

BRINGING ARTIFICIAL INTELLIGENCE TO WATER MAIN CONDITION ASSESSMENTS

MACHINE LEARNING TAKES PIPE CONDITION ASSESSMENTS INTO THE NEXT GENERATION

Aging drinking water mains are facing an increasing number of failures leading to service interruptions, higher operating costs, and non-revenue water loss. Some failures cause much bigger financial or socioeconomic impacts than others. With fiscally tight budgets, water utilities face an uphill battle discerning which pipes in their system need to be replaced and when.

Artificial Intelligence, specifically Machine learning, can make a significant impact in buried water infrastructure asset management. Fracta is bringing this technology to water infrastructure, helping utilities make fast, accurate and cost-efficient decisions associated with water main repair, rehabilitation and replacement.

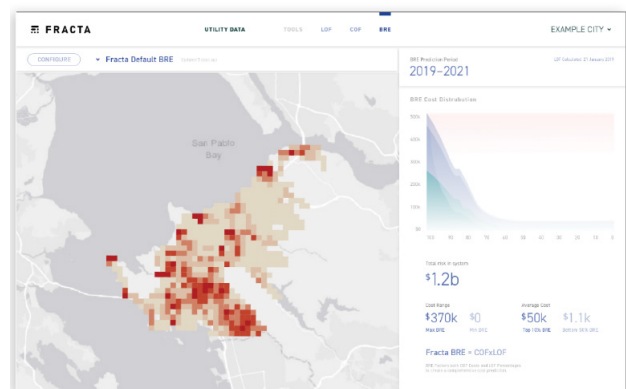
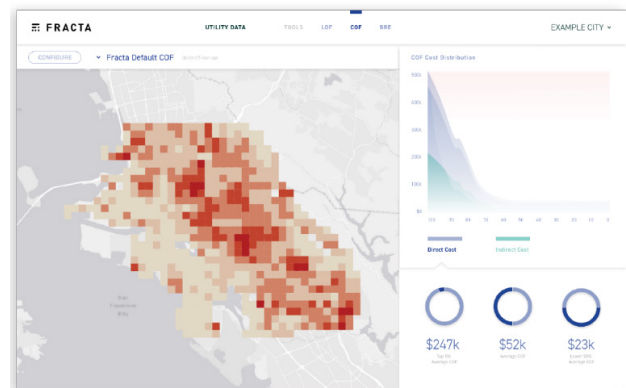
LIKELIHOOD OF FAILURE x CONSEQUENCE OF FAILURE = BUSINESS RISK EXPOSURE

Fracta's cloud-based software solution uses Machine Learning to assess the condition of drinking water distribution mains. Fracta LOF determines the statistical probability that a water main will fail, leveraging existing data with hundreds of variables.

Fracta COF determines the consequences, or severity, of the failure and quantifies the direct and indirect costs of those water main failures using a Triple Bottom Line monetized approach.

LOF and COF are then used in the Business Risk Exposure (BRE) formula: $LOF (\%) \times COF (\$) = BRE (\$)$. Fracta calculates a utility's BRE in terms of direct and indirect costs.

This approach gives an objective criticality score, an assessment for the entire water distribution system and translates the results into financial terms water engineers, planners and finance professionals can use to make fast, accurate and capital-efficient risk mitigation decisions about buried water main infrastructure, including allocation of direct inspection for leak and repair/replacement assessments.





Fracta LOF, COF and BRE are part of the Fracta SaaS platform that is fully integrated with Esri's market leading ArcGIS software. The Fracta software platform can be connected to other important software applications used by water utilities, such as Enterprise Asset Management (EAM), Computerized Maintenance Management Systems (CMMS), and Hydraulic Modeling.

INCORPORATE MACHINE LEARNING CONDITION ASSESSMENT INTO YOUR ASSET MANAGEMENT PROGRAM

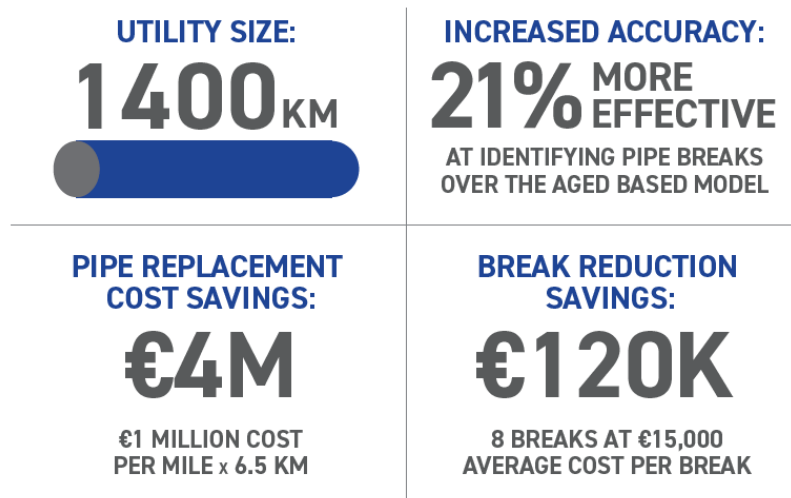
Machine Learning supports a new way of aligning maintenance, repair and replacement strategies. Asset Management planning can now take advantage of Fracta's innovative Machine Learning to assess the condition, costs and business risk of all aging buried water main segments.

Fracta enables fast, accurate and cost-effective water main repair, rehabilitation and replacement decisions that better allocate capital expenditures and operating expenses.

The Fracta solution can be capitalized on a multi-year subscription basis. With Fracta, as part of your underground pipe performance evaluation, utilities can establish an objective, data-driven approach to satisfy the GASB 34 Modified Approach requirement for a systemwide condition assessment. Additionally, utilities can move away from the inaccurate depreciation of sustainable infrastructure systems, improving the utilities' valuation and accuracy of financial statements.

Fracta empowers a utility to move from reactive to preventative and predictive water asset management best practices, capturing even more cost savings while providing the following benefits:

- Avoid economic impacts incurred from water main breaks
- Reduce time required by accounting to report on buried infrastructure systems
- Increase accuracy and value of financial statements
- Identify needs
- Justify and allocate funding



LET US HELP YOU JUSTIFY YOUR WATER MAIN ASSET MANAGEMENT FUNDING

Request a demonstration at www.fracta.eu