Rezatec

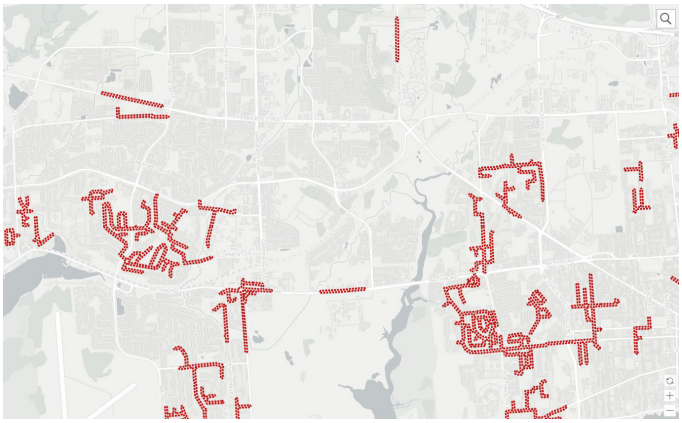
GET PROACTIVE WITH PIPELINE RISK

Identify the top 20% at-risk zones in your pipeline network before failure occurs

Avoid chasing leaks, operate a more proactive upgrade schedule and maximize water value with advanced analytics that deliver new insights.

Minimize Failure. Maximize Value.

Ageing water infrastructure combined with increasingly extreme weather leads to failing pipes, extensive losses and increasing costs. Every two minutes a pipeline breaks in the US, causing an estimated six billion gallons of treated water loss each day, according to Infrastructure Report Card's 2021 Drinking Water whitepaper. That's enough to fill over 9,000 swimming pools. It's clear the reactive approach is not working. Chasing leaks once they've occurred is both disruptive for communities and costly for networks. With the Rezatec Pipeline Risk solution you can get proactive and focus resources in the right place for maximum efficiency.



Pipeline Risk highlights the most critical at-risk sections of pipeline

Advance Warning Using Advanced Data

Pipeline Risk is powered by Geospatial AI and enables you to remotely determine the most at-risk areas of your entire pipeline network before failure occurs. It establishes the likelihood, consequence and cost of breaks using satellite and multiple data feeds fused with the most advanced AI on the market. You can use these frequently refreshed insights to prioritize upgrades, plan and optimize investment, improve productivity and maximize water value.

- Obtain new insights on the condition of your entire network, remotely
- Reduce the cost and time spent finding leaks
- Reduce non-revenue water losses
- Optimize maintenance and upgrade work

Product Overview

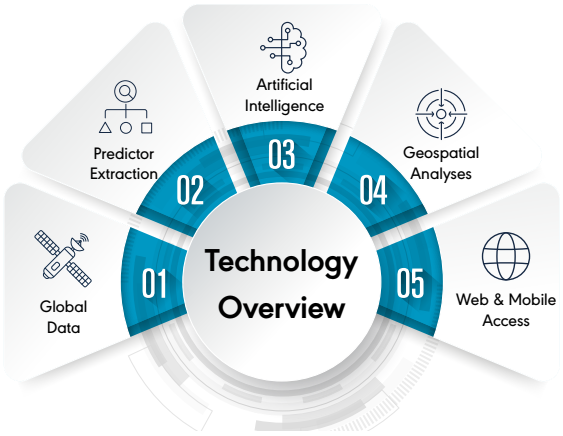
Geospatial artificial intelligence (AI) utilizes advances in high-performance computing to apply machine learning and data mining to extract meaningful information and business insights from geospatial big data. As with any AI solution, the more data we can obtain, the greater the quality of that data and the more accurate the model.

The geospatial data used in our model includes:

- Environmental data, such as soils, topography and weather
- Satellite data including ground movement in millimetres and vegetation growth
- Network data including accurate GIS with pipeline locations and attributes, such as pipe diameter, age and length

This geospatial data is fed into a model, which is built using 'Historic Incidents'. The model divides the network into short sections (not more than 100m) and uses the machine learning to create a Likelihood of Failure rating that is relative to the network.

A second part of the product uses network data to assess the cost of response, repair and restoration of a break. It also identifies the impact, including the proximity to vulnerable buildings, service disruption to customers, collateral damage and transport disruption. We refer to this as the Consequence of Failure metric and can provide this relative to the network area or use historic cost analysis to create a costed Consequence of Failure in monetary terms. Combining both Likelihood of Failure and Consequence of Failure we can deliver Pipeline Risk Value. This highlights the highest risk sections of pipe across the entire network.



How our Geospatial AI works

Geospatial AI

Geospatial AI for Pipeline Risk combines your network data, such as pipeline locations, age, diameter and material, with geospatial data on ground motion, vegetation and soil condition. This data is fed into our AI model, which uses your historical network failure data to identify the pipeline sections at the greatest risk of failure.

About Rezatec

Rezatec's Geospatial AI platform delivers new insights that empower you to manage your ground-based assets and critical infrastructure dynamically, efficiently and at scale. This means you can prioritize investment in the right place at the right time, boost the value of your assets and make informed decisions about resource deployment to super-charge productivity.

CONTACT US TO FIND OUT MORE

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