AQS by aliaxis

.AQS

Company overview

- Company Overview
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- Key Differentiators
- Technology
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.Key Differentiators



Advanced Acoustic Monitoring – Reduce Non-Revenue Water by up to 20%

AQS utilizes cutting-edge acoustic correlating sensors to detect leaks in transmission and distribution networks. By promptly identifying leaks, AQS ensures rapid response and minimizes water loss.



Human-as-a-Service & In-Depth Analysis Integration – Improves Leak Detection by 50% vs traditional methods

AQS Sensors detect leaks and transmit data to the AQS-SYS Platform, alerting service teams for immediate action.



Environmental Impact & Sustainability

Beyond significant water savings, AQS leak detection strengthens network resilience and lowers operational costs, further reducing energy waste and greenhouse gas emissions from water supply, pump, and treatment processes



Long-term Value and Cost-Effectiveness – ROI in 1 year or less

AQS technology requires fewer sensors per kilometer or mile of the network, providing a reliable, cost-effective, and sustainable solution that contributes to a rapid Return on Investment for large-scale water systems

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.Key Users Benefits

Cost Efficient Network Coverage: With fewer sensors, AQS covers more ground, making monitoring more efficient and cost-effective: up to 300m for Accelerometers and 150 to 750m for Hydrophones – between sensors

Advanced Audio Analysis: We've perfected the art of combining Accelerometer and Hydrophone analytics to ensure no leak goes unnoticed. In networks that incorporate a mix of material types, standard monitoring can fall short. AQS's unique audio analysis capabilities fill this gap, providing an extra layer of surveillance and reliability. It allows daily review of audio files to track the inception and growth of leaks.

Customer-Centric Approach: With its Human-as-a-Service model, AQS goes beyond being a technology provider to become a long-term strategic partner, offering constant support, expertise and updates.

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.Key Users Benefits

Unique Hydrophone Solution for Transmission Lines: AQSense-Edge Hydrophone delivers unparalleled precision in water management with its sophisticated acoustic sensors and flexible communication technologies, designed for an extensive array of pipe sizes and materials to boost network efficiency and reduce water loss.

User-Friendly Yet Analytical: Our platform is designed for everyone—from the seasoned expert to the novice. Dive deep into analytics or use it with ease, the choice is yours.

Shadow Leaks: Our system identifies potential leaks in areas outside direct sensor coverage, offering a full-proof surveillance system.

Remote Management: ability to remotely control and manage on-site sensors, allowing for direct feature adjustments from the AQS-SYS Platform or via Bluetooth for field team convenience.

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.AQS Global



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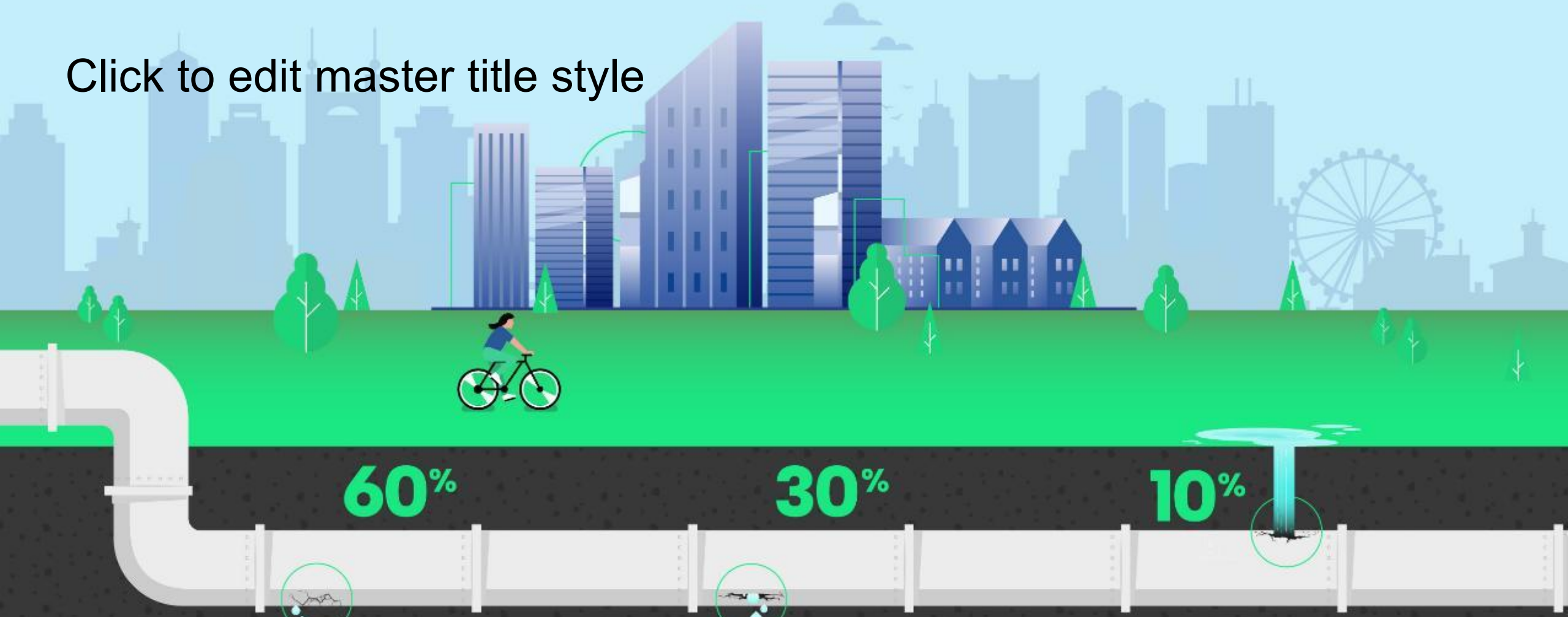
.AQS Technology

At the Forefront of Innovation for Sustainable & Efficient NRW Solutions



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60%

30%

10%

Background Leaks

Often undetectable because they remain concealed underground or within infrastructure.

Unreported Leaks

Can be detectable, when surface. Often occur underground or within concealed sections of infrastructure.

Reported Leaks

Occur in visible sections or areas accessible to utility teams. Requires quick intervention.

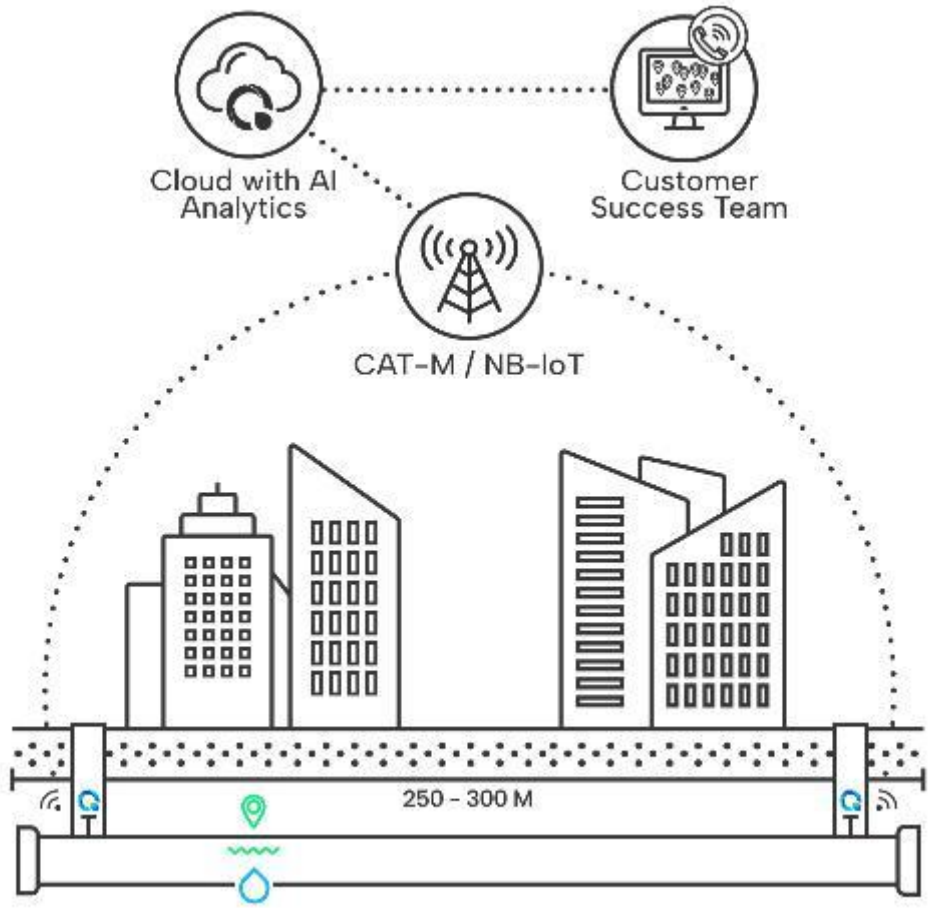
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.AQS Proprietary Leak Detection Technology

Fixed Sensors & Acoustic Multi-Spectral Correlation

How does it work?

- Fixed acoustic sensors are installed on underground valves (1-3 sensors / km).
- Sensor registration is managed via an IoS-/ Android-based application.
- High-performance sensors transmit acoustic information to the cloud for real-time analysis.
- **Multi-spectral correlation*** technology identifies and precisely localizes potential leaks.
- Big Data statistical analysis and AI filter out non-leak-related noise.
- Installed sensors are displayed through a state-of-the-art **user interface****.
- Technical support confirms effective leaks, updates alert statuses, and maintains customer communication.



* Multispectral correlation is an IP-protected technology
** User interface is copyright-protected

Highly-sensitive Fixed Sensors and AQS multi-spectral correlation technology ensure accurate, fully automated leak detection in complex pipe networks, delivering top performance with minimal sensor deployment

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.Distribution Lines



CHALLENGES

- Small to medium ∅ Pipelines – 2″ to 16″
- Average pressure: 43 to 87 PSI
- Various Materials – Cast Iron, Ductile Iron, Asbestos Cement, PVC, PE/HD-PE

AQS SOLUTION

- **AQS Sensors for Above and Below Ground, ACC and Hydrophone**
- Suitable for any material types, including mixed materials networks
- Up to ~300m /1000ft distance between sensors
- Automated system for network monitoring

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.Transmission Mains



CHALLENGES

- Large ⌀ Pipelines – 24” to 86”
- High pressure
- Various Materials (Cast Iron, Ductile Iron, Asbestos Cement, PVC

AQS SOLUTION

- **AQS Hydrophones – unique in the market**
- Build-to-fit any material including PE/ HD-PE
- Up to ~750m/2450 ft (and more) distance between sensors
- Automated system for network monitoring

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.Fixed Solution







- State-of-Art Acoustic Correlating Sensors
- Hydrophone and Vibrating Sensors
- Highest Accuracy and Precision in Leak Pinpointing
- Seamless Sensor Installation Through App
- CAT-M / NB-IoT Communication
- Bluetooth Communication
- Up to 8 Year Replaceable Battery
- Build-to-Fit Any Material Type and Pipe Diameter

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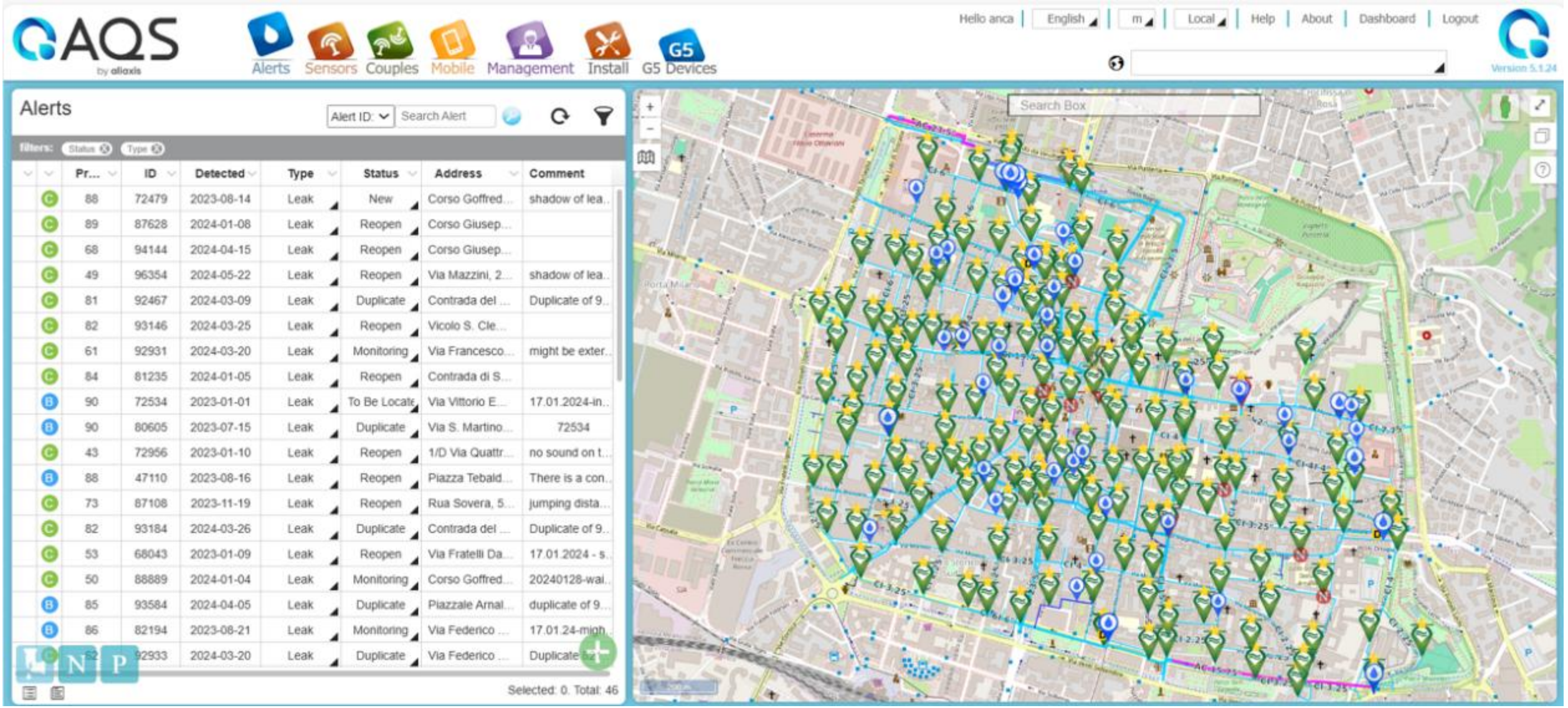
.Optimize Leak Detection Survey & Area Sampling with iQ100B



- ✅ **Survey** ✅ **Sample** ✅ **Detect**
- Simplified Surveys
- Heat Map Generation
- Android, iOS supported & BT compatible
- Field team Training & Monitoring
- Improved Efficiency
- User friendly for Convenience & Comfort

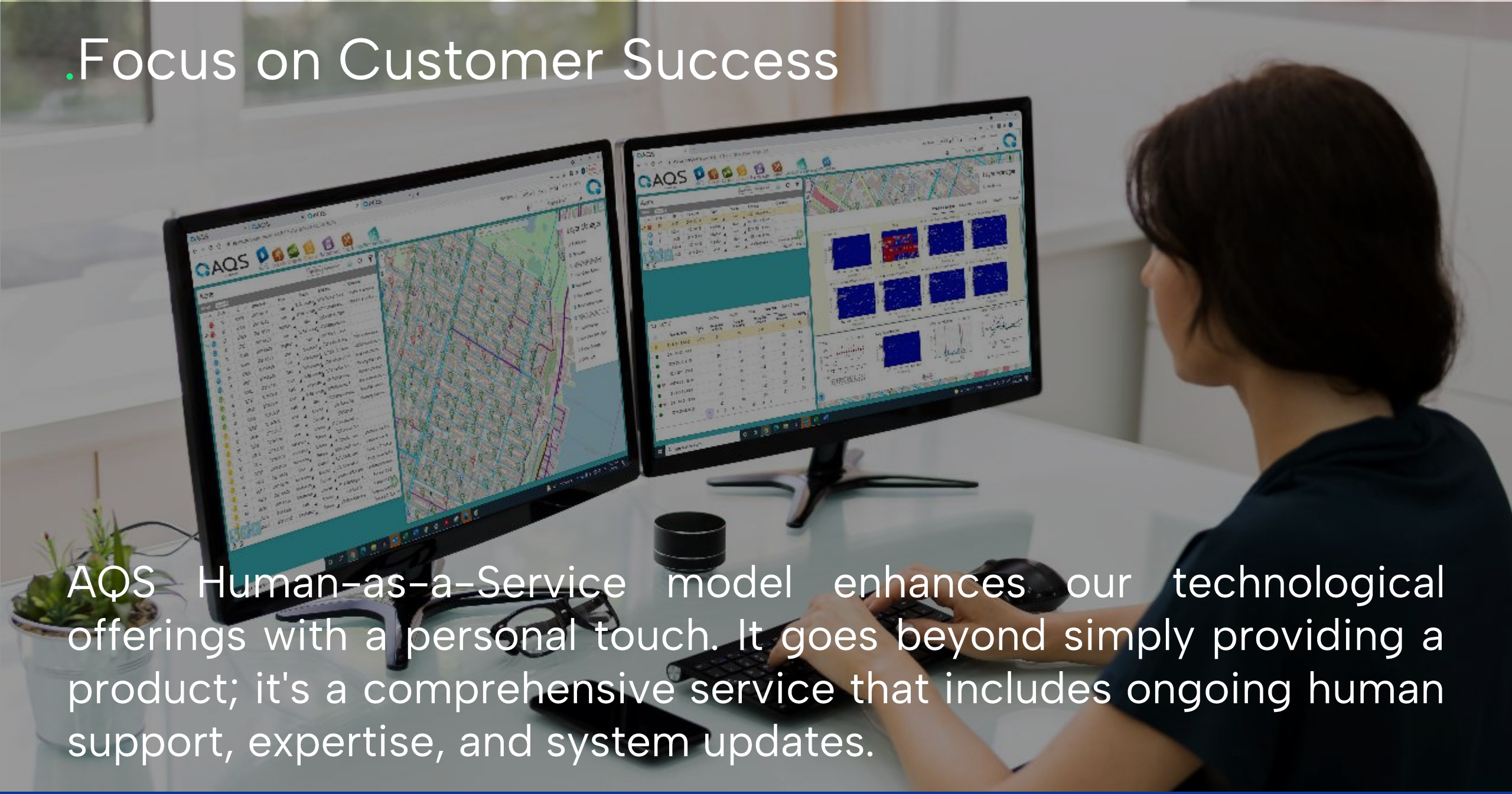
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.AQS-SYS Platform – SaaS



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.Focus on Customer Success



AQS Human-as-a-Service model enhances our technological offerings with a personal touch. It goes beyond simply providing a product; it's a comprehensive service that includes ongoing human support, expertise, and system updates.

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AQS Projects

Field-proven business cases

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