



SMART MOBILE INSPECTION SYSTEM

Even a single light failure in a tunnel can risk lives.

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**SMART
INSPECTION MATTERS**

The Asia-Pacific Tunnel Challenge



Case Example: Taiwan Suhua Highway Improvement Project

Infrastructure Complexity 28,701 inspections/yr

48 km of Tunnels	132 Device Types	500+ Failure Modes
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Inspection Workload 23,552 labor hours/yr

140 Inspection Teams	2,944 Deployments Annually
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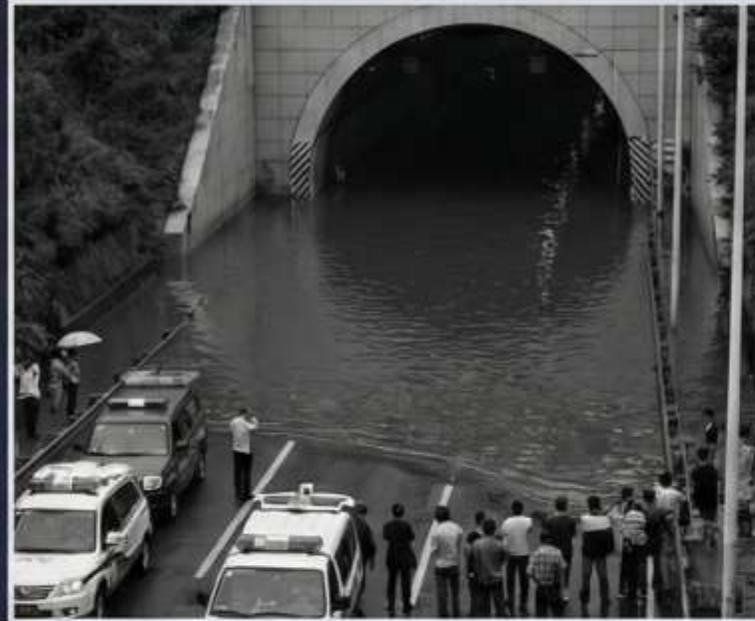


 Lane Control Signal	 Water Mist Nozzle	 Emergency Phone	 Fire Hydrant
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We Find the Failure After the Disaster. We Are Always Too Late.



Japan, 2012: Rusty bolts missed during inspection. 9 fatalities.



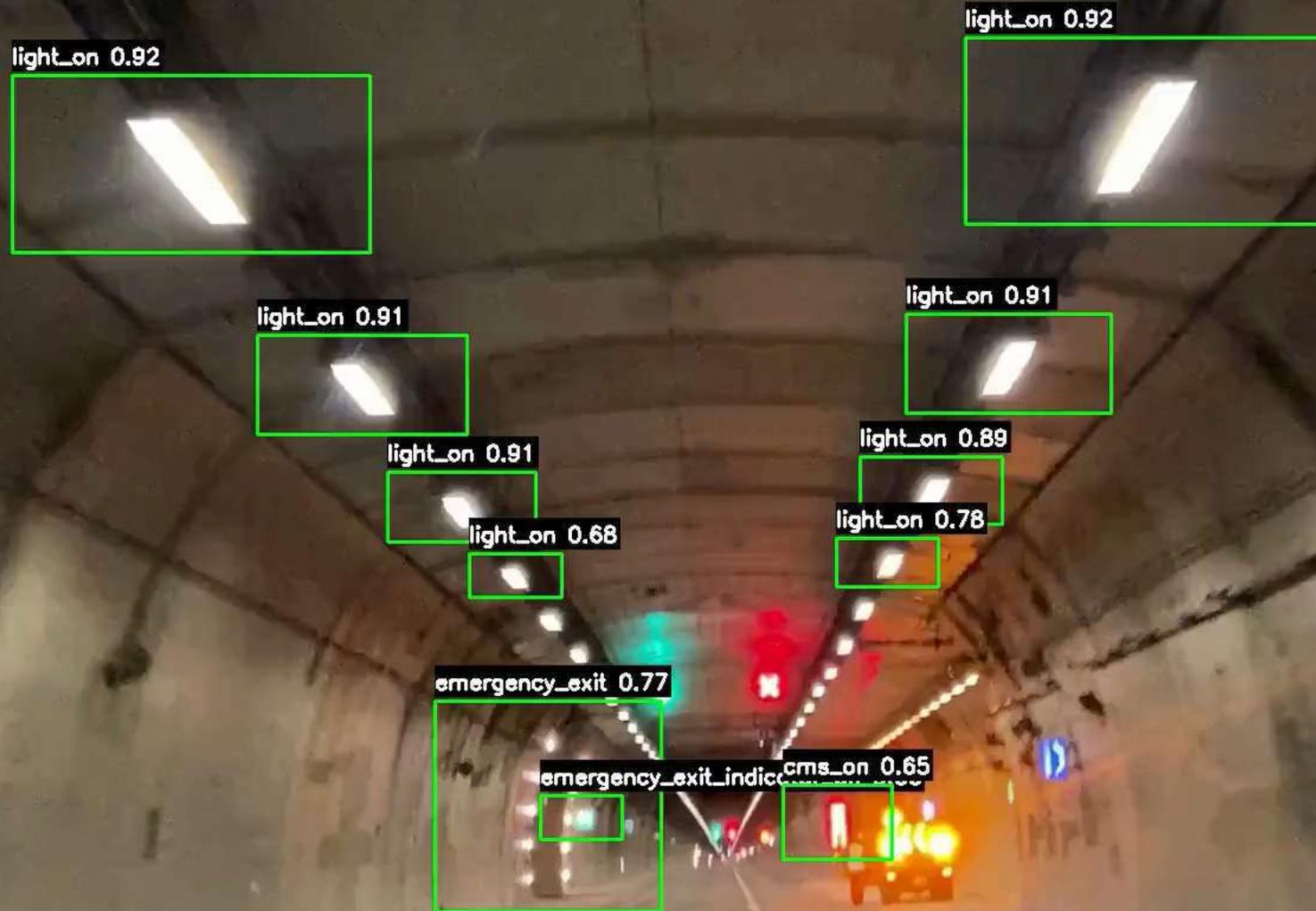
China, 2011: Water pump failure went undetected.



Switzerland: Ventilation system response was too slow.

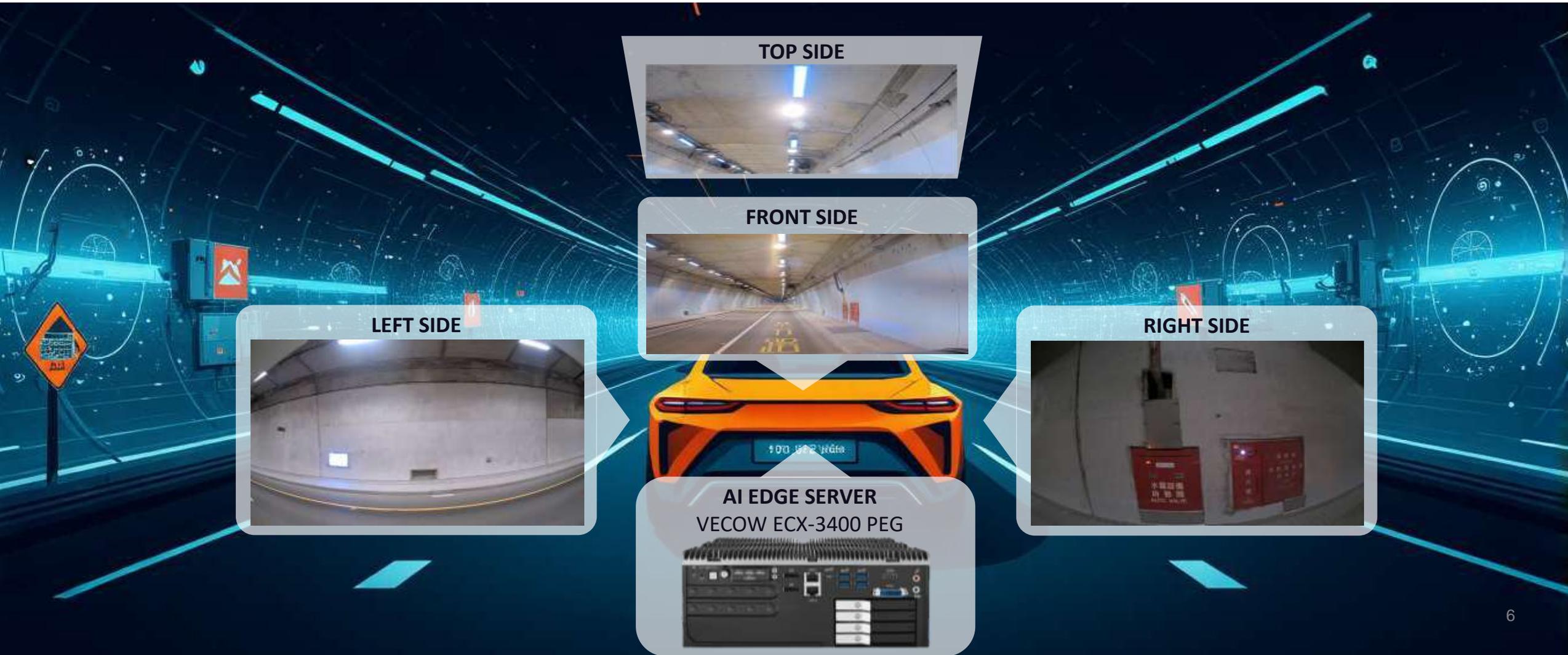
AI Eyes Inside the Tunnel

AI-powered recognition, instant anomaly detection, nothing goes unnoticed



Real-Time AI Analysis in Motion

180° vision with edge computing – no cloud delay, no blind spots



Our AI is Trained on Reality, Not Theory

The screenshot displays the YOLO-NAS-L interface with a central video feed of a tunnel. The interface includes a left sidebar with a video frame list (frames 440-450), a central video player with a timeline, and a right sidebar with 'Info' and 'History' tabs. Below the video, a list of detected regions is shown with their names and confidence scores. The detected regions include:

- general_lighting_tunnel_fl_lighting_on (0.97)
- general_lighting_tunnel_fl_lighting_off (0.94)
- general_lighting_tunnel_hps_lighting_on (0.81)
- general_lighting_tunnel_hps_lighting_off
- general_lighting_transition_lighting_on
- general_lighting_transition_lighting_off
- general_lighting_road_lighting_on
- general_lighting_road_lighting_off
- exit_sign_lighting_on
- exit_sign_lighting_off
- evac_direction_sign_lighting_on
- evac_direction_sign_lighting_off
- bay_sign_lighting_on
- bay_sign_lighting_off
- emergency_phone_recess_lighting_lighting_on
- emergency_phone_recess_lighting_lighting_off
- fire_emergency_lighting_lighting_on
- fire_emergency_lighting_lighting_off
- exit_indicator_lighting_on
- exit_indicator_lighting_off
- cross_passage_out_lighting_lighting_on
- cross_passage_out_lighting_lighting_off

At the bottom of the interface, there are four icons representing different environmental conditions: Day & Night, Dry & Humid, Clean & Dusty, and Varying Light Conditions.

Data Moat

Our advantage is not only AI
— It's our DATA.

98% Accuracy

Real-time Detection

1,000,000+ Real Tunnel Images

500+ Failure Modes

Multi-year Maintenance Logs

130+ Device Types

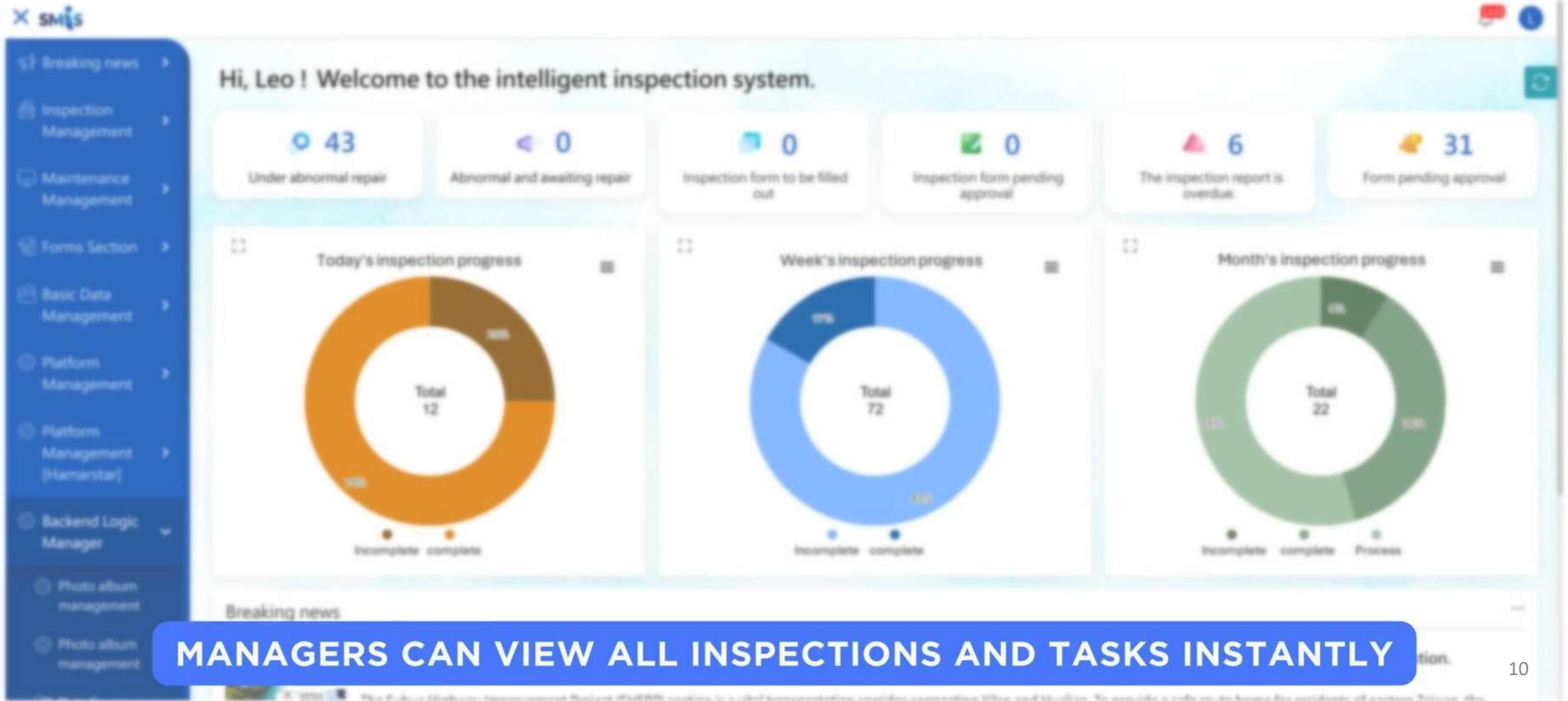
Don't Just Fix Failures. Predict Them.

Our platform learns from all data points—historical, operational, and environmental—to predict failures before they happen, enabling proactive maintenance.



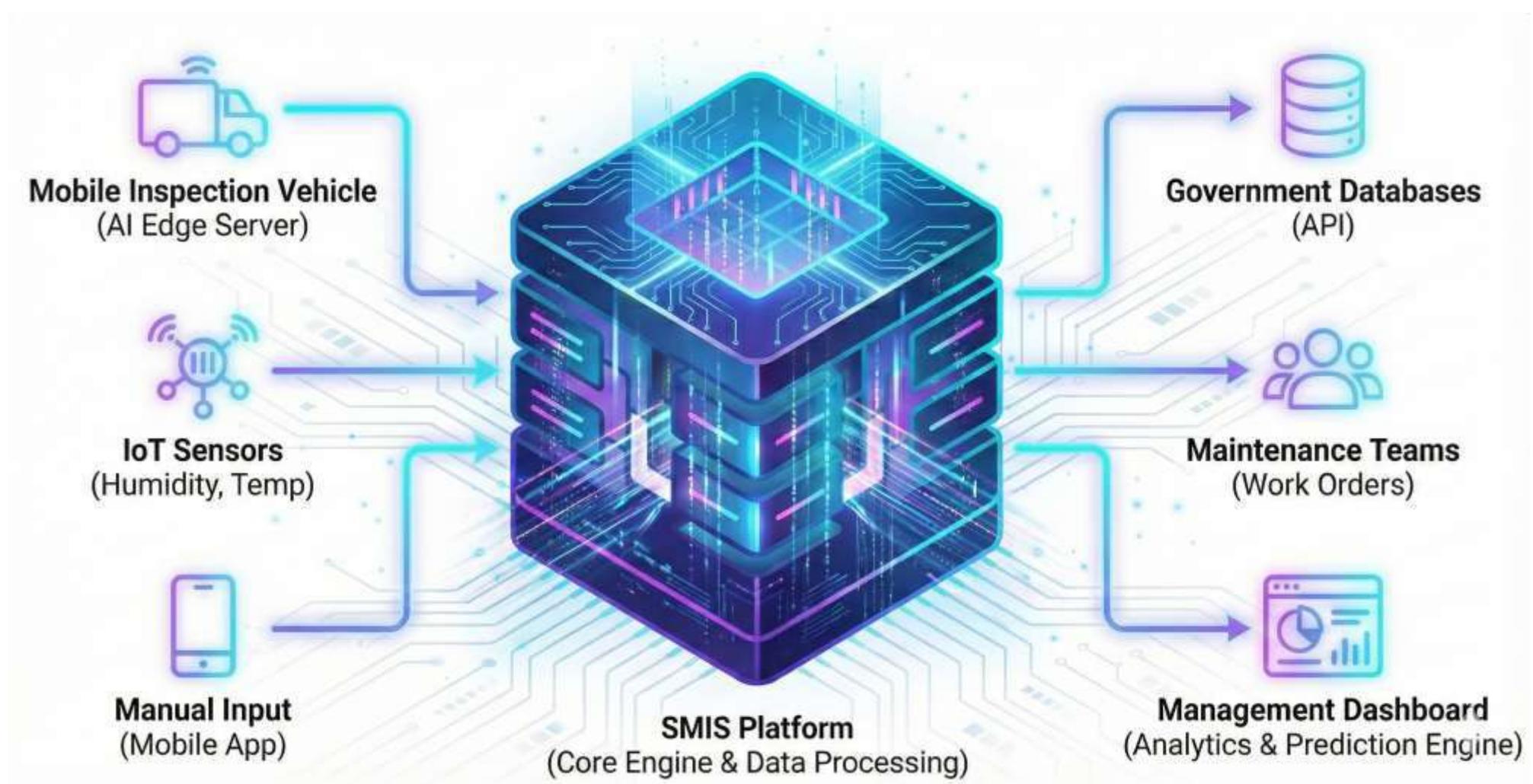
REAL-TIME DASHBOARD

Track All Inspection and Maintenance Progress



Complete Inspection Platform

From AI detection to maintenance tracking — all connected.



Market Opportunity: Why Now?



Rapid Growth

Global tunnel & infrastructure inspection market: \$ 2,5B by 2033 | 9,5 CAGR



Mandatory

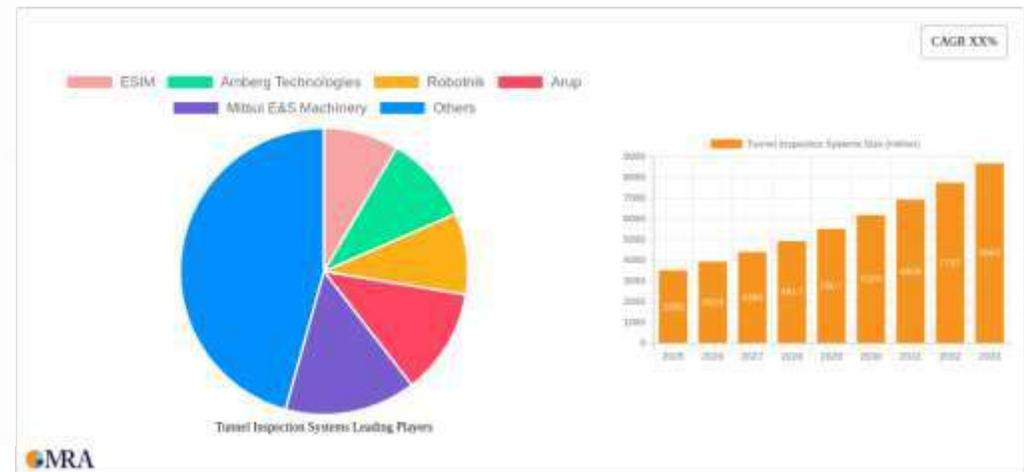
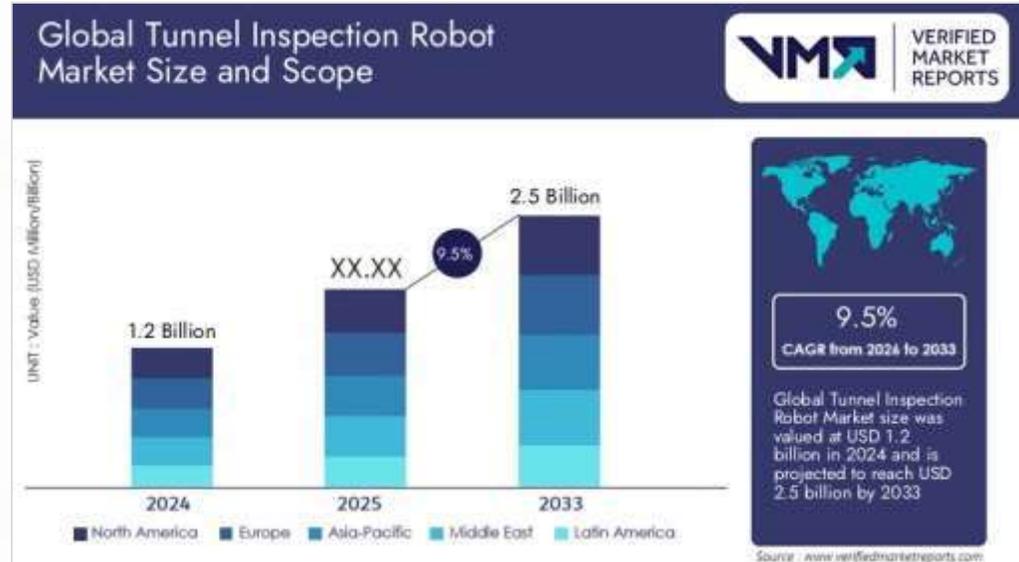
Regulations require auditable high-frequency inspections



Tech Shift

AI + sensors enable autonomous defect analysis

Now is the moment: AI is redefining infrastructure inspection worldwide.



HAMASTAR: Government-Grade Security & Global Compliance

Trusted by Over 90% of Taiwan's Local Governments: We understand the complexity of public administration. We don't just build software—we build the digital backbone of governance, with capabilities that ensure cross-border compliance when deploying internationally.



Certified: Information Security Management System



Certified: Privacy Information Management



We Don't Just Measure – We Manage Intelligently

The only AI-first platform built for operational excellence, beyond construction

	 HamaStar (Taiwan)	 Amberg (Switzerland)	 Mitsui (Japan)
Focus	AI-powered Smart Inspection Platform	3D Geometry & Survey Solutions	Engineering & Heavy equipment
Strengths	AI Detection · Automation	LiDAR Precision	Mechanical Integration
Stage	Operation / Maintenance	Construction Phase	Hardware Maintenance
Target	Manage Intelligently	Measure Precisely	Operate Reliably

Quantifiable Impact on Safety, Speed, and Cost

Our clients have achieved significant, measurable improvements across their entire operation.



-50%

Missed Defects



+60%

Faster Detection



+40%

SLA Compliance



-25%

Emergency Repairs



+20%

Equipment Lifespan



-60%

Manual Paperwork

Source: Eastern Region Branch Office, Highway Bureau, MOTC(2025)

PLATFORM GROWTH STRATEGY: ONE CORE, LIMITLESS APPLICATIONS





(Every Day, We Help Thousands of People Get Home Safely.)