

The Intelligent Video Layer for Construction Sites

Turn existing site cameras into safety, security, and project-risk intelligence.

Real-time Site Occupancy: **Active**



Total Personnel: **247** / Vehicles: **58** / Incidents: **0**

Predicted Path (30s)

Worker ID: 8394 - Auth. Access





Large project sites change daily, and manual monitoring leaves massive blind spots

Moving Risks

Safety and security risks move continuously with the work front.

Human Limits

EHS and security teams cannot manually watch every gate, crane zone, and scaffold 24/7.

Reactive Posture

Manual CCTV review after accidents or material theft is painfully slow and inconsistent.

Rapid Escalation

Unnoticed PPE lapses and vehicle-person proximity turn into incidents in seconds.

Upgrading existing cameras without ripping out your infrastructure.

The AI Pipeline



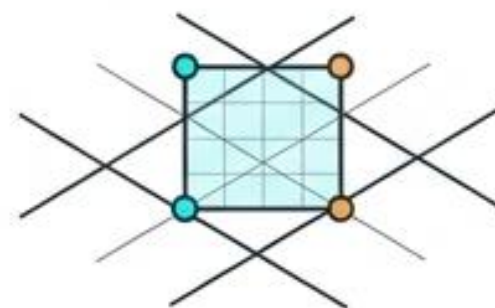
Step 1: Connect

Connect compatible feeds without replacing the full surveillance system.



Step 2: Process

Camsense Edge AI processes video streams locally.



Step 3: Configure

Deploy no-code zones and rules for gates, scaffolds, and yards.



Step 4: Act

Receive real-time dashboard alerts, searchable evidence clips, and automated EHS reports.

The shift from passive video storage to active operational workflows.

Passive Surveillance vs. Active Intelligence		
	Existing CCTV	Existing CCTV + Camsense
Response Time	● Reactive (Reviewed post-incident)	✔ Real-time (Immediate alerts)
Evidence	● Manual search through hours of footage	✔ Instant, searchable event logs and evidence clips
Scope	● Intermittent spot-checks	✔ Continuous, 24/7 zone monitoring
Output	● Raw, heavy video files	✔ Actionable EHS, security, and project-risk reports

A 360° intelligence layer mapped across the entire project footprint.

Main Gate & Access

Face recognition, worker entry, visitor turnstiles, ANPR lanes

Logistics & Traffic

Loading/unloading bays, vehicle routes, service roads

The Work Front

Slab edges, scaffold areas, tower crane zones, excavations

Material Stores & Utilities

Steel/chemical yards, tool rooms, electrical/DG areas, fire points





Responsible identity intelligence for secure perimeter and access control.

Access Workflows

Automate entry logs for approved staff, contractors, and enrolled visitors.

Restricted Zones

Verify authorized roles for high-risk areas like control rooms, DG areas, and document storage.

Watchlist Alerts

Real-time alerts for suspended, banned, or unknown persons attempting entry.



Governance Tag

Face recognition requires consent, RBAC, and EHS/HR approval prior to deployment.

Continuous visibility for PPE compliance and high-risk edge work

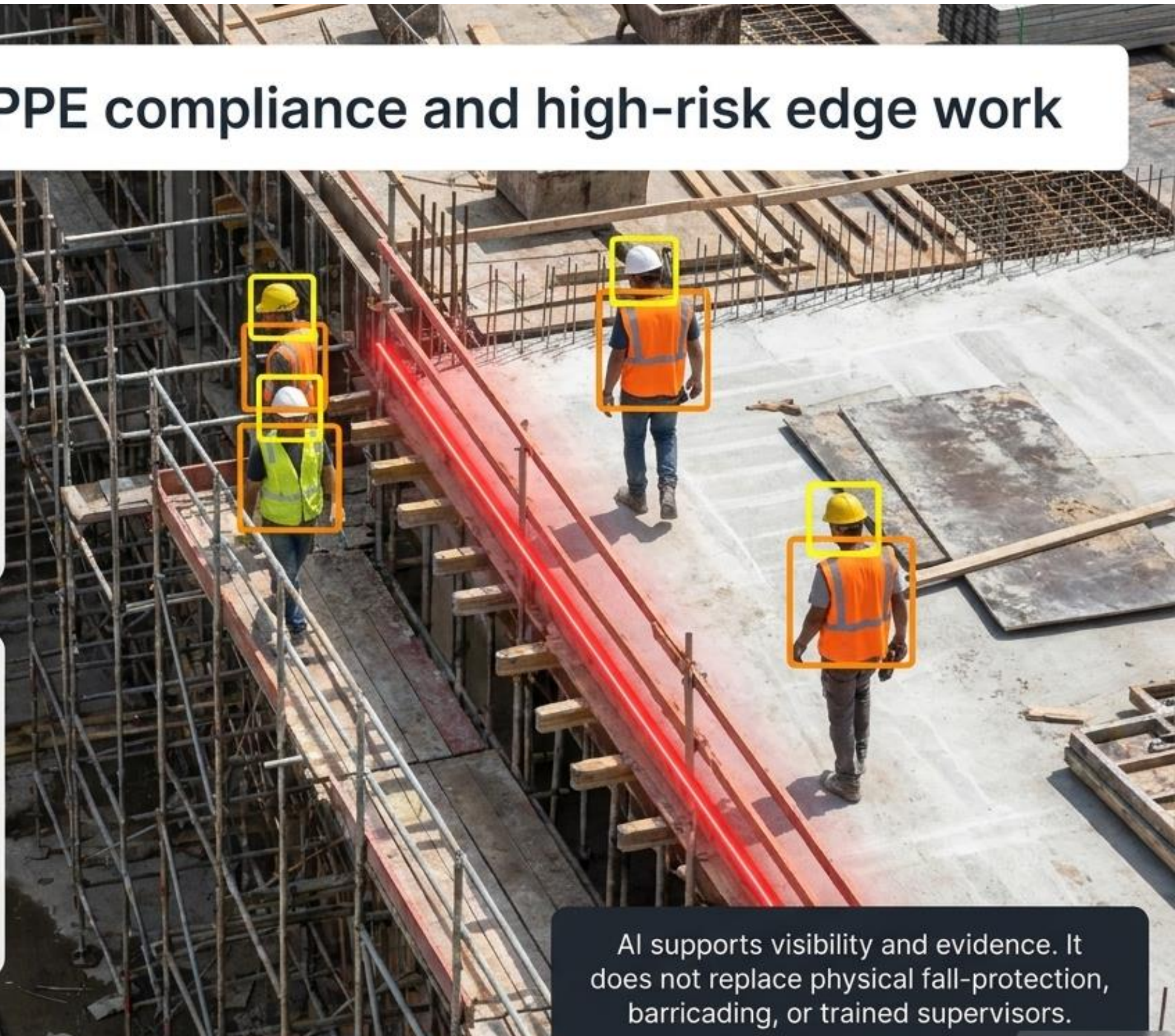
Visible Safety Compliance

Continuous monitoring for helmets and safety vests. Evidence clips support EHS coaching and toolbox-talks.

Edge & Scaffold Risk

Restricted entry alerts near slab edges, lift shafts, and barricaded areas. Detects crowding and unsafe movement near lifting zones.

AI supports visibility and evidence. It does not replace physical fall-protection, barricading, or trained supervisors.



Reducing gate congestion and mitigating site-traffic risks.



ANPR & Logistics

License-plate logs for trucks, dumpers, and mixers. Monitor turnaround times and logistics evidence.

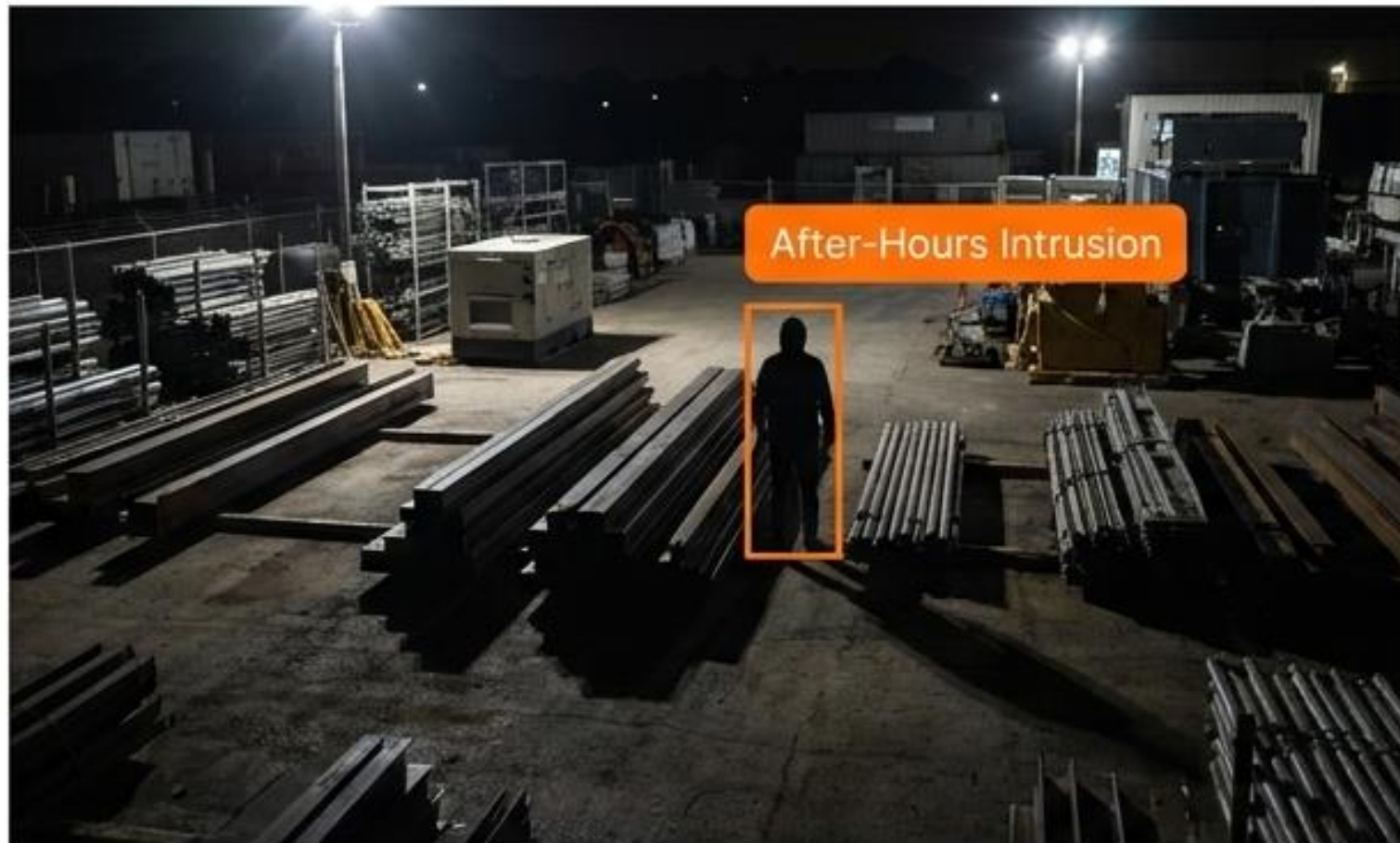
Traffic Flow

Track entry/exit counts, dwell-time, and gate queue congestion.

Proximity Risks

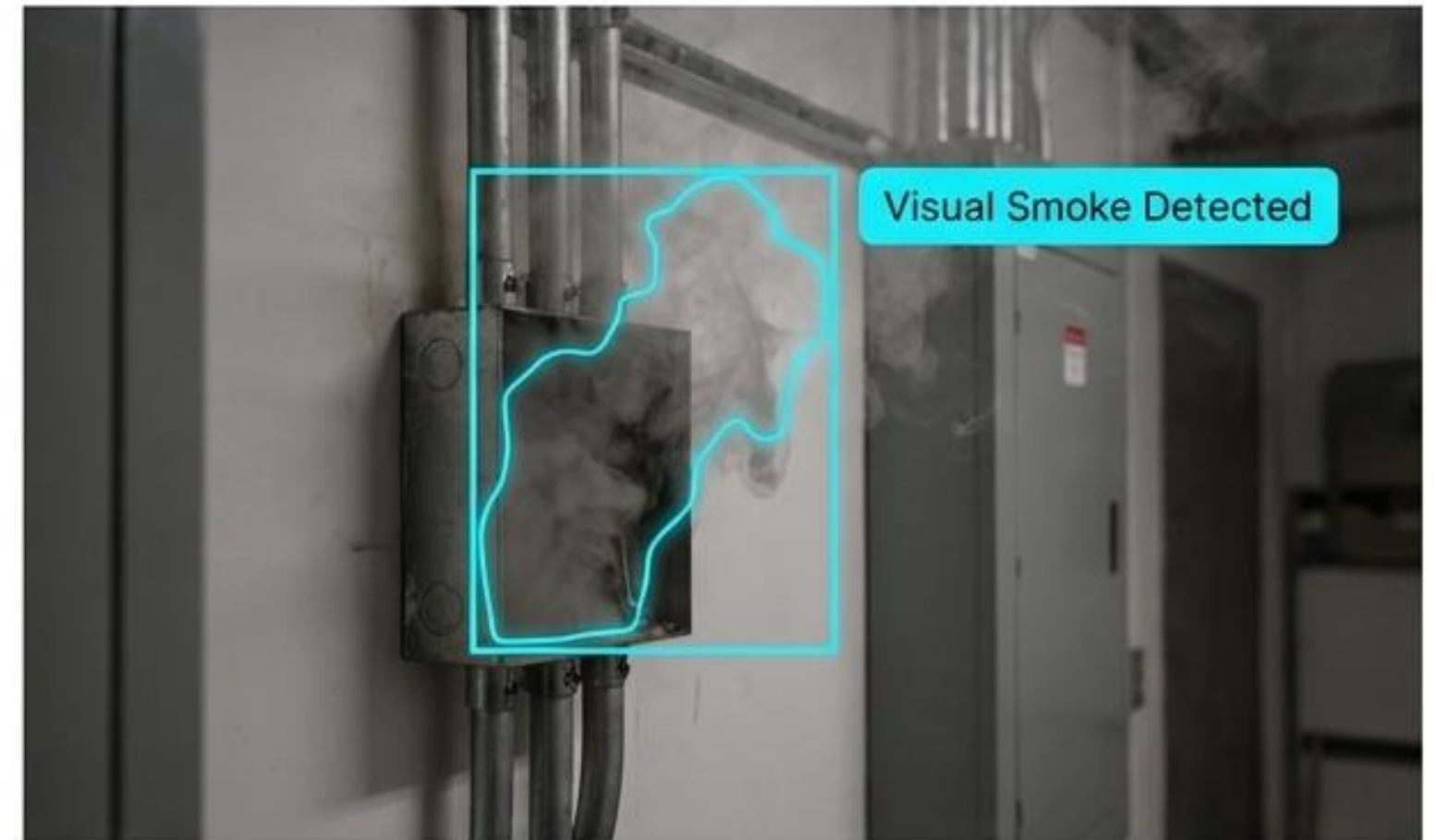
Person-vehicle proximity alerts and wrong-route detection.

Protecting high-value assets and accelerating emergency response.



Asset Protection

Alerts for material stores, cement yards, and tool rooms. Detects after-hours movement, perimeter breaches, and unusual material removal to prevent shrinkage.



Fire & Emergency Visibility

Visual alerts for fire, smoke, and flames to complement statutory fire systems. Monitors hot-work zones and blocked emergency exits.

Video analytics detects visible conditions only. It cannot detect invisible gases or oxygen deficiency.

Transforming video feeds into operational intelligence for management

Workforce Visibility

People-counts and activity tracking by gate, floor, or contractor zone.

Trend Analysis

Work-front occupancy, crowding, and idle trends to inform project managers.



Exception Reporting

Visibility into delays caused by congestion, blocked access, or safety holds.

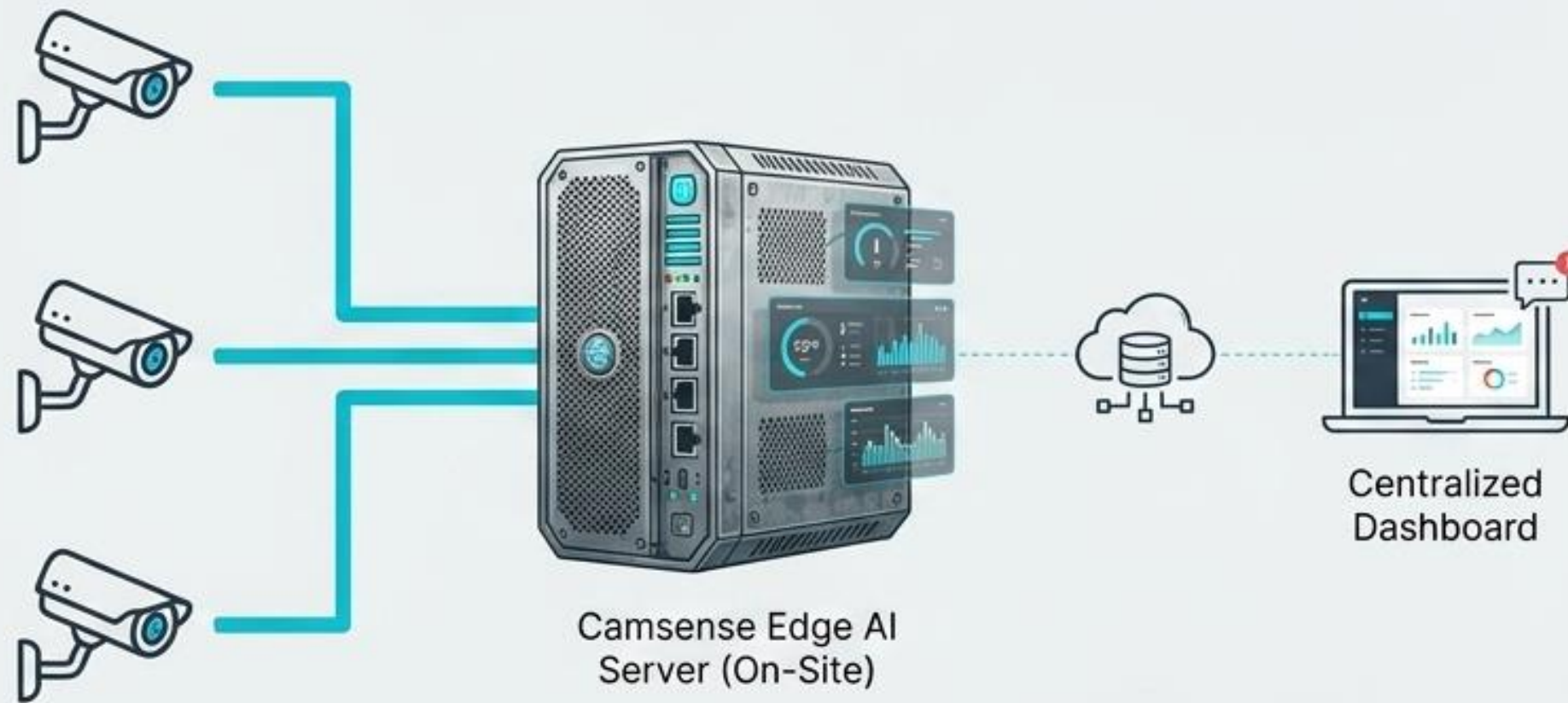
Camsense provides decision support: giving visibility into what happened, where, and which teams need action.

A closed-loop workflow: From detection to resolution and reporting.

The Escalation Workflow



Edge-processing designed for active sites with limited bandwidth.



Local Processing

The Camsense Edge AI box processes heavy analytics locally, ensuring fast response times without requiring massive upload speeds.

Minimal Bandwidth Dependency

The internet is used primarily for lightweight data sync, alerts, and remote dashboard access, not streaming all raw video to the cloud.

Scalable Hardware

Sized dynamically based on camera count, resolution, FPS, and concurrent analytics streams.

Designed for governed, responsible deployment on active worksites.



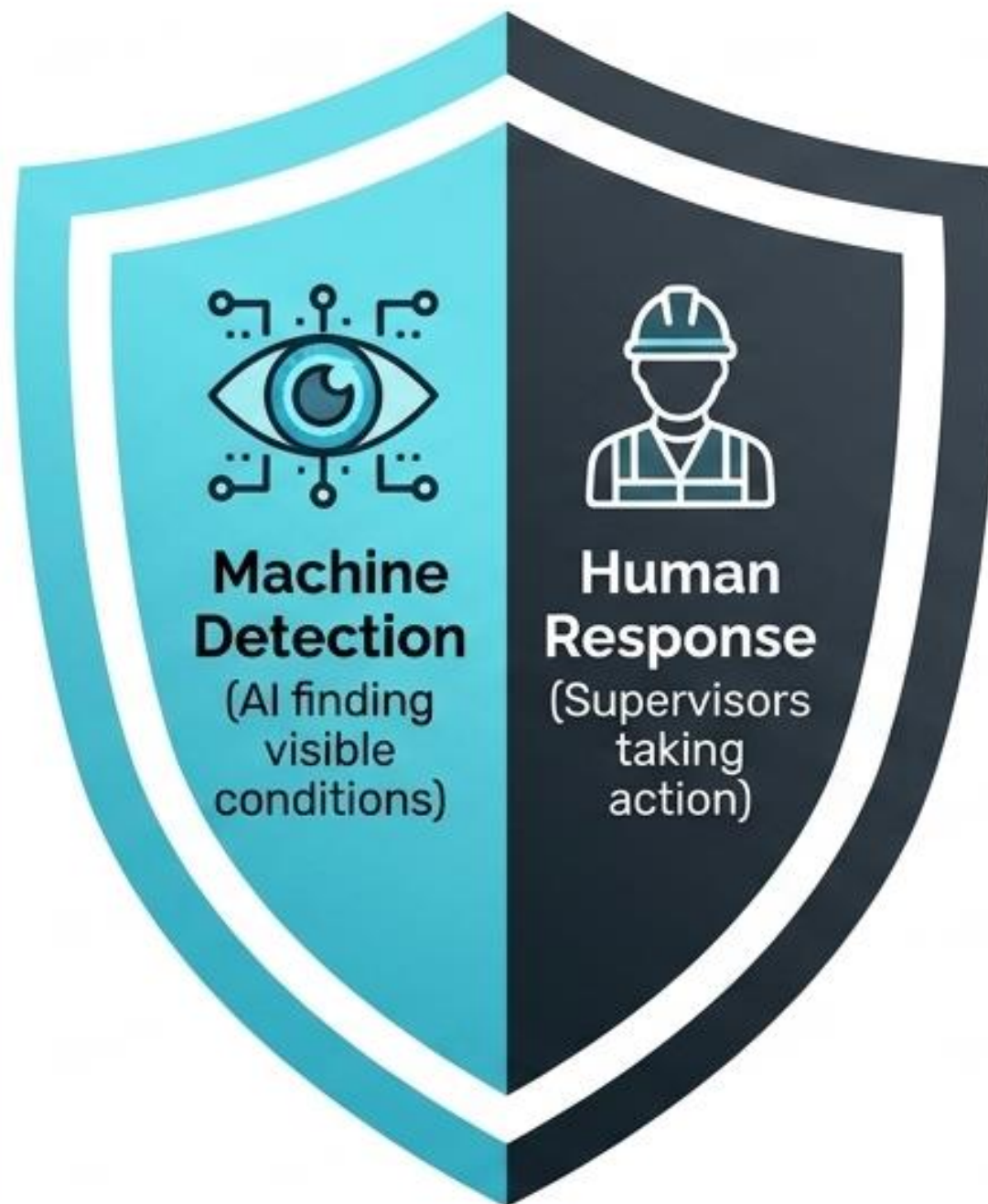
Clear Communication

Requirement for visible notices and site communication regarding CCTV + AI analytics.



Strict Access Control

Role-Based Access Control (RBAC), secure access logs, and strict retention limits.



Biometric Governance

Facial recognition demands strict enrollment consent, purpose limitation, and Legal/HR approval.



Privacy by Design

AI is strictly excluded from private areas like washrooms, rest areas, prayer rooms, and medical spaces.

Measurable impact for project owners and EPC contractors

Safety & EHS

Faster response to PPE lapses and restricted-zone breaches.
Reduced incident response time through instant evidence retrieval.

Asset Security

Reduced material leakage, stronger asset protection across yards, and robust contractor accountability via indisputable visual evidence.

Operational Efficiency

Improved gate throughput, vehicle logistics visibility, and scalable oversight across massive infrastructure portfolios.

Validate value quickly with a 45-day focused pilot.

Week 1

Site survey, camera audit, and definition of success criteria.

Week 2

Edge server setup, camera onboarding, and zone configuration.

Weeks 3-4

Active pilot analytics (Gates, PPE, Restricted Zones).

Week 5

Tuning, contractor feedback, and reporting review.

Final Output

Delivery of Pilot Report, custom-training needs, and full commercial rollout plan.

Immediate Next Step: Share your site layout and shortlist 10-20 priority cameras across gates, material yards, and high-risk work fronts to begin the survey.