



# Navigating the Evolving Risk Landscape:

## Harnessing Innovation and Technology in Risk and Safety Management

**ASSP San Diego Safety Conference 2025**  
**Darlyn McDermott, CLF, MBA**

October 21, 2025



# Risk - Safety - Technology

*The intersection of innovation, expertise (YOU) and the Internet of Things (IoT)*

## Overview

1. Discuss and identify innovative technology: IoT connected sensor and video technologies
2. Discuss integration of technology with existing safety frameworks
3. Discuss validation and efficacy in ROI
4. Discuss case studies across industries

## Key Learnings

1. Building awareness of key innovative technologies to drive innovation and improve risk management
2. Embrace technologies to streamline operations, safety and customer experiences
3. Further understand how technology innovations can enhance safety, add risk management rigor, and drive profitability across many industries



# Evolved Risk Management and Economies of Scale - Cutting across Industries and Lines of Business

- Interior Water Leak/Freeze
- Exterior Flood Management
- Smart Building Controls- Occupancy/Energy
- Equipment Breakdown
- Crime- Facility Monitoring/Parking



## Facility Risks

Water leak and freeze detection

AI Computer Visioning

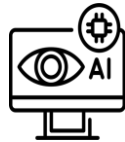
LPR Capability (license plate reader)



Telematics



Water Leak Detection



AI Computer Vision

Smart Building Controls



Satellite Sensors & Imagery

## User Benefits

More control of prediction

Mobile apps and quick visuals

Platform communications with providers

- Workplace Safety/PPE
- Slip/Fall Prevention
- Warehouse/Forklift Safety
- Fire Safety
- Chemical Safety
- Ergonomics
- Fleet Safety



## Workplace Safety

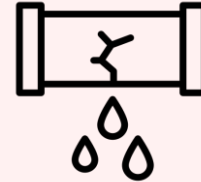
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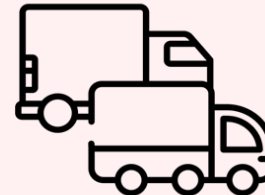
# Deeper Dive on 3 Popular **Risk Improvement** Solutions



**Water Leak and  
Freeze Detection**



**AI Computer Visioning**



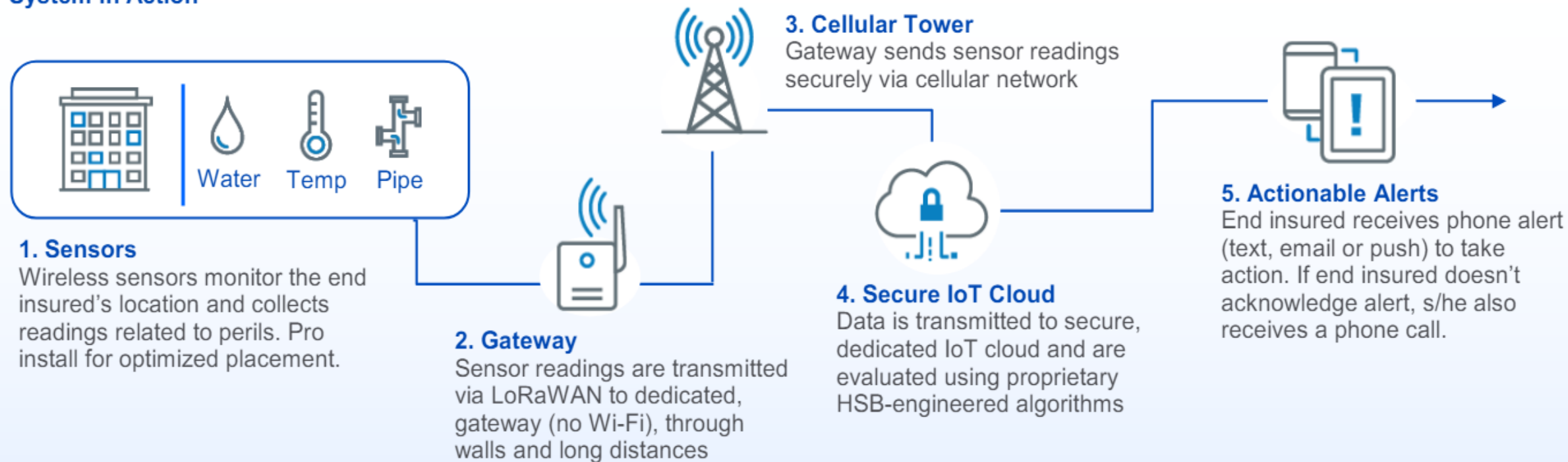
**Telematics**

# Water Leak and Freeze Detection



# How it works: Technology that alerts you to potential causes of property or equipment loss even when you're not there

## System in Action



## Key Perils



Water  
Leaks



High  
Temperatures



Power  
Outages



Heating System  
Failure



Frozen  
Pipes



Freezing  
Temperatures



Mold  
Conditions



Refrigeration  
Failure

# Actionable alert mitigates boiler return line rupture for a complex



**Occupancy:** Luxury Complex

**Location:** Vancouver, WA

**Potential Loss Description:** Ruptured return line to boiler.

**BI Impact:** 1-2weeks

**Save Estimate:** **\$100K+\***

\*estimated savings based on similar events



**Description**

A real-time sensor alert detected water leakage in the mechanical room. Staff responded immediately, with a repair technician onsite within 20 minutes to replace the line and restore the water heater.



**Impact**

- Preventing Extensive Property Damage
- Minimizing Business Disruption
- Protected Customer Experience
- Preserving Brand Reputation



# Telematics





# Telematics Can Mean Back of House Operations Efficiency for MVR Reporting or Claims and Driver Support

– *We Will Focus on The Latter*



Following Distance



Forward Collision



Stop Sign



Hard Braking



Pedestrian Detection



U-Turn



Traffic Signal



Hard Turn



Weaving



Vehicle Speed



Posted Speed



Hard Acceleration



Driver Alert



In-Cab Audio



Fleet Tracking



Event Access



Distracted



Drowsy / Yawn



Seatbelt



Obstruction



Monitorable Variables and **Fleet Manager Capabilities**

# Driver•i® “Act Now, Talk Later”

Driveri® identifies risk and provides (in-Cab) engagement within seconds of an identified event.

- 1 ALERT DETERMINATION  
W/CAUSALITY  
“FOLLOWING TOO CLOSE”
- 2 DETECTION, CAUSALITY AND  
SEVERITY ARE PROCESSED &  
ANALYZED AT THE DEVICE
- 3 DRIVER COACHING  
VIA IN-CAB NOTIFICATION  
[WITHIN SECONDS]
- 4 FOLLOWING DISTANCE  
ALERT GENERATED  
[WITHIN MINUTES]
- 5 PUSH NOTIFICATION SENT  
TO FLEET MANAGER  
MOBILEAPP  
[WITHIN MINUTES]

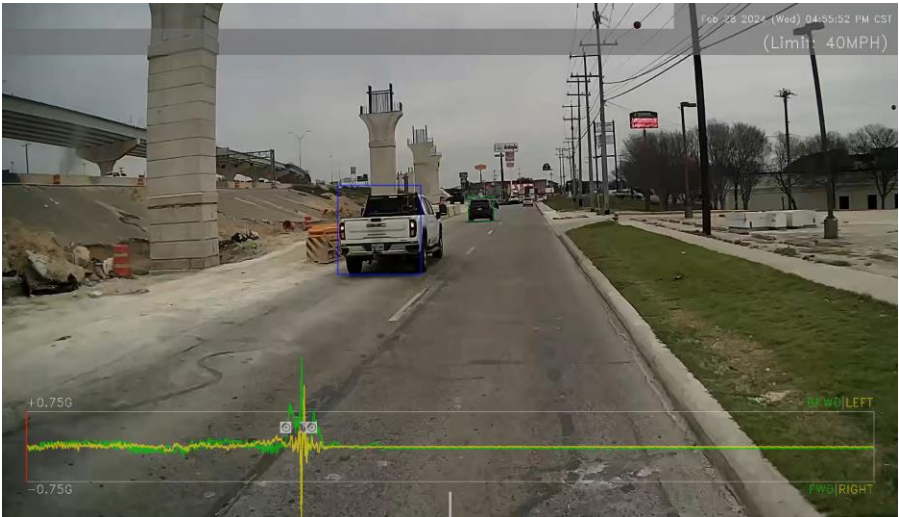


The Driveri system captures and analyzes every driving minute. Alert Data (Severity, Causality and Reasoning) are applied at the device – enabling immediate feedback/coaching to the driver to react & improve safety.

Note: Curated Video & Virtual Coaching can be sent to the Driver MobileApp

# Collision Management

- A set of tools that **streamline the collision management workflow**, from capturing the event to managing and sharing the associated data, as well as providing context for the event.
- Helps commercial fleets **reduce the cost of collision claims and insurance premiums** by providing an expeditious and efficient workflow for managing accidents and the First Notification of Loss (FNOL) process.
- Detecting collisions in near real-time, collect critical collision reconstruction information, capture high-definition video, and enable fleet managers to easily share the information with various stakeholders.



Property	Values
Traffic Control	TRAFFIC_LIGHT
Alert Date Time	Feb 28 2024 10:55:53 CST
Tenant Name	TENANT NAME
Vehicle Max Speed	44.765343 MPH
Seatbelt Used	YES
Geo Location	29.5547295,-98.3476791
Driver Last Name	Trevino
Vehicle Max G Force	4.27 -22.99 20.96 1709160972216
Driver Phone Number	NA
Alert Severity	Moderate
Vehicle Number	3406946
Driver First Name	Jocsan
Driver Id	2203383
Device Id	3633087332
Group Name	TENANT NAME
Driving Conditions	Clear suppressed
Sub Type	Moderate Potential Collision
Vehicle Identification Number	JALE5W16XL7302158
Alert ID	1998216352
Point Of Impact	accident - front
Location	N I-35, San Antonio, TX 78233, United States San Antonio Texas 78233
Alerts occurred two minutes before accident	NA



# Fleet Safety Report



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## 1.0 Executive Summary

The purpose of the Driver-i Utilization Report is to provide **Insert Customer Name here** with insights into their fleet's performance over the past 12 months. The insights captured in this report are derived from driving patterns, incidents, and safety statistics that were measured in real-time via Netradyne's AI-powered cameras. The metrics are intended to assist **Insert Customer Name here** with better knowledge of how their fleet is performing to inform coaching decisions. These statistics are also captured in the IDMS portal's Fleet Dashboard which is available on-demand to fleet managers

### Overall Demographics

Number Vehicles	632	Most Frequent Alerts	Most Frequent Severe Alerts
Distance	69,389,091 miles	Speeding Violations	Following Distance
Total Traffic Lights	3,353,022	Following Distance	Speeding Violations
Total Stop Signs	854,127	Stop Sign Violations	
Total Driving Time	1,148,952 hours (about 131 years)		
Total Traffic Time	332,670 hours (about 38 years)		

### Top 3 Violations

### Top 3 violations

Most Frequent Alerts	Most Frequent Severe Alerts
Speeding Violations	Following Distance
Following Distance	Speeding Violations
Stop Sign Violations	

### Speeding Violations

Month	Speeding Violations	Drive Time	Speeding Compliance %
Dec - Feb	2,521	28,6107	99.1%
Mar - May	2,269	29,6719	99.2%
Jun - Aug	2,192	29,0471	99.2%
Sep - Nov	2,032	278,606	99.3%

### Stop Sign Violations

Month	Stop Sign Violations	Stop Signs	Stop Sign Compliance%
Dec - Feb	12,852	209,162	93.9%
Mar - May	12,044	219,751	94.5%
Jun - Aug	10,296	224,691	95.4%
Sep - Nov	8,279	205,111	96.0%

# Case Study Results

Correlation between GreenZone Score and improved safety: 100 customers, 90 days



20% Increase in  
Greenzone Score



72% Increase in  
Driver Stars



81% Reduction in  
**Speeding**



65% Reduction in  
**Severe Alerts**



34% Reduction in  
**Moderate Alerts**



22% Reduction in  
**Distraction**



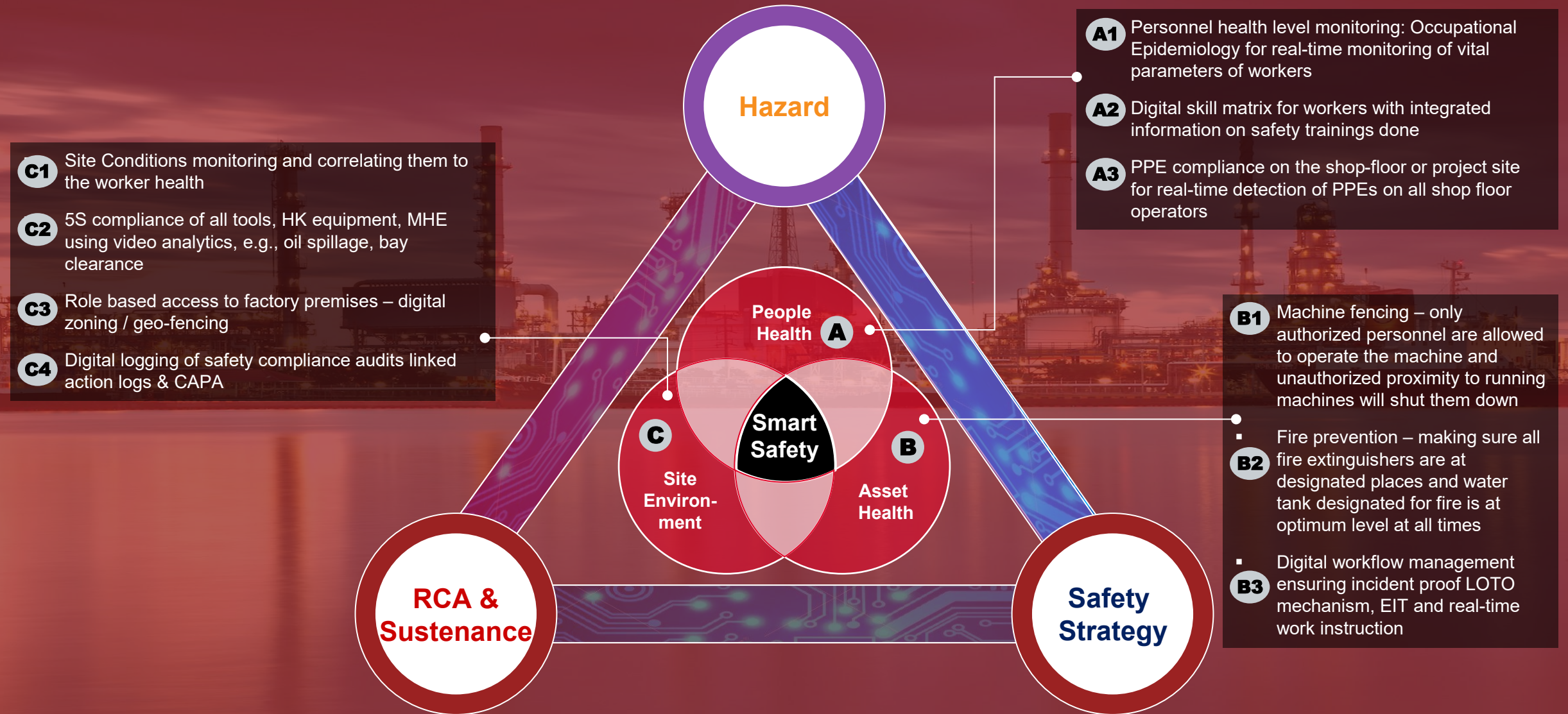
15% Reduction in  
**Stop Sign Violation**

# AI Computer Visioning





# Smart Spaces Enable | Digital Safety



# Smart Spaces Deployment Capability

HITACHI



Smart Hospitals



Smart Offices



Smart Stations



Smart Customs



Smart University



Smart Airports



Banks



Smart Shops



Smart Distribution



Smart Schools



Smart Stadiums



Transit Vehicles



Ferry Terminals



Prisons



Smart Roads



Smart Factories



Smart Malls



Police Force



Smart Public Facilities



Taxi Transport



Corporate Campus



Smart Traffic



Smart Harbors



Bus Depots



Smart Borders



Tourist Attractions



Smart Buildings



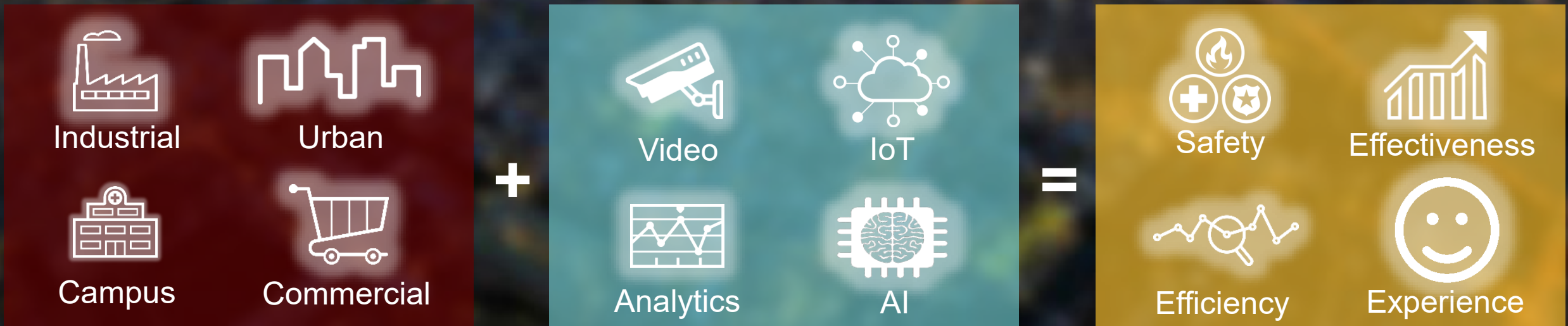
Logistic Centers

**Smart spaces are urban, commercial and industrial areas that use IoT, Video, AI and analytics technologies to deliver insights that make people, buildings and machines more effective, productive and safer.**

## Spaces

## Technology

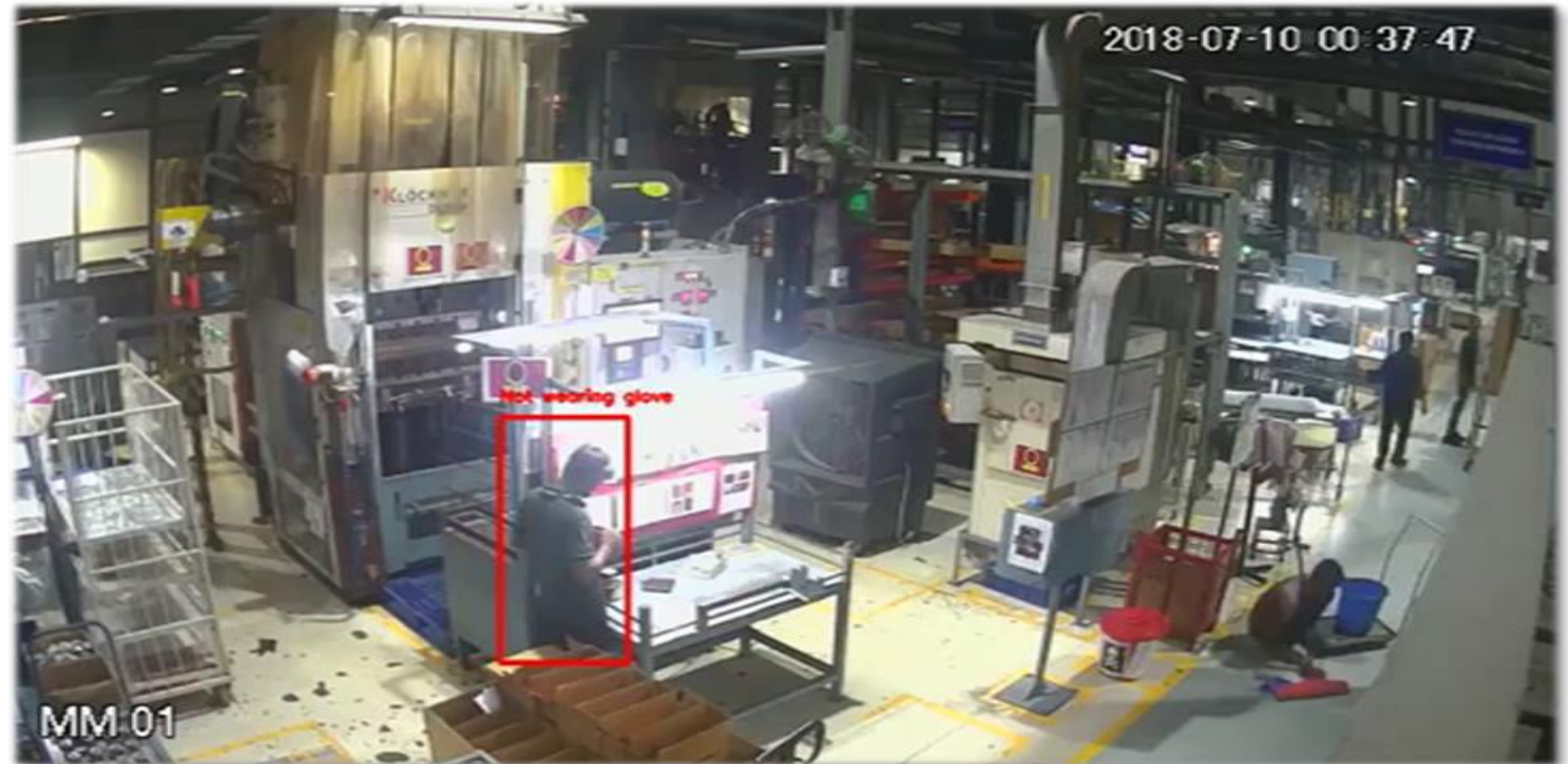
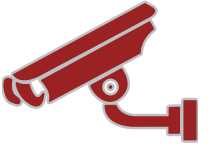
## Outcomes





# Computer Vision/AI

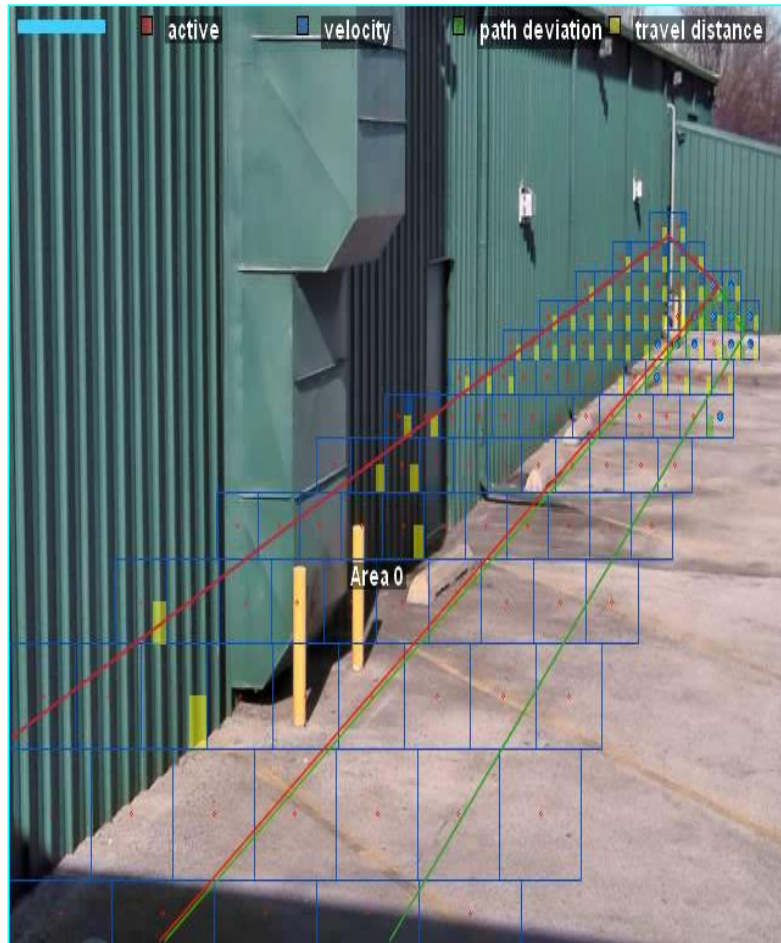
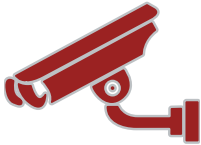
PPE Detection, Hand Washing, Distance/Sanitation, COVID-19, Slip/Fall, Claims Management, Crime, Fire/Freeze





# Computer Vision/AI

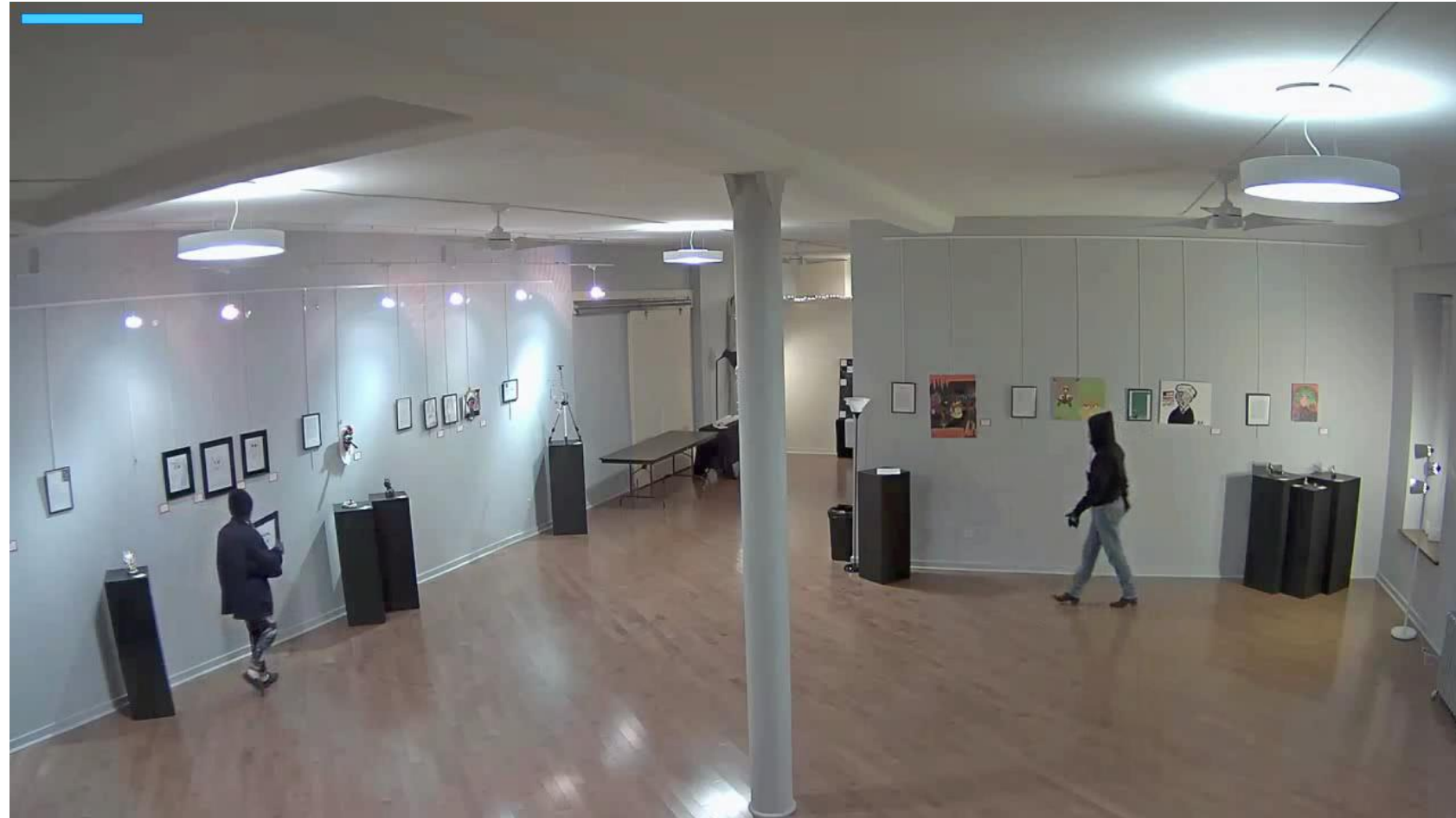
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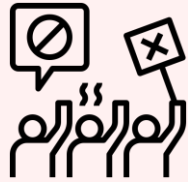
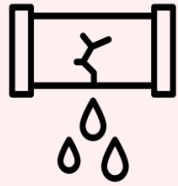
# Object Detector

## Theft Detection

- Detects missing objects
- Immediate alerts for faster response
- Force multiplier for public safety and security to ensure safety for passengers, students, and citizens
- Proactive response







## Effective Implementation Requires Organizational Change Management and Cross Collaboration

# Change Management - Implementation of new and innovative technology solutions in any vertical requires support, consultation and collaboration

Effective Implementation takes communication, support, change management and partnership

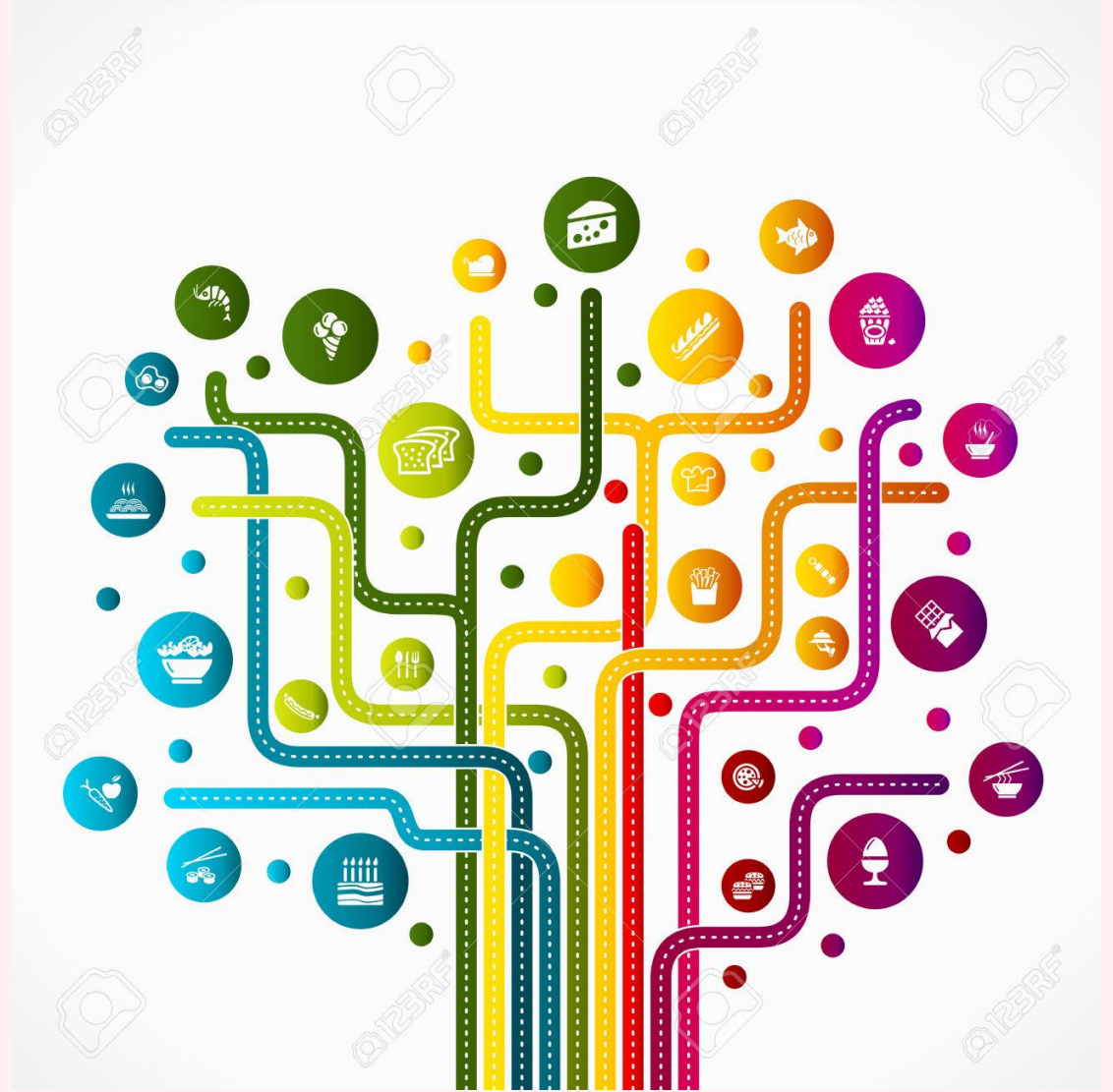


Technology is **only one part** of a holistic risk management approach.

Loss Control, Providers, Safety Personnel and Risk Managers must all work together to provide **additional risk control resources** to ensure a **cohesive mitigation approach**.

## 6 Key Take Aways for Today

- ✓ Comprehensive understanding of how technology innovations can enhance safety and manage risks
- ✓ Discussion of innovative technology IoT driven solutions driving growth and profitability across multiple industry verticals and benefitting all stakeholders
- ✓ Deeper understanding into water leak and freeze detection and related ROI
- ✓ Deeper understanding into Telematics solution types and related ROI
- ✓ Deeper dive into AI Computer Visioning solutions and related ROI
- ✓ Discussion of the communication, support and cross collaboration of all stakeholders to ensure successful implementations





# Questions and Discussion



**Darlyn A. McDermott, CLF, MBA**

Assistant Vice President | Client Innovation Services

1221 Avenue of the Americas

New York, NY 10020

T: + 1 217 245 8437

M: + 1 330 858 5581

E: [dmcdermott@sompo-intl.com](mailto:dmcdermott@sompo-intl.com)

[sompo-intl.com](http://sompo-intl.com)

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