

viso.ai

2025 edition



AI vision-powered safety: your ROI accelerated

Unlocking value with the viso HSE Suite

Contents

Executive summary

Unforeseen safety incidents are costing industrial manufacturers as much as \$50 billion per year.

According to a 2022 Forbes study, the impact of unplanned downtime, often from unforeseen safety incidents, can cost industrial manufacturers as much as \$50bn annually ¹. Across the global economy, a Siemens report of the same year concluded that unplanned downtime wiped out 11% of the yearly turnover of all Fortune Global 500 companies (increasing from \$864bn in 2020 to a staggering \$1.5tn a year by 2022 ²). With this trend continuing apace, the 2025 estimate is expected to easily surpass \$2.5tn.

Perhaps even more alarmingly, the International Labour Organization (ILO) benchmarked that safety incidents alone are responsible for a loss of 4% of Gross Domestic Product (GDP) globally ³.

In this paper we outline that far from these trends further eroding margin, AI Vision – and specifically the viso HSE Suite – have already turned the tide for early-adopters of this technology. Aggregated research from several leading consultancies and global trade organizations indicates real-time monitoring with AI Vision can already reducing workplace accidents by 25–40% and resulting machine downtime by up to 20-30%. ⁴



How AI Vision became the foremost development in eliminating downtime costs and safety risk

AI Vision applications enable computers to 'see' and interpret the world around them through both images and videos, simulating human understanding. When these applications are used to power safety monitoring systems it becomes possible to detect unsafe behavior in real-time.



Worker safety monitoring – ensuring compliance with safety protocols – using vision-based Personal Protective Equipment (PPE) and behavior monitoring is increasingly effective:

- Installing cameras at critical entry points to detect helmets & vests.
- Monitoring restricted zones and dangerous equipment with CV to detect unauthorized access or risky behaviors
- Using pose estimation to detect slips, trips, or fatigue-related postures

¹ Source: Forbes ('Unplanned Downtime Costs More Than You Think')

² Source: Siemens, 2022 ('The True Cost of Downtime')

³ Source: Independent Labor Organization ('Work hazards kill millions, cost billions')

⁴ Source: Aggregated data from McKinsey, Deloitte, Automation.com and World Economic Forum (WEF)

You can turn all existing cameras in your facilities into a real-time safety inspector.

With viso's Health & Safety Suite, risks are identified and addressed instantly, empowering your Environment, Health and Safety (EHS) teams to proactively manage them. This, in turn, drives achieving compliance and ensuring continuous operational safety.

Manufacturers face tightening regulations, zero-harm targets, and growing productivity demands that manual checks cannot fully meet. Traditional inspections leave dangerous and expensive gaps, increasing both risk and exposure.

Designed specifically for industrial environments, viso's Health & Safety Suite integrates seamlessly across multiple sites, empowering safety teams with data-driven insights to sustain continuous improvement.

Vision-powered safety delivers hard-dollar and strategic savings by empowering safety teams.

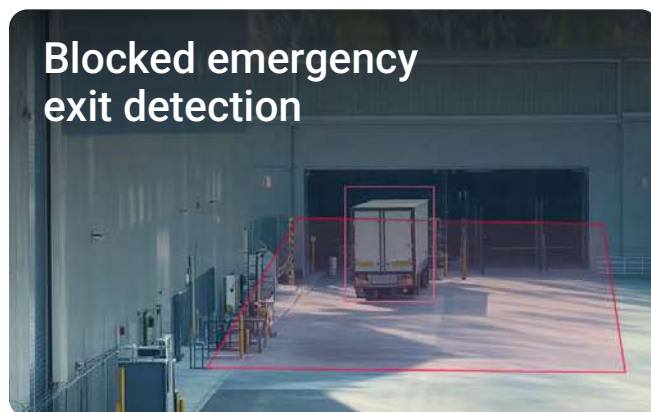
Capturing safety-relevant events and flagging them in real time derives insights allowing adjustments for training, in turn significantly reducing incidents. A broad range of incidents – including PPE non-compliance, near-miss incidents, Restricted zone Intrusions and Forklift Collisions – can be reduced in the range of 50% - 75% from deploying AI Vision.

Implementing AI Vision delivers significant cost savings and enhanced operational efficiency through improved productivity. Stronger market position through measured Health & Safety improvements and an advantage in winning bids and tenders further drive profitability and growth.

With rapid assessment, piloting and training, we can deploy to a full rollout inside three months

Beginning with a safety assessment, planning for a pilot and training, leads to developing a full rollout plan on the journey to zero-harm operations.

Data sourced from industry reports, reputable published sources and proprietary information



Confined space overcrowding detection



viso for manufacturing – Health & Safety Suite

Turn every existing camera into a real-time safety inspector, capturing unsafe events 24/7 and empowering EHS teams to make proactive safety decisions.

- **Transform risk into insight.** Detect non-compliance, near-misses and hazards continuously, well beyond periodic spot checks.
- **Prove impact fast.** Customers typically see a 55% drop in near-miss events and ROI within 6 months of rollout.
- **Built for industrial scale.** Edge-to-cloud architecture secures data, integrates with EHS, Manufacturing Execution Systems (MES) and Business Intelligence(BI) systems, and supports multi-site deployments.

The business case for vision – powered safety

Industrial Health and Safety leaders face tightening regulations, skilled labor gaps and pressure to hit “zero-harm” targets while increasing throughput. Traditional, manual audits are time-consuming and leave blind spots that lead to losses being incurred. AI Vision delivers significant savings.

Hard-Dollar Savings

- **> \$50k** average direct + indirect cost per OSHA recordable injury – every accident prevented flows straight to EBIT.
- **> 25 hours** of production lost per critical incident investigation. Automated event evidence cuts root-cause analysis time dramatically.
- **> \$4.1bn** in fines and downtime paid by manufacturers in 2024 alone: clients using Vision AI reduced that exposure by up to 70%.
- **8–12%** annual reduction in workers compensation and liability premiums once verifiable KPI improvement is reported to insurers.

Strategic Savings

- **Up to 80%** of near misses go unrecorded in manual systems, hiding the true risk profile and limiting strategic decision-making. Capturing these events turns blind-spot data into targeted training plans.
- **Reducing manual safety walks and CCTV reviews by up to 90%**, frees supervisors for coaching and continuous improvement.
- **A proven zero incident record** has become a top three scoring criterion in major project tenders, giving adopters a decisive edge.

The **viso Health & Safety Suite** closes this visibility gap by capturing safety-relevant events and flagging them in real time. The insights enable targeted training adjustments, which are the primary driver behind the rapid reductions detailed on the following page.

Composite organization value case

Prior to companies introducing viso’s EHS Suite, they experienced frequent Personal Protective Equipment (PPE) violations and forklift collisions. These in turn led to costly fines, downtime, and heightened injury risks. With tightening regulations and increased pressure to maintain productivity, traditional safety checks were increasingly insufficient, prompting the need for a smarter approach.

Organization profile
Industry: Automotive parts manufacturing
Facilities: 3 plants, operating two shifts per day
Employees: 750 across all locations (250 per site)
Annual operating days: 260 days per year

Annual incident metrics
PPE non-compliance: 25 incidents per site
Near-miss events: 20 event per site
Restricted zone intrusions: 8 lock-outs per site
Forklift incidents: 4 collisions per site

This composite organization is based on industry-standard figures. We encourage you to replace the values above with your organization's specific metrics to estimate the value

High-value benefits

Significant cost savings
Dramatically reduce the costs of fines, accidents and downtime.

Enhanced operational efficiency
Improve productivity reduce disruptions and boost safety.

Competitive advantage
Strengthen market position with measurable Health & Safety improvements.

Incident type	Average reduction	Annualized value
PPE non-compliance	55%	\$105,000
Near-miss incidents	60%	\$164,000
Restricted zone intrusions	75%	\$235,000
Forklift collisions	50%	\$124,000
Annual savings		\$628,000

viso.ai data based on an average customer - this could be higher or lower depending on the implementation and customer requirements.

Unlock additional strategic benefit

Many organizations already maintain excellent safety records. Vision AI however offers an innovative edge to sustain zero incident targets and win business where safety KPIs are a key consideration for evaluating tenders, for example

Beyond the conservative hard-dollar savings above, most customers unlock additional value drivers once the suite is scaled:

- **Insurance premium impact:** 8–12% reduction in workers compensation and liability premiums after one year of verifiable KPI improvement.
- **Productivity lift:** 0.5–1.5% Overall Equipment Effectiveness (OEE) gain from fewer line slowdowns and faster restarts.
- **Scrap and rework reduction:** Safer machine cycles cut quality costs by up to \$50k per line annually.
- **Bid win advantage:** Winning just 1% more tenders can significantly outweigh compliance savings on large contracts.

Why traditional controls are falling short

Because manual checks are sampled, not continuous, they are prone to human bias. As safety walks happen only once per shift (and in many cases less), several hours, days or weeks can pass with no oversight. Hazards emerge and disappear, near misses slip through the cracks, and workers often modify their behavior in the inspector's presence, so the snapshot never truly reflects everyday risk.

Regulatory and compliance pressures are also significant. Strict safety mandates require auditable proof that risk controls are active: manual inspections remain time-consuming and resource intensive.

Market competitiveness and client expectations have seemingly never been higher. Safety performance has now become a decisive and increasingly mandatory criterion in large project tenders. Lagging indicators and siloed data are no longer viable to win contracts. Firms that can demonstrate an always-on, technology enabled, zero incident record secure a tangible competitive advantage.



How viso Health & Safety Suite closes the gap

24/7 computer vision capture records every unsafe act in real-time, precisely as it happens, eliminating blind spots between inspections.

Actionable real-time alerts are activated via light stacks, audible sirens and Distributed Control System (DCS) interfaces, warning workers instantly and triggering on-floor intervention.

Unified analytics and insights convert continuous event data into precise KPIs, empowering enterprise EHS teams to make informed, proactive, evidence-based safety decisions.

As a result, enterprises shift from reactive reporting to predictive, zero-harm operations.

Health & Safety Suite use cases

A modular suite of use cases and applications allows you to tackle the issues that hit your KPIs the hardest. Below we have grouped them into three themes so that decision-makers can easily identify their impact – 1. Worker Compliance, 2. Worker-Vehicle Interaction, and 3. Zone and Equipment Safety

24/7 unsafe-event capture revolutionizes how enterprise EHS teams make proactive safety decisions. Every module feeds the same dashboard, deploy one, three or all as your risk profile demands.

1. Worker compliance

Module	What it does	Typical impact
PPE non-compliance	Detects missing helmets and vests	–55% violations
Multi operator task	Confirms two person rules on critical lifts, machine servicing and other high-risk tasks	–65% liability exposure
Operator readiness	Verifies that the operator is present and engaged at the start of the cycle	– 40% scrap rates



2. Worker – vehicle interaction

Module	What it does	Typical impact
Near miss and unsafe proximity	Monitors safe distances between people, forklifts and machines	–60% near miss
Walkway obstruction	Flags forklift encroachment into pedestrian lanes	–70% vehicle encroachments
Vehicle speeding	Calculates forklift speed and flags when that is exceeded	–\$10k per month in collision cost
Route compliance	Detects wrongway forklift travel	–45% insurance claims required



3. Zone and equipment safety

Module	What it does	Typical impact
Blocked emergency exits	Ensures egress paths stay clear 24/7	\$15k per incident fines avoided
Confined space Overcrowding	Counts people and robots in restricted cells	–80% severe injury risk and related cost
Restricted/hazard zone intrusion	Detects entry during machine cycle or lock out	–\$235k per site unplanned downtime
Unsafe equipment operation	Spots missing machine guards or safety covers	\$10k per incident fine avoided

Implementation and timelines

The viso Health & Safety Suite is designed for rapid deployment and scale across multiple sites, ensuring minimal disruption and value being realized at speed. From an initial assessment and trial, through to analysis of pilot results and refined training, we can begin a full-scale rollout inside three months.

Step	Timeline	Activities
1. Assesement	Week 1-2	Site assessment, infrastructure review, defining use cases and establishing KPIs.
2. Production trial	Week 3-6	Install hardware/software, configure initial modules, validate alerts and conduct training.
3. Evaluation	Week 7-8	Analyze pilot results, adjust configurations, refine training and prepare wider rollout.
4. Full-scale rollout	Month 3+	Begin full deployment across targeted areas/sites, integrating fully with existing systems. Note: the timeline varies based on the number of locations and specific site requirements, as identified in the initial assessment and pilot.

What happens next

- 1. Schedule a safety assessment:** Start your proactive safety journey by scheduling an initial consultation and site review.
- 2. Pilot planning:** Collaborate with our team to design and deliver a focused pilot that demonstrates immediate value.
- 3. Full rollout roadmap:** Receive a detailed deployment plan customized for your organization’s needs and timeline.

Exec. briefing	Technology assessment	Production trial	Use case deployment in production
2 hours	2-3 days	8-12 weeks	3-6 months

Why viso?

Viso Suite is the leading computer vision infrastructure for teams to build, deploy and scale all use cases from prototype to production. Focus on tangible business outcomes, not infrastructure.

We help the most complex organizations to build, deploy and operate AI vision.
Accelerate the entire lifecycle of AI vision.

- ✓ **Build** powerful, custom AI vision applications
 - ✓ **Deploy** real-time AI vision to the Edge or Cloud
 - ✓ **Operate** and maintain a portfolio of applications
 - ✓ **Scale** on robust infrastructure for any AI mode
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Get started

Contact us and speak with our team of experts to learn how you can get started with Viso Suite. Visit www.viso.ai

