

**15
MAY
26**

09:00-17:30

**SOFITEL
ATHENS
AIRPORT
HOTEL**

Organised by
 **MANAGEMENT
FORCE Group**
Risk Management & EHSS Services

18 SAFETY GALA

The Int'l ESG Conference

**Visionary Leadership & Governance for
Safety at
Workplaces and Beyond**

**Day 2 | Delphi
Interactive Workshops**

Leveraging AI to Advance HSE

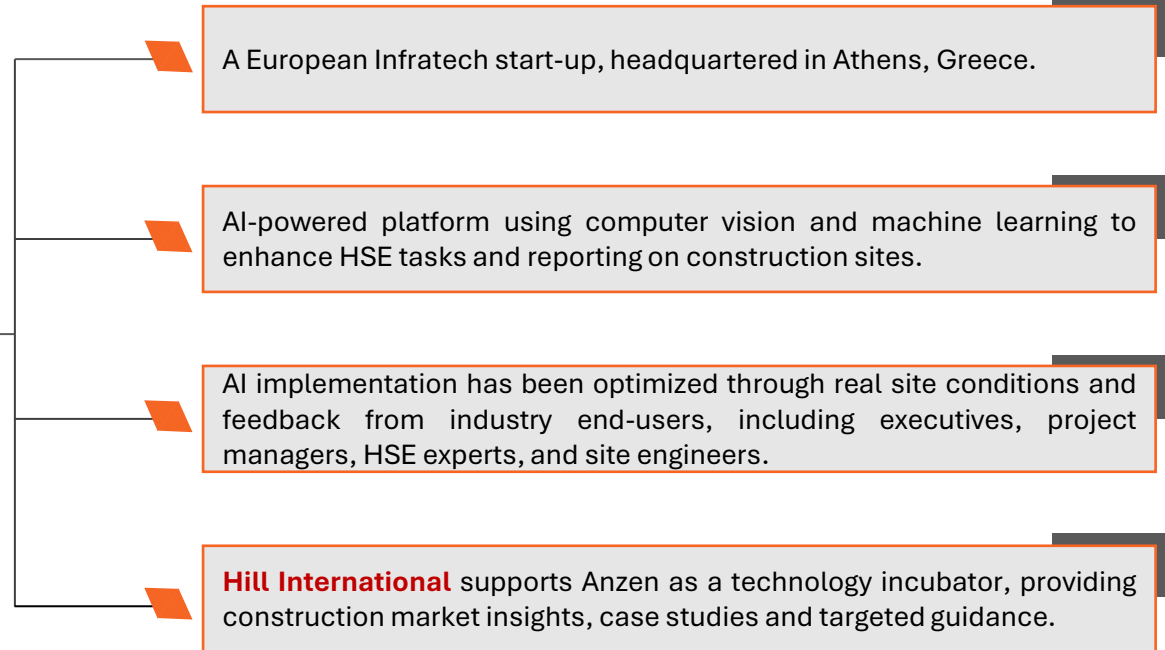
Best Practices and Shaping a Proactive Safety Culture

Ioannis Karkanias

R&D Engineer at Anzen Infrastructure Technologies

May 15th 2026

Anzen HSE AI Powered Solutions



The impact of Technology on Construction HSE

Construction sites are dynamic, high-risk environments.

Risks evolve constantly

Workers, vehicles, equipment, weather and temporary work areas change throughout the day.

HSE experts and implementation of best practices remain foundational

But even strong teams need better visibility, faster responses and more efficient digital workflows.

Technology & AI should complement and augment safety teams, not replace or encumber them

But even strong teams need better visibility, faster responses and more efficient digital workflows.

Anzen: An HSE Platform in the AI Era

Platform focus

Harness AI to assist in HSE tasks

Expert-in-the-loop by design

Customizable to customer-specific needs

How the platform works

1

Data

Cameras
Sensors
Observations.

2

Real time Analysis

Computer vision
AI inference.

3

HSE workflow

System Alerts
Manual
observations
Reports.

4

Human action

Visibility
Response
Accountability.

Added Value



Zero-Incident Culture

Nurture HSE awareness across the project's supply chain.



Timely Response

Swift response to incidents and/or prevention of accidents.



Lessons Learned

Knowledge base that prevents future incidents.



Contracts & Claims

Solid records driven efficiencies downstream.



Automated Reporting

Automated reporting and records let teams focus on what matters most.



ESG Strategy

Showcases commitment to safety and reporting.

Platform Capabilities

Current Functionalities



Construction Machinery Movements



Lone Worker emergencies & Faint Detection



Fire & Smoke Detection



PPEs Violations



Smoking Detection



Restricted Zone Violation



Real Time Analytics



Reporting & Notifications



Third Party Integration



Environmental Conditions Monitoring & Violations

Based on the feedback received by the market, the following additional functionalities are under development:



Work at Height ("Εργασία σε Ύψος")



FOD (Foreign Object Debris) Detection



Vehicle Routing & Speed Limit Violation

AI Driven Real-Time Actionable Intelligence (1/2)

The dashboard combines live detection-enhanced camera feeds, zone status, environmental indicators, and an alerts inbox so HSE teams can see where attention is needed and act quickly.

Key principle

The platform supports the HSE team — it does not remove human judgment from the workflow.

■ GDPR by design

Blurred personally identifiable information

■ Zone-based view

Cameras grouped according to site characteristics

■ Operational signals

Alerts linked to camera snapshots and actions

The screenshot displays the Anzen Platform dashboard for 'Metro Tower Construction Site'. The interface includes a sidebar menu with options like Dashboard, Camera Feed, Manual Reporting, Access Control, Analytics, History, Meteorological, Environmental, Site Plan, Team Management, Settings, and Platform Manual. The main content area is divided into three sections: Camera Feed, Zone Status, and Alerts of 05/05.

Camera Feed

SAFE Select zone: Tower Core

Tower Core - North ... Updated: - [Configure] [Snapshot]

Tower Core - South ... Updated: - [Configure] [Snapshot]

Tower Core - East V... Updated: - [Configure] [Snapshot]

Tower Core - West ... Updated: - [Configure] [Snapshot]

Zone Status

NAME	STATUS	STATISTICS
Tower Core	SAFE	35% of alerts
Main Entrance	SAFE	15% of alerts
Perimeter Scaffolding	SAFE	0% of alerts
Crane Operations	SAFE	18% of alerts
Materials Storage	SAFE	8% of alerts

Alerts of 05/05 [Alert History]

System (431) Manual (156) All (587)

- Restricted Zone Entry**
5/5/2026, 2:35:11 PM Tower Core
- Hard Hat Violation**
5/5/2026, 2:34:11 PM Tower Core
- Lone Worker Alert**
5/5/2026, 2:33:11 PM Tower Core
- Person Down Detected**
5/5/2026, 2:32:11 PM Tower Core

Anzen Platform dashboard

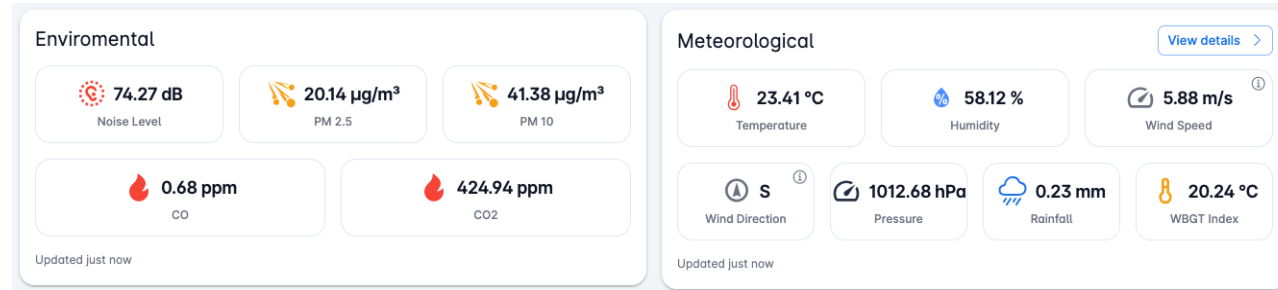
AI Driven Real-Time Actionable Intelligence (2/2)

Environmental conditions can create operational and safety risks that need the same real-time visibility as camera-based detections.

Core principle

Sensor readings become automated alerts, operational actions, and compliance evidence.

Environmental and Meteorological at-a-glance panels of the Anzen Platform dashboard



■ On-site equipment for direct and accurate measurements

Environmental (e.g. noise, particles, vibrations generated from on-site work)
 Meteorological (e.g. temperature, wind speed & direction)

■ Real-time monitoring of compliance – in combination with AI detections

Short & long-interval monitoring according to permitted limits

■ Configured to match client and site provisions and demands

Parameterizable thresholds and exceedance criteria, integrations with already in-place systems

Alert Notifications: Resolution & Escalation Flow

The event must reach the designated people quickly.

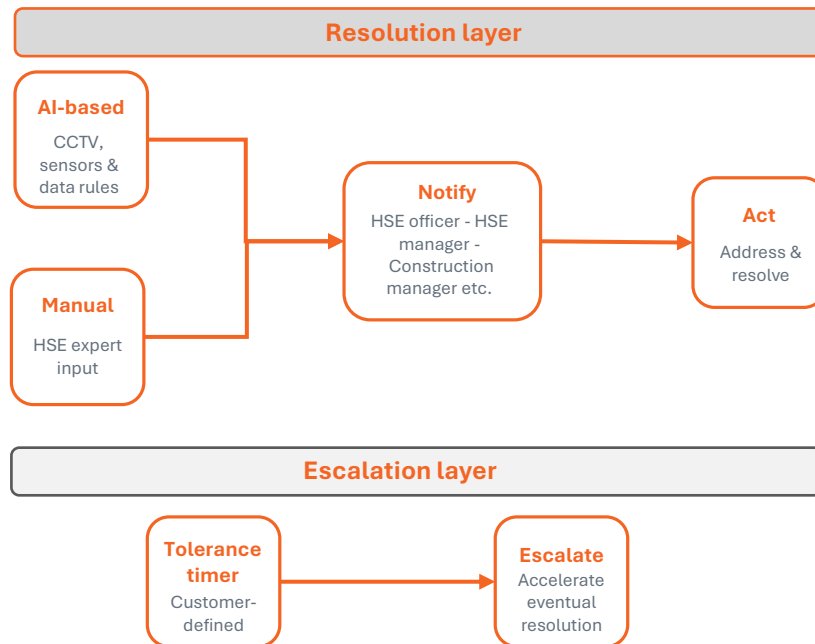
Alerts are generated automatically by any combination of computer vision, sensors, or third-party data rules — and manually by HSE supervisors in the field.

HSE supervisors are notified and prompted to act to resolve the incident.

Upon inability to resolve, the system escalates to delegated project members.

Notification channels

SMS • Email • Push notification



Outcome: a clear chain of response and a reliable operational record, fully customizable to project needs

Alert Resolution Flow: Desktop and Mobile



Desktop handling

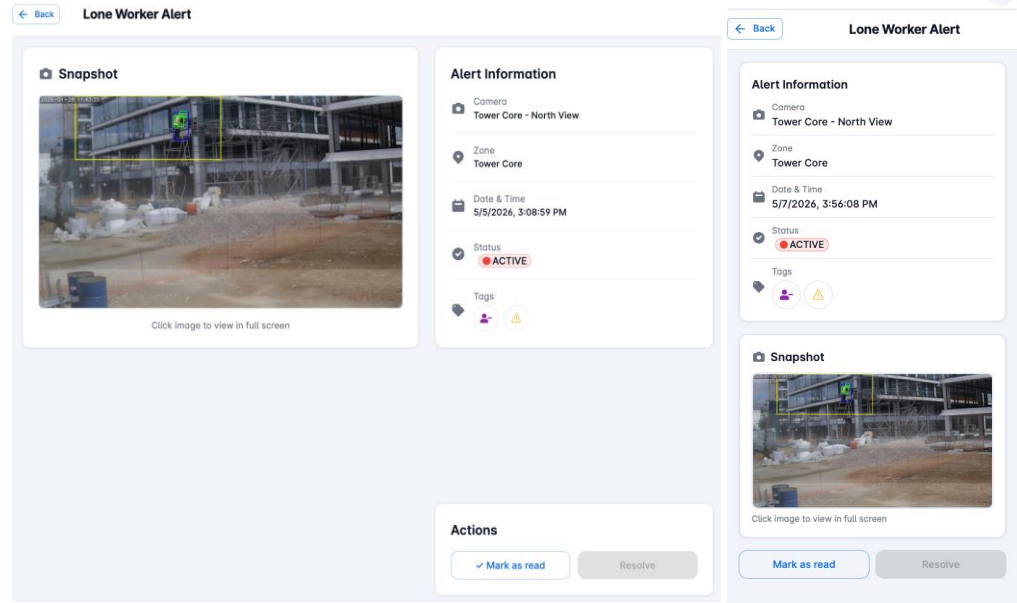
Control-room users work from the Today Alerts Inbox.

- View current alerts and associated camera / zone
- Open photographic snapshot as visual evidence
- Mark as read, then close with a resolution comment

Mobile handling

Field teams receive the same alert context on the phone.

- SMS / push / email notification routes users to the alert page
- Resolve in the field and document corrective action without leaving the field



Rule-Based Configuration

Configurable detection logic

Multiple focus areas can be assigned to one camera.
Each area can carry independent rules and schedules.

- 1 Select camera feed**
Use existing CCTV coverage
- 2 Designate multiple focus areas**
On-frame polygons defining restricted zones, paths, work areas
- 3 Attach rules**
Related to worker safety and environmental conditions
- 4 Alerting parameters**
Triggers, sensitivity and on-off scheduling

Fire/Smoke Focus Area ●

CAMERA-6
Default Zone

Edit Delete

Free FP ●

CAMERA-6
Default Zone

Free Zone

Edit Delete

Restricted ●

CAMERA-6
Default Zone

Restricted Area

Mon, Tue, Wed, Thu, Fri 19:00-07:00

Sat 19:00-23:59

Sun 00:00-23:59

Mon 00:00-07:00

Edit Delete

Automated HSE Reporting

Unified Incident

AI + rule-based
detections

Snapshots

Resolution status

One source of truth
following

ANZEN

Demo Construction Company

FULL DAILY SAFETY & ENVIRONMENTAL REPORT

Project:
Construction Site "Metro Tower"
HSE Engineer:
John S.

Date:
February 10, 2026
HSE Manager:
Jane P.

ACCIDENTS OR INCIDENTS IN THE LAST 24 HOURS

None

CURRENT OPERATIONS

Foundation work in progress, Steel frame installation
Zone B

RESOLVED ALERTS (3)

Observation:

Hard Hat Violation detected in Tower
Core zone. Worker observed without
proper head protection while
operating near overhead hazards.

Photos:



Action:

Worker immediately issued
replacement hard hat. Team briefed
on mandatory PPE requirements.
Supervisor notified for follow-up.

Observation:

Fire Detected in construction area.
Thermal signature and visible flames
identified by AI monitoring system
near welding operations.

Photos:



Action:

Fire suppression activated. Area
evacuated and secured. Fire watch
extended. Incident report filed and
hot work permit procedures
reviewed.

Observation:

Person Down Detected in Tower
Core zone. Worker found in prone

Photos:



Action:

First responders dispatched
immediately. Worker assessed and

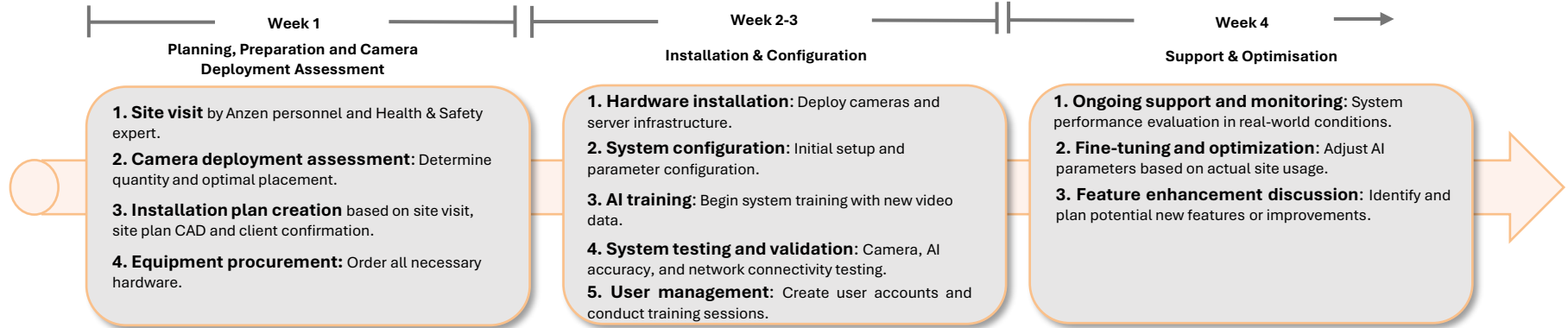
ed reports

demand
customer needs

ration friction
HSE objectives
& coverage

Implementation Plan

Platform is designed to minimise implementation costs and adapt to project and site-specific requirements and constraints.



System Requirements

Project inputs

- Site plan / CAD drawings.
- Risk areas and work phases.
- Client monitoring objectives.

Infrastructure options

- Existing or new cameras and environmental sensors.

Local server needs

- Broadband and upload capacity.
- Power and installation space.
- Access for setup and configuration.

Coordination

- Client focal point.
- Dedicated Anzen contact.

Anzen Message

- The focus of HSE is always Human First.
- AI can augment and complement human expertise and best practices, **NOT** replace them.
- Anzen platform achieves that and helps foster a distinctive HSE culture.

Thank You



Shape The Culture

Build Safe

Partner with Anzen Infrastructure Technologies

