

# Camsense AI for Manufacturing & Industrial Plants

Turn existing CCTV into workforce, safety, security, and compliance intelligence.





# The Industrial Dilemma: High Risk, Zero Attention

Factories manage high movement and complex safety risks across multiple shifts, but raw video provides no proactive value.



Cannot continuously watch every gate, shopfloor, warehouse, and perimeter.



Plagued by manual attendance, proxy punching, and contractor shift exceptions.



Reactive to PPE violations, fire/smoke hazards, and blocked exits.

**The Result:** Incident review is agonizingly slow and lacks searchable, irrefutable evidence.

VERIFIED

WARNING

& SAFETY

WARNING

# The Camsense Intelligence Layer

Compatible camera feeds become no-code AI rules, events, and alerts.



**Zero Rip-and-Replace:** Connects seamlessly to existing CCTV / IP / NVR infrastructure.







**Zone-Based Logic:** Configure rules for gates, restricted areas, production lines, and safety zones.



**Real-Time Action:** Triggers dashboard alerts, searchable event logs, and escalation workflows.



# A Plant-Wide Operational Asset

	 <b>HR &amp; Admin</b>	 <b>EHS</b>	 <b>Security</b>	 <b>Operations</b>
<b>Facial Recognition</b>	Gate Attendance & Shift Logs	-	Watchlist / Blacklist Alerts	-
<b>ANPR</b>	-	-	Perimeter Access	Loading Dock & Vehicle Logs
<b>PPE Detection</b>	-	Automated Hazard Alerts	-	Safety Compliance Logs
<b>Spatial Analytics</b>	-	Blocked Exit Alerts	Restricted Zone Intrusion	Queue & Crowd Monitoring

One unified AI engine serving four distinct operational mandates.

# Job 1: Workforce & Access Intelligence

Convert factory cameras into auditable attendance and shift visibility.



## Automated Access:

Gate attendance, shift-wise entry/exit logging, and contractor/vendor recognition.



## Security Alerts:

Real-time triggers for unknown persons in restricted zones or suspended employees on a watchlist.



## Operational Impact:

Eliminates proxy punching, automates logs, and resolves attendance disputes with irrefutable camera evidence. (Consent and enrollment required).





## Job 2: Industrial Safety & Hazard Detection

Support EHS teams with visible-risk detection and faster response.



**PPE Detection:** Automated compliance checks for helmets, high-vis vests, masks, gloves, and safety eyewear.



**Hazard Alerts:** Early visual detection of fire/smoke (complementing statutory systems) and blocked emergency exits.



**Behavioral Safety:** Triggers for unsafe movement, fall detection, crowding, and loitering in high-risk zones.

## Job 3: Restricted Zones & Perimeter Security

Strengthen control over sensitive industrial areas.



### Intrusion & Tailgating:

Automated alerts for chemical stores, electrical rooms, and badge-door tailgating.



### Asset Protection:

Detection of object removal or unattended objects in tool rooms and maintenance stores.



### After-Hours Defense:

Automated perimeter intrusion and loitering modes activated during off-shifts or nights.



**Unauthorized  
Entry Detected**

23:14:05

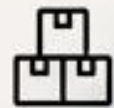


# Job 4: Logistics & Operations Visibility

Make vehicle and material movement **searchable and auditable.**



**ANPR:** Automated entry/exit logs for vendors, transporters, and employees.



**Logistics Control:** Real-time visibility into truck queues, wrong parking, and restricted-bay utilization.

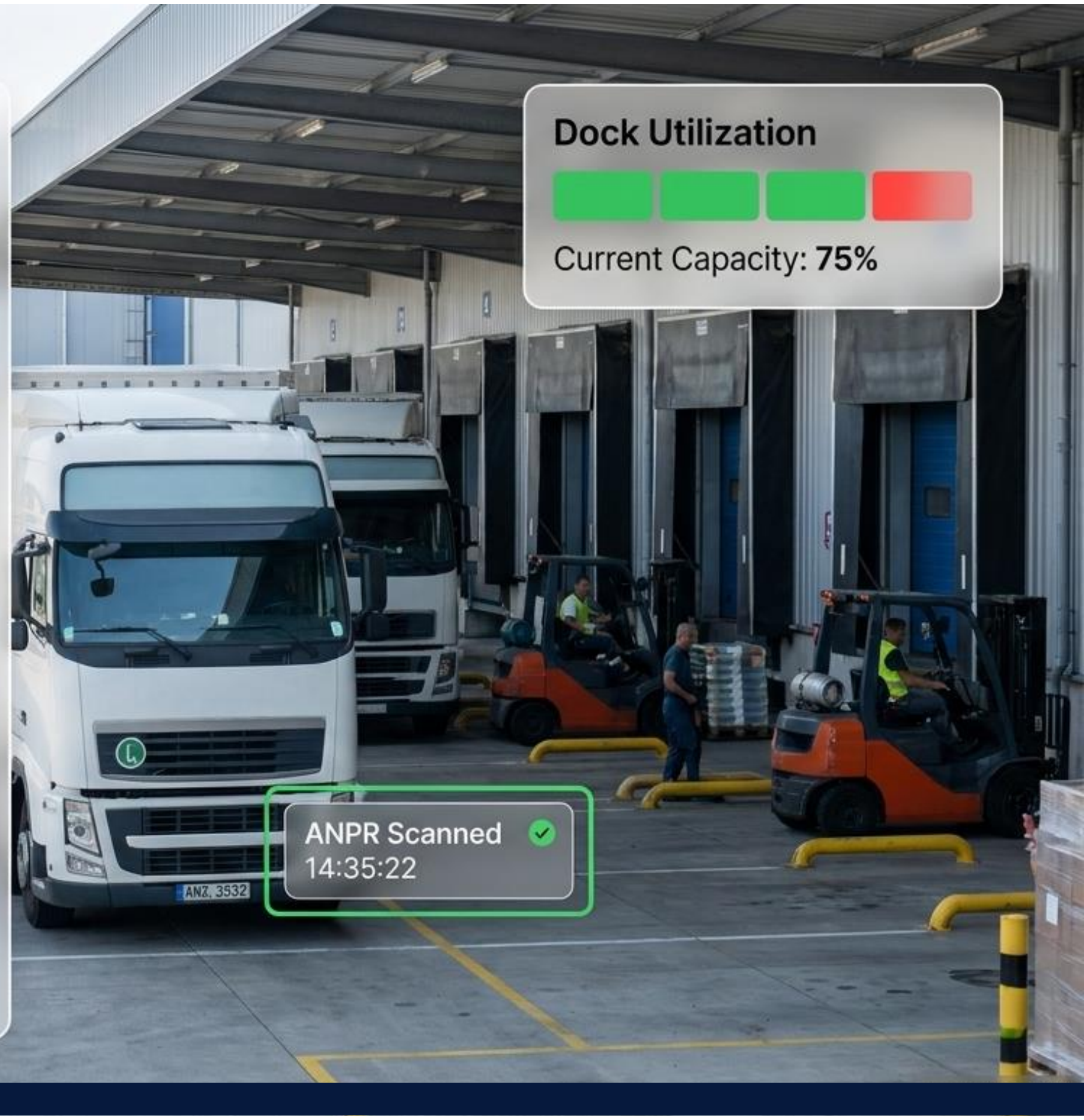


**Operational Discipline:** Workstation monitoring, evidence for missing materials, and process deviation tracking.

## Dock Utilization



Current Capacity: 75%



ANPR Scanned ✓  
14:35:22

# The Plant Blueprint: A 50-Camera Deployment

Indicative mapping scaling across the full industrial site.

**Warehouse (10):**  
Restricted zones,  
object movement.

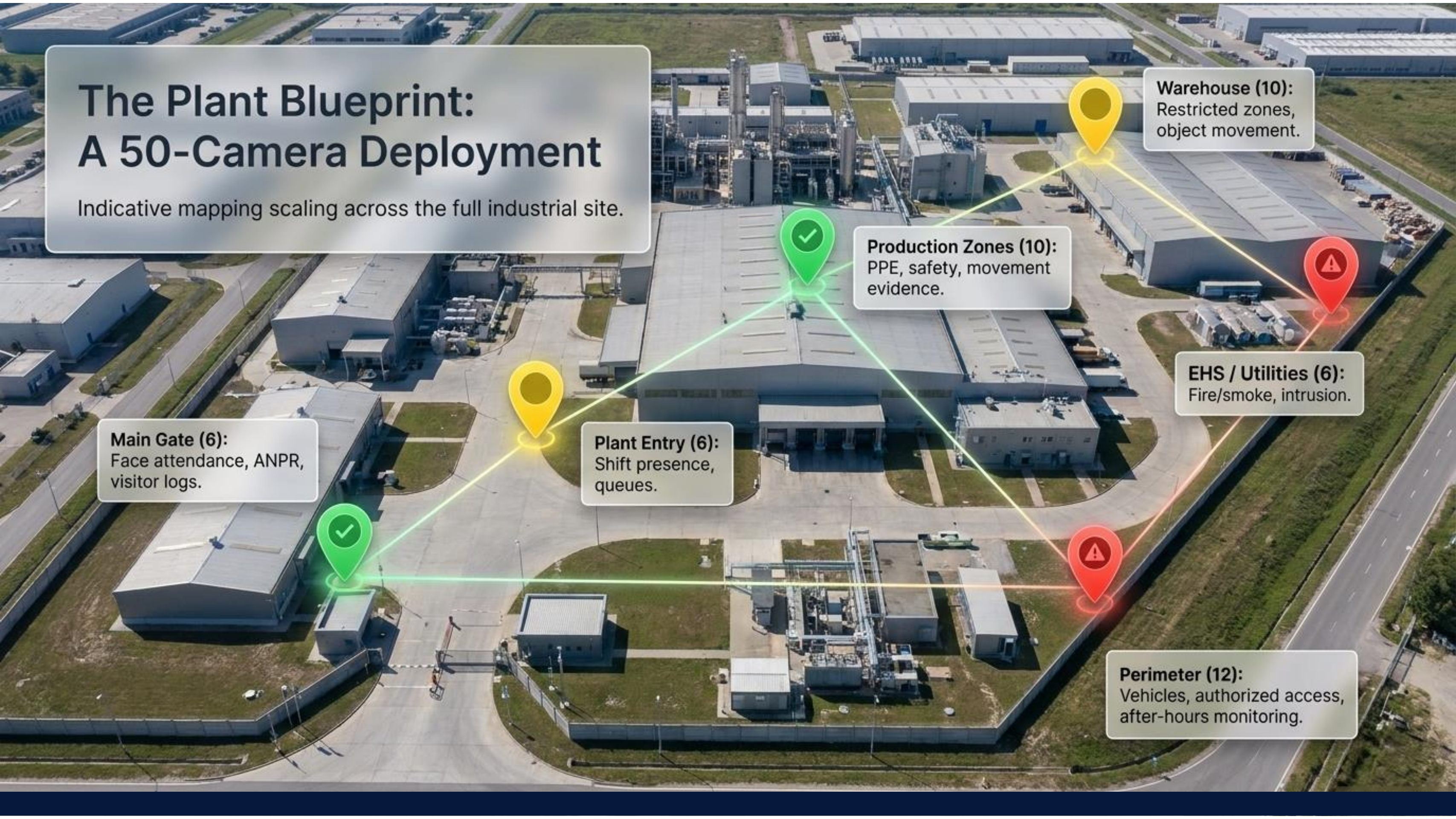
**Production Zones (10):**  
PPE, safety, movement  
evidence.

**EHS / Utilities (6):**  
Fire/smoke, intrusion.

**Main Gate (6):**  
Face attendance, ANPR,  
visitor logs.

**Plant Entry (6):**  
Shift presence,  
queues.

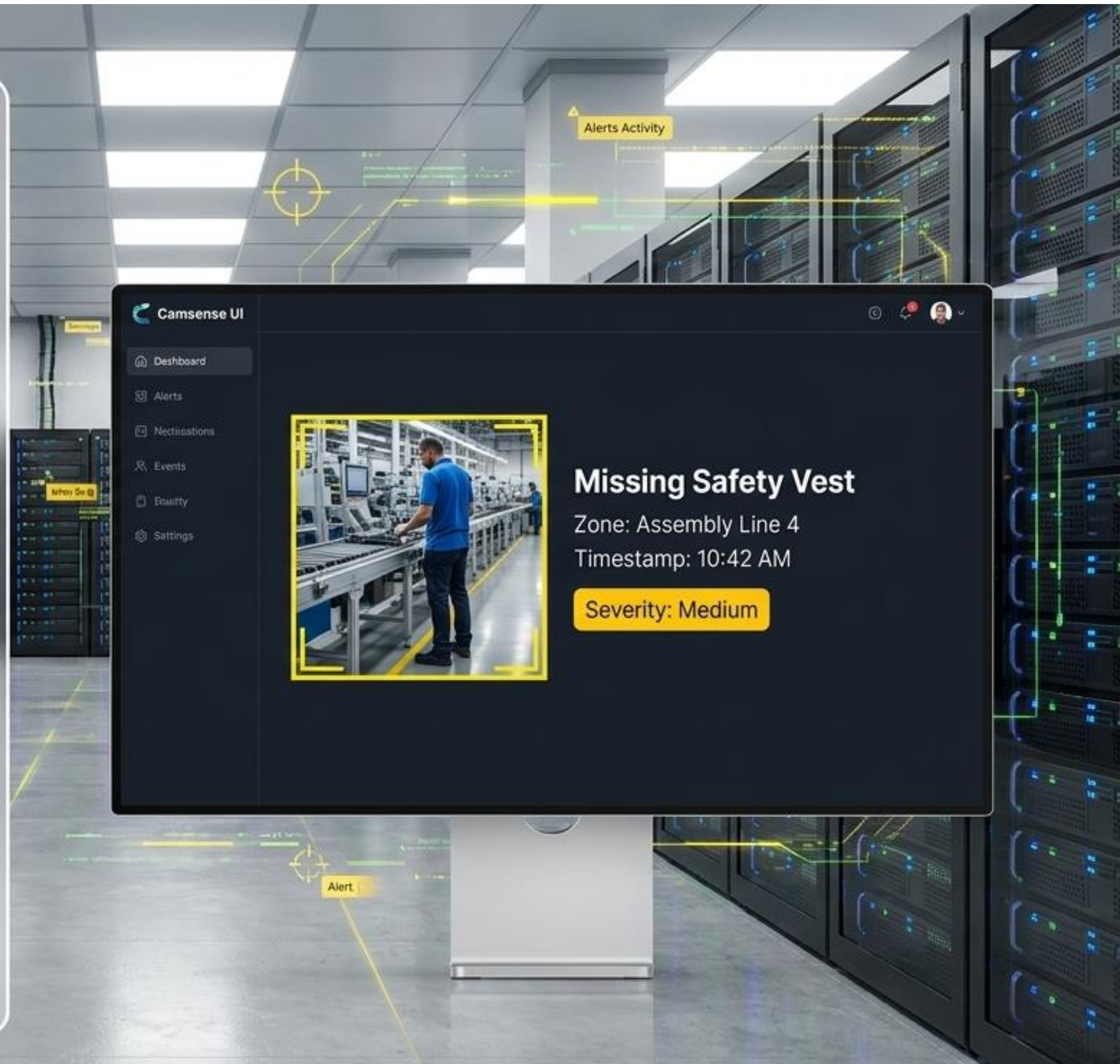
**Perimeter (12):**  
Vehicles, authorized access,  
after-hours monitoring.



# The Command Dashboard

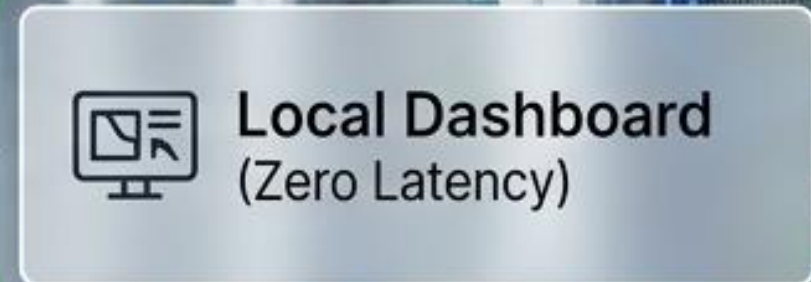
Every alert becomes a traceable operational record.

- **Real-Time Alerts:**  
Instantly tagged with camera, zone, event type, timestamp, and severity.
- **Instant Evidence:**  
Automated snapshots and video clips for fast review by authorized users.
- **Deep Searchability:**  
Filter history by person, vehicle, camera, date, and event type.
- **Automated Reporting:**  
Daily and weekly digests routed to plant heads via Role-Based Access Control.



# Edge-First Deployment Architecture

Designed for privacy, low latency, and zero bandwidth bloat.



**Local Processing:** Video streams are processed locally on-premise via an Edge AI box/server.

**Low Bandwidth Dependency:** Internet is only required for metadata sync, notifications, and remote support.

**Hardware Agnostic:** Reuses existing compatible cameras; sizing depends purely on camera count and analytics load.



⚠ Data Secure

✅ Compliance Verified

⚠ Data Secure



# Responsible AI & Governance

Workforce analytics governed by strict privacy compliance.

- ✅ **Purpose-Bound:** Used strictly for declared safety, security, attendance, and ops purposes.
- ✅ **Privacy by Design:** Avoids sensitive spaces entirely (washrooms, changing rooms).
- ✅ **Access Control:** Enforced via Role-Based Access Control (RBAC) and strict system audit logs.
- ✅ **Human-in-the-Loop:** AI supports trained staff review; it does not replace human judgment, statutory systems, or EHS SOPs.

# The Business Impact for Industrial Plants



## Safer Operations

Instant visibility into PPE and zone compliance prevents accidents before they occur.



## Faster Investigations

Searchable face, vehicle, and timestamp data reduces manual CCTV review from hours to minutes.



## Absolute Accountability

Scalable governance across shifts, contractors, material movement, and multi-site operations.

# A Transparent, Ownership-Friendly Commercial Model

## Commercial Model

Not a heavy SaaS model.

### One-Time License

- ✓ One-time software license based purely on scoped cameras and approved use cases.
- ✓ Edge AI hardware, GPU, and networking provided at actuals.

### Annual AMC

- ✓ Annual AMC / support kicks in from Year 2.
- ✓ Routine updates and system health monitoring included.

**Custom Scoping:** Complex workflows (Facial Rec, ANPR, PPE) are quoted only after strict camera-view and site-policy validation.

# The 30–45 Day Pilot Plan

Validate value on 10–20 priority cameras before scaling across the plant

## Week 1

Site Survey, camera audit, and priority use-case selection (HR/Privacy review)

## Week 2

Edge server preparation and secure network onboarding

## Weeks 3–4

AI zone/rule setup, enrollment workflows, and live alert tuning

## Weeks 5–6

First Management Reports, incident review training, and scale blueprint handover

**Next Step:** Share your plant layout and camera details to scope your pilot