

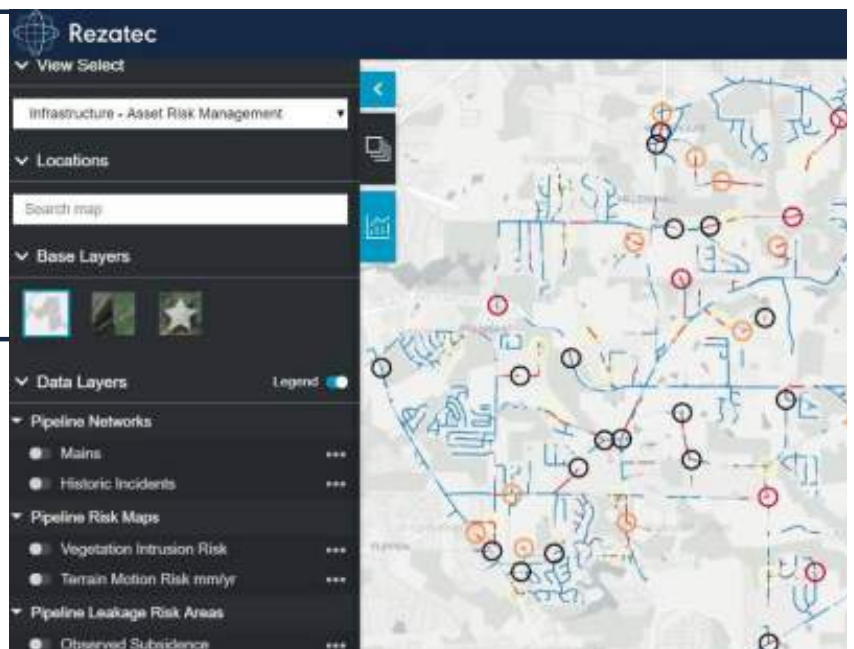
WATER INNOVATION

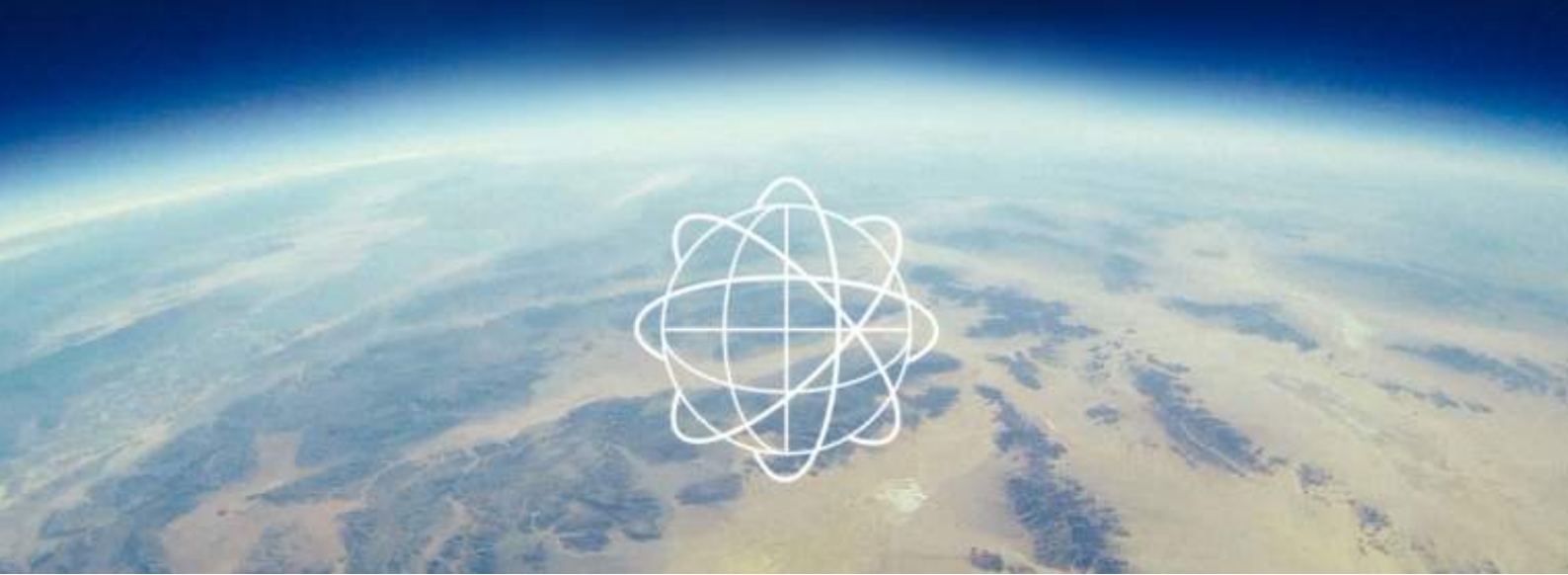
LEADING THE WAY WITH EARTH OBSERVATION SERVICES IN THE WATER INDUSTRY

A thought leadership article produced by Rezatec in conjunction with Isle Utilities for a global water industry point-of-view.



Rezatec





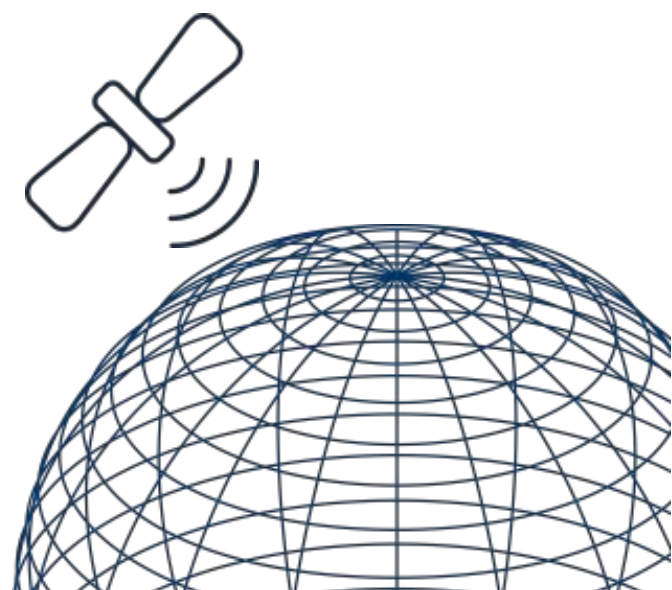
ISLE EXPLORES WHAT MAKES REZATEC TRULY INNOVATIVE

Rezatec utilises Earth Observation (EO) satellite data and advanced remote sensing techniques to provide water utilities with actionable insights which are both sustainable and commercially effective. These insights are critical to support utilities with asset monitoring, failure event detection, predictive likelihood analysis and decision making about water catchments and land-based assets.

Although there are options of traditional ground-based methods, EO techniques offer new perspectives on the world that would otherwise be unachievable. The need for advanced decision support tools is growing as water utilities continue to provide safe wastewater treatment and clean drinking water whilst also tackling global challenges and complying with increasing regulatory requirements. Today Rezatec boasts an impressive client portfolio which spreads over the Agribusiness, Oil & Energy, Water, Forestry, Urban Infrastructure and Commodities sectors.

Rezatec's Asset Risk Monitoring Services is an effective early warning and alerting tool that can be applied to Sewer Pipeline Risk Monitoring, Pipeline Leakage Risk Monitoring and monitoring of large assets such as dams and reservoirs. The Asset Risk Monitoring Services integrate historic and frequently updated satellite-based observations, derived from the interpretation of optical and radar data, into a sophisticated risk model considering the characteristics of the pipeline network including pipe material, depth, age and historic leak locations.

Additionally, geospatial data for the study area such as soils, geology, elevation, slope, drainage, temperature and precipitation, is fed into the model using machine learning techniques to highlight at risk locations that align with higher risk aspects of the network (e.g. high pipeline density). Any Risk Zones are presented as color-coded hotspots with a classification of high, medium or low priority based on the expected likelihood of an incident occurring, and their status is routinely updated as new satellite data becomes available or remedial/maintenance action is undertaken.





THE BENEFITS OF REZATEC'S SOLUTION

The solution has numerous technical and commercial benefits, some of which are listed below:

- + A prioritisation tool for targeting the application of sensors and other more traditional monitoring tools
- + Enabling more efficient deployment of ground resources
- + Non-intrusive solution which integrates with existing network tools and models, complementing existing workflows
- + Data is visualised through easy-to-understand maps, graphics and alerts
- + Reduced likelihood of pipeline related incidents
- + Reduced cost of customer management
- + Reduced non-revenue water loss
- + Industry-validated as one of the leading satellite data analytics companies
- + Reduced repair and maintenance costs due to early intervention
- + Most of Rezatec's solutions use radar data whose quality is unaffected by cloud cover unlike optical satellite data
- + Rezatec is satellite source agnostic so data can be swapped out if required

SO, WHY DOES ISLE LIKE REZATEC'S SOLUTION?

Head of Dealflow, Thomas Jacks, says "few commercial organisations currently offer EO services to the water industry. Rezatec has gained traction with remarkable speed, working with a range of notable customers in applications including catchment management and water/sewage network risk monitoring, a testament to the quality of their services."

He went on to say, "with falling costs to put satellites into orbit and continual improvements in core technologies, EO can only become a more powerful tool for utilities and it is exciting to consider what Rezatec's capabilities will be in 10 years, time."





EARTH OBSERVATION

An ideal decision support tool for the water industry

Rezatec provides satellite data analytics for the global water industry. With the mission to provide an ever-increasing population with clean drinking water and the safe treatment of waste water, the need for an environmentally-sensitive, sustainable and cost-effective approach is a top priority.

Rezatec helps businesses involved in the production, provision and treatment of water make critical decisions about their water catchments and land-based assets through the analysis of sophisticated satellite imagery and data.

Using proprietary algorithms and modelling we can substantially reduce the cost of monitoring and predicting natural and anthropogenic environmental change, providing powerful insight to support catchment decision-making and asset management.

For more information on our unique satellite-derived data analytics products, please contact us on +44 (0)1865 817 500 or visit www.rezatec.com/water

