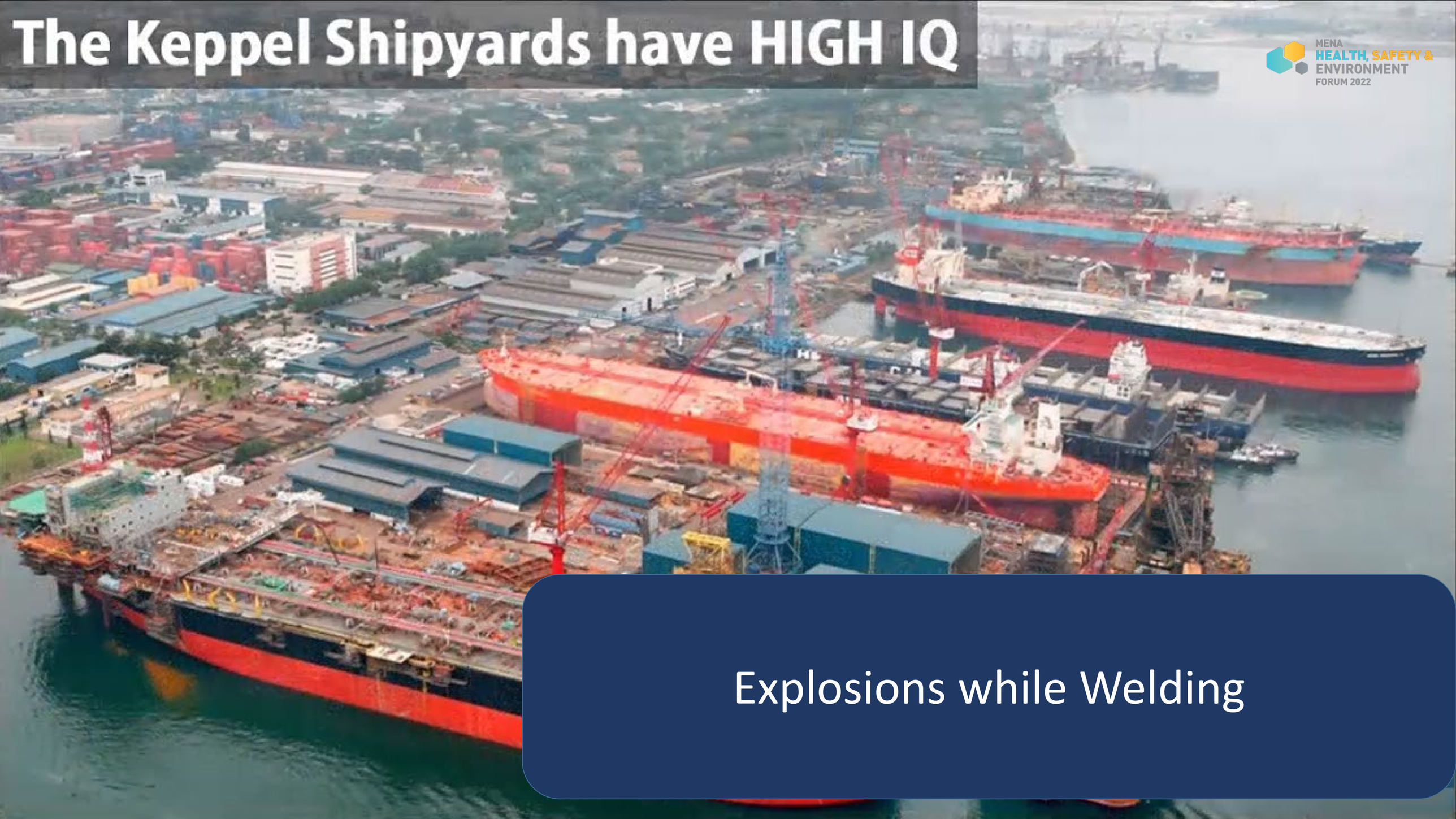
MENA HEALTH, SAFETY & ENVIRONMENT FORUM 2022

The Future of Digitization for HSE

September 2022

Dr Rustom Kanga
Co-Founder/ CEO

Omniscient Autonomous Ai



MENA HEALTH, SAFETY & ENVIRONMENT FORUM 2022

Explosions while Welding

MENA HEALTH, SAFETY & ENVIRONMENT FORUM 2022

IOCL, India

Managing Road Traffic

iOmniscient Autonomous Ai

MENA HEALTH, SAFETY & ENVIRONMENT FORUM 2022

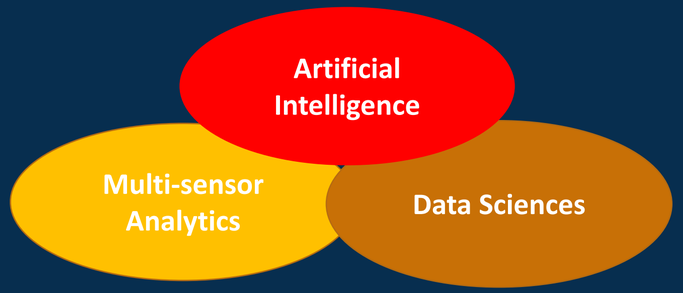
Understanding the Situation

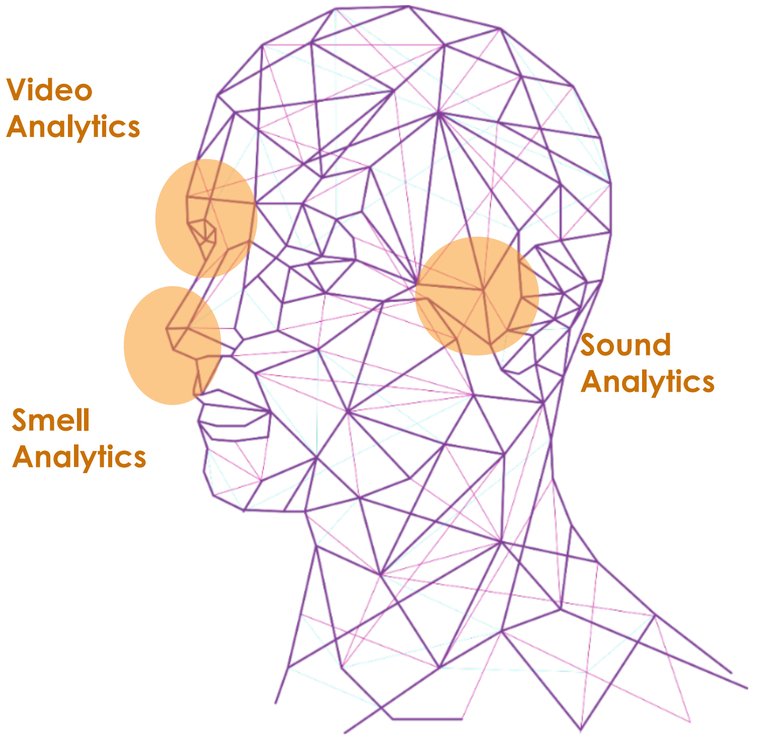
Preventative Action

Autonomous Real Time Response

Omniscient Autonomous Ai

Multi-sensory Artificial Intelligence





Omniscient Autonomous Ai

Complex Behaviour Analytics & Comprehensive Recognition Capabilities

iOmniscient
High iQ Analytics

SMELL ANALYTICS

400 Different Molecules in Coffee

Petrochemicals can be far more complex

- What is Easy
- What is Difficult
- What is Impossible

COMMON REQUIREMENTS

SAFETY FOR PEOPLE

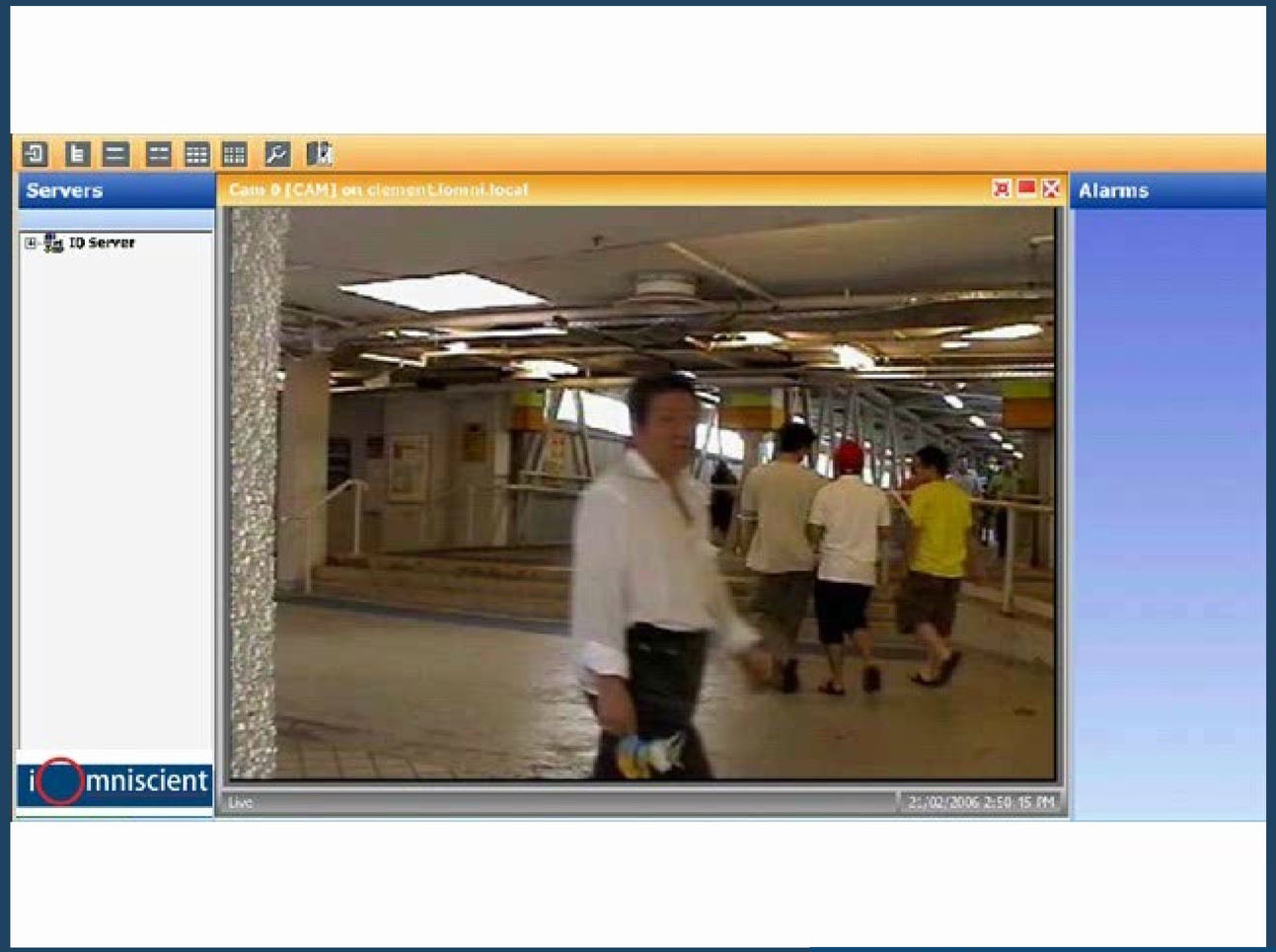
- Contactless reliable Access Control
- PPE Detection
- Liquid Spills
- Slip and Fall
- Evacuation Management
- Object Detection – e.g. tools left behind
- Intrusion & Vandalism Detection

Complex Analytics

iOmniscient Hi-iQ Analytics

Safety:

- Wet Floors
- Slip and Fall Detection



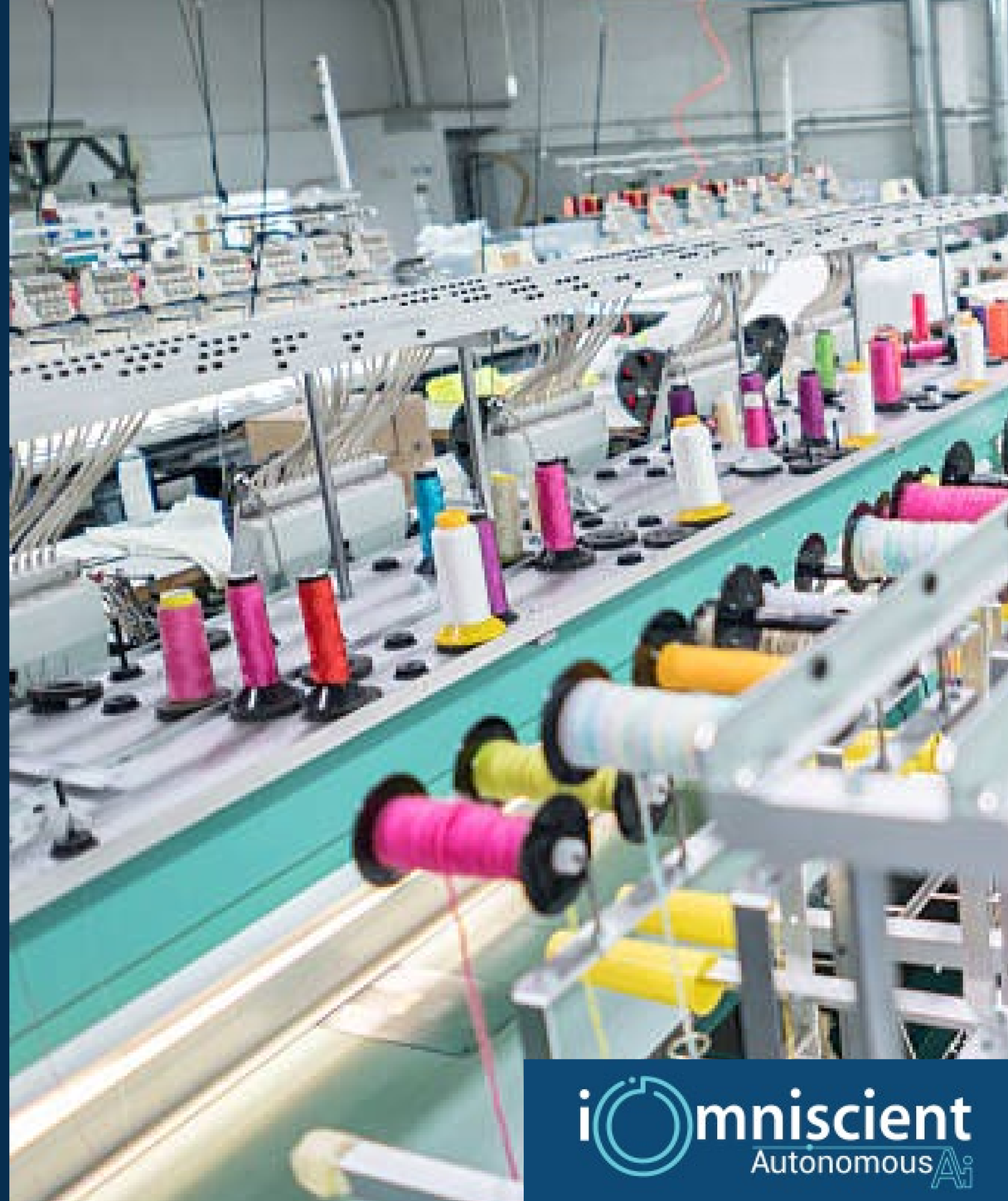
MENA HEALTH, SAFETY & ENVIRONMENT FORUM 2022

iOmniscient Autonomous Ai

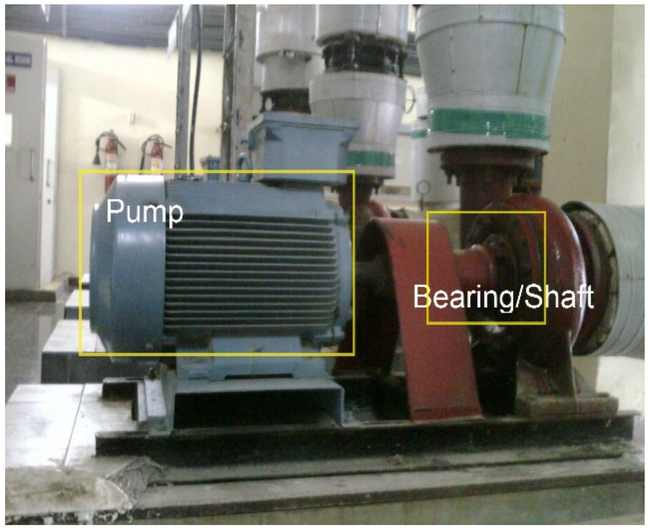
COMMON REQUIREMENTS

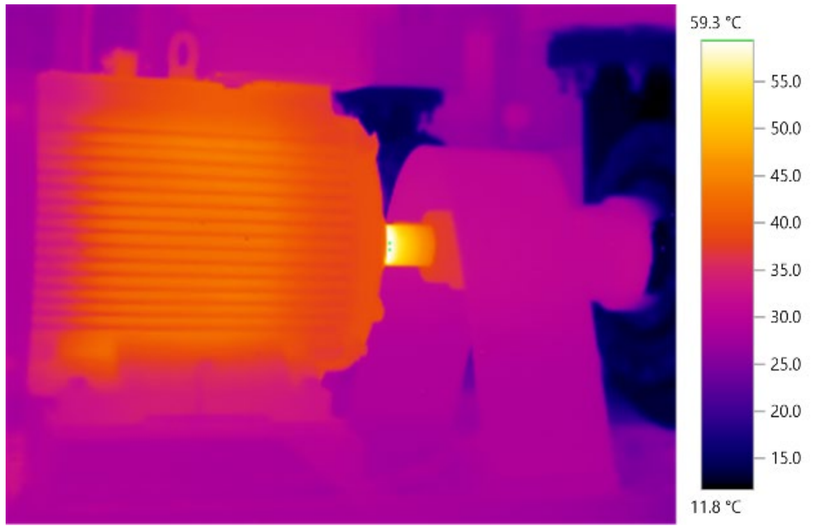
SAFETY OF ASSETS

- Preventive Maintenance
- Gas Leaks
- Smoke and Fire Detection
- Quality Assurance



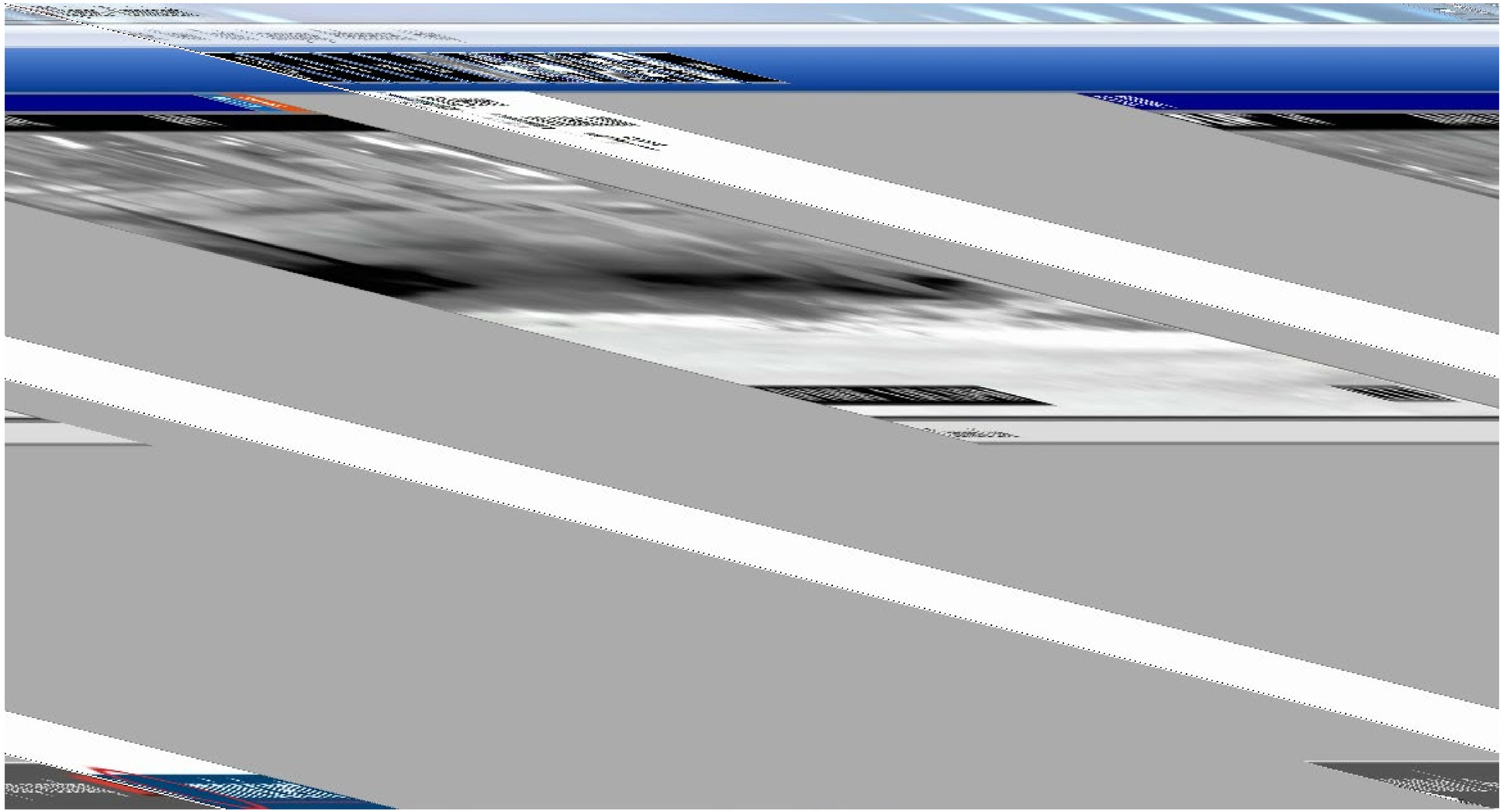
PREDICTIVE MAINTENANCE





Gas Leak Detection

MENA HEALTH, SAFETY & ENVIRONMENT FORUM 2022



Omniscient High iQ Analytics

MENA HEALTH, SAFETY & ENVIRONMENT FORUM 2022

QA in the

Dairy Industry

Omniscient Autonomous AI

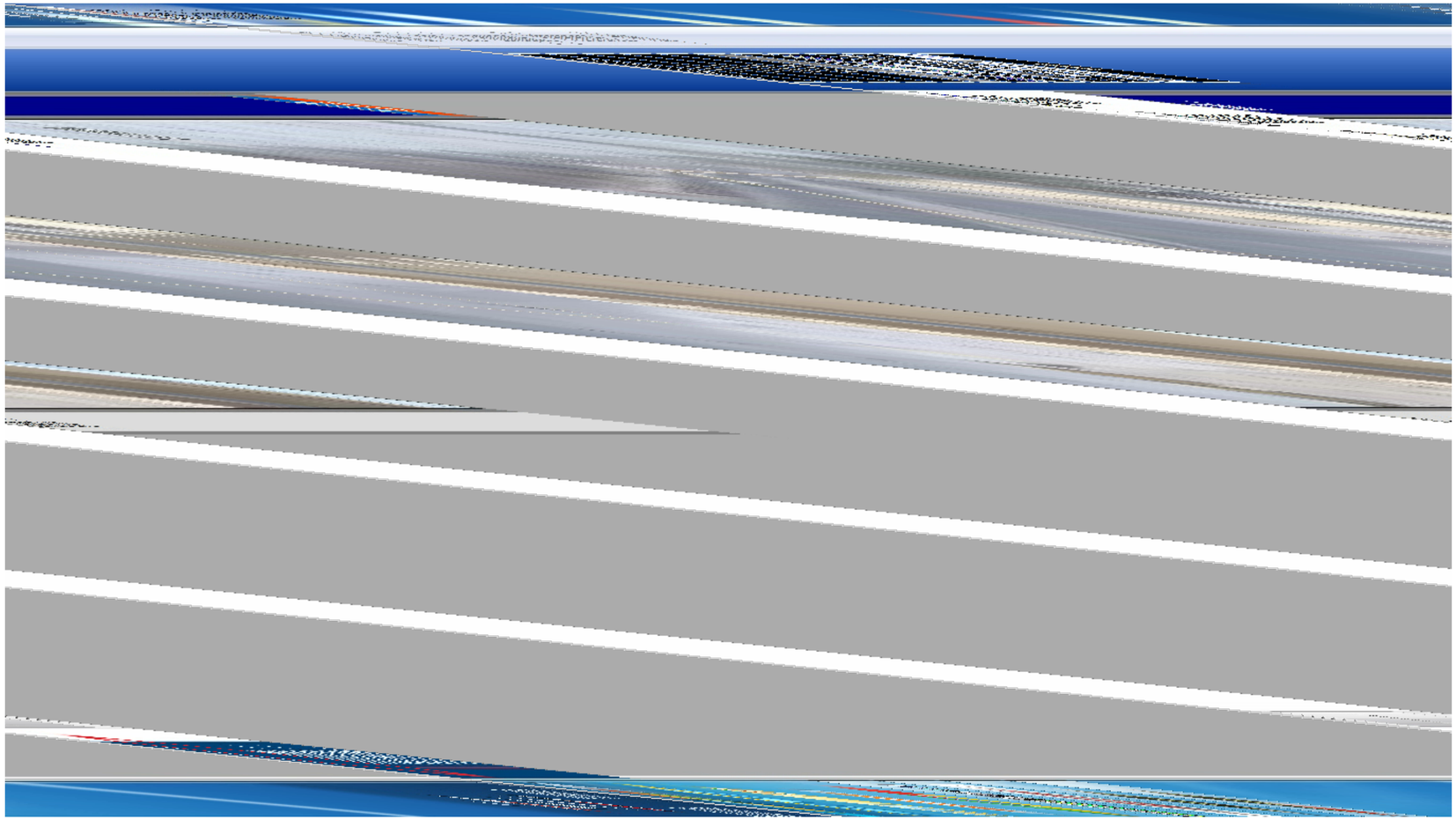
COMMON REQUIREMENTS

SAFETY ON THE ROADS

- Parking Management
- Speed Management
- Traffic Incident

iQ-Roads – Speeding

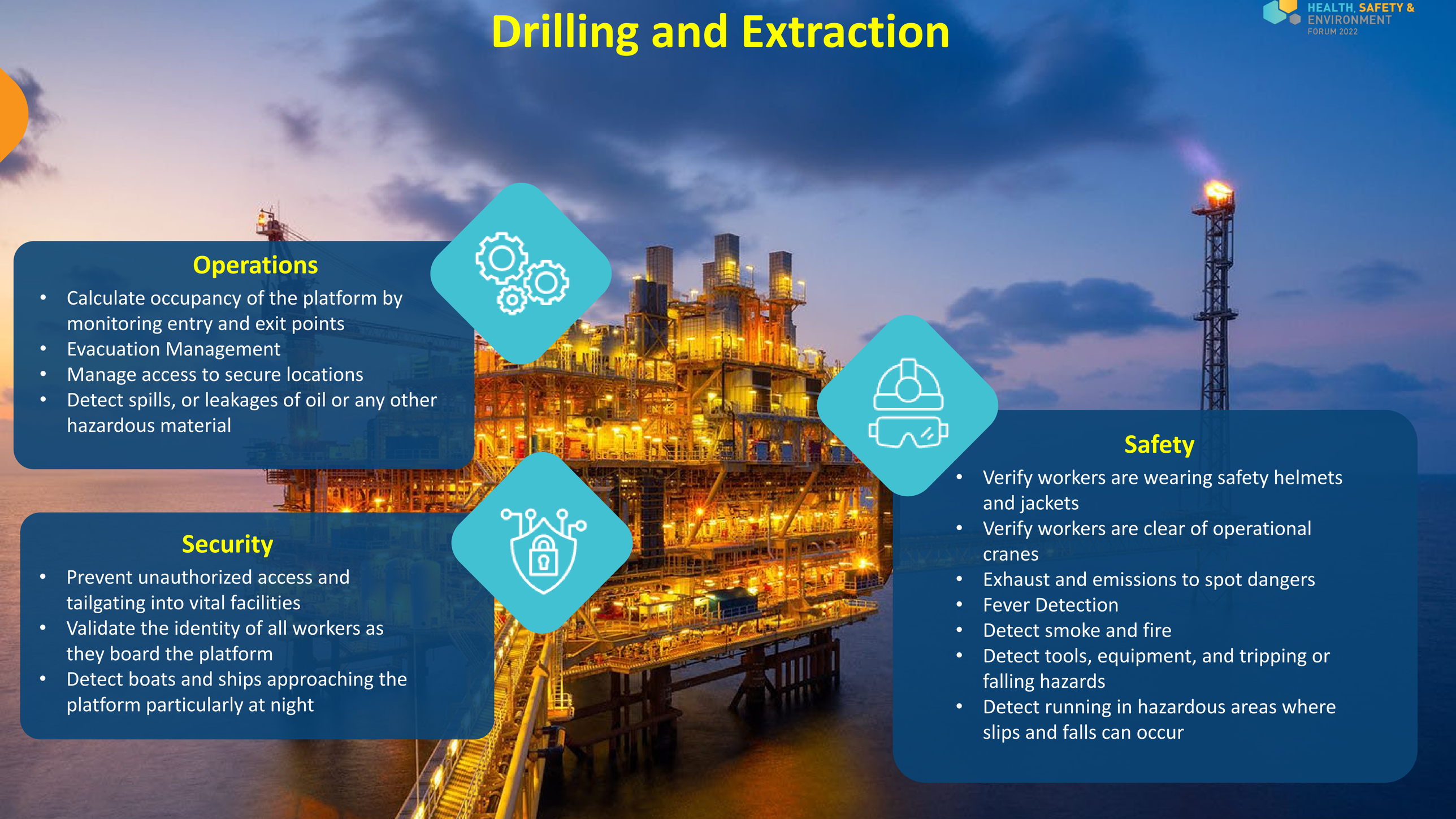
SAFETY &
MENT



Omniscient
High iQ Analytics

Drilling and Extraction

HEALTH, SAFETY & ENVIRONMENT
FORUM 2022



Operations

- Calculate occupancy of the platform by monitoring entry and exit points
- Evacuation Management
- Manage access to secure locations
- Detect spills, or leakages of oil or any other hazardous material

Security

- Prevent unauthorized access and tailgating into vital facilities
- Validate the identity of all workers as they board the platform
- Detect boats and ships approaching the platform particularly at night

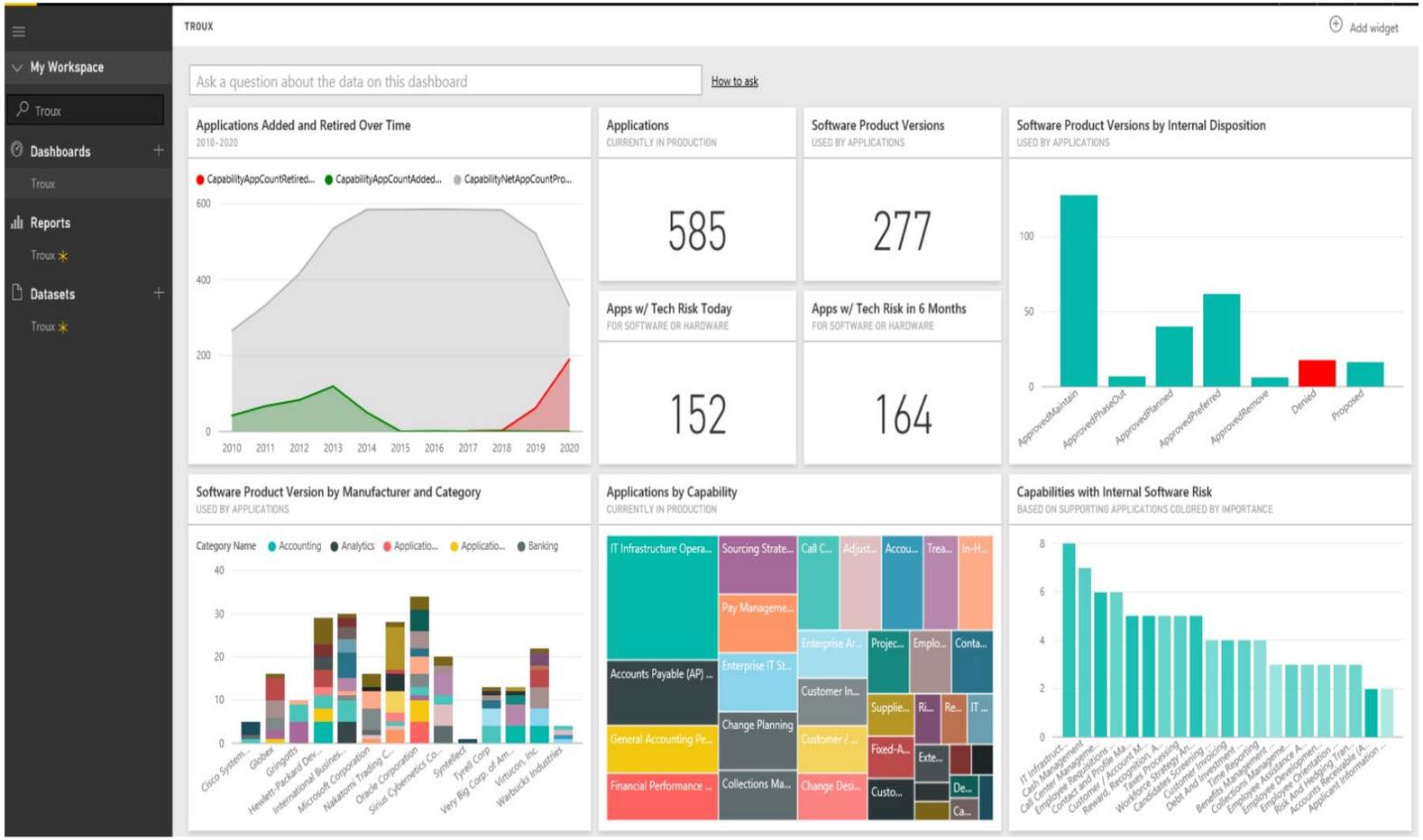
Safety

- Verify workers are wearing safety helmets and jackets
- Verify workers are clear of operational cranes
- Exhaust and emissions to spot dangers
- Fever Detection
- Detect smoke and fire
- Detect tools, equipment, and tripping or falling hazards
- Detect running in hazardous areas where slips and falls can occur

Comprehensive Information

MENA HEALTH, SAFETY & ENVIRONMENT FORUM 2022

Dashboard Example

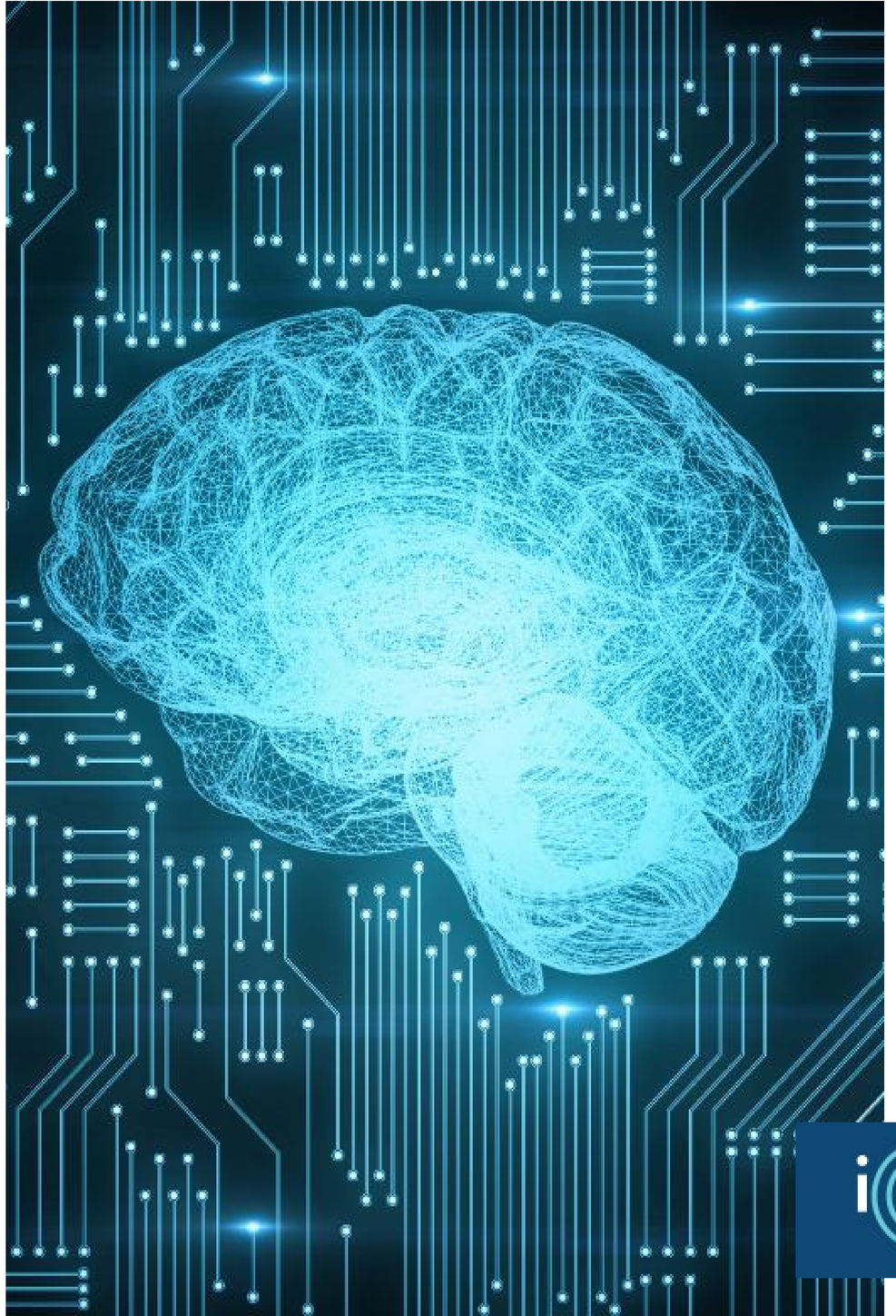


Copyright © 2021 iOmniscient Pty Limited. Do Not Distribute.

iOmniscient High iQ Analytics

Characteristics of the system

Situation Analysis



MENA HEALTH, SAFETY & ENVIRONMENT FORUM 2022

Omniscient Autonomous AI

Detection despite Obscuration

Generally Video Analytics are designed to work in relatively empty scenes.

iOmniscient has the internationally patented ability to operate in crowds or when an object is obscured. This includes:

- Theft when object is obscured
- Smoke & Fire Detection IN A CROWD
- Object Abandoned and obscured
- Counting IN A CROWD
- Face Recognition IN A CROWD
- Fever Detection IN A CROWD

MENA HEALTH, SAFETY & ENVIRONMENT FORUM 2022

NAMS

(Nuisance Alarm Minimization System)

Omniscient Autonomous AI

MENA HEALTH, SAFETY & ENVIRONMENT FORUM 2022

2nd Generation AI

Training with a Dataset of 10 rather than 10,000

Allows for Fast Deployment

Computing Light – No GPUs

iOmniscient Autonomous AI

Copyright © 2021 iOmniscient Pty Limited. Do Not Distribute.

MENA HEALTH, SAFETY & ENVIRONMENT FORUM 2022

Wildfaces.ai

New iOmniscient subsidiary focussed on 3rd Generation AI

Analytics ON THE MOVE

WildFaces.ai
wildAI On-The-Move

iOmniscient
Autonomous Ai

Autonomous Operation

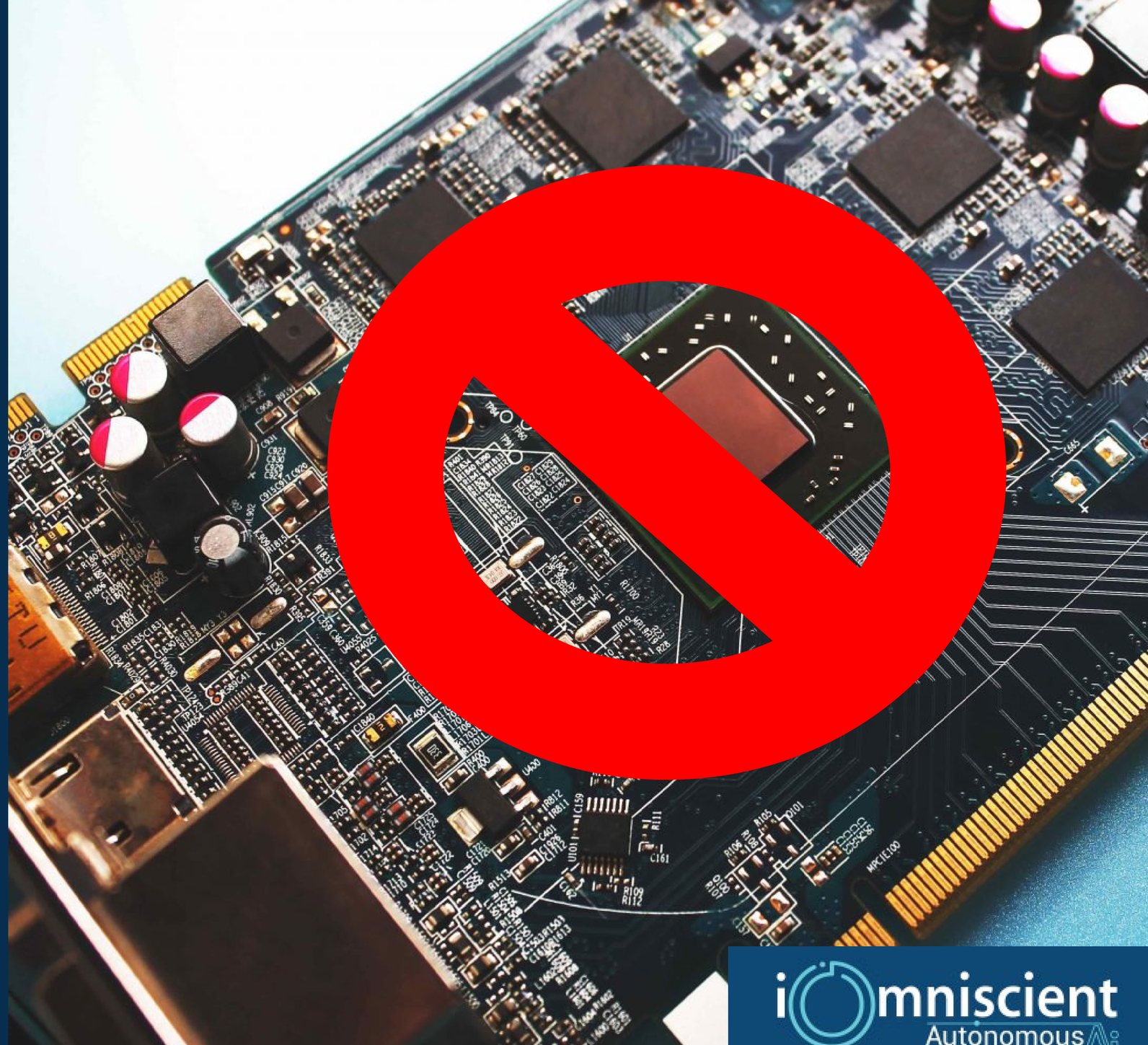
Copyright © 2018 Wildfaces Technology Limited, Confidential and Proprietary. Do Not Distribute.

Autonomous Operations for Security and Safety

Detect Event
Track persons involved
Alert nearest Responder

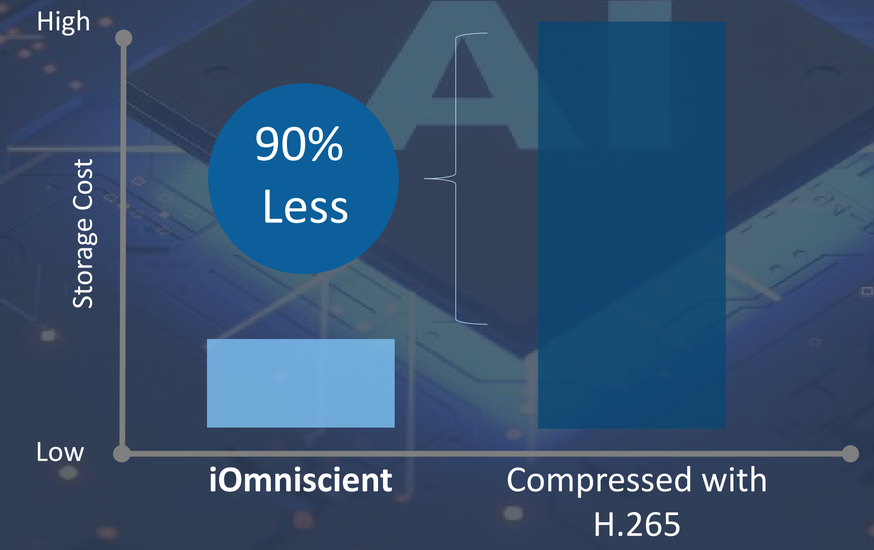
Save Infrastructure costs by Design

- 90% less storage
- 90% less network bandwidth
- No GPU
- 3x less manpower



Savings

Project Cost	$2,000,000
Included Storage Cost (with industry standard compression)	$880,000
Cost of iOmniscient Intelligence	+$600,000
STORAGE SAVING THROUGH SMART COMPRESSION	-$800,000
FINAL COST	$1,800,000



iOmniscient
Autonomous Ai

Orica Chemicals, Indonesia

MENA HEALTH, SAFETY & ENVIRONMENT FORUM 2022

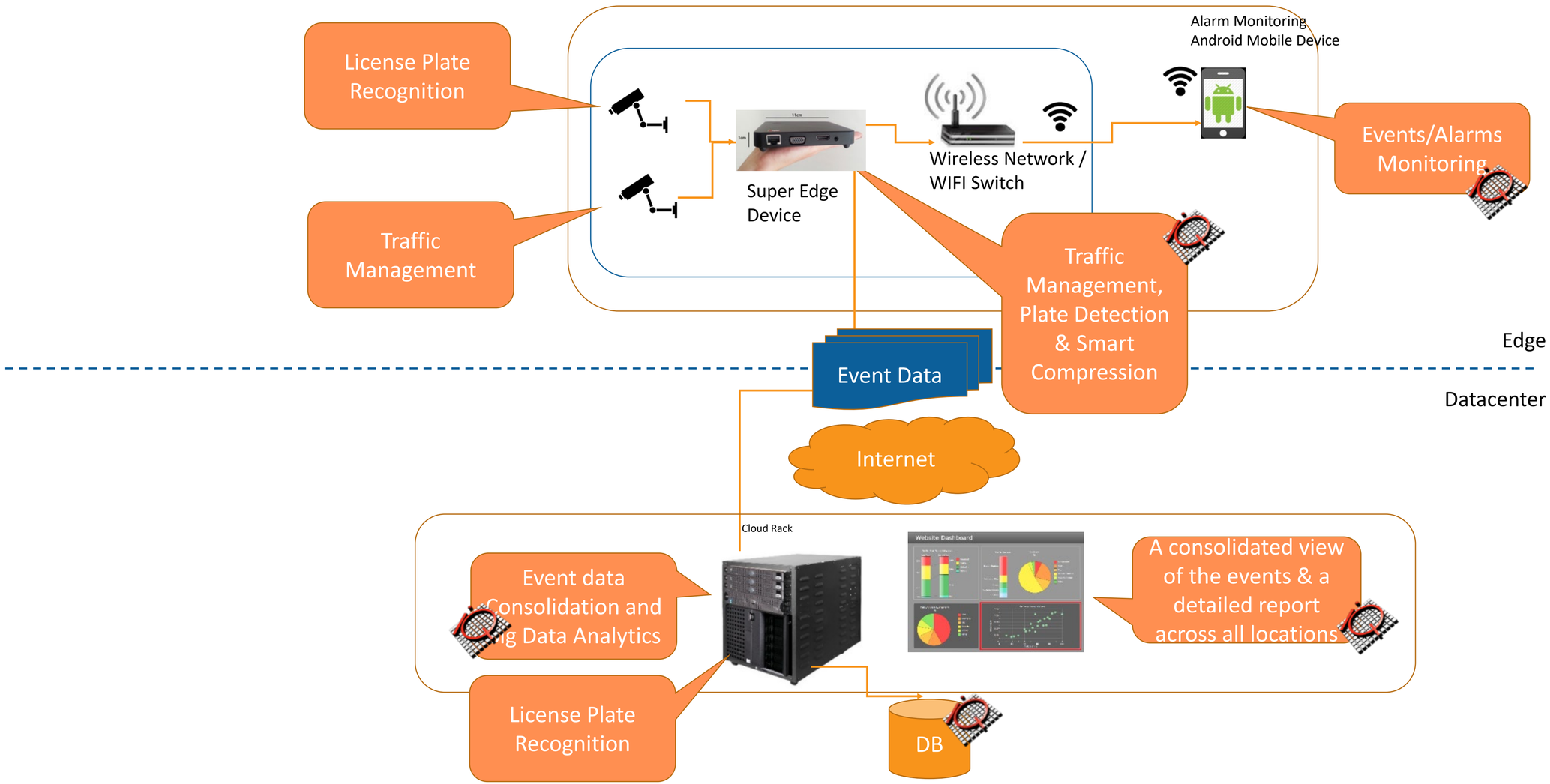
BP Gas Pipelines, Azerbaijan and Canada

Chevron, USA

MENA
HEALTH, SAFETY &
ENVIRONMENT
FORUM 2022

Pemex
Mexico

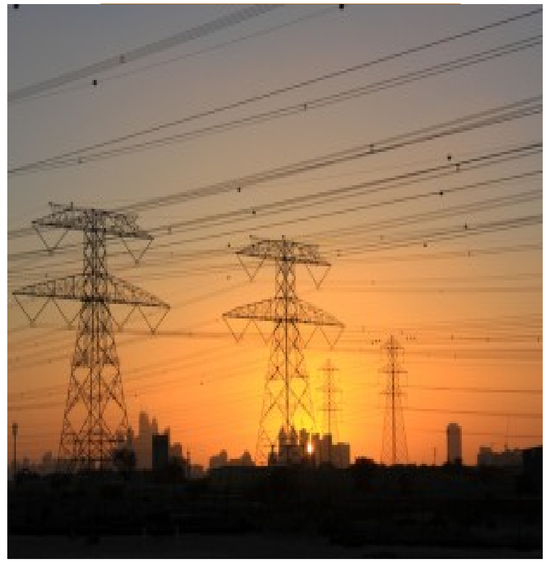
Flexible Architecture



Powered by iOmniscient Hi-iQ Analytics

iOmniscient – PRESENCE EVERYWHERE
Projects in 70 countries

MENA HEALTH, SAFETY & ENVIRONMENT FORUM 2022



- Spanish Royal Palaces
- Dubai Mall
- University of San Francisco
- Karbala Mosque
- Sagrada Familia Cathedral
- Abu Dhabi Investment Authority
- Qatar Islamic Bank
- BP Pipeline, Azerbaijan
- Keppel Ports

•Singapore Smart City
• Bermuda Smart Island
• Suntec City, Singapore

*Royal Thai Police
* Royal Oman Police
* Bahrain Prisons

• Kuala Lumpur International Airport Phase 1 & 2
• Mexico City Airport
• Antalya Airport, Turkey
• Canberra Airport
•Indonesia – 16 airports

• China Fast Train (1000 kms of track)
• Essen Railways, Germany
• Chengdu Metro
• Nanjing Metro
• Chicago Transit
• Italian Railways

iOmniscient High IQ Analytics

MENA HEALTH, SAFETY & ENVIRONMENT FORUM 2022

Intel Alliance Partner of the Year - 2021

Next-Generation Tech Now

iOmniscient Autonomous Ai

World's Oldest AI Based Computer Vision Company

21 Years Old in 2022

70+ International Patents

MENA HEALTH, SAFETY & ENVIRONMENT FORUM 2022

THANK YOU

HSE

from

iOmniscient

Dr Rustom Kanga

Co-Founder/ CEO

iOmniscient

rustom@iomni.ai

+61 412 191 412