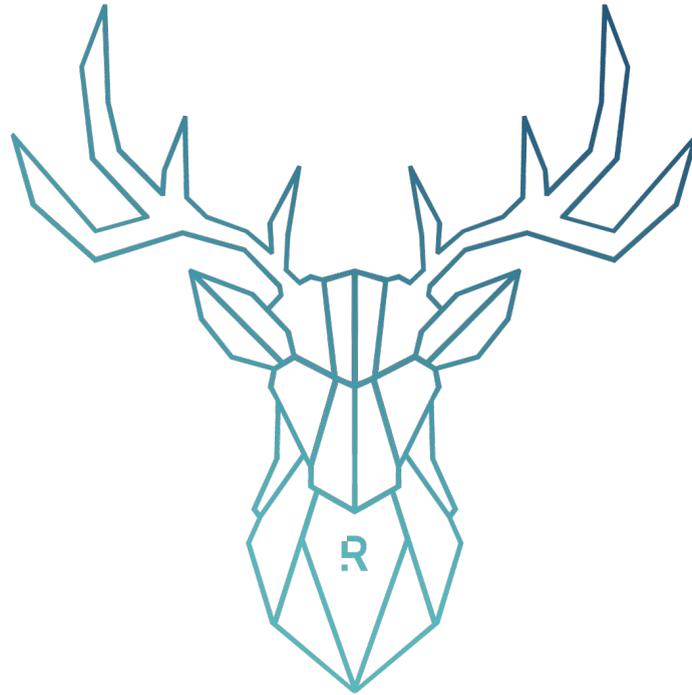




**How to Improve Operational Security
in Industrial Environments:**
Trends, Technologies, and Best Practices

Rombit
Solutions



*“We make **Industrial Sites Smarter** and more **Efficient** on **Safety & Security, Workflow** and **Gate Operations**”*

Arne Peleman, CEO

Overview

1. Introduction
2. Current security threats and challenges
3. Emerging technologies in industrial security
4. Integrated security solutions for industrial applications
5. Regulatory compliance and industry standards
6. Future outlook and predictions
7. About Rombit Solutions

R



1.

INTRODUCTION

—



Industrial security challenges in **Belgium** and the **Netherlands** are becoming increasingly complex. Industries such as **manufacturing, logistics, oil & gas**, ... face both traditional and emergent threats that can disrupt operations and harm reputations.

This white paper examines the current security landscape, highlights prevalent threats, and explores the latest security technologies and best practices. While applicable over a wide range of industries, special focus is given to **port-related facilities**, which are critical to the economy and particularly vulnerable to security breaches.

The insights provided aim to help security professionals enhance security measures, ensure regulatory compliance, and maintain operational continuity.

Looking ahead, we discuss emerging trends such as **AI-driven analytics, IoT integration, and sustainable security practices**.

This white paper serves as an informative resource, offering practical recommendations to bolster industrial security.

**Arne
Peleman**

**CEO, Rombit
Solutions**





2.

**CURRENT SECURITY THREATS,
CHALLENGES & IMPACT**



PREVALENT

Security threads

Industrial sectors in **Belgium** and the **Netherlands** face a diverse range of security threats that can significantly impact their operations and reputation. Understanding these threats is crucial for developing effective **security strategies**.

1. **Unauthorized access** - controlling multiple entry points and extensive perimeters
2. **Theft** - Prevent financial losses and disruption of operations
3. **Vandalism** - Prevent property damage and an unsafe work environment
4. **Cyber threats** - Safeguard sensitive data and operational safety
5. **Compliance with ISPS code**



Impact of

Inadequate security



Operational continuity:

Security breaches or suboptimal security systems can lead to significant disruptions in operations



Reputation:

Repeated security incidents can damage an organization's reputation, leading to loss of customer trust, loss of potential business opportunities, loss of confidence among all stakeholder, and a reduced recruitment pool



3.

**EMERGING TECHNOLOGIES IN
INDUSTRIAL SECURITY**

—



Benefits of

Emerging Technologies

Advancements in technology, offer new tools and strategies to **protect** against modern threats.

This section explores how four of these technologies, allow industrial sectors to proactively **secure** and **future-proof** their operations, with benefits such as:



Improved **threat detection capabilities** and overall strengthened security defenses.



Enhanced **operational efficiency** through optimized resource allocation and cost savings.



Support of **regulatory compliance.**



Emerging Technology 1

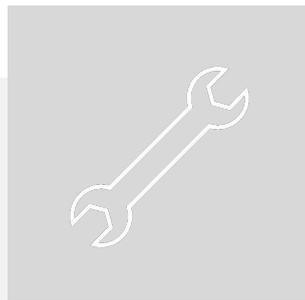
AI DRIVEN ANALYTICS



Behavioral and situational analytics

—

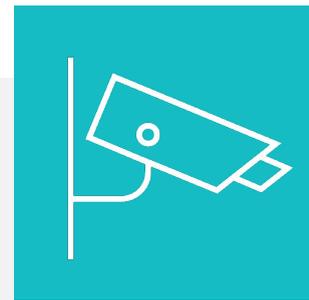
Minimize downtime and enhance operational continuity.



Predictive maintenance

—

Minimize downtime and enhance operational continuity.



Smart cameras

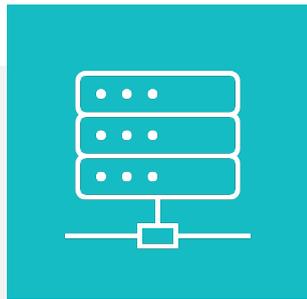
—

Allow a faster flow through access points



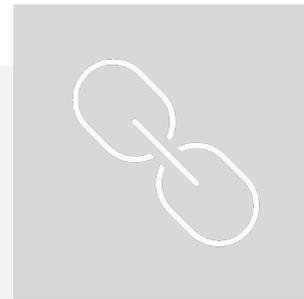
Emerging Technology 2

IOT INTEGRATION



Sensor networks

Detect potentially
harmful
environmental risks



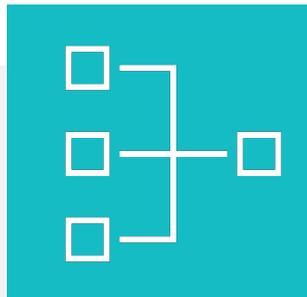
Connected devices

Improve operational
efficiency and
security
responsiveness



Emerging Technology 3

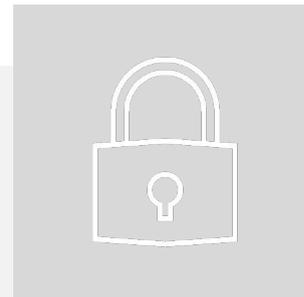
CYBERSECURITY



Network segmentation



Limit impact of
cyber-attack and
unauthorized
access.

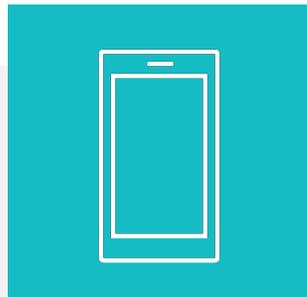


Encryption and authentication



Emerging Technology 4

CYBERSECURITY



Mobile applications

Flexibility in real-time access to security management tools



Cloud-based solutions

Facilitate centralized management of security operations.





4.

**INTEGRATED SECURITY SOLUTIONS FOR
INDUSTRIAL APPLICATIONS**



Overview of Security Systems

Effective industrial security goes beyond individual systems; it requires **integrating** various security components into a cohesive and responsive framework.

This section explores best practices and strategies.

1. **Integrating access control systems**
2. **Video surveillance systems**
3. **Intrusion detection and alarm systems**
4. **Automation and centralized management**
5. **Scalability and future-proofing**



#1

ACCESS CONTROL SYSTEMS

Integrating access control systems for multiple entry points and varying levels of access requirements

Biometric access:

Verify identities quickly and accurately

Visitor management:

Ensure compliance with security protocols

VIDEO SURVEILLANCE SYSTEMS

A security cornerstone goes next gen in real-time monitoring and recording of activities

High-definition cameras:

For the comprehensive monitoring of critical areas

Video analytics:

Identify suspicious behaviour, unauthorized activities, and emergent calamities

#2

R

#3

DETECTION & ALARM SYSTEMS

Early detection is critical for prompt response and mitigation

Sensors; motion, temperature, movement, camera,...

Alert security personnel to potential threats

Integration with access control:

Automatically secure areas in response to detected threats

AUTOMATION SYSTEMS

A security cornerstone goes next gen in real-time monitoring and recording of activities

Event management:

Facilitating quick response and resolution.

Integration with incident response:

Improves coordination and reduces manual intervention errors.

#4

R

5

SCALABILITY & FUTUREPROOFING

Sites evolve, so scalable security solutions need to adapt

Modular systems:

Allow for incremental upgrades and expansions

Interoperability:

Maximize efficiency and effectiveness





5.

**REGULATORY COMPLIANCE
AND INDUSTRY STANDARDS**

—



Overview of

REGULATIONS IN BE & NL

A complex **framework** of regulations and standards governs industrial security.

An overview relevant to **Belgium** and the **Netherlands** on achieving compliance while strengthening overall security effectiveness.

Key regulatory frameworks

1. **ISPS Code:**
The International Ship and Port Facility Security
2. **GDPR:**
The General Data Protection Regulation
3. **NIS Directive:**
The Network and Information Systems

Industry standards

1. **ISO 27001:** Managing information security risks effectively
2. **ISO 45001:** Occupational health and safety
3. **EN 50132:** Video surveillance systems for use in security applications.
4. **NBN S 21-100-1:2021 en NBN S 21-204-2:2020:** Fire safety. Both provide comprehensive guidelines for optimal fire safety.
5. **NBN EN 50131 series:** This series sets key guidelines for burglary security, covering alarm system design, installation, and maintenance.
6. **NBN EN 60839-11-1 series:** outlines requirements for electronic access control systems, covering performance criteria, system integrity, and equipment installation.



Impact & Strategies for

ACHIEVING COMPLIANCE

Impact of non-compliance

- Financial penalties
- Operational disruptions
- Reputational damage

Strategies for achieving compliance

- Comprehensive security audits
- Integrated compliance management
- Training and awareness programs.





6.

FUTURE OUTLOOK AND PREDICTIONS

—



Overview

OF OUR PREDICTIONS

The **future of industrial security** will bring a continuing transformation driven by technological advancements and evolving threat landscapes.

As we look ahead, several **key trends** and factors will shape the industrial security landscape, requiring businesses to **adapt** and **innovate** to stay ahead of potential risks and vulnerabilities.

- A **growing role** for cybersecurity
- **Artificial intelligence (AI)** and **machine Learning (ML)** for advanced threat detection and response
- Integration of **IoT**
- Sustainable **security practices**
- Regulatory **compliance**





7.

**ABOUT ROMBIT SOLUTIONS
AND HOW TO GET STARTED**



ABOUT

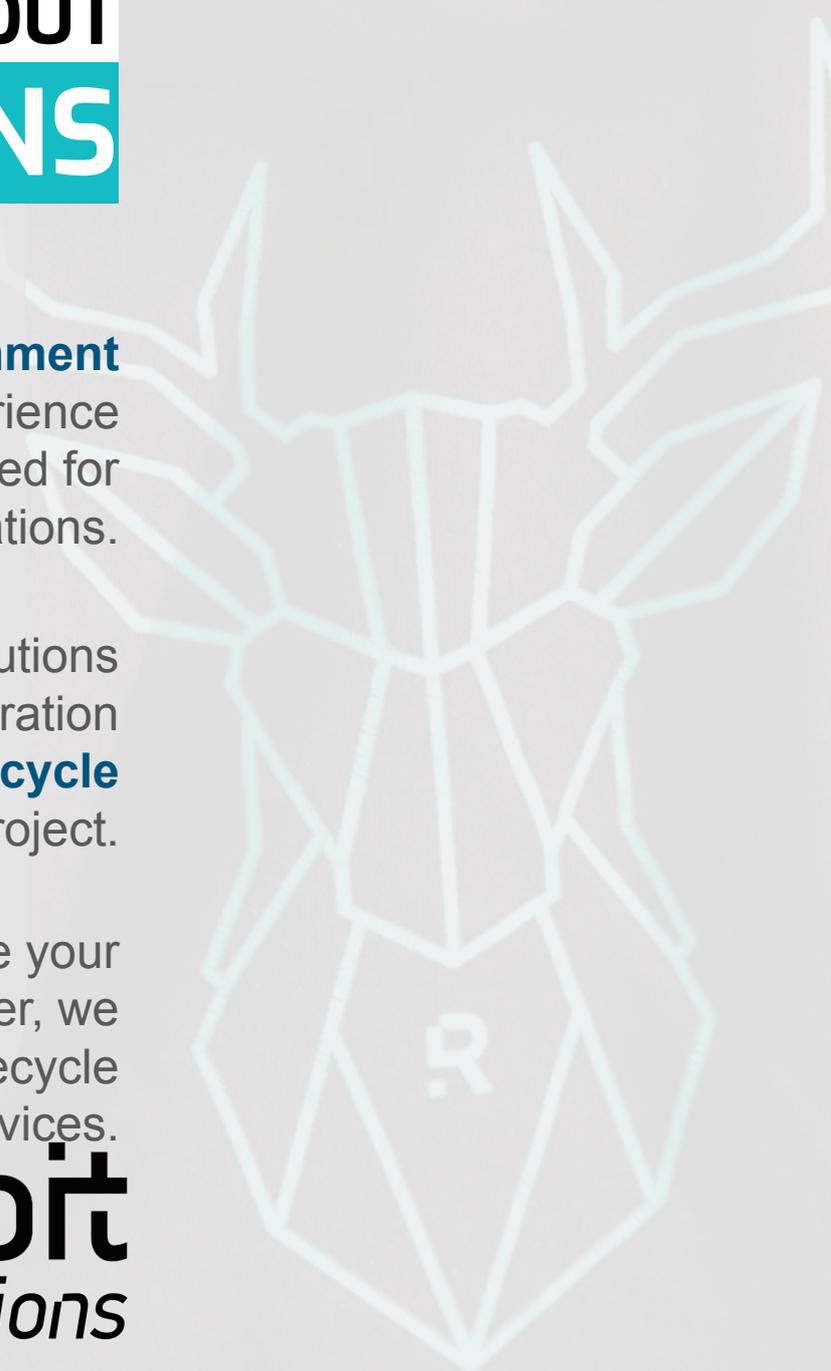
ROMBIT SOLUTIONS

Rombit Solutions is a **high-risk environment specialist** with over **25 years** of experience in industrial security solutions and certified for the highest security regulations.

As a system integrator, Rombit Solutions provides a full range of quality integration **services** and takes care of the **full lifecycle** of your project.

We help align your ideas and realize your security project, and after the handover, we stay with you with a full range of lifecycle services.

Rombit
Solutions





OUR MISSION

Make Industrial Sites Smarter and more Efficient on Safety, Security and Gate Operations



Our mission

Our mission is to make industrial sites smarter and more efficient in safety, security, and gate operations in order to ensure the health and safety of people, optimise the customer's ability to compete, and make sure the client can keep its license to operate.



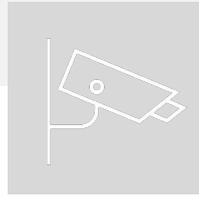
Our business model

Our strategic business model consists of a personal and tailor-made approach for each client. In order to bring this to a successful conclusion, it is essential for us to get to know the client and their work environment. This way, we can provide them with solutions that meet their needs. The choices that are made are always well-considered and based on well-thought-out methodology and technology, followed by careful implementation and follow-up.

Our services



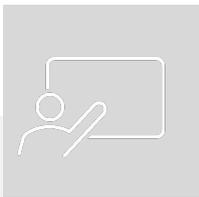
**Access
control**



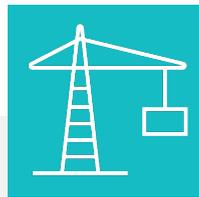
**Video
surveillance**



**Perimeter
security**



**Training
& coaching**



**Port security
& Isps
compliance**



Fire detection



Our customers

Trusted by leading brands, such as:

INEOS

xella



CALDIC

BRABO
GROUP

Port of
Antwerp

SEA-invest

m
sc

ZUIDNATIE

adpo

VAN MOER
Logistics

Oiltanking



Start your securing your operations

BOOK AN AUDIT ON SITE

www.rombitsolutions.com/gratis-audit-

2



Rombit *Solutions*



Bredastraat 129, 2030
Antwerp, Belgium



+32 3 653 08 38



www.rombitsolutions.com
info@rombitsolutions.com