MOBILARIS
Industrial Solutions

Mobilaris Industrial Solutions AB

A part of Mobilaris Group
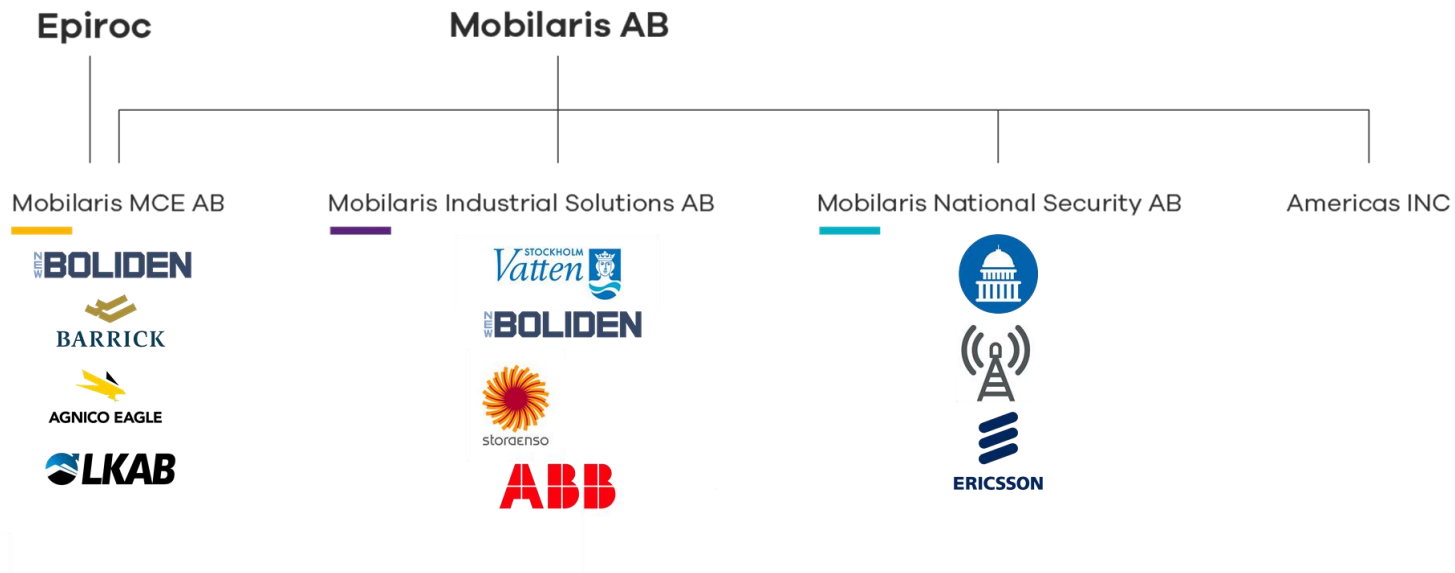
Jan Pudas

Business Development Management

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Epiroc ─── **Mobilaris AB**

Mobilaris MCE AB — BOLIDEN, BARRICK, AGNICO EAGLE, LKAB

Mobilaris Industrial Solutions AB — Stockholm Vatten, BOLIDEN, storaenso, ABB

Mobilaris National Security AB — ERICSSON

Americas INC

- Founded 1999

- ~60 employees, located in Luleå

- Epiroc (Atlas Copco), 34% owner of Mining and Civil Engineering

- Customers on all continents

- Main focus: decision support systems for increased safety and productivity in target industries and government agencies

- We design all our products to be open and agnostic to underlying technology

Mobilaris Industrial Solutions

- Mobilaris Industrial Solutions is an innovation company that develops key components and new approaches by integrating location data and real-time information from the operations of industrial companies. Mobilaris provides a decision support system based on location of people, machines, equipment and vehicles in real time, revolutionizing both workforce safety and maintenance efficiency.

- The company is a spinoff from Mobilaris MCE that have major mining customers all over the world. The main focus for Mobilaris Industrial Solutions is to provide decision support to the manufacturing and process industries (e.g paper mills, chemical plants, steel mills, underground facilities).

- Mobilaris Industrial Solutions is in strong growth and provides a variety of applications adapted for each industrial vertical. The information is easy accessible and can be visualized in the operation center, laptops and mobile clients delivering value to many different departments within companies.

Industrial Solutions
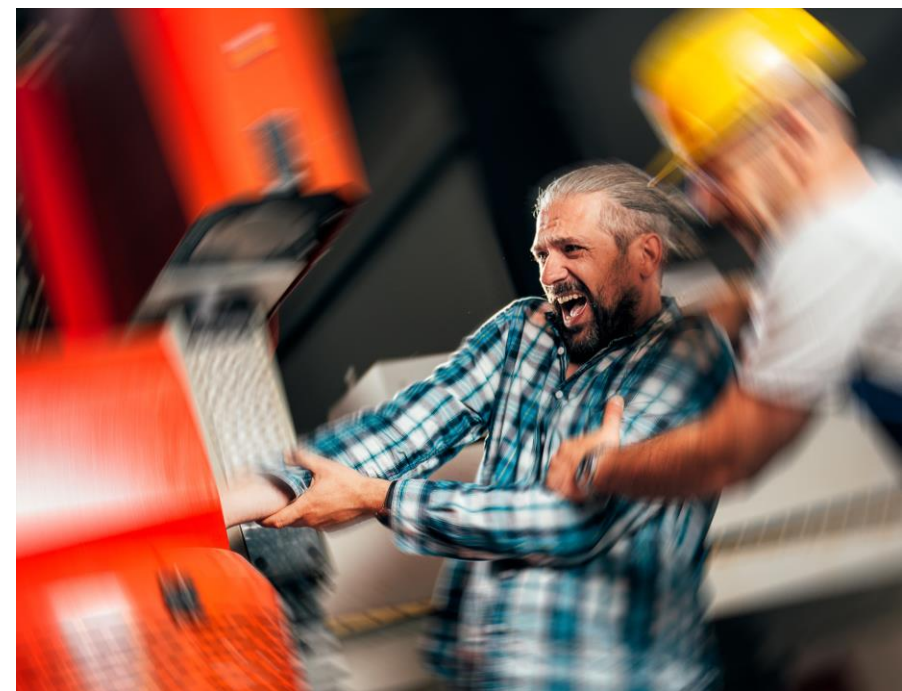Part of Mobilaris Group

Mobilaris Real-Time Workforce Safety™

Perceived safety by the workforce

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Real-Time Workforce Safety™

- There are many safety challenges within industrial companies: Large and complex working sites with many dangerous machines, vehicles and zones, potential gas leaks and fires. There are often risk-based maintenance work for both contractors and employees at the sites. Mobilaris Real-Time Workforce Safety™ has many features that affects the safety in real-time, perceived safety by the workforce, production efficiency and economy:

  - In case of an accident - Get control over evacuations by being able to locate all people at the site in real time.
  - Prevent accidents by automating safety – digital grids prevent people being at the wrong place at the wrong time or getting too close to a machine or a vehicle.
  - Improvements by analytics - Possibility to analyze historical incidents and simulate and train rescue staff in real-time.

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If an accident happen..

- Where are everyone?

- Who is safe, who is not?

- Which ones shall you focus your rescue efforts on first?

- How can you warn all personnel?

- How do you know which ones that knows about the danger and who does not?

To know how many people that are in a big zone is not enough!

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Workforce Safety
Real-Time Decision Support system

Workforce Safety
Real-Time Decision Support system

PERSON

MOVING GEOFENCE

Furnace

Converter

Control room (AC)

PERSON

PERSON

PERSON

VEHICLE

PERSON

Avoid accidents by warning people on the work floor in real time
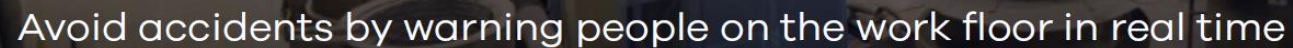
If someone gets too close to dangerous machine, an overhead crane, a vehicle or a hazardous area, they are notified instantaneously and an accident is prevented. Personnel can be notified in various ways; for example, by means of vibrating tags, flashing lights or blinking safety vests, and they can continue to work safely on the work floor. A large number of contractors and employees at the site increases the risk level, but by automating notifications a majority of all severe workplace accidents can be avoided.

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Improvements by Analytics

Every piece of data that pass through our system is analyzed and put into a context relevant for the site. We visualize the result on different levels in both KPI measures and reports.

- Location statistics and analysis

- Report incidents near incidents

- Benchmarking of evacuation drills
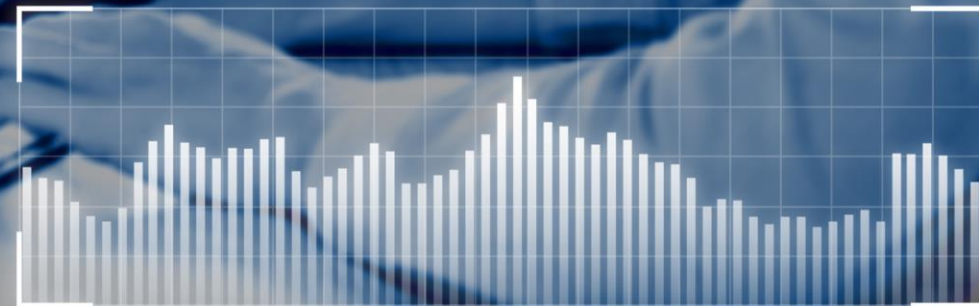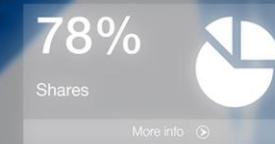
Improvements by Integrations

By integration already existing systems and sensors you are able to increase the value by adding real-time data and consolidate them in to MII for visualization and follow-up.

- Integrations to existing sensors (air, gas, smoke, temperature). The system visualizes, warns and sends notifications if thresholds are exceeded.
- Integration to fire alarm. The systems visualizes, warns and sends notifications if an alarm is generated.
- Integration to CCTV. Cameras can be opened and displayed in the visualization interface.
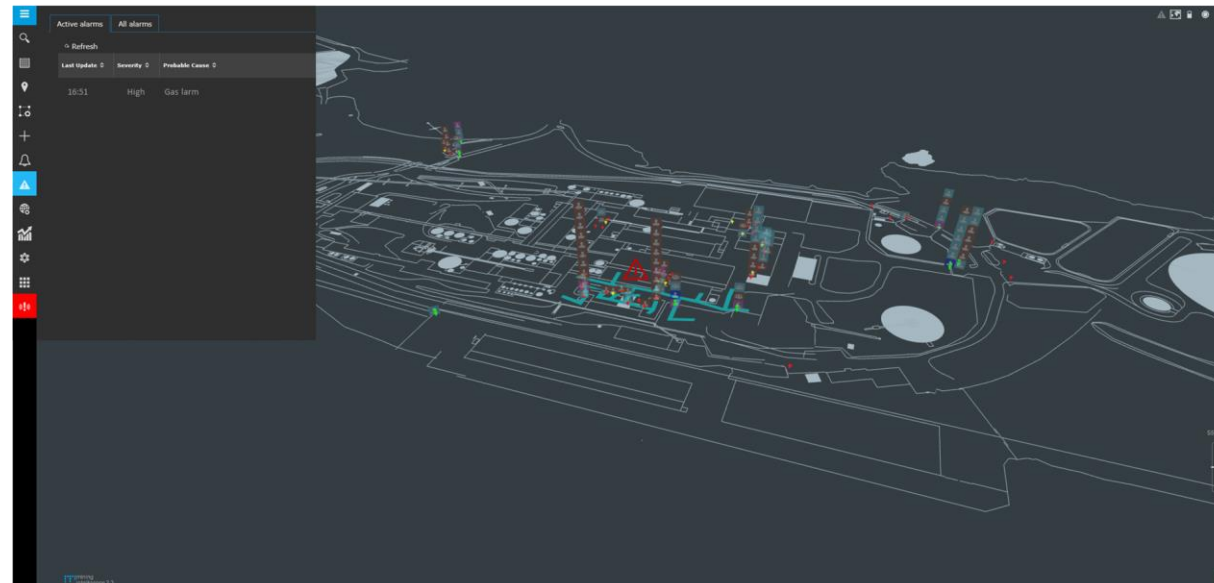
Mobilaris Real-time Maintenance Management™

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Mobilaris Real-Time Maintenance Management™

Increased productivity by closing the gap between plan an reality. By having control of what is happening in real-time at the site you are able have control over scheduled work and reduce the waste of time.
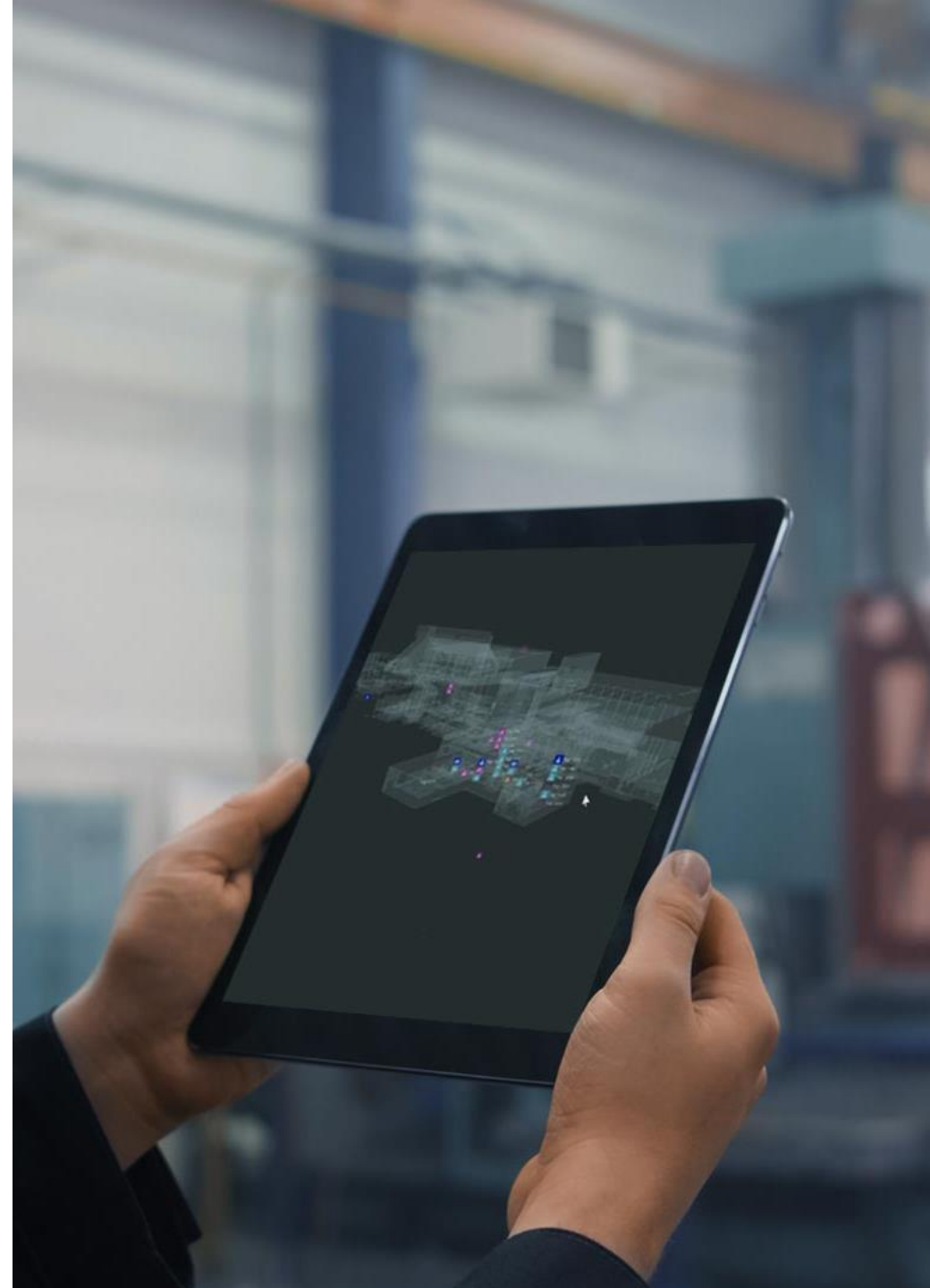
Real-time Maintenance Management ™ Introduced in steps

1. Plan and follow up Maintenance shutdowns

2. Workorder management

3. Find all objects at the site
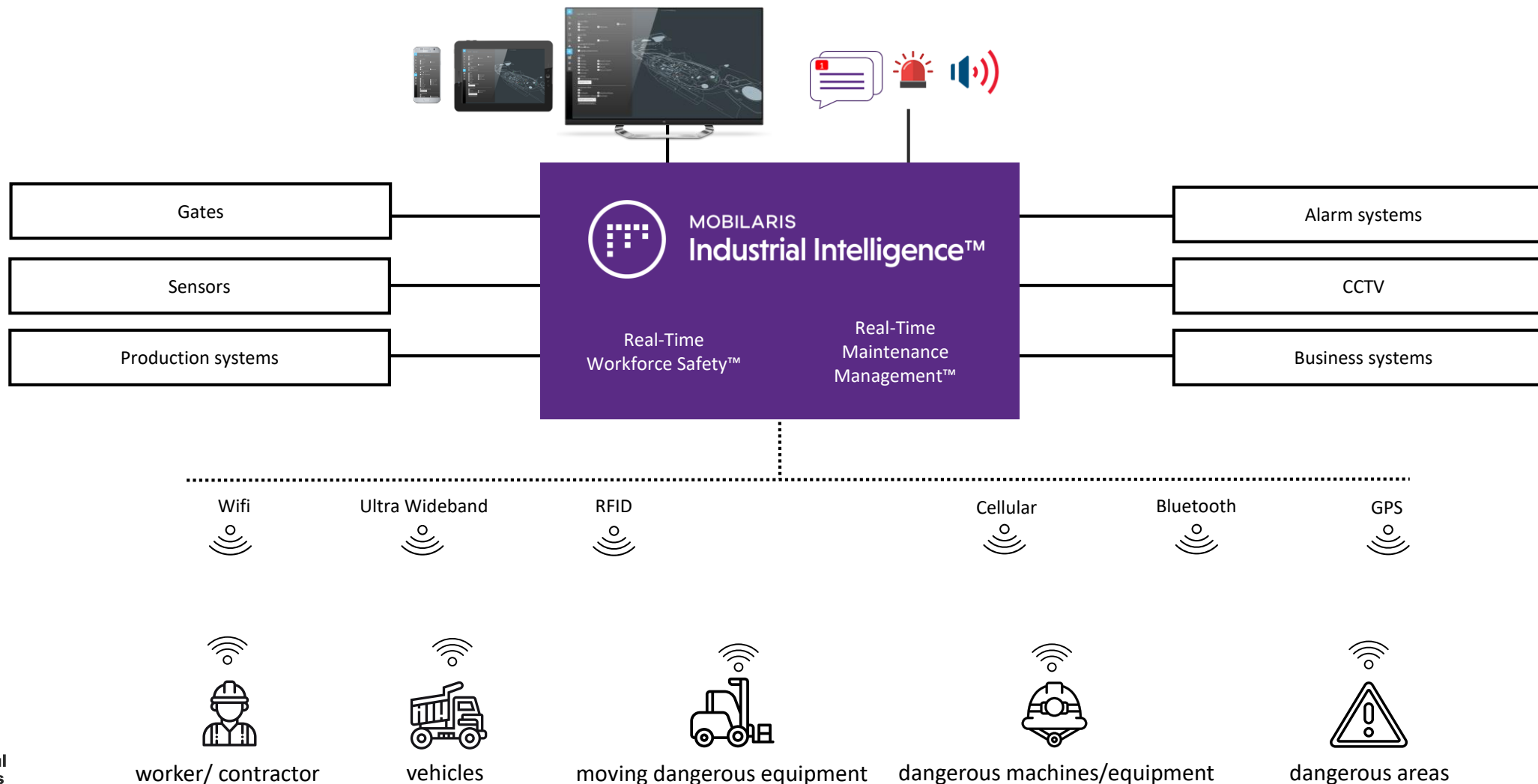

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Technology agnostic decision support systems

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Mobilaris Industrial Intelligence™ integrated

Mobilaris decision support system is technology agnostic and support various kinds of data infrastructure, all dependent on what should be achieved. Wifi, RFID, GPS, Ultra Wide Band, and Bluetooth all depending on use case and customer requirements. The system has open API:s for enhancing and gathering data from already existing system.

MOBILARIS Industrial Intelligence™

Real-Time Workforce Safety™   Real-Time Maintenance Management™

Gates

Sensors

Production systems

Alarm systems

CCTV

Business systems

Wifi   Ultra Wideband   RFID   Cellular   Bluetooth   GPS

worker/ contractor   vehicles   moving dangerous equipment   dangerous machines/equipment   dangerous areas

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Protecting Personal Data

Anonymization

- By default **all personal data is locked** in the system and are not visualized, the only information visualized are anonymized tag icons. If preferable it is also a possibility to not visualize any information at all.

- The data can **only be unlocked by certified safety managers** in case of emergency, when there is a need for evacuation and the finding out who is in danger and who is safe.

- When unlocking the personal data, the safety managers need to use a personal log in and the **activities are logged with date, time and reason for unlocking** the system that enables after following review.

Visualization in selected areas

- It is also possible to only activate the visualization in selected areas. E.g dangerous zones, evacuation points, gates and around dangerous machines.
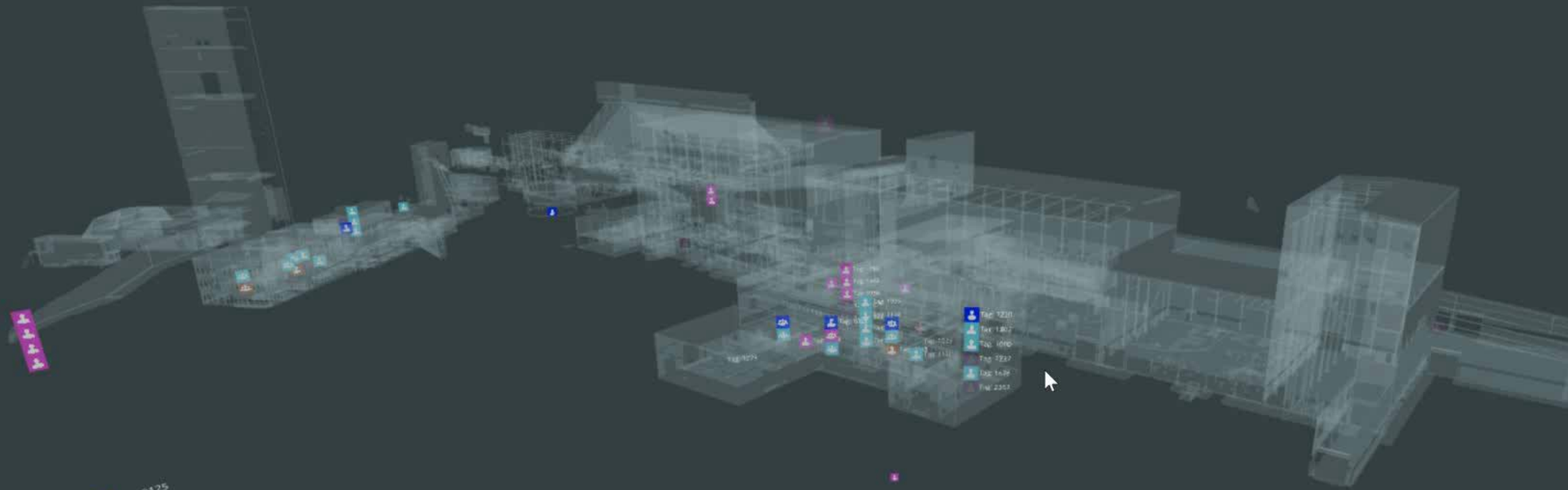
Anonymized tag icons in visualization

Unlocking procedure for emergencies

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Tag: 2125

Tag: 1776

mobilaris 2.1
MINING INTELLIGENCE

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This is the World of Mobilaris

A world where seeing is knowing. A world where access to data means being able to make better decisions faster. A world where you can predict and avoid undesirable situations. A world where both business and human concerns thrive in parallel.

www.mobilaris.se