

AI Safety Agent MVP for SMBs

Leveraging NVIDIA's Video Search and Summarization Blueprint



Problem Statement

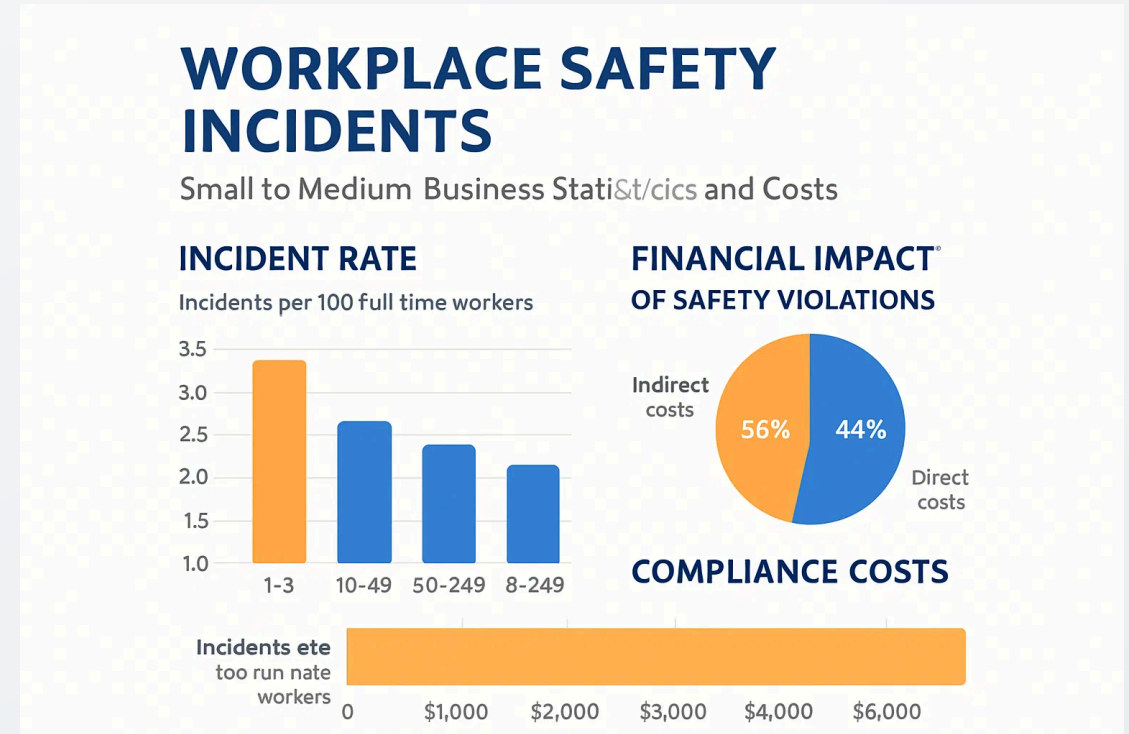
⚠️ SMBs face **significant challenges** in workplace safety monitoring

👤 Manual monitoring is **resource-intensive** and prone to human error

📄 Compliance documentation creates **administrative burden**

📉 Limited data for **pattern recognition** and preventive measures

💰 Safety incidents lead to **significant costs** and productivity losses



NVIDIA Blueprint Overview

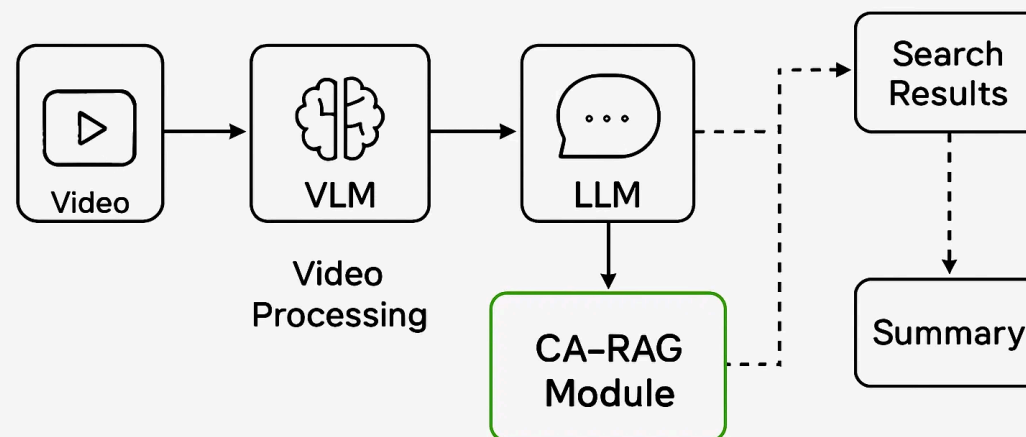
NVIDIA's video search and summarization blueprint provides a powerful foundation for AI safety applications

Key Technologies

- 👂 Vision Language Models (VLMs)
- 💬 Large Language Models (LLMs)
- 🗄️ Context-Aware RAG
- 🔧 NVIDIA NIM Microservices

Designed for **efficient analysis** and **summarization** of large video volumes

NVIDIA Video Search and Summarization Blueprint



AI Safety Agent Concept

Transforming the NVIDIA blueprint into a specialized **AI safety monitoring solution** for small to medium businesses

Proactive

Identifies hazards before incidents occur

Continuous

24/7 monitoring without fatigue

Adaptive

Learns from patterns over time

Scalable

Grows with business needs



Core Features

The AI Safety Agent MVP delivers four essential capabilities for workplace safety



**SAFETY VIOLATION
DETECTION**



**REAL-TIME
ALERTING**



**COMPLIANCE
DOCUMENTATION**



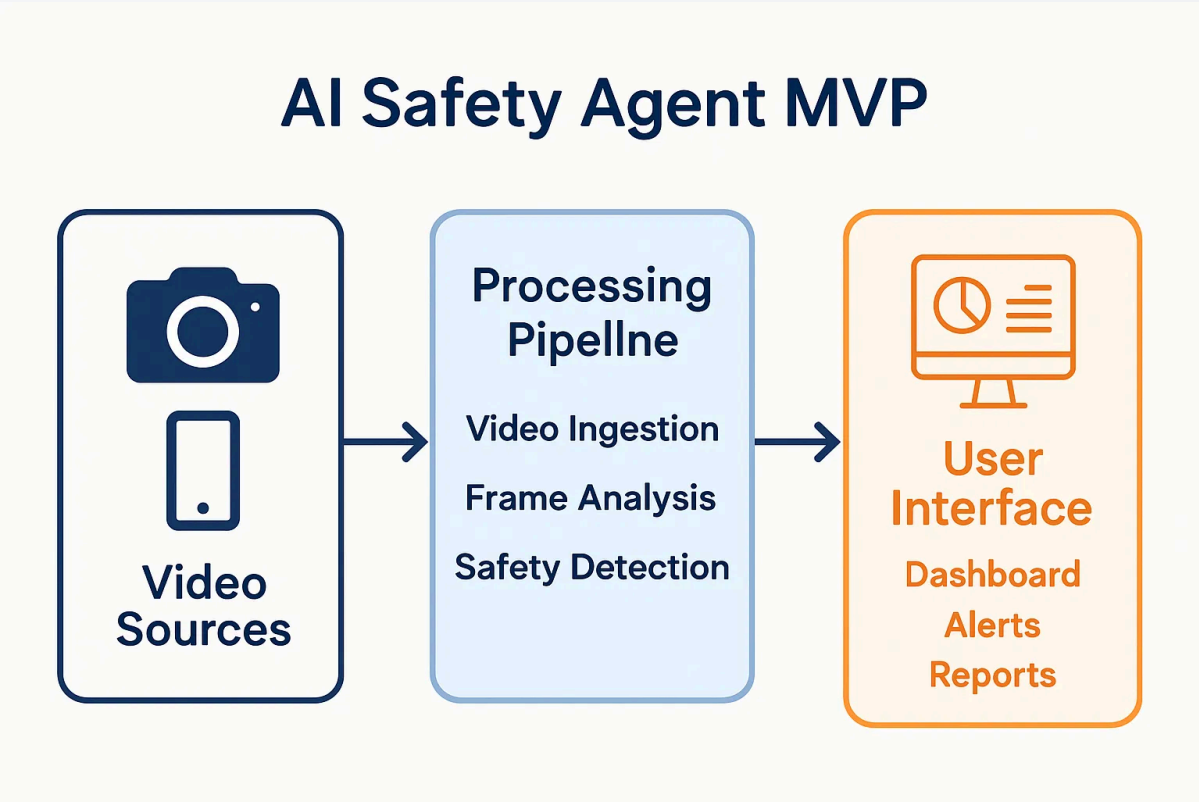
**Q&A
CAPABILITIES**

- ✓ Identifies OSHA violations in real-time
- ✓ Generates required safety documentation

- ✓ Notifies appropriate personnel immediately
- ✓ Answers questions about safety status

MVP Architecture

Simplified architecture designed specifically for small to medium businesses



Video Sources

- Security cameras
- Mobile uploads
- Archived footage

Processing Pipeline

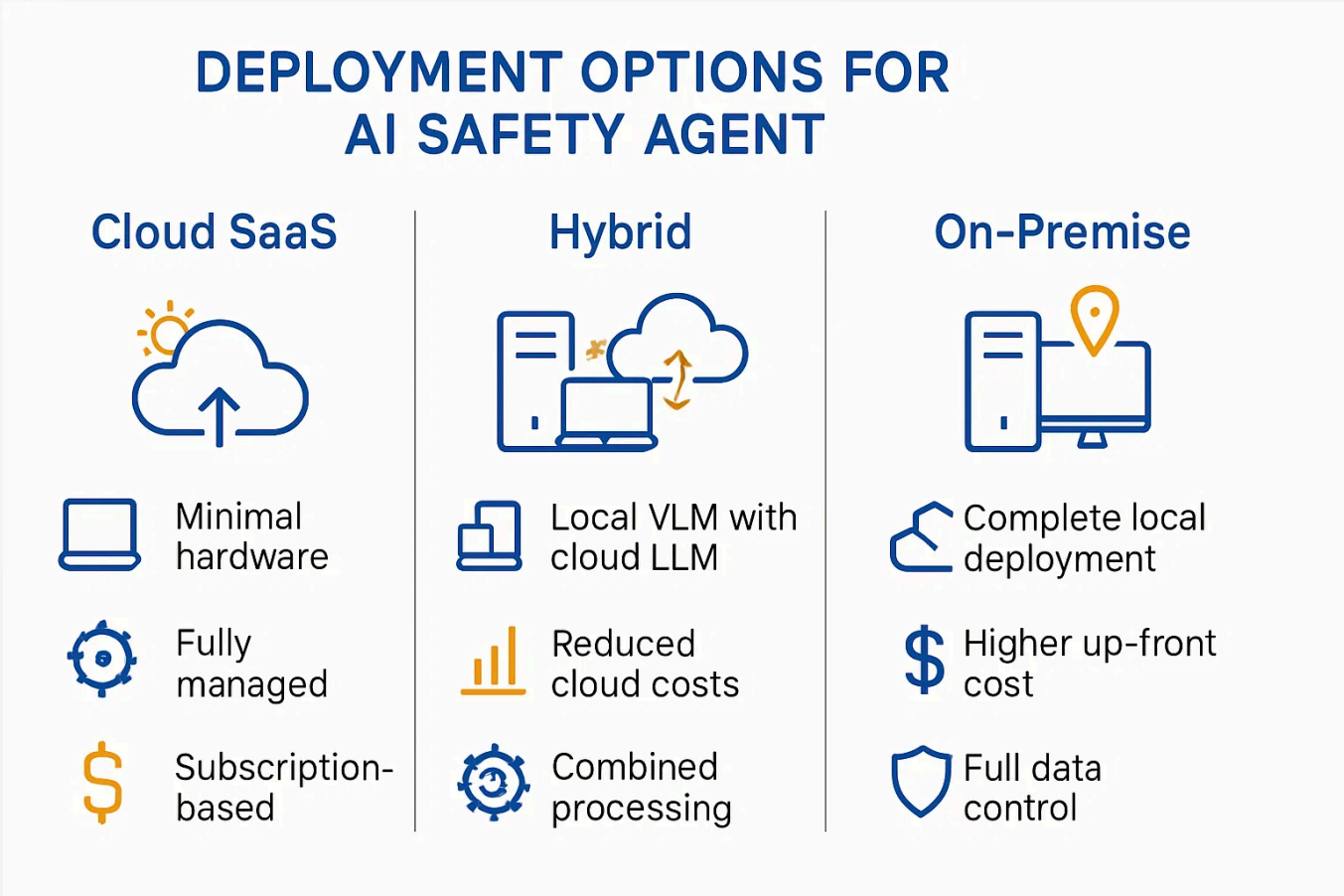
- Video ingestion
- Frame analysis
- Safety detection

User Interface

- Safety dashboard
- Incident alerts
- Compliance reports

Deployment Options

Flexible deployment models to accommodate different SMB resources and needs



Cloud SaaS

Ideal for businesses with minimal IT infrastructure

Hybrid

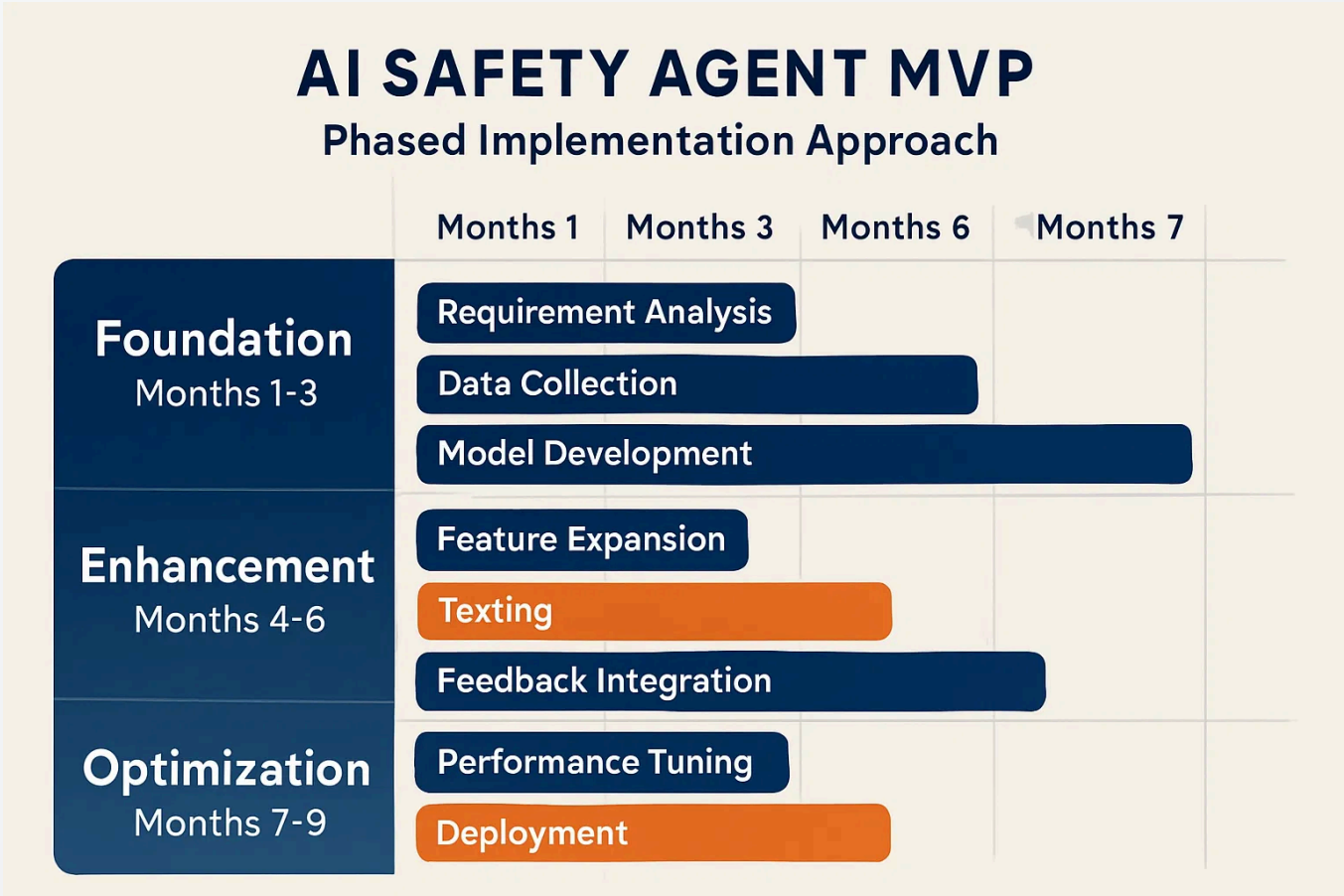
Balanced approach for businesses with some hardware resources

On-Premise

Complete control for businesses with existing GPU infrastructure

Implementation Roadmap

Phased approach to implementation ensures manageable deployment and clear milestones



Foundation

Core architecture setup and initial deployment package

Enhancement

Feature expansion and integration capabilities

Optimization

Performance improvements and advanced analytics

Industry Applications

The AI Safety Agent MVP addresses specific safety needs across multiple industries



Manufacturing

- PPE compliance monitoring
- Machinery safety zones
- Process adherence

Construction

- Fall protection monitoring
- Site access control
- Equipment operation safety

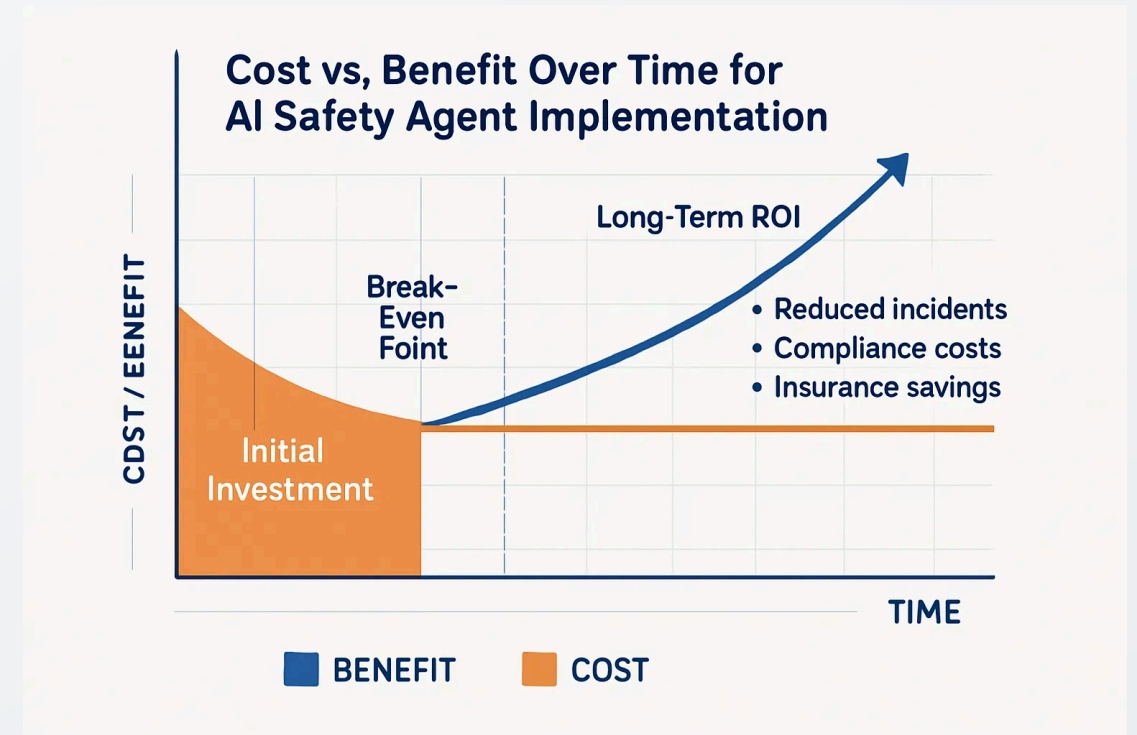
Warehousing

- Forklift operation safety
- Loading dock monitoring
- Storage compliance

ROI & Benefits

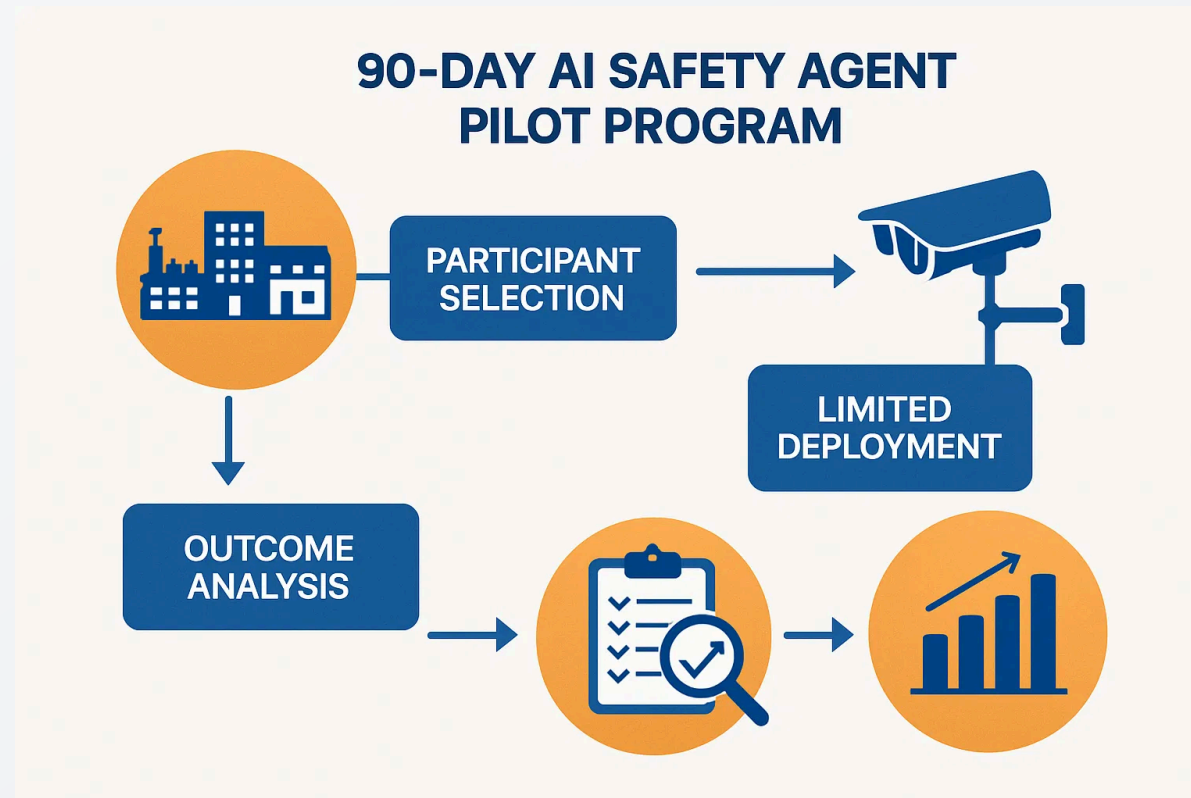
Implementation of the AI Safety Agent delivers **measurable returns** for small to medium businesses


- 📈 **20-30% reduction** in workplace safety incidents within 3-6 months
- 💰 **5-15% reduction** in insurance premiums over 12-24 months
- 🔧 **40-60% reduction** in compliance penalties and associated costs
- ⚙️ **10-20% improvement** in operational efficiency for safety management





Pilot Program


Structured 90-day pilot program to validate effectiveness and gather real-world feedback



 **Participant Selection:** 3-5 businesses across 2-3 target industries

 **Success Metrics:** Detection accuracy, response time, user satisfaction

 **Limited Deployment:** 3-5 cameras in highest-risk areas

 **Outcome:** Case studies and testimonials for market launch

Next Steps

Clear path forward to implement the AI Safety Agent MVP for your business

- ✓ **Immediate:** Select deployment model and identify high-risk monitoring areas
- 🤝 **Partnerships:** Engage with MSPs, security integrators, and safety consultants
- 📅 **Timeline:** 90-day pilot followed by phased implementation
- 🔧 **Future:** Custom model training and multi-site coordination

