# SafetyWatch

**to protect your employees**

**Intelligent, vision-based system for reducing threats and accidentsin the workplace.**
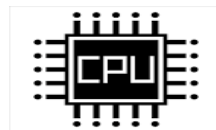
**It uses industrial cameras and advanced AI algorithms.**
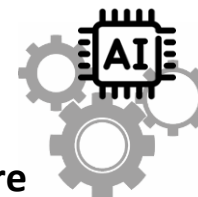
# SafetyWatch:

❑ **Reduces the number of dangerous events and accidents**

❑ **Supervises compliance with occupational health and safety standards**

❑ **It facilitates the planning of effective occupational health and safety activities**

❑ **Notifications about individual violations**

❑ **Summary reports and statistics, including heat maps (at the customer's request)**

**Basic industrial cameras**
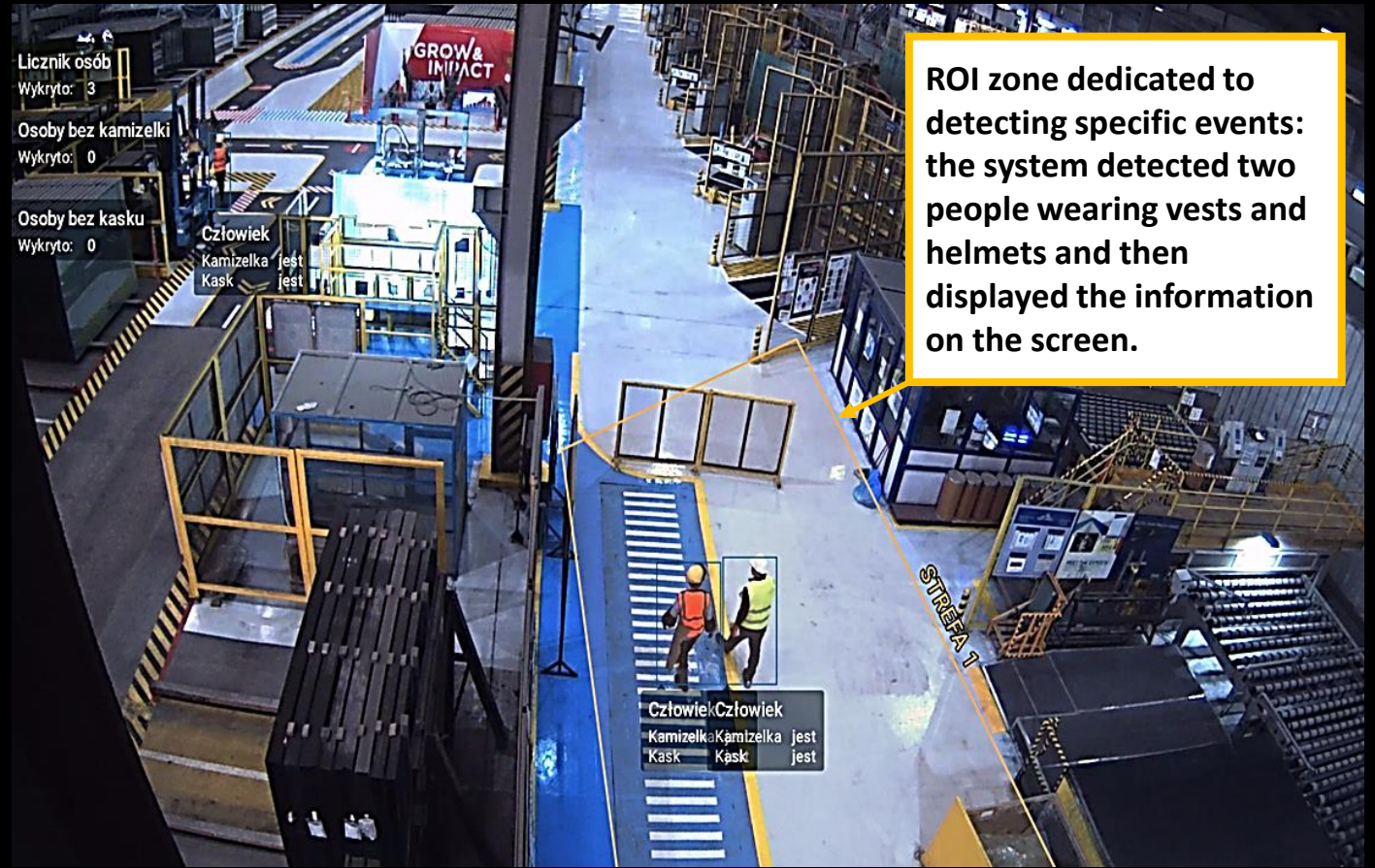
**Server, computer, or NVIDIA JETSON device**

**Software SafetyWatch**

**User Interface**

# Scope of application



**Recognizes a person in a CCTV camera footage**

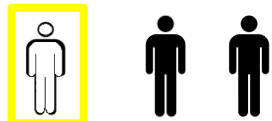**Recognizes person enters the exclusion zone (e.g. work zone of a crane, forklift)**

**ROI zone dedicated to detecting specific events: the system detected two people wearing vests and helmets and then displayed the information on the screen.**

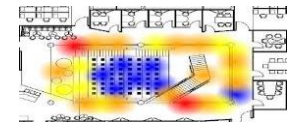**Detects absence in a place that requires constant presence**

**Verifies wearing helmets and vests (any elements upon request)**

**Recognizes forklifts and their movements (at customer's request)**

**creates reports, identifies risk areas (heat maps)**

# What we're working on at Promity

**AI**

**AI**

## Promity Data Services

Data and application integration, automation, and robotization. Business Intelligence and Big Data solutions. Digital Twins.

**Keywords:**
BI, Big Data, ETL, ESB, BPM, RPA

## Promity Data Science

Cognitive services and machine learning-based solutions. Advanced Deep Learning solutions.

**Keywords:**
BI, Big Data, ETL, ESB, BPM, RPA

## Promity Software

Dedicated mobile and web applications including sales, marketing solutions, supporting organizational operations, and financial analytics.

**Keywords:**
Angular, ELK, Spring, iOS, Android

## Promity Consulting

We support significant organizational changes, including process and cost optimization, with a particular focus on IT environment.

**Keywords:**
BPR, RPA, Systems Architecture

## Promity AGRO

CalfCam is the first of AGRO's products. We are developing next software with neural networks and computer vision to support welfare and efficiency for dairy farms.

**Keywords:**
Precision Agriculture, Agriculture 4.0

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**Workplace Accidents Cost „per medically consulted injury in 2021 was $42,000, while the cost per death was $1,340,000."**

⚠️

**(link: National Safety Council, 2021)**

# User benefits

Breach notifications:

❏ You will limit the number and severity of injuries

❏ Reliability - 100% concentration 24/7

❏ Information not burdened by the human factor

Consolidated Reports:

❏ Mapping potential collision and breach sites

❏ Understanding causes and planning improvements

❏ Image - attention to employee safety

❏ Targeting H&S trainings to the appropriate groups

# Deployment



**SafetyWatch implementation with ready-made AI models:**

- ❑ **Pre-implementation analysis**

- ❑ **hardware needs**

- ❑ **the scope of necessary software customization**

- ❑ **consulting implementation plan with the ordering party**

- ❑ **ensuring the expected results and profitability**

- ❑ **Implementation of the solution and training of staff**

Tailor-made SafetyWatch implementation:

- ❑ Tailored to the client's identified needs resulting from potential threats and client procedures;

- ❑ Training the model to detect other protection elements (e.g. glasses/goggles, headphones);

- ❑ Teaching neural networks to recognize any objects in the image from industrial cameras (tools, devices, vehicles - including forklifts).
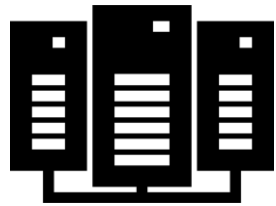
**The system can operate using the industrial monitoring system already existing in the facility.**



**On construction sites, users can use mobile camera masts equipped with their own power supply system.**

# Hardware requirements
## depend on the number of cameras and recording quality

**Serwer on promise**

**Example 1:**

**Basic computer**
i7 processor, 32 GB RAM,
NVIDIA 2080 Ti

**Affordable, practical**

**will handle 10 cameras
900 Euro**

**Example 2:**

**Blade server equipped with GPU cards**

**professional option**

**will handle 100 cameras
8000 EUR**

**Cloud solution
(Promity's server)**

**Example 3:**

**RTSP connection private AI cloud**

**economical,
easy to deploy,
technical limitations**

**50 cameras:
1350 EUR/month**

**System demonstration:**
- ❑ pperformance showcase of the system
- ❑ using provided recording archives
  - • proper behavior
  - • undesirable incidents
- ❑ without granting access to client devices

**The client can utilize the interface on any operating system, but data processing through the application requires a server with Linux operating system.**

**Optimal performance can be achieved using discrete sets of NVIDIA GPUs on the server.**

# SafetyWatch – priceing*

## Implementation with pre-built AI models

- ❑ **VMS Nx Witness Lifetime License (1 camera): 100 Euro**

- ❑ **Software:**

  - o **8-10 cameras: 400 Euro net per camera per year**

  - o **11-50 cameras: 370 Euro net per camera per year**

  - o **51-100 cameras: 350 Euro net per camera per year**

  - o **Above 100 cameras: Individual pricing**

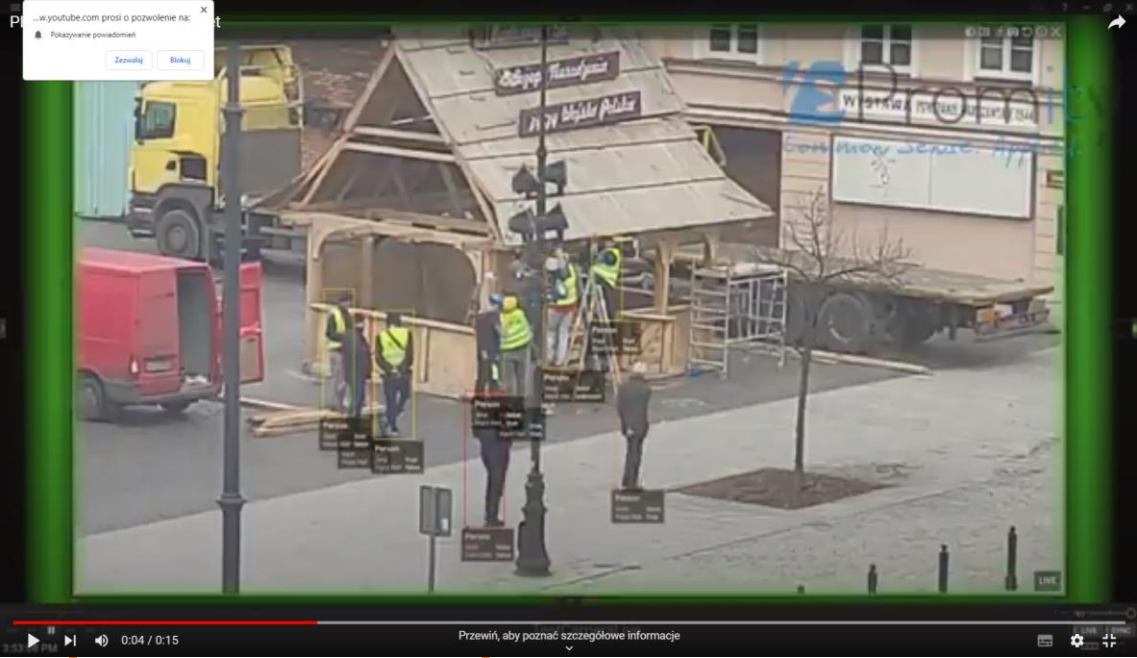## SafetyWatch "Customized" - individually priced

The fees are dependent on:

•the number of serviced cameras

•selected artificial intelligence models

•various nuances affecting the overall solution concept

The listed prices are net prices and do not include taxes applicable in the ordering country.

# How it works - footage



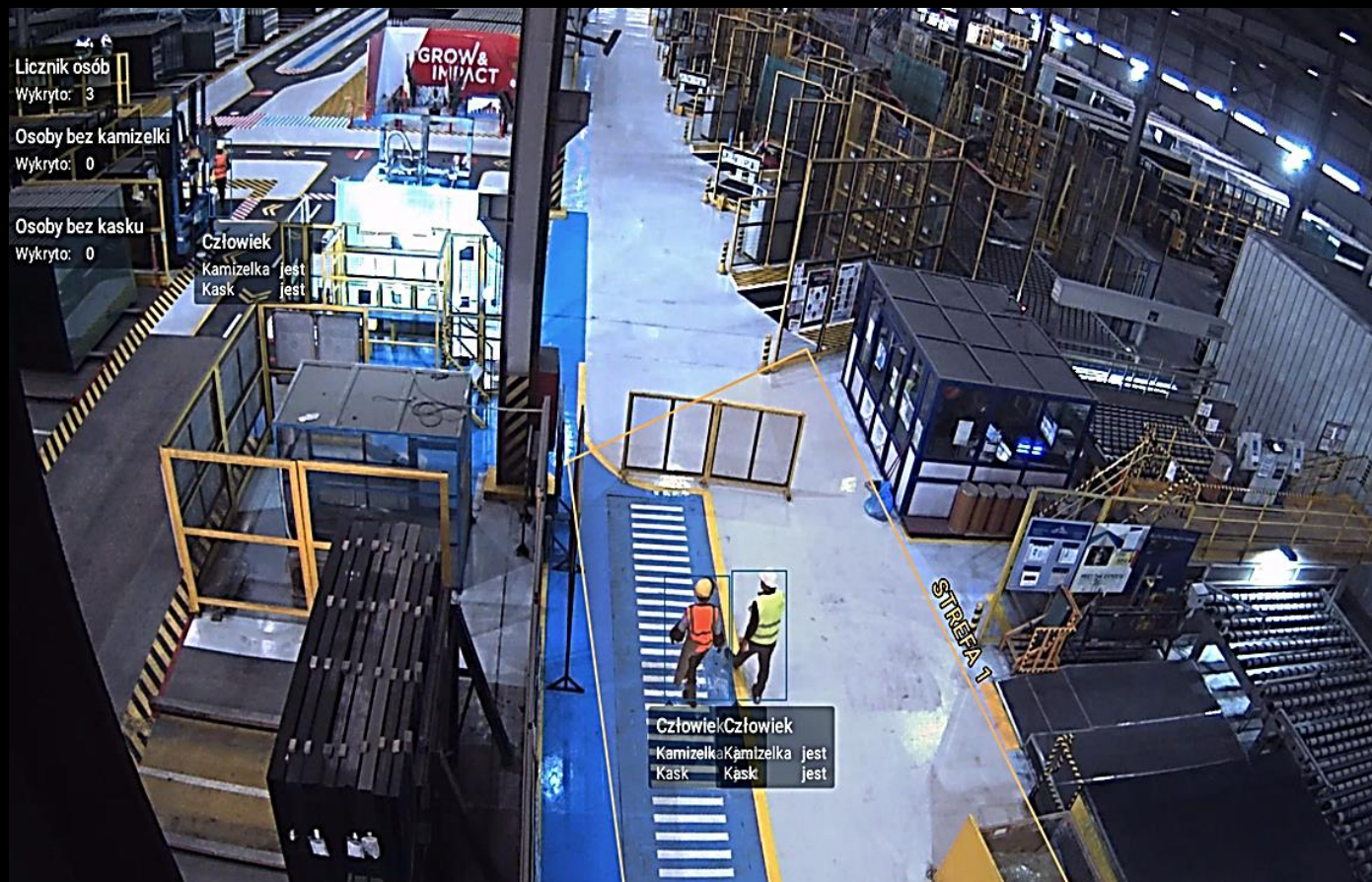**Click on the image to view the system in action recording**

Construction site

production hall

**We can train a neural network to detect any objects that are important to the client.**

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# SafetyWatch

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