

Integrating technologies to reduce leak run times

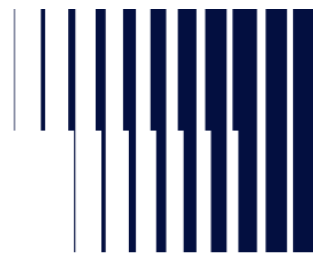
Global Leakage Summit, 2026



 **Optimatics**
a SUEZ company



Summary



1. Run time is the real enemy

2. The trap of tool-by-tool thinking

3. The funnel: one workflow, five layers

4. The way of working – and the evidence

An audacious goal...



World ▾ Business ▾ Markets ▾ Sustainability ▾ Legal ▾ Commentary ▾ Technology ▾ Investigation ▾

Suez signs €2 billion water management contract in Oman

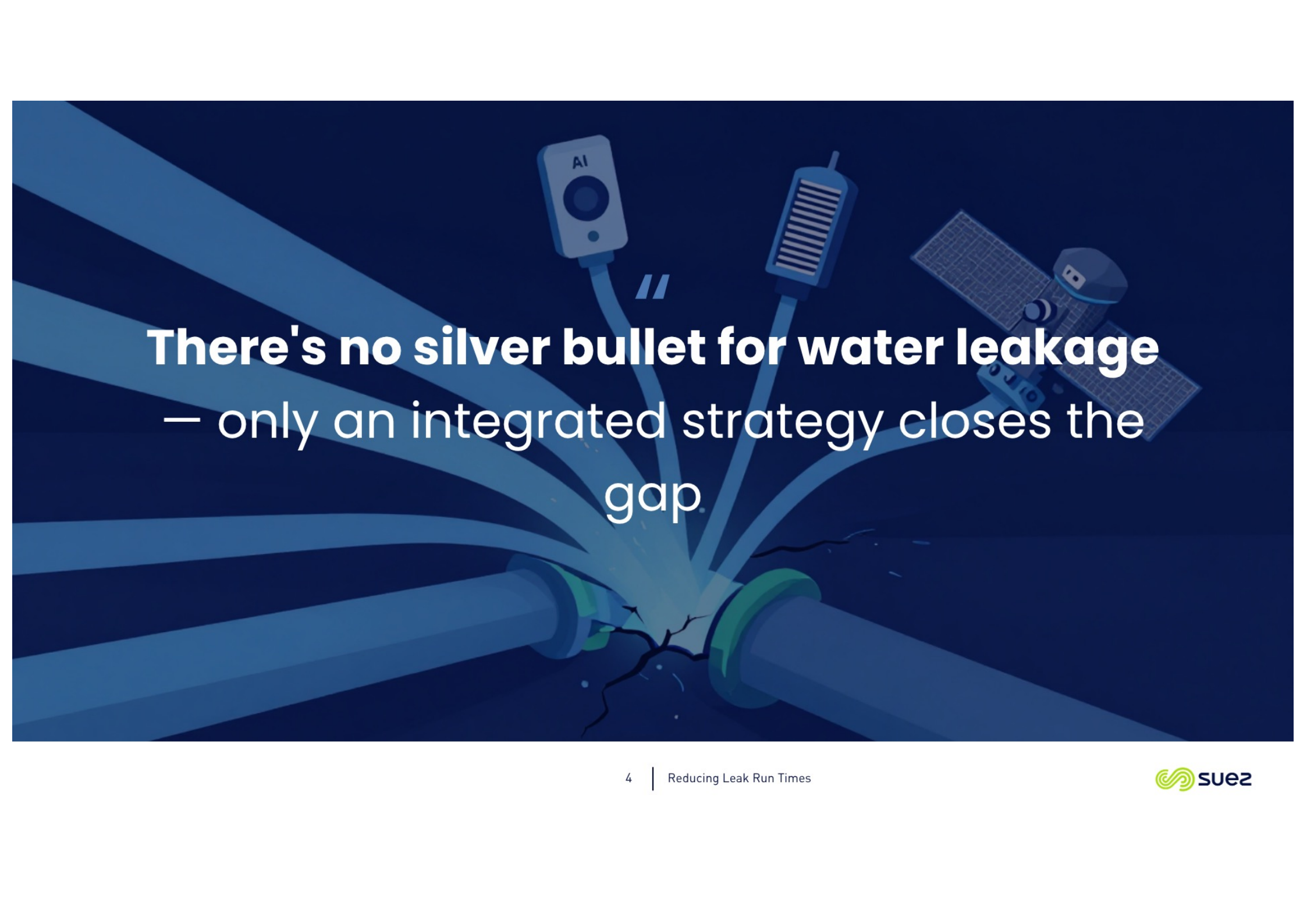
By Reuters

June 29, 2026 12:39 PM GMT+1 · Updated June 29, 2026



Suez said the agreement contains 33 key performance indicators that will measure service quality, infrastructure performance and operational efficiency while determining the consortium's remuneration.

The principal targets include reducing water losses from 34% to 11% by 2040, maintaining a high-quality 24-hour water supply and improving preventive maintenance to increase reliability and extend asset lifespans.



There's no silver bullet for water leakage
— only an integrated strategy closes the
gap.



1. Run time is the real enemy

1. Run time is the real enemy



flow rate × run time

Awareness

Someone has to know a leak exists.

Owned by monitoring teams – days to weeks.

Location

Someone has to find it on the ground.

Owned by field crews – hours to days.

Repair

Someone has to fix it.

Owned by contractors – days to weeks.

No single technology shortens run time much –
an integrated workflow shortens all three at once.



2. The trap of tool-by-tool thinking

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01

Isolation illusion

Every technology works "as advertised" in isolation – and run times stay long

02

Classic failure

Satellite POIs sit in a report for weeks, because ground follow-up belongs to another team or contractor

03

The real bottleneck

The bottleneck is the handoffs, not the hardware



3. The funnel: one workflow, five layers

3. Five layers, one workflow

one delivery chain — each layer narrows the search for the next

SCREEN

MONITOR

PINPOINT

FIX

PREVENT

km² — satellite SAR

DMA — flow, pressure, acoustic

metres — acoustic + in-pipe

work order — ranked by loss

system — Optimizer™ + Inflowmatix

Screen – km² scale

Satellite SAR

No deployment needed

64 countries | 600+ customers

100K+ leaks verified globally

23,000+ leaks in the UK since 2017

60% hit rate (UU)

Satellite Leakage Detection Project

50,000+ km of network scanned

We have covered the whole of the United Utilities area



10

Satellite scans

Scans of various km



5,963

POIs investigated

POIs investigated so far



3,613

POIs outstanding

POIs still to be investigated



3,584

Leaks found

Total leaks found and still counting



60%

Hit rate

Hit rate of investigated POIs



Delivering **actionable insights** to drive efficient leakage management, reduce water loss and support a more **resilient water network**

Monitor – DMA scale

Flow, pressure & acoustic

Night-flow generation confirms active loss rate

iAcoustic: AI acoustic analysis built into AQUADVANCED – up to 5x more leaks found, 20% loss reduction

Up to 30% reduction in losses within a year

Up to 80% of invisible leaks repaired – ROI < 1 year

AQUADVANCED® Water Networks

Benefits & Impact



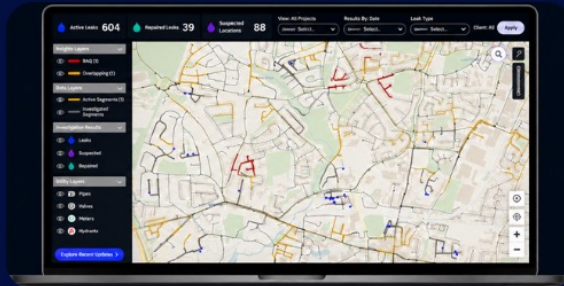
Pinpoint — metres

No handoff gap

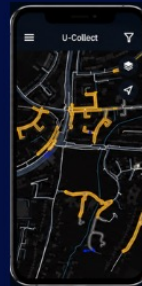
- Distribution: SUEZ teams survey directly from ASTERRA POIs cross correlated with Aquadvanced insights
- Leaks-per-crew-day multiplies vs. blanket sounding
- Trunk mains: Aganova Nautilus in-pipe sphere – 4,000+ km inspected, 1,200+ leaks found

U-Collect Platform

One integrated platform from desktop analysis to field investigation



Dashboard
Web-based analysis and investigation



Mobile app
Field verification and navigation

Desktop Analysis

Identify potential leaks with satellite intelligence.



Field Investigation

Verify and inspect directly in the field.



Cloud Synchronisation

Real-time updates for better decision making.

One connected workflow from satellite detection to verified repair

Nautilus



Trunk Main Leakage Detection & Condition Assessment Inspections

- Pinpoint leaks
Detect leaks with high accuracy
- Access condition
Understand asset and pipe condition
- Protect critical assets
Prioritise interventions and reduce risk



Fix & prevent — closing the loop

Interventions triggered by Rol

- Events flow into work management – Optimizer™ then closes the loop
- Leak history drives DMA design, sensor placement, pressure management, rehab targeting
- Inflowmatix: pressure-transient monitoring flags surge and burst risk before failure
- Six utilities, real audited Optimizer™ results:

Utility	What Optimizer™ did	Benefit
Scottish Water	16 PRVs optimised – Glencourse Zone	8% reduction £0 CAPEX
Bristol Water	Up to 50 PRVs optimised – Barrow Zone	6% reduction £0 CAPEX
Thames Water	Valve & pump control – Hammersmith/Putney	>5% reduction >£1.5m avoided
Anglian Water	Network-wide pressure calming	10% indicative In progress
Irish Water	4 DMAs optimised – Anglesea Rd	16% reduction £0 CAPEX
South West Water	Full network valve optimisation	23% opportunity Identified

One leak's journey



6,695m trunk main

- July 2024: Nautilus surveys the main in one pass, no service interruption
- A week later: one major leak confirmed – 0.8 MLD, no surface signs
- Repaired – est. 1 MLD recovered, unseen for years

Success Story Bristol - UK

INTRODUCTION

This inspection took place in July 2024 in North Somerset, South West England, in a 100-year-old cast iron raw water pipeline operated by Bristol Water. Given the pipeline's rural location, traditional leak detection methods were challenging, leading to the deployment of the advanced Nautilus system operated by the local SUEZ team.

PIPELINE

- Length: 6,695 m
- Pipeline Diameter: 8.34"
- Water Speed: 1 m/s (25 MLD) - 0.4 m/s (10 MLD)
- Pressure: 1 - 6 bar
- Pipeline material: Cast iron

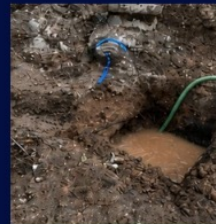


LEAK EXPOSURE & REPAIR

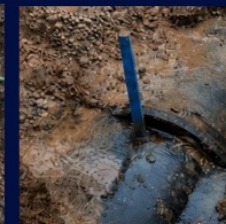
With the coordinates provided by Aquapea, the customer proceeded to expose and repair the F1 leak.

The total volume of water recovered exceeded 1 MLD.

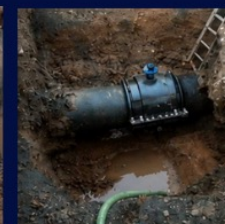
No signs of surface leakage were visible to the naked eye, implying that the leak had been there for a long time.



1. Leak location identified



2. Leak exposure - near extraction point (F1)



3. Pipeline uncovered



4. Repair completed - clamp installed

What changes for each phase of run time



- Awareness: periodic survey (months) → continuous analytics + satellite sweeps (days)
- Location: blanket sounding → POI-guided teams + in-pipe inspection, all pre-narrowed
- Repair: first-come-first-served → prioritised by loss rate
- Compounding: modest gains per phase = dramatic total cut



4. The way of working – and the evidence

4. The way of working



- One leakage picture – all layers feed a shared event pipeline and target list
- Weekly rhythm: satellite/analytics set targets → acoustic teams confirm → Nautilus campaigns on trunk assets → crews fix → outcomes logged → models and plans update
- Field crews stop searching, start confirming
- KPI shift: track run time per leak, not just ML/day

Evidence it works



SUEZ as a provider of water to >70m people are combining best in practise solutions to deliver benefits, but more is always needed.

UK leaks verified by
satellite since 2017

23,000+

Water loss cut —
AQUADVANCED

30%

Trunk main leaks
found by Nautilus

1,200+

Leakage cut —
Optimizer™

23%

The technologies are mature



- The differentiator is the operating model, not the hardware
- Any two layers integrated beat five layers siloed
- The challenge: what's your average run time – and who owns it end to end?



Thanks

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