Oldcastle Infrastructure™
A CRH COMPANY

CIVILSENSE™

Predictive Risk Analysis

AI driven analytics for a more complete view.

Predictive Risk Analysis is an AI driven analytics capability that evaluates both the likelihood and cost of pipe failures using interconnected factors such as soil conditions, pressure zones, pipe material, installation era, and local weather patterns. This system leverages a multitude of data points from utilities worldwide to build a highly adaptive model tailored to each unique water network. By incorporating environmental and operational variables often overlooked in traditional methods, it produces a more complete understanding of system health and expected asset lifespan.



Turning Risk Intelligence Into Action

The solution predicts which pipes are most likely to fail by analyzing real world behavior patterns and identifying correlations that indicate elevated risk. Beyond failure prediction, it can detect hazardous materials such as lead or galvanized components before they become a public health concern. The platform also supports utilities by prioritizing capital and maintenance projects based on risk, cost, and impact—helping teams reduce emergency repairs, extend asset life, and plan investments with greater confidence.

All the Components for Intelligent Risk Analysis

- **Predictive AI:** Our market-leading cloud-based algorithm acoustic and kinetic pipeline data.
- **CivilSense Portal:** Track progress and review all your activity 24/7 on your desktop or via API to your existing platform.

A More Accurate, Adaptive Approach to Risk

Predictive Failure Forecasting goes beyond traditional asset management by analyzing hundreds of interconnected environmental, operational, and contextual factors—not just age, diameter, and break history. Its AI-driven models continuously learn from global utility data and adapt to each local system, delivering more precise and scalable insights that reflect the true behavior of complex water networks.

Delivering Value Across Capital and Operations

Predictive Failure Forecasting empowers utilities to prevent failures instead of reacting to them—reducing emergency costs, system downtime, and public safety risks. By identifying which assets pose the greatest threat and which can safely be deferred, it supports smarter capital planning, minimizes unnecessary replacements, and maximizes budget efficiency. Ultimately, it helps utilities deliver safer, more reliable service to their communities while avoiding costly disruptions and ensuring long-term resilience across their infrastructure.

Backed By Proven Industry Leadership

Oldcastle Infrastructure is the foundation communities build on.

For more than 50 years we've partnered with our customers to solve North America's biggest infrastructure challenges. Across water, energy, and communications we bring more than 16,000 precision-engineered products, matched with design expertise, maintenance support, and on-time delivery. We innovate in material science, technology, and digital solutions to deliver what customers need today, and for the decades ahead.

As part of CRH, we're backed by one of the largest, most trusted infrastructure companies in the world. Our unmatched scale, experience and product breadth means that we deliver what no one else can—full-scale solutions.





CivilSense™ is an intelligent water platform designed to transform how municipalities, utilities, and engineers manage, protect, and expand their networks. This end-to-end suite of smart water solutions fuses advanced AI, deep industry expertise, and powerful technology into one unified platform designed to help ease water network management. With CivilSense, teams can spot risks before they escalate, predict costly failures and blockages, and unlock new efficiencies across inspection, repair, remediation, and replacement.

Predictive Risk Analysis Starts Here.

LEARN MORE

Trusted partnerships.
Full scale solutions.

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