

# SmokeCatcher<sup>®</sup>

by **ARAAANI<sup>®</sup>**

**VIDEO SMOKE DETECTION  
FOR CRITICAL ENVIRONMENTS**





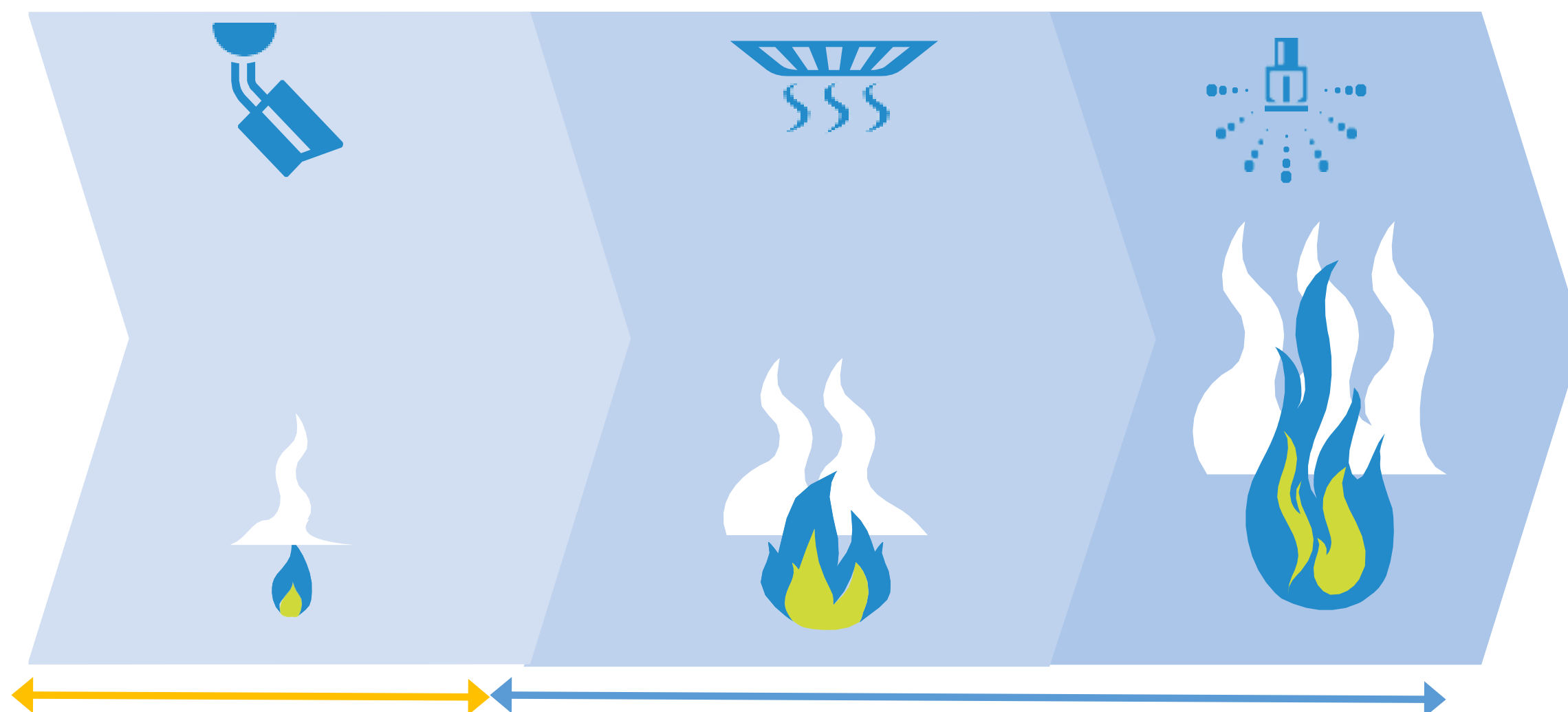
**WHY ?**

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1

## DETECTION AT THE SOURCE

Video Smoke Detection sees it first



SmokeCatcher Traditional smoke detection

# MORE THAN AN ALARM

2

## Visual verification

- Exact location of the incident
- Information on presence of people/victims
- Information on nature of combustion
- Real-time progress of the incident
- Pre- and post-incident evidence



## TRADITIONAL DETECTION CAN BE INADEQUATE

Harsh environment



Great heights



High impact & high risk



# AVOID CONSEQUENCES OF FIRE ALARM

4

Detection at source

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## **Minimize impact of fire**

- => safer working environment
- => lower insurance costs
- => lower impact on customers

Visual verification

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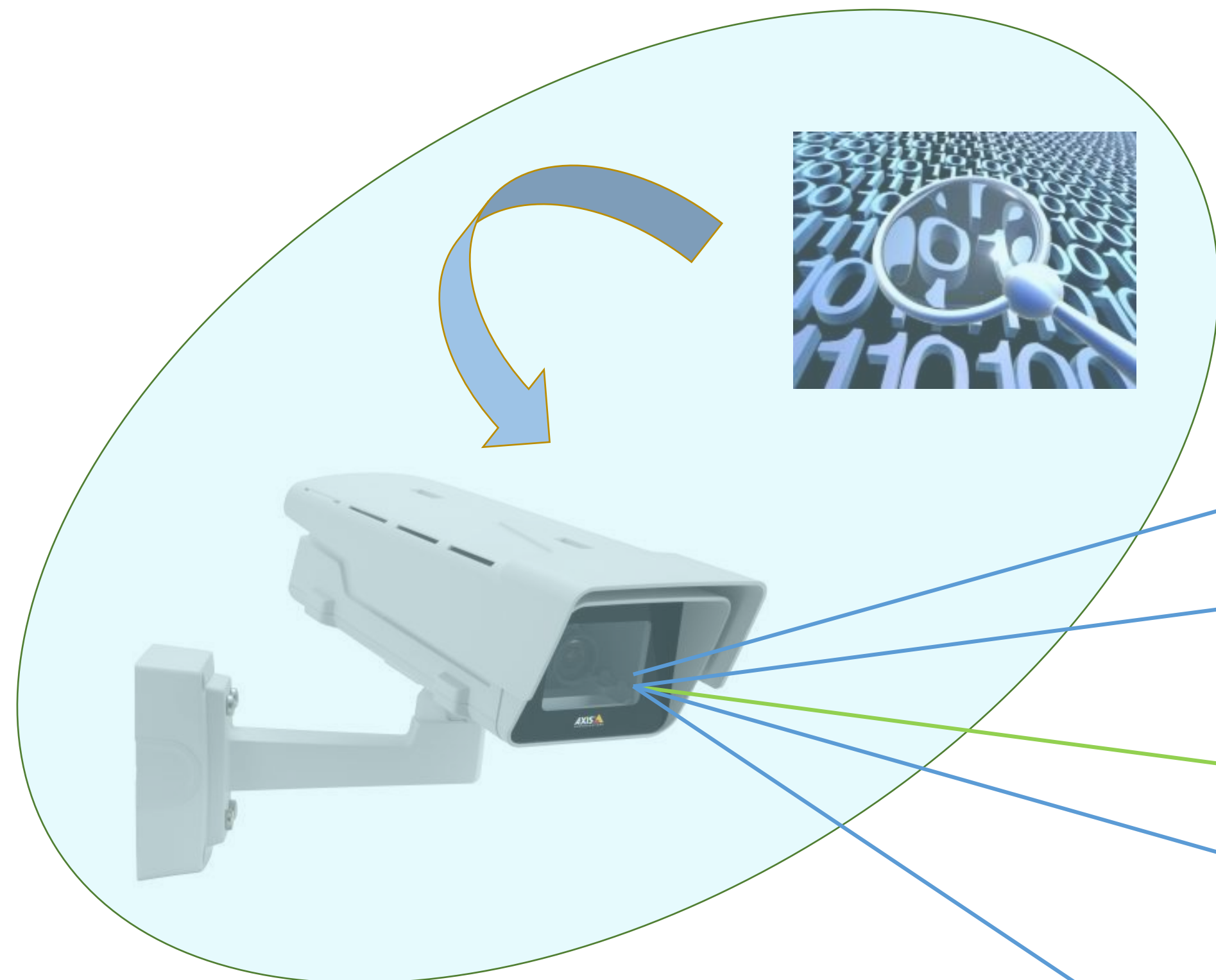
## **Less unnecessary evacuations**

- => no work interruptions

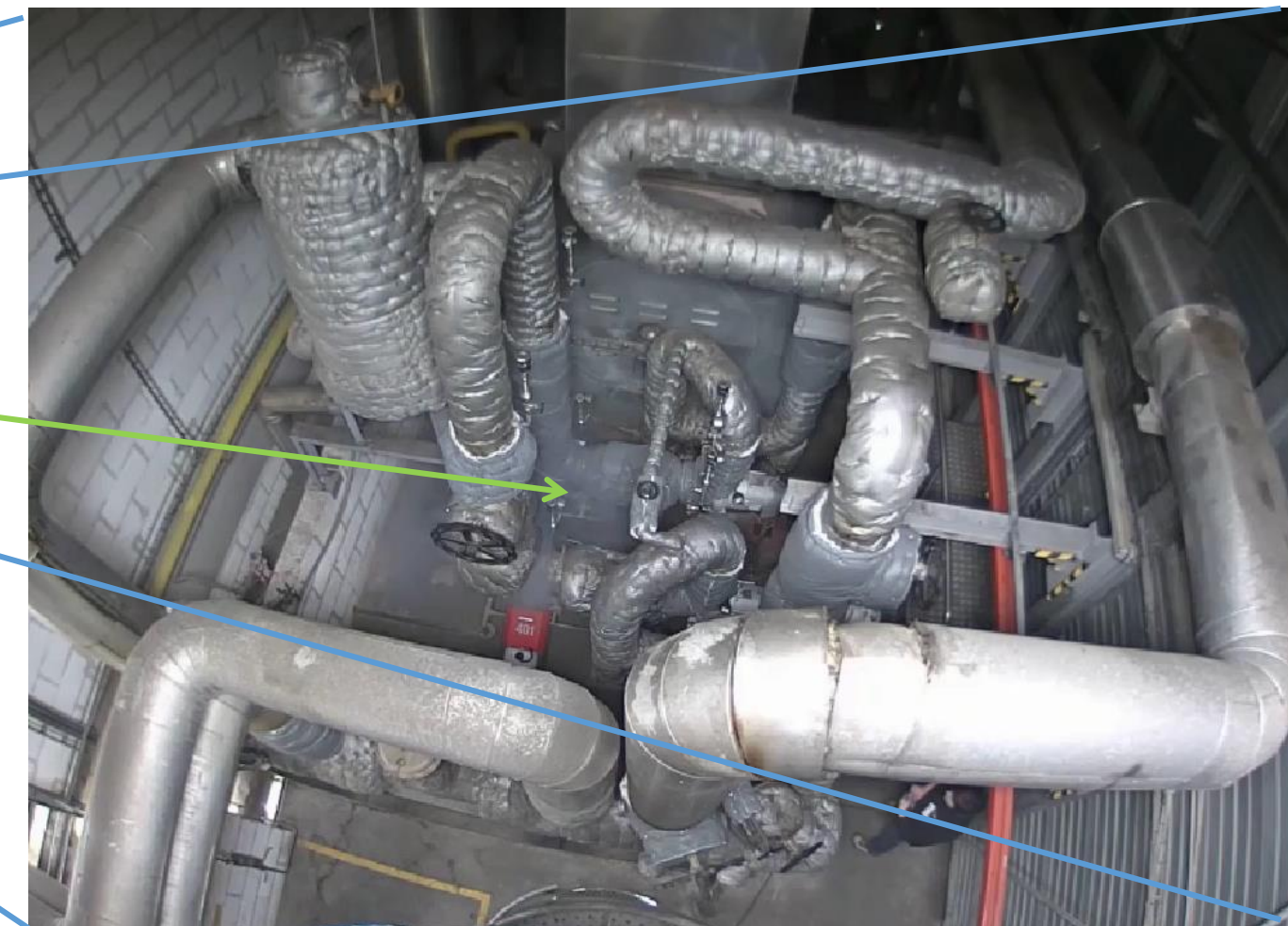
## **Less unnecessary automatic extinguishing**

- => no damaged goods
- => no cleaning costs
- => no cost for new water/gas/foam

# WHAT ?



SmokeCatcher



**= INTELLIGENT SMOKE  
DETECTOR**

# WHAT ?



## INTELLIGENT CAMERA

Artpec 4, 5 & 6 cameras compatible





# WHAT ?



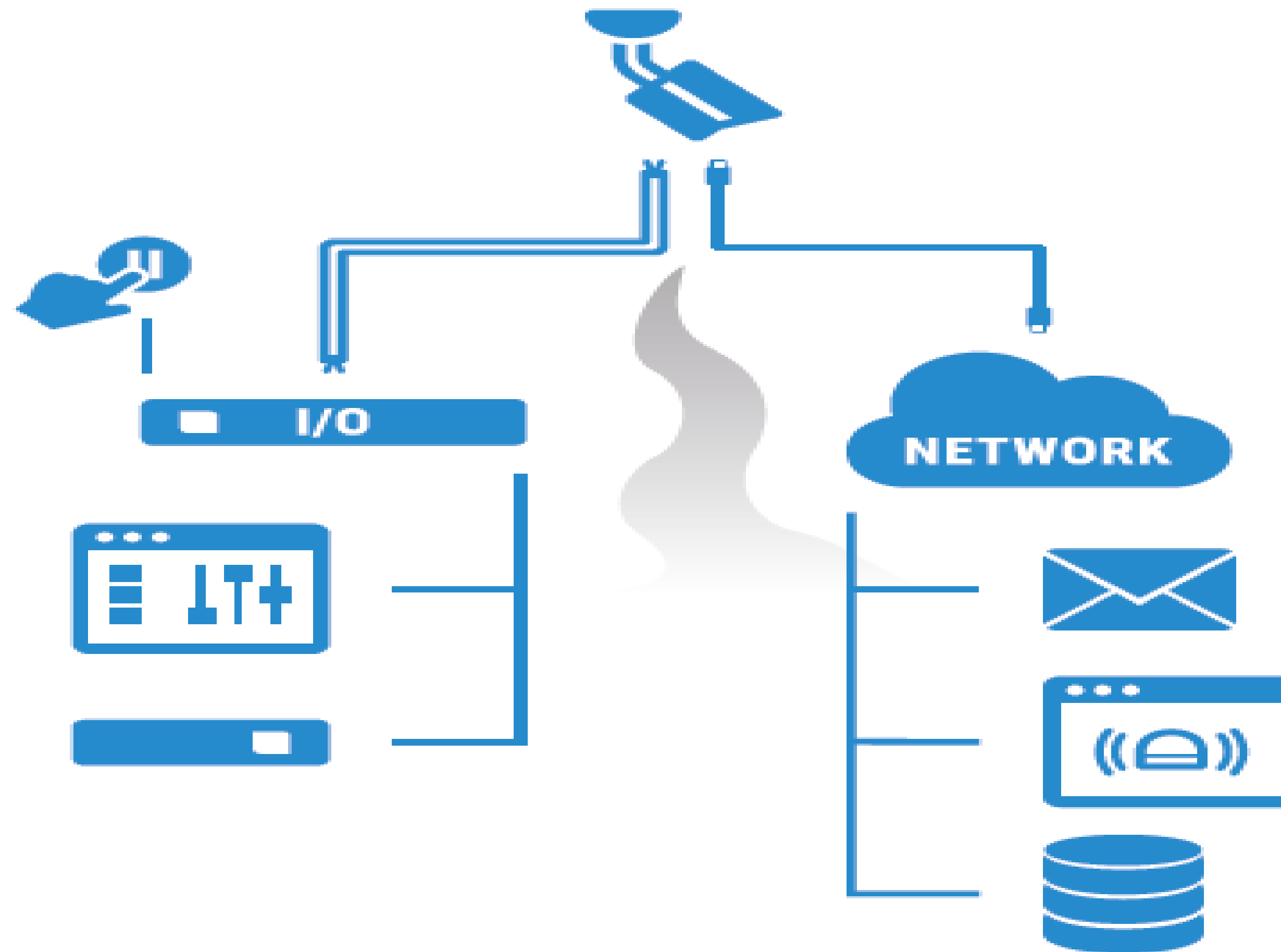
## SMOKECATCHER LICENSE

- Fault Signal
- Operational Signal
- Pre-Smoke Alarm
- Smoke Alarm
  
- Self test:
  - ✓ Minimal 15 lux
  - ✓ Sufficient background detail
  - ✓ Focus
  - ✓ Keep alive signal
    - ✓ => OPERATIONAL
    - ✗ => FAULT SIGNAL

# WHAT ?



## FLEXIBLE INTEGRATION



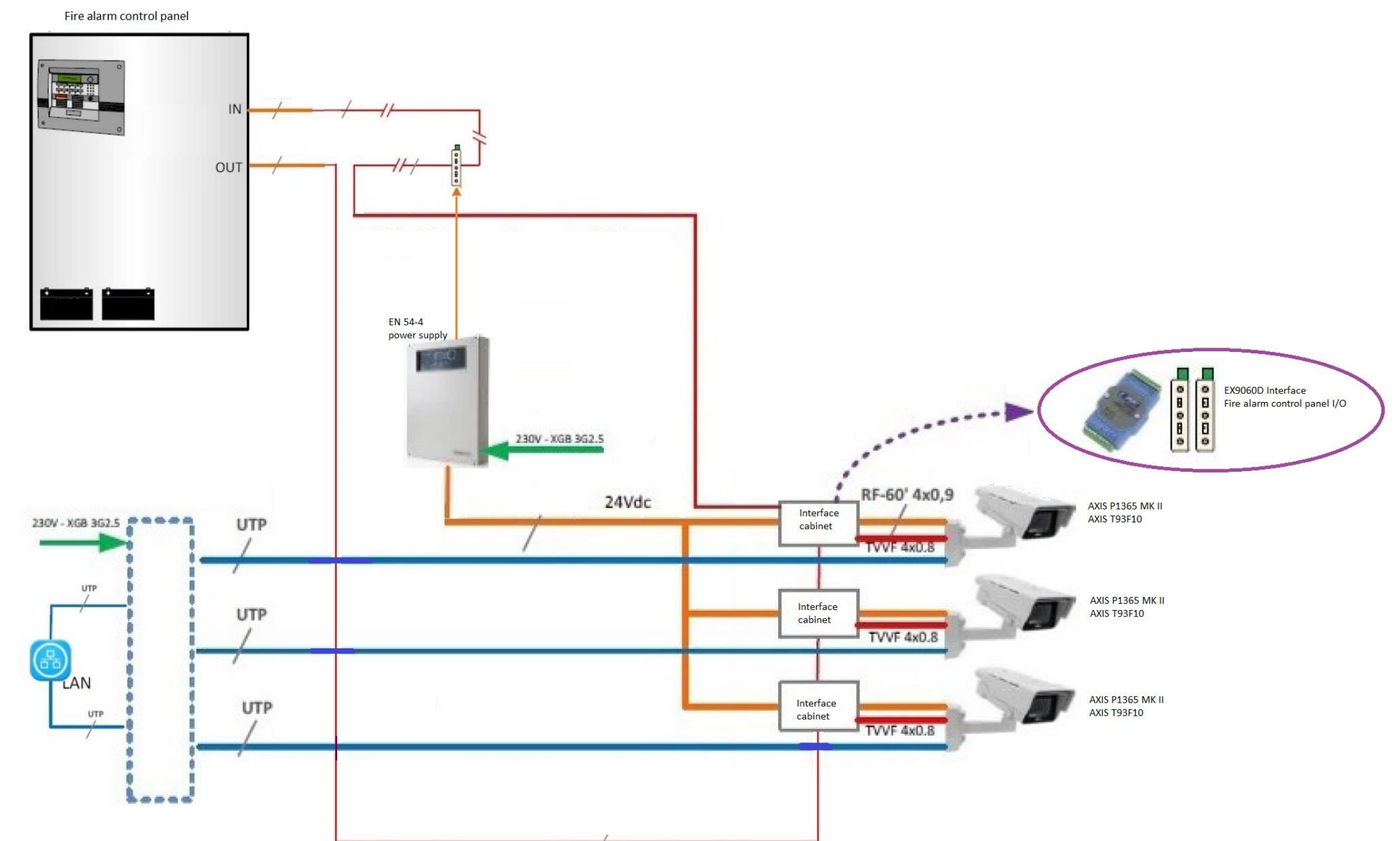
# WHAT ?



## FLEXIBLE INTEGRATION

Interface module

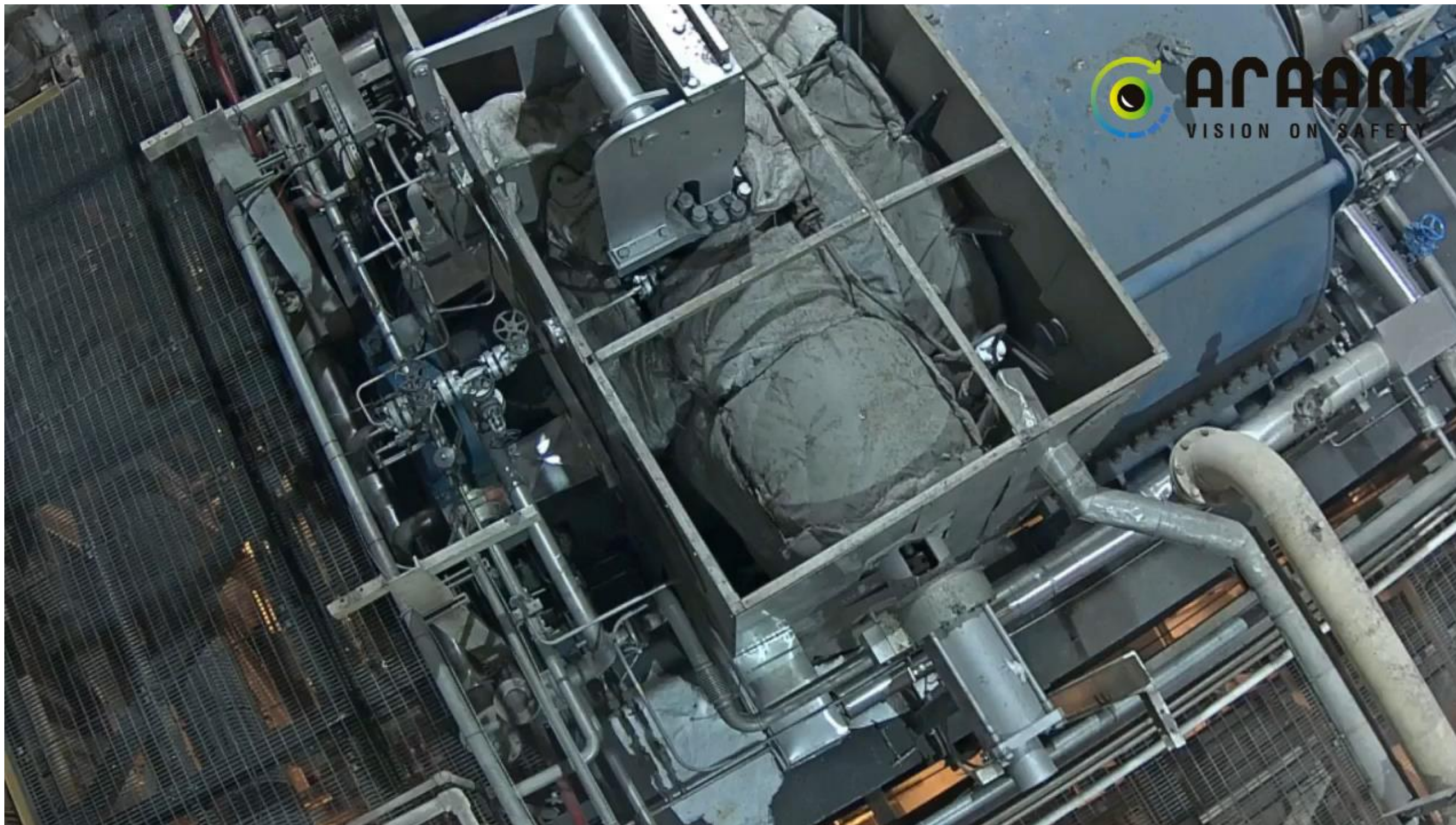
- To link camera with Fire Control Panel
- Converts digital I/O's of camera in potential free floating contacts:
  - 4 outputs:
    - Fault signal
    - Pre-smoke Alarm
    - Smoke Alarm
    - Power/software failure
  - Inputs:
    - Reset
    - Customized



# WHAT ?



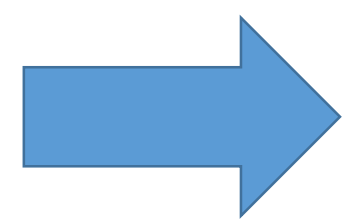
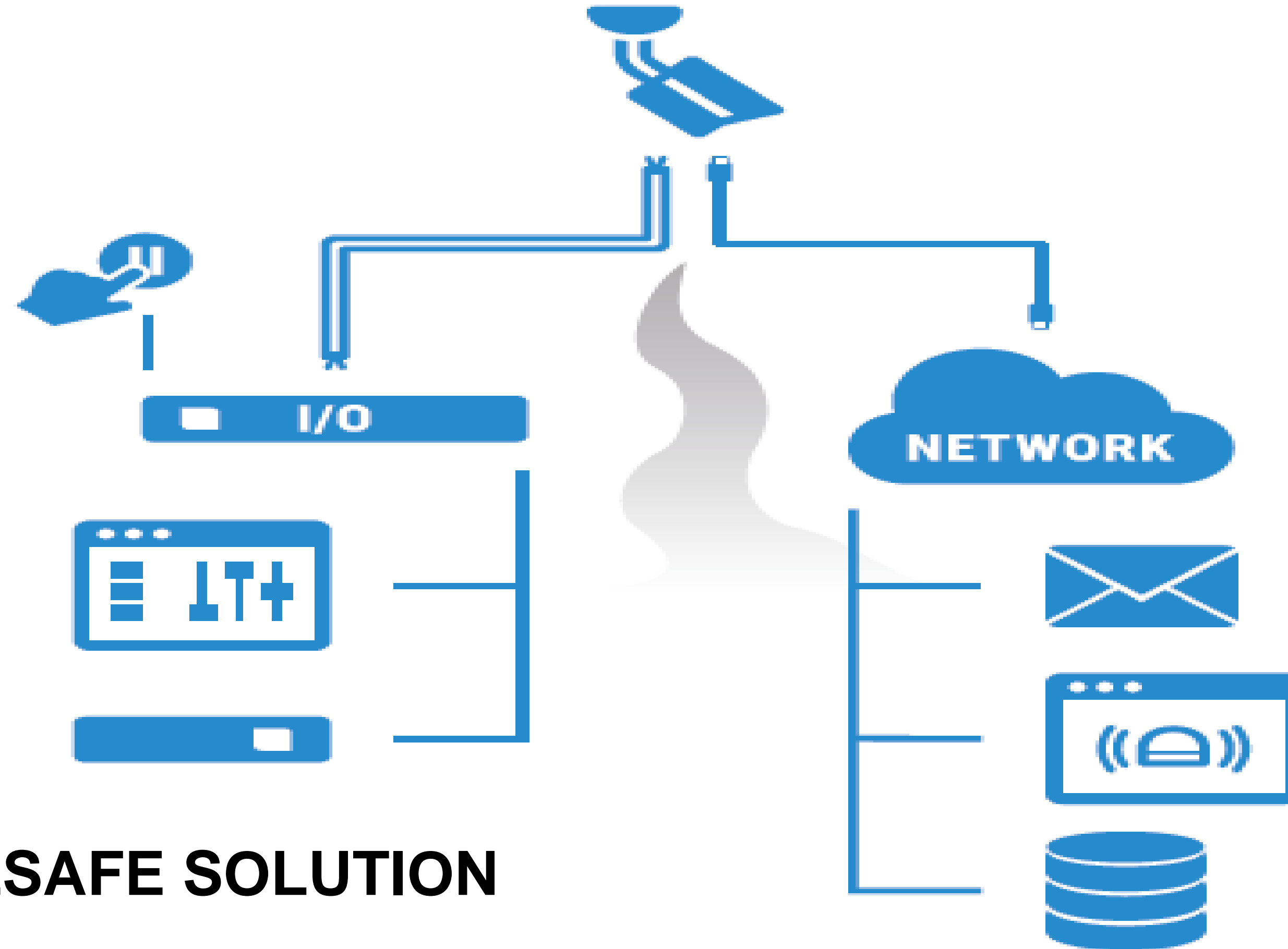
## FLEXIBLE INTEGRATION



# WHAT ?



## FLEXIBLE INTEGRATION



## FAILSAFE SOLUTION

# WHAT ?



## CERTIFICATION

### EN 54

NO standard

EN 54-13 allows components even if they are not defined by an EN 54 standard

1

2

### ISO

Technical specification

ISO standard expected 2018

3

## CERTIFYING BODIES

Bridge between technology and legislation

SmokeCatcher certification protocol

# WHAT ?



## COMPLETE SOLUTION

1. Project support (risk analysis,...)
2. Study & design
  - Test
  - Try & buy
3. Installation and commissioning
4. Maintenance and repair
  - Annual maintenance
  - SmokeCatcher Service Contract
  - Support

**BELGIUM:**

**SIEMENS**

**ENGIE**  
Fabricom



**NETHERLANDS:**

**Protec**  
Protec Brandbeveiliging B.V.



# WHERE ?



## GUIDELINES:

### 1. Practical requirements:

#### 1. Indoor or roofed areas:

- minimize the impact of various types of weather conditions
- avoid direct or reflecting sunlight.





# WHERE ?



## GUIDELINES:

### 1. Practical requirements:

#### 1. Indoor or roofed areas:

- minimize the impact of various types of weather conditions
- avoid direct or reflecting sunlight.

#### 2. Sufficient light: 15 lux 24/7.

#### 3. A clear field of view.

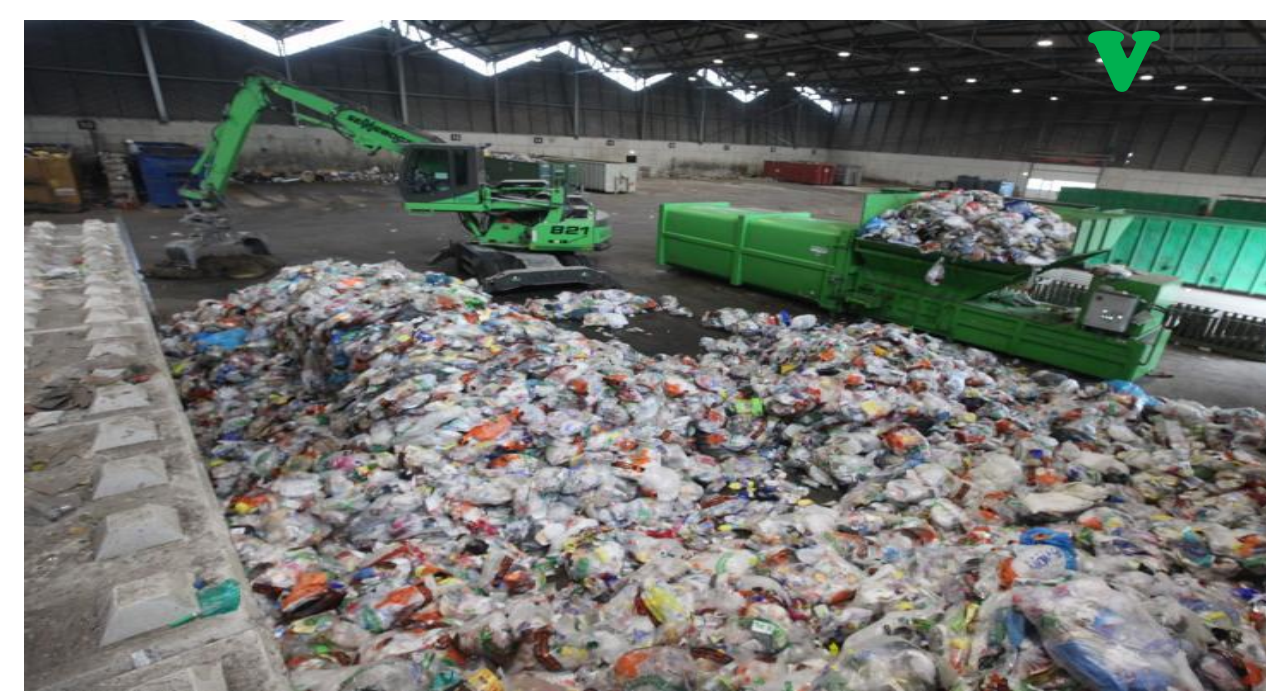


# WHERE ?



## GUIDELINES:

### 2. High impact environments:



# WHERE ?



## GUIDELINES:

### 3. Traditional smoke detection falls short:

- too many false alarms are generated.



- the detection is too slow.





# WHERE ?



## GUIDELINES:

### 3. Traditional smoke detection falls short:

- too many false alarms are generated.



- the detection is too slow.



- high impact & high risk.



# WHERE ?



## USE CASES:

1. **Chemical plants.**
2. **Waste plants.**
3. **Critical company hotspots.**

# WHERE ?



## USE CASES:

### 1. Chemical plants.

#### Challenges:

- Detection speed is crucial!
- Harsh environment.
- Visual control.



# WHERE ?



## USE CASES:

### 2. Waste plants.

#### Challenges:

- Harsh environment.
- Height.
- High-risk – spontaneous combustion.







# WHERE ?



## USE CASES:

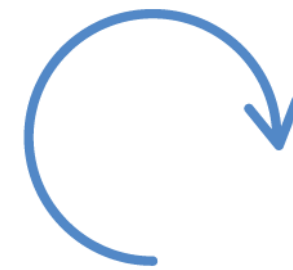
### 3. Critical company hotspots.

- **Battery charging station:**



- **Incinerators:**





# Thanks

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