https://www.xylem.com/en-us/making-waves/water-utilities-news/xylem-smartball-pipediver-assess-pipeline-no-disrupting-service/

Xylem's SmartBall and PipeDiver assess pipeline without disrupting service

When a critical water pipeline burst in Tarragona, a port city in Spain's Catalonia region, the local water consortium needed to quickly assess the pipeline's condition. Without disrupting service to customers, Xylem's SmartBall® and PipeDiver® technologies detected 12 leaks and targeted three pipe sections in need of repairs.

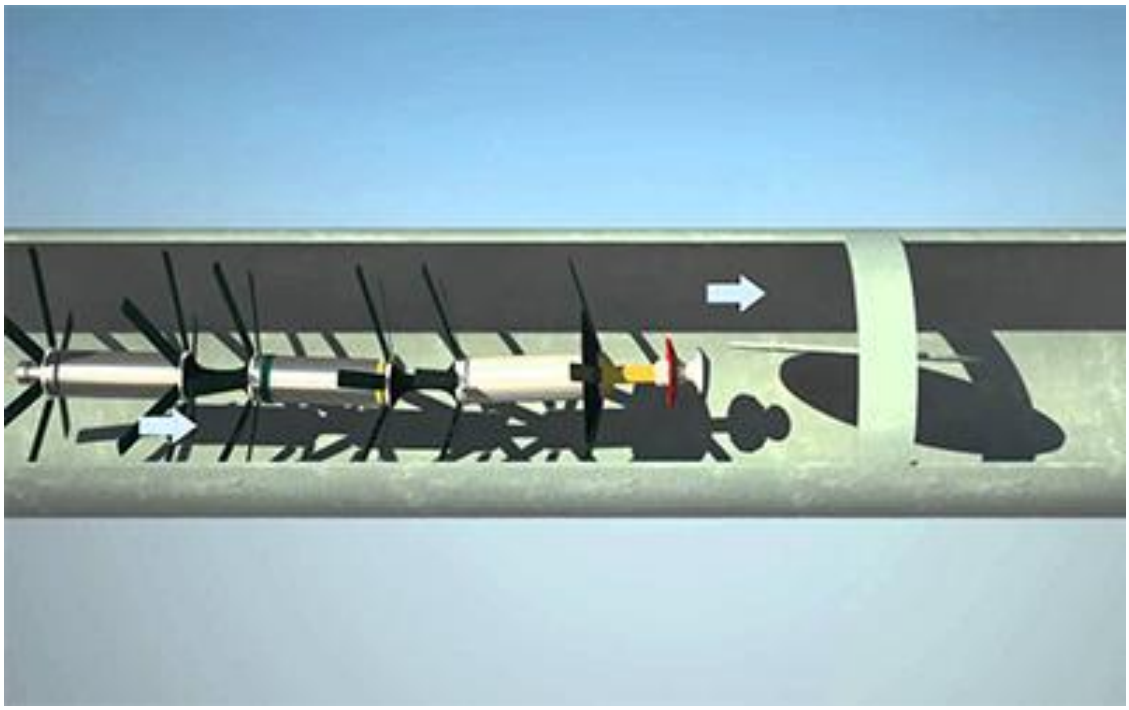
The Tarragona Water Consortium (Consorci d'Aigües de Tarragona) captures, treats and distributes drinking water to more than 60 municipalities and 25 industries in the Tarragona region. In January 2020, the Consortium experienced a catastrophic failure on their critical 75-kilometer, 1600-millimeter pipeline.

This pipeline failure caused widespread damage and had a major impact on the water supply to about 750,000 people and key industrial clients. If the failure occurred during the peak summer tourism season, it could have affected more than 1.5 million people.

The Consortium was worried about another failure happening and decided to inspect the entire pipeline for any other weak points. The Consortium partnered with Xylem to perform a condition assessment using a combination of inline leak detection and electromagnetic technologies.

Accurate results with Xylem pipeline assessment technology

Xylem's acoustic SmartBall platform detects leaks and gas pockets and maps pipeline networks. In concrete pressure pipe, Xylem's PipeDiver platform detects broken wire wraps using electromagnetic technology. More broken wire wraps mean greater pipe distress.



Both platforms are free-swimming condition assessment tools that operate while the pipeline remains in service. These long-distance tools can assess pressurized water and wastewater pipelines in a single deployment. They provide utility owners with an easier, safer and less costly alternative to inspection methods that require shutdown or dewatering.

Consortium gets an immediate return on investment

The inspections took place over two weeks in June 2020. The results showed that most of the pipeline is in excellent condition. However, the SmartBall platform detected 12 leaks that were later repaired. In addition, the PipeDiver platform identified three pipe sections with signs of deterioration.

The PipeDiver platform's precision enabled very targeted repairs on these three pipe sections. The Consortium excavated the pipes in November 2020, and their condition matched the damage reported by Xylem. Cracks and corrosion on the excavated pipes indicated that future failures were likely.

The Consortium immediately realized a return on investment by preventing the failure of these three pipe sections. The project has also extended the remaining useful life of the pipeline, a critical and expensive asset. The Consortium has demonstrated industry leadership by implementing cutting-edge technologies to optimize spending and service to its customers.

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