration with Milan Municipality is on-going since MM adopted Rheticus® Network Alert to monitor the entire sewage network for the next 5 years. Further, the service registers a significant renewal rate worldwide confirming the successful results in improving the effectiveness of the utilities predictive maintenance. It has the largest proven track record of subscribers, being activated by some of the main utilities in the world, and leaders in their sectors in Europe, North America, and South America. Some of our customers are United Utilities, Veolia, Saur, Gruppo Hera, MM, ACEA, SABESP.

**Outlook to the future**

Rheticus® Network Alert was specifically designed for definition of inspection campaigns. In the previous years this solution was awarded with: i) the Urban Environment Award at World Smart City Congress 2019 in Barcelona and ii) Best software at the Wichmann Innovations Award 2018 at the Intergeo. At the moment, Rheticus® Network Alert is in a patent-pending position of the Inspection Priority Score feature.

**Contacts**

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**ABOUT COPERNICUS4REGIONS**

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