

## MAKE PROACTIVE DISTRIBUTION NETWORK MANAGEMENT A REALITY

Confidently invest in the top 20% of highest risk potable water pipe to focus upgrade resources on what matters. And make proactive network management a reality.

### Beat exponential budget increases

Water utility leaders are challenged with reducing water losses, identifying and upgrading deteriorating mains, while expanding network supply to meet growing demand. But, as infrastructure continues to age and weather events like drought, flood and freeze/thaw affect the terrain surrounding buried assets, the job of identifying exactly the pipes at risk of imminent failure becomes more challenging.

Added to this, many utilities are forecasting a 5X increase in required budget over the next decades to maintain and replace distribution pipelines. But the reality is that this level of budget increase is simply not sustainable.

### Get proactive with geospatial AI

That's why proactive network management is starting to gain pace among forward-thinking utility leaders as they look at new ways to predict the risk of potential failure in the network, getting ahead of repairs and upgrades before problems start, driving water losses to a minimum and freeing up budget to invest elsewhere.

Water leaders all over the world are already making this proactive approach to network management a reality. These forward-thinking executives are using precision geospatial AI, fusing predictive algorithms with satellite, environmental and their own network and GIS data to supercharge their decision making.

They're cutting water loss by up to 55%, saving a third in repair costs, and justifying capital improvement and network expansion investment with new conviction. Plus they're achieving RoI within as little as six months and making field investigations 6 times more effective.

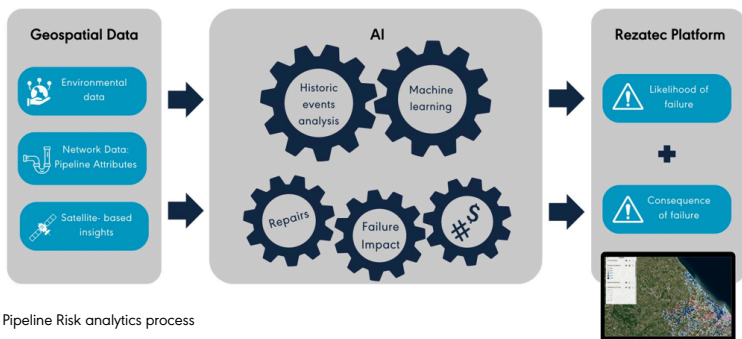
### Zero-in on what matters

Pipeline Risk brings next-level accuracy to predict the highest risk of pipeline failure across your entire distribution network, enabling you to get ahead of failure - and upgrade - ahead of time.

Our precision geospatial AI platform combines 110 data variables across your network attributes, satellite and environmental data, including ground motion, vegetation vigor and moisture, soil pH and type, slope, topography, pipe materials, length, diameter, break histories and locations. It's this volume and breadth of data that drives 80%+ accuracy risk predictions.

### Predict risk with next-level accuracy

Pipeline Risk combines the greatest variables and volume of data that drive the next-level accuracy you need to confidently and proactively transform network maintenance and renewals.



Pipeline Risk analytics process

Rezatec’s patented AI model analyses this data, using historic events analysis and machine learning to determine the unique failure signature for each pipe segment in your network. The model is iterative: the more verified data we input over time, the more accurate it becomes. Which is why we work with you to double-validate its predictions and outputs, and feed additional learnings back into the model for enhanced updates.

### Double-validation drives confidence

Pipeline Risk Field Validation establishes superior levels of accuracy by precisely locating the highest risk degraded segments of pipe enabling you to accelerate your switch to proactive network management.

Field Validation includes both a desktop verification of the initial risk predictions, and an on-the-ground confirmation of Likelihood of Failure scores, plus a non-invasive condition assessment or leak detection exercise.

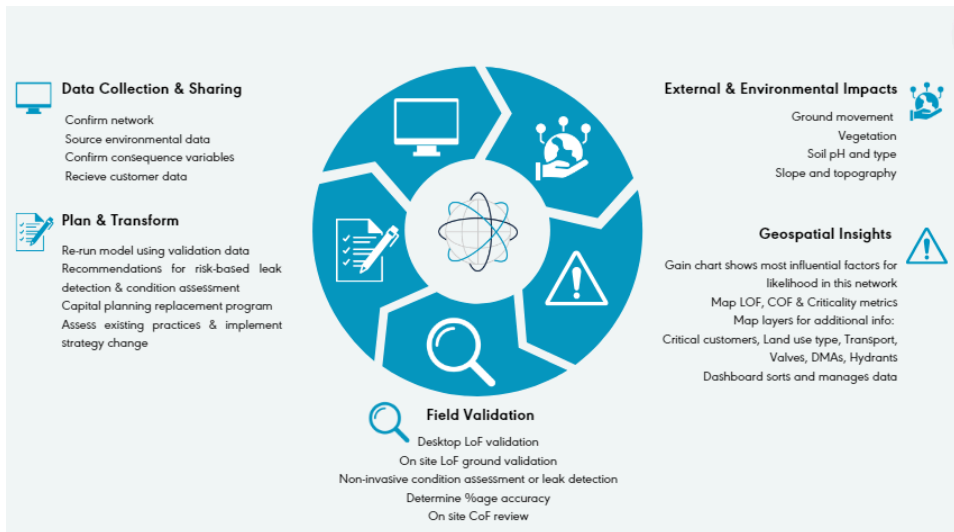
Working with our specialist engineering consulting partners, Pipeline Risk’s analytics target our field engineers on the highest priority risk areas, making your investment in leak detection and condition assessment 6 times more effective.

### Accelerate proactive network management

In addition, our engineers feed field validation data back into the AI model to super-charge precision, and make recommendations for further assessment, monitoring, capital planning and replacement. Our teams work with you in an iterative cycle to accelerate your transformation towards proactive network management.

### Harnessing the power of geospatial AI

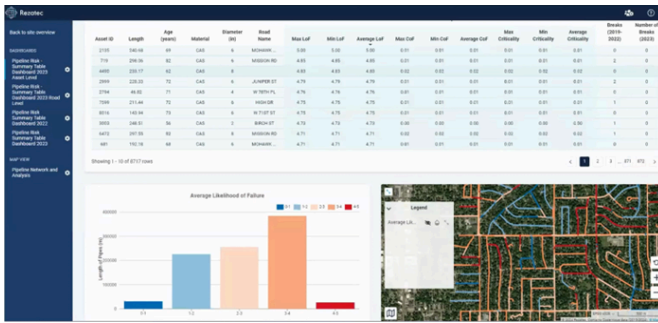
Our platform puts complex geospatial artificial intelligence and machine learning into the hands of water leaders, making its powerful insights easy to access and straightforward to use. Charting features enables users to easily drill down into data sets and graph different data sets for more comprehensive analysis and comparison.



The Pipeline Risk transformation methodology

*“Rezatec’s technology provides a comprehensive view of our entire system and helps us to understand where our network is likely to fail. It’s the most logical, best first place to start.”*  
 Rick Wahlen, Utility Operations Manager, Eden Prairie





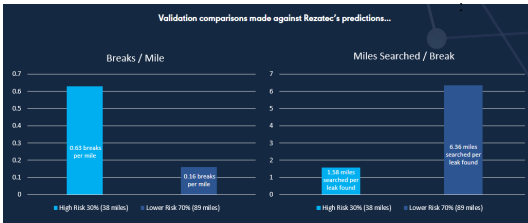
Rezatec platform: Pipeline Risk dashboard

## Comprehensive risk-informed predictions

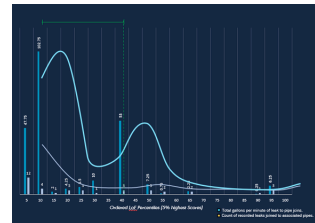
Likelihood and consequence of failure, plus criticality predictions, are visualized on your Rezatec platform dashboard alongside a fully digitized map of your network. Drill down to analyze risk metrics by pipe condition, LoF percentiles, material and age.

## Super-charge your decision making

We work with our customers to validate the accuracy of their insights. We feed validation data back into our risk models to drive even greater certainty. The more refined data we feed into the model over time, the more precise the insights, super-charging your decision making.



Prioritising leak detection & OPEX



Recorded leaks by LOF percentile

Water utility leaders around the world are operationalizing Pipeline Risk's insights in the following ways:

### Identifying the highest-risk water mains

- Precise direction within problematic network areas
- Targeted CIP upgrades that incorporate the highest-risk pipeline

### Forward look at the entire network to calculate & prepare for future failures

- Using historic environmental, pipeline attribute and break data, Pipeline Risk predicts future failure – age is not the only factor
- Accurate predictions for highest likelihood to fail areas

### Justifying upgrades and prioritising leakage investigation to reduce breaks

- Additional insights to justify and defend upgrades or keeping existing mains
- Focusing investigations on highest risk areas to reduce Non Revenue Water.

*"The result? We proved that Rezatec's risk model was 78% accurate in predicting likelihood of failure."*

Jason Beyer, GIS Lead, WaterOne

