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Industry Information Live

Industrial Communication er forudsætningen for digitalisering

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Dagens værter

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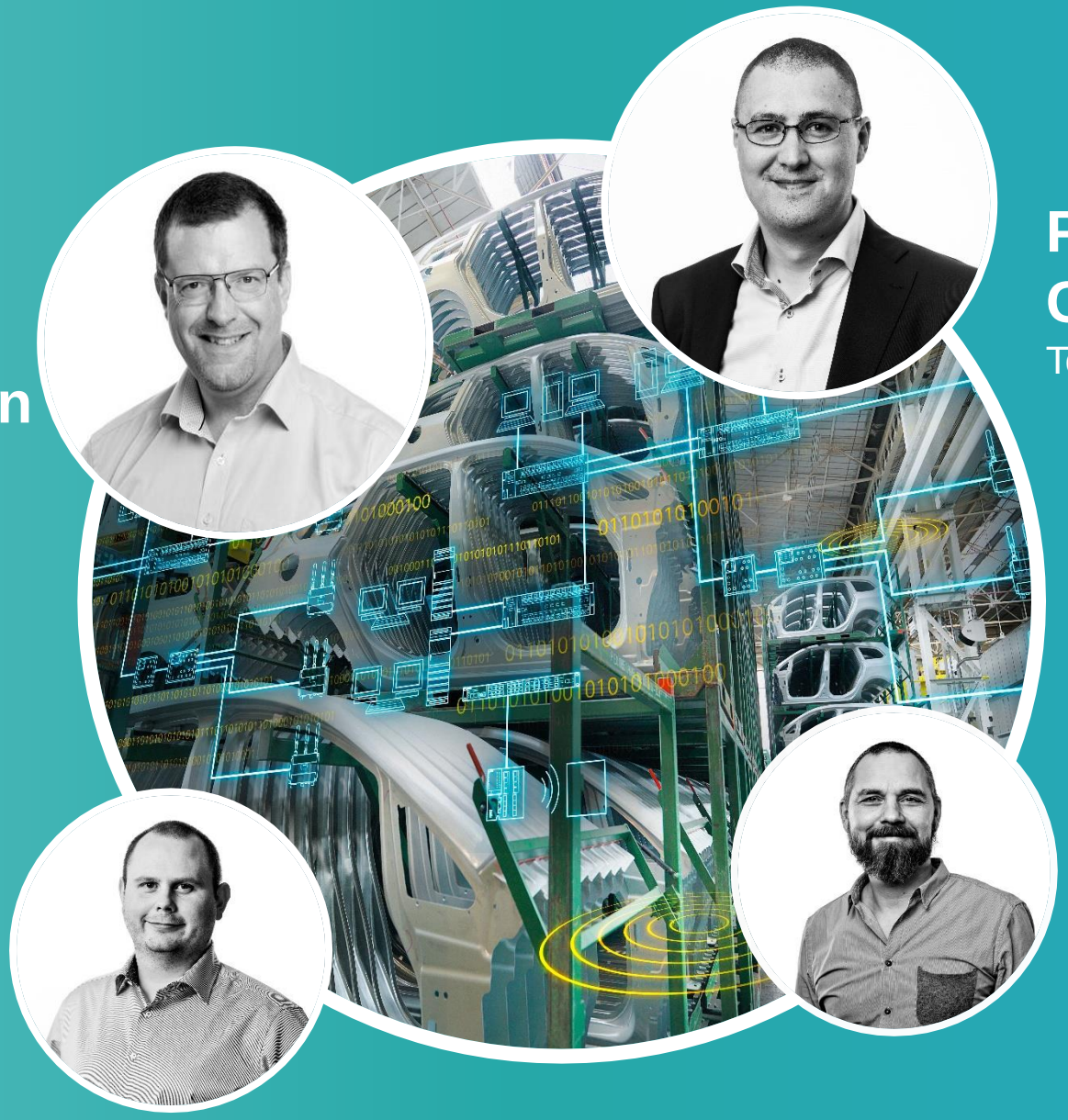

Jesper Kristiansen
Technology Specialist

Per Krogh Christiansen
Technology Specialist

Morten Kromann
Q&A

Lars Peter Hansen
Q&A

Agenda

Industrial Communication er forudsætningen for digitalisering

- Hvorfor er det nødvendigt at anvende industrielle kommunikationsløsninger – og ikke almindelige IT-løsninger?
- Hvilke egenskaber sikrer en velfungerende løsning?
- Hvordan designer du en fremtidssikret kommunikationsløsning?

Is there an alternative to Digital Transformation?

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Maximize
Flexibility

Reduce
Costs

Improve
Quality

Increase
Efficiency

Zero compromise on Cybersecurity

IoT

enables the future
of manufacturing

- And the right **communication network** is the key

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IoT will change the way you work

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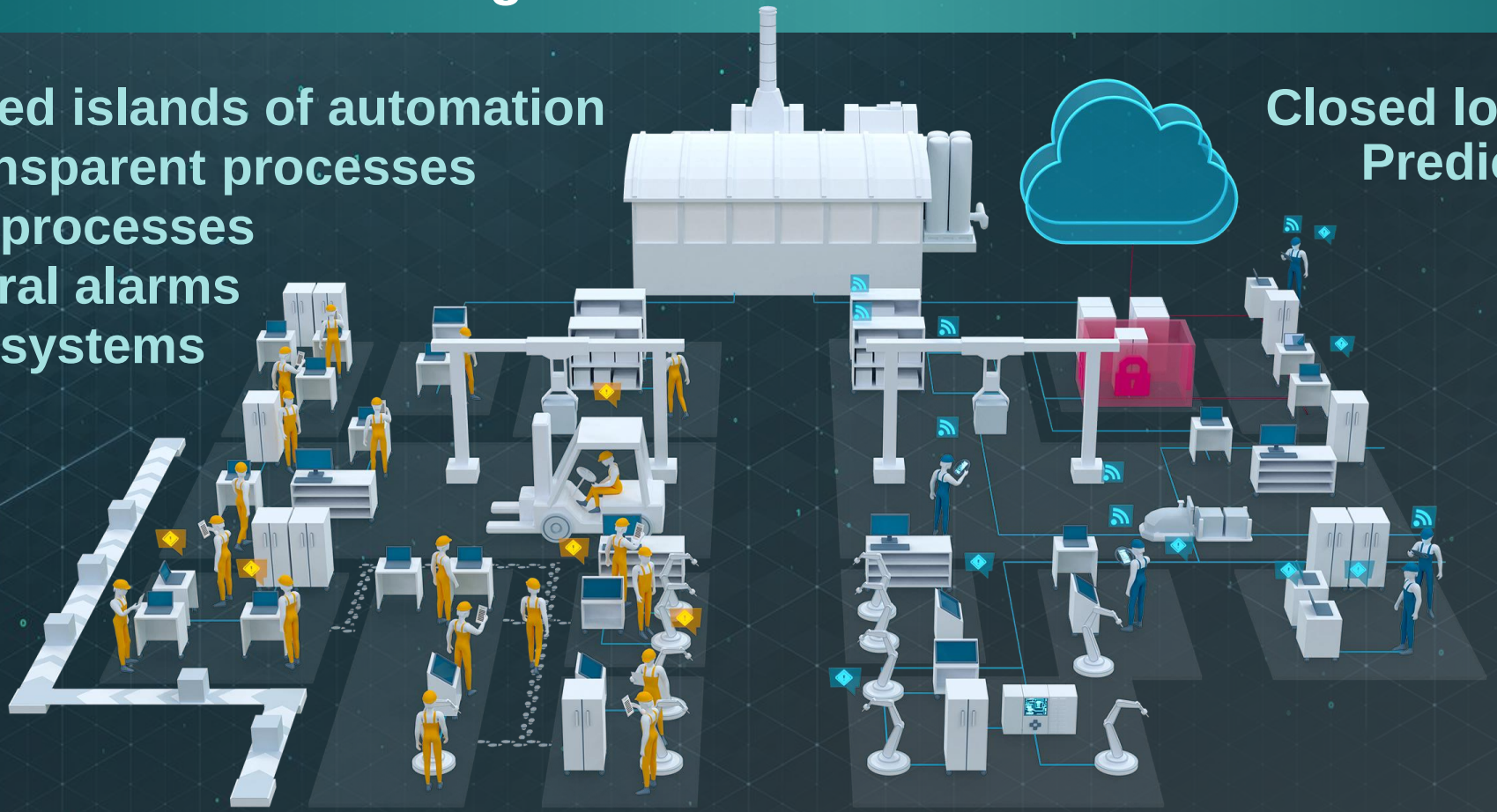
Traditional Manufacturing

Separated islands of automation
Non transparent processes
Manual processes
No central alarms
Legacy systems



IoT enabled Manufacturing

Closed loop manufacturing
Predictive Maintenance
Predictive Quality
Machine Learning
Full automation
AI in industry

IoT pushes traditional architectures to its limits

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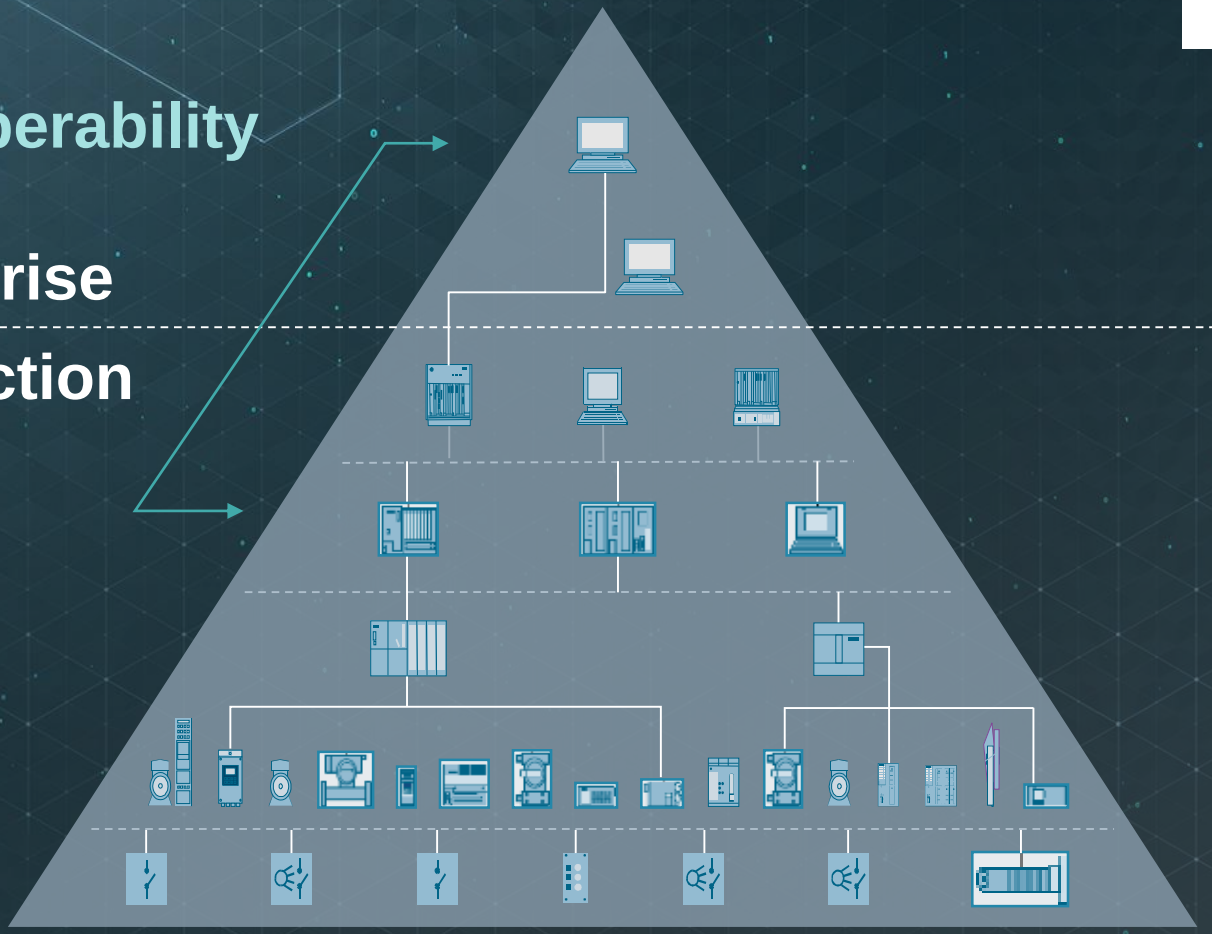
Interoperability

Enterprise

Production



Challenge to handle complexity of increasing communication

IoT architectures are the base for your future success

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IoT Architecture

Business modelling

Applications

Platforms

Connectivity

Smart Objects | “Things”

… and this requires powerful communication networks in industry

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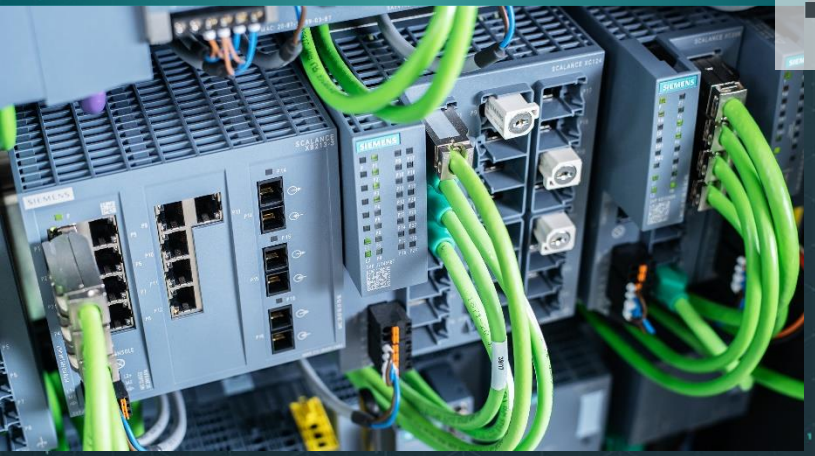
Best-in-class
Communication
Portfolio



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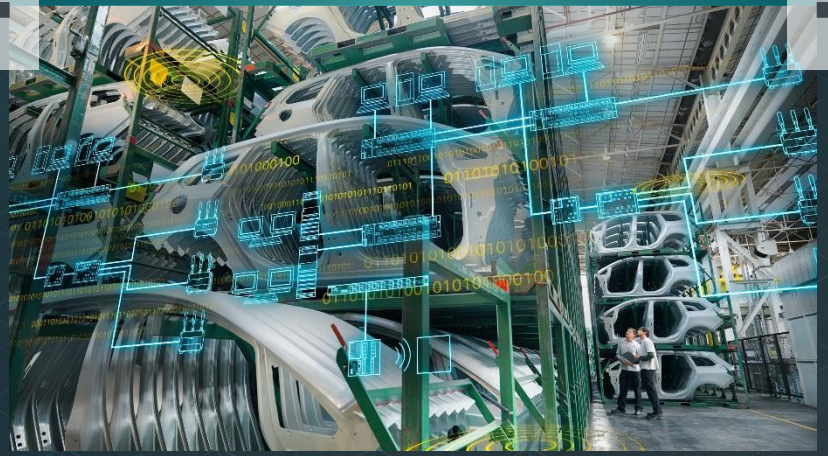
Expertise
in Industrial Networks



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Services,
Solutions
and **Training**

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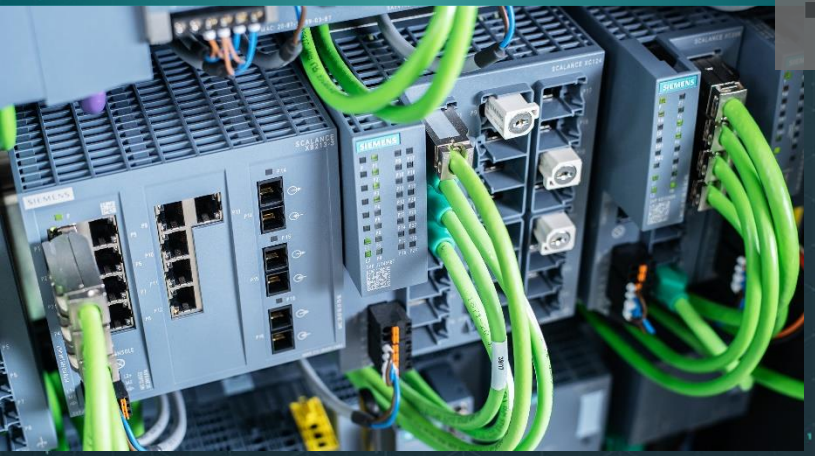
Best-in-class
Communication
Portfolio



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Expertise
in Industrial Networks

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Services,
Solutions
and Training

Our products exceed industry specific requirements while building on existing standards

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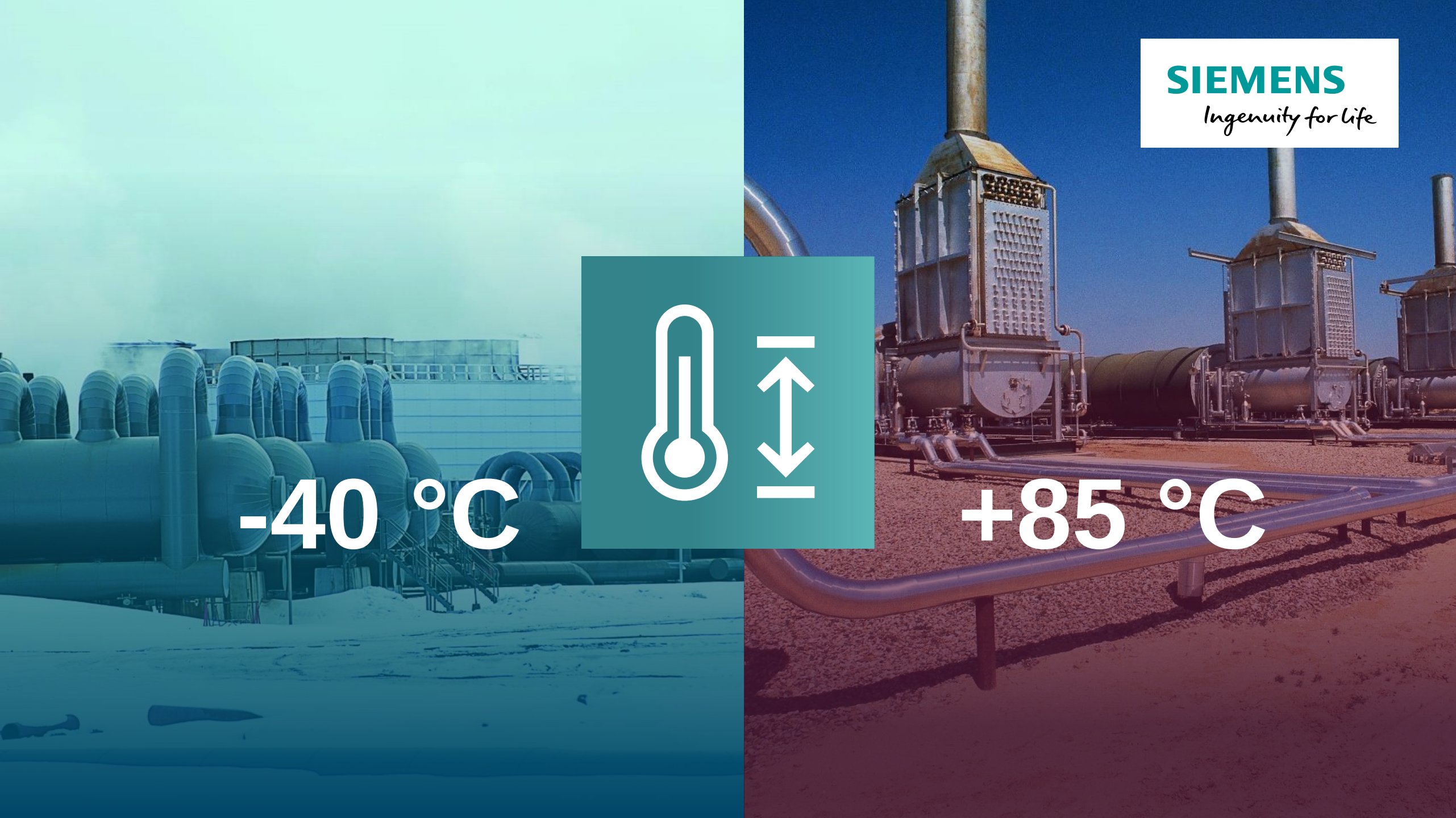
Robustness

Industry features

Certifications and Standards

Interoperability

V2.0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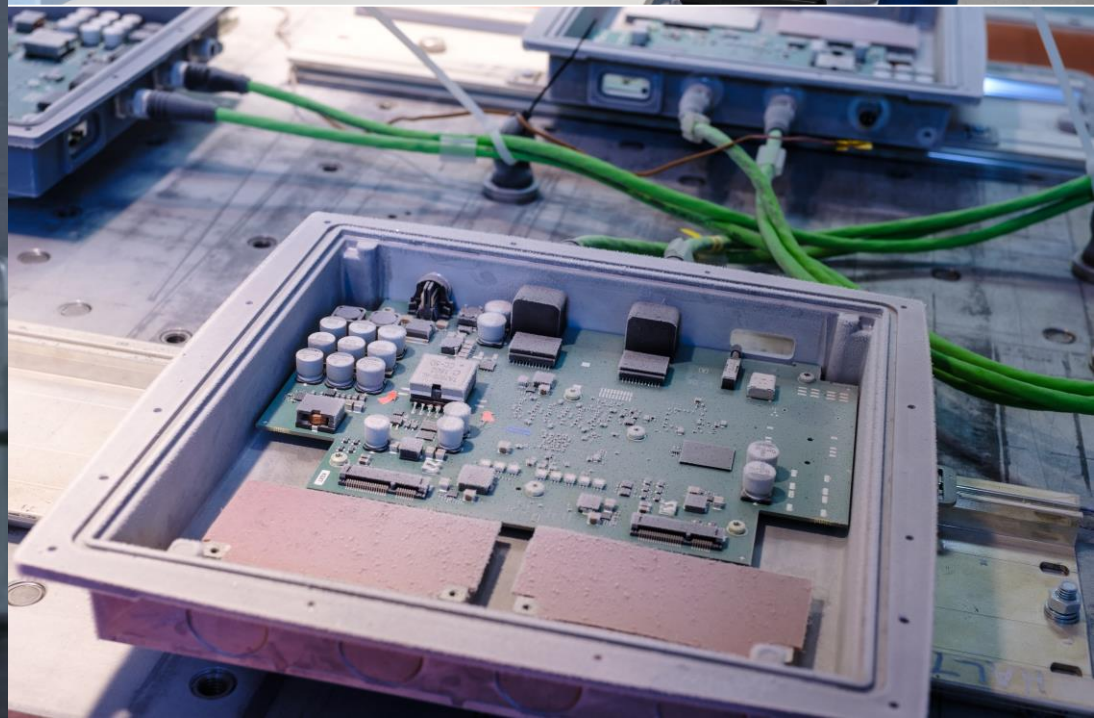
-40 °C
+85 °C

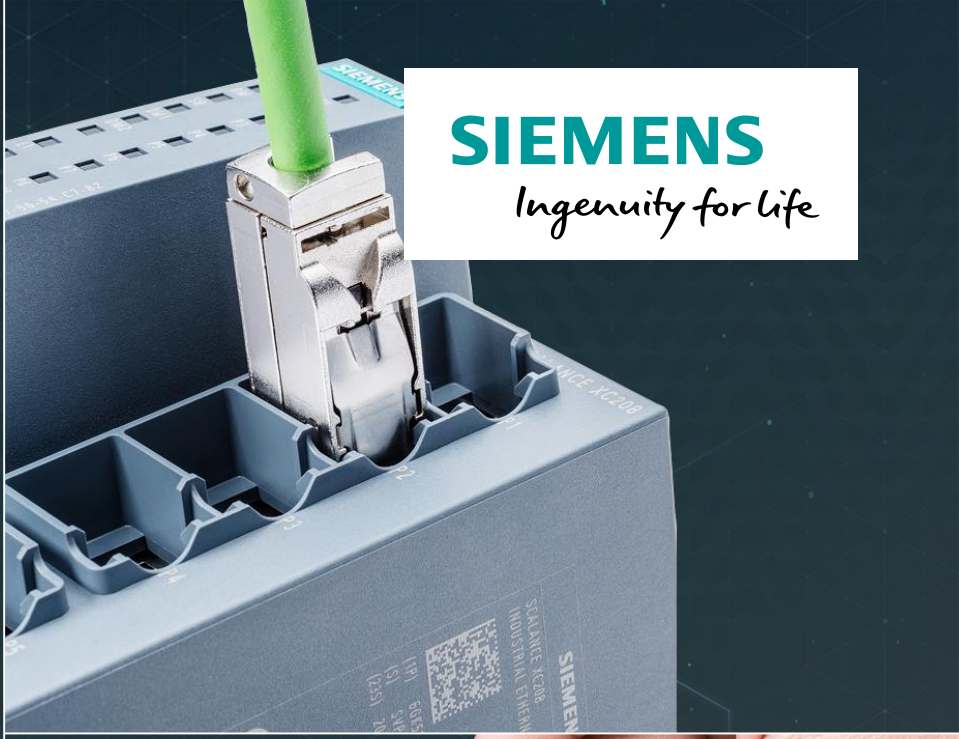
Designed to Last

- **HALT/HASS**
  We don’t take chances … and neither should you



Industry Features

- Enable your system to be up for the task



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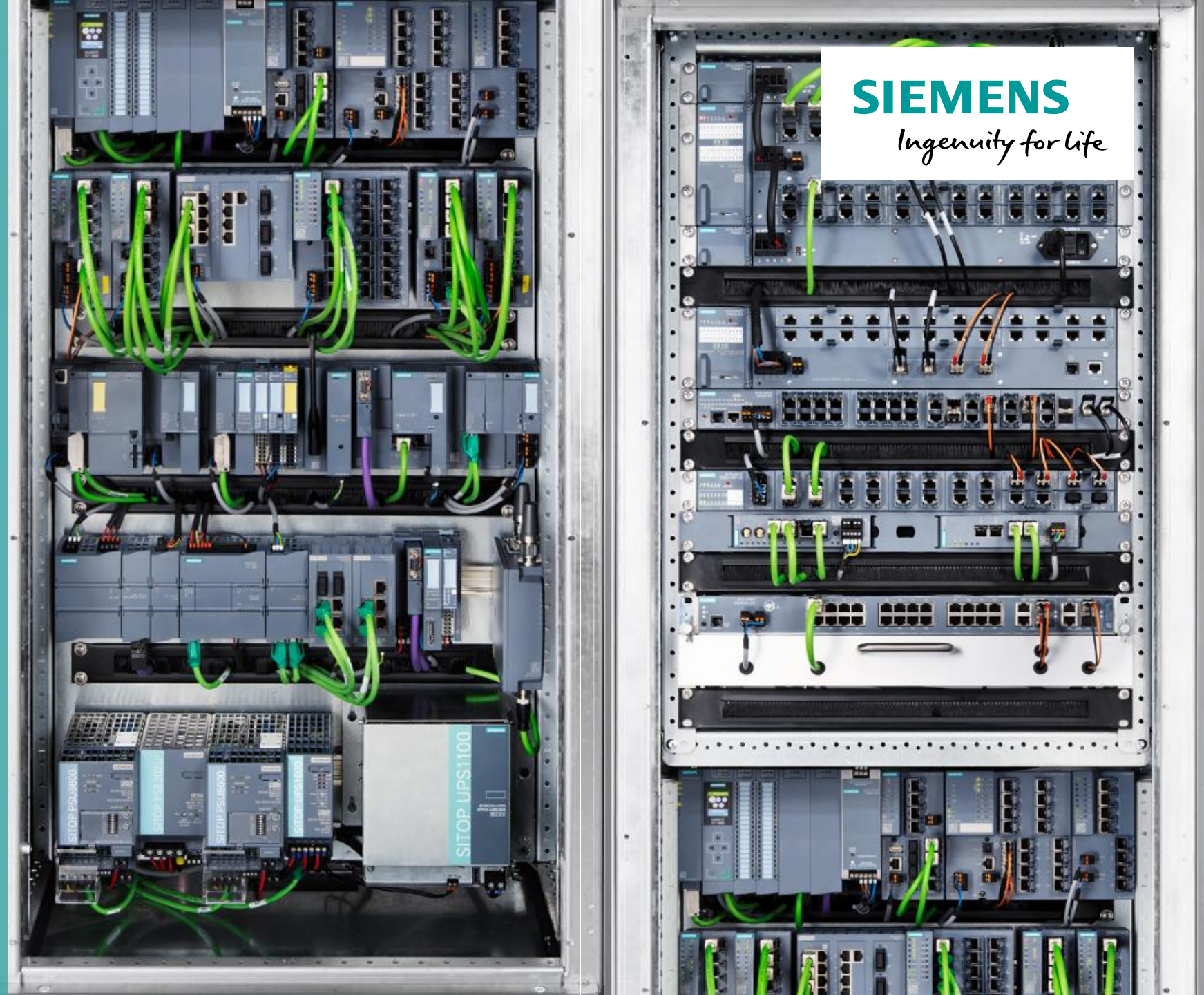
Inter-operability

- At home in automation and ready to interface with IT



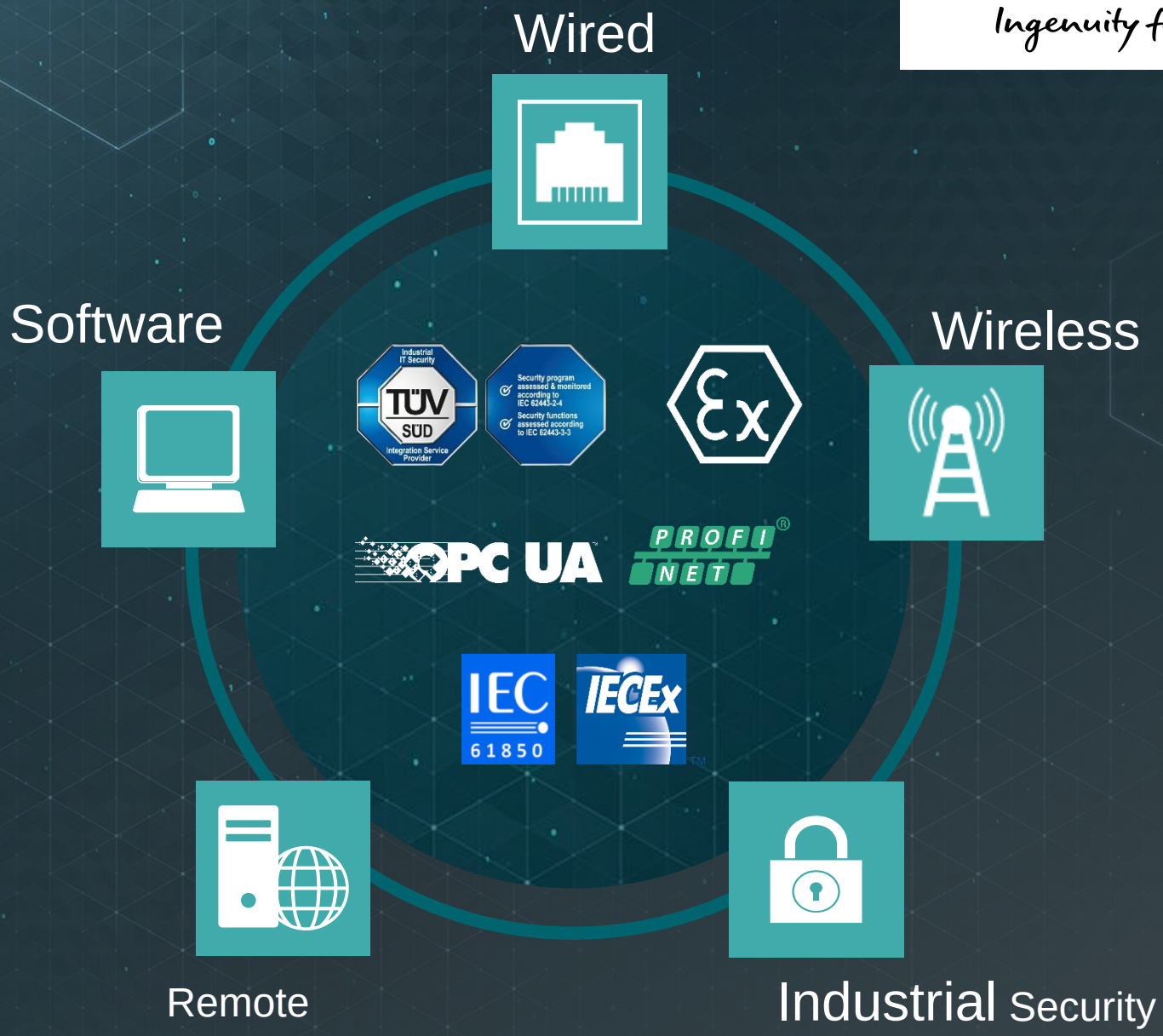
Industrial Security

- Already starts in R&D
- IEC 62443-4-1 proven

Read more
Practical standards for Industrial Security

Certifications & Standards

- Across the entire portfolio



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Best-in-class
Communication
Portfolio

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Expertise
in Industrial Networks

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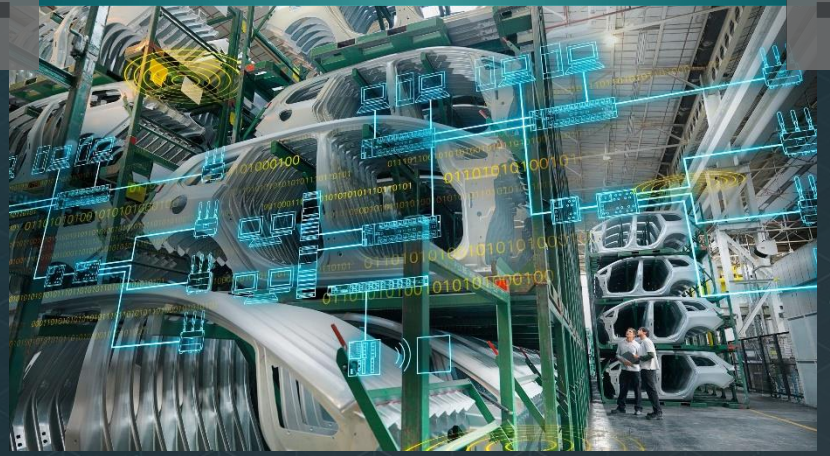
Services,
Solutions
and Training



Industrial Networks have critical requirements

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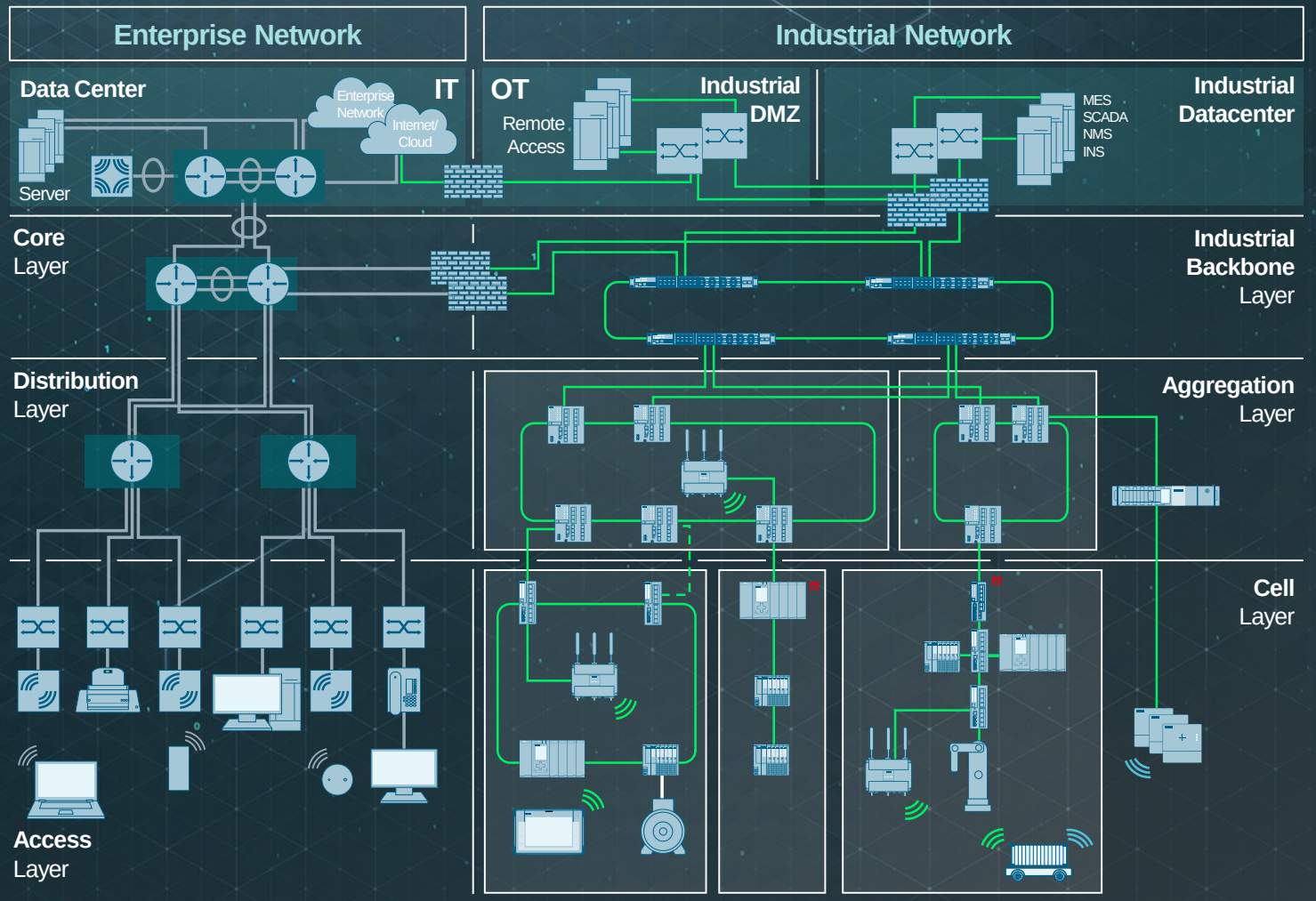

- High Availability
- Robustness
- Flexibility
- Determinism
- Industrial Security
- Functional Safety
- Mobile Applications

Industrial Networks have critical requirements

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High Availability

Robustness

Flexibility

Determinism

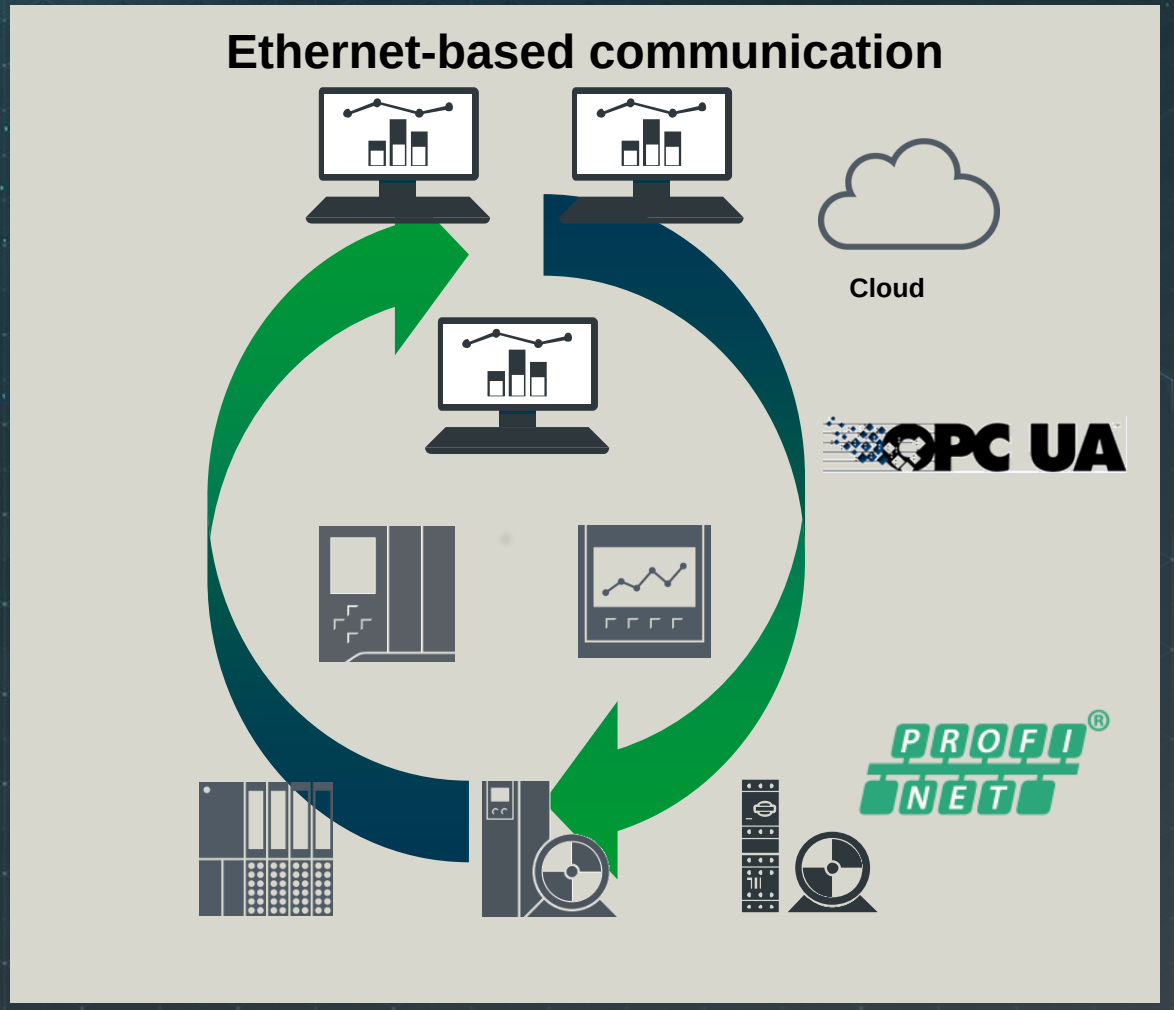
Industrial Security

Functional Safety

Mobile Applications

Profinet

- 1 cable for all
- Use installation and design guidelines
- Redundancy build in

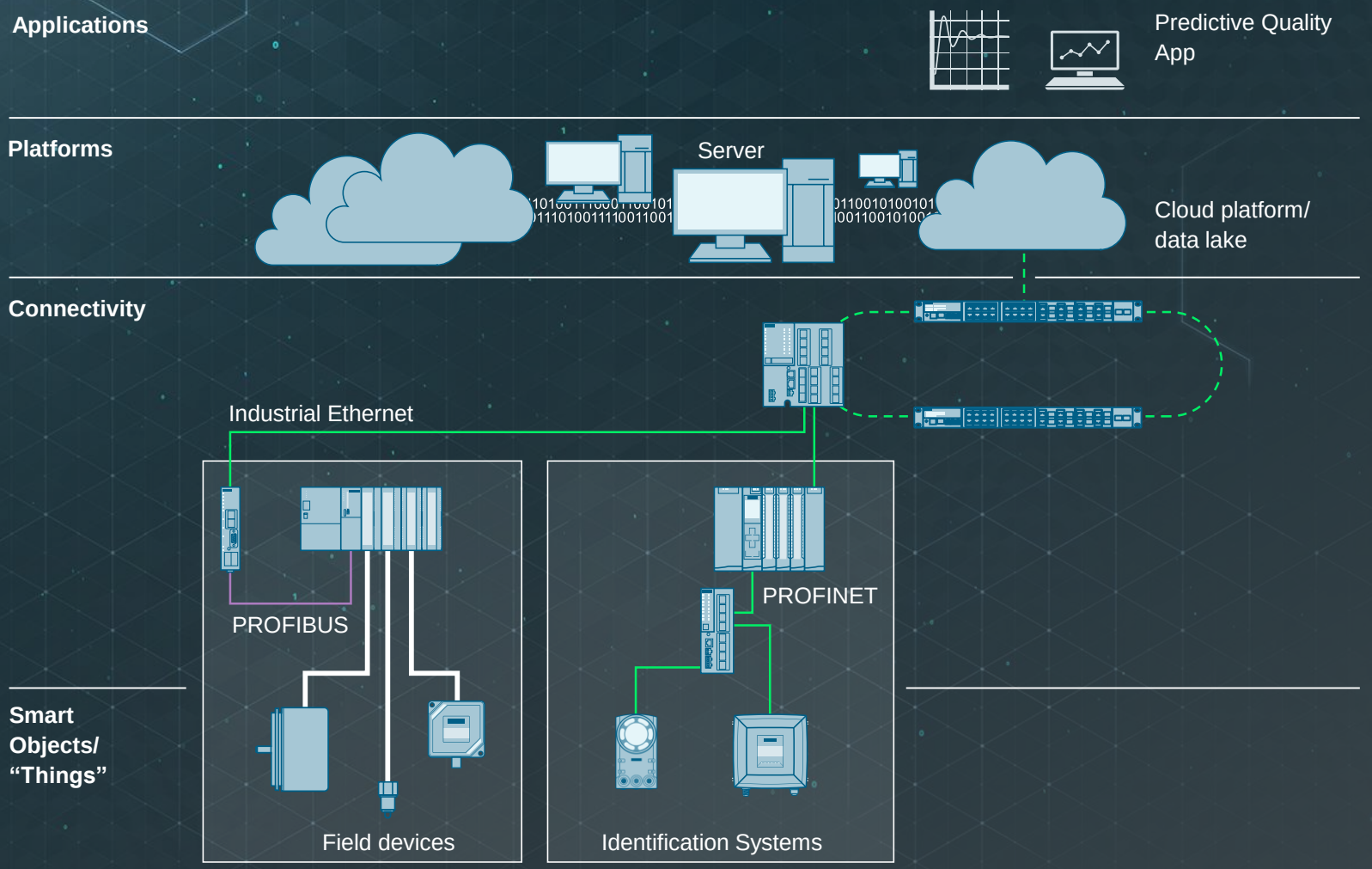


IoT Connectivity

- Sensor data forwarded to the cloud

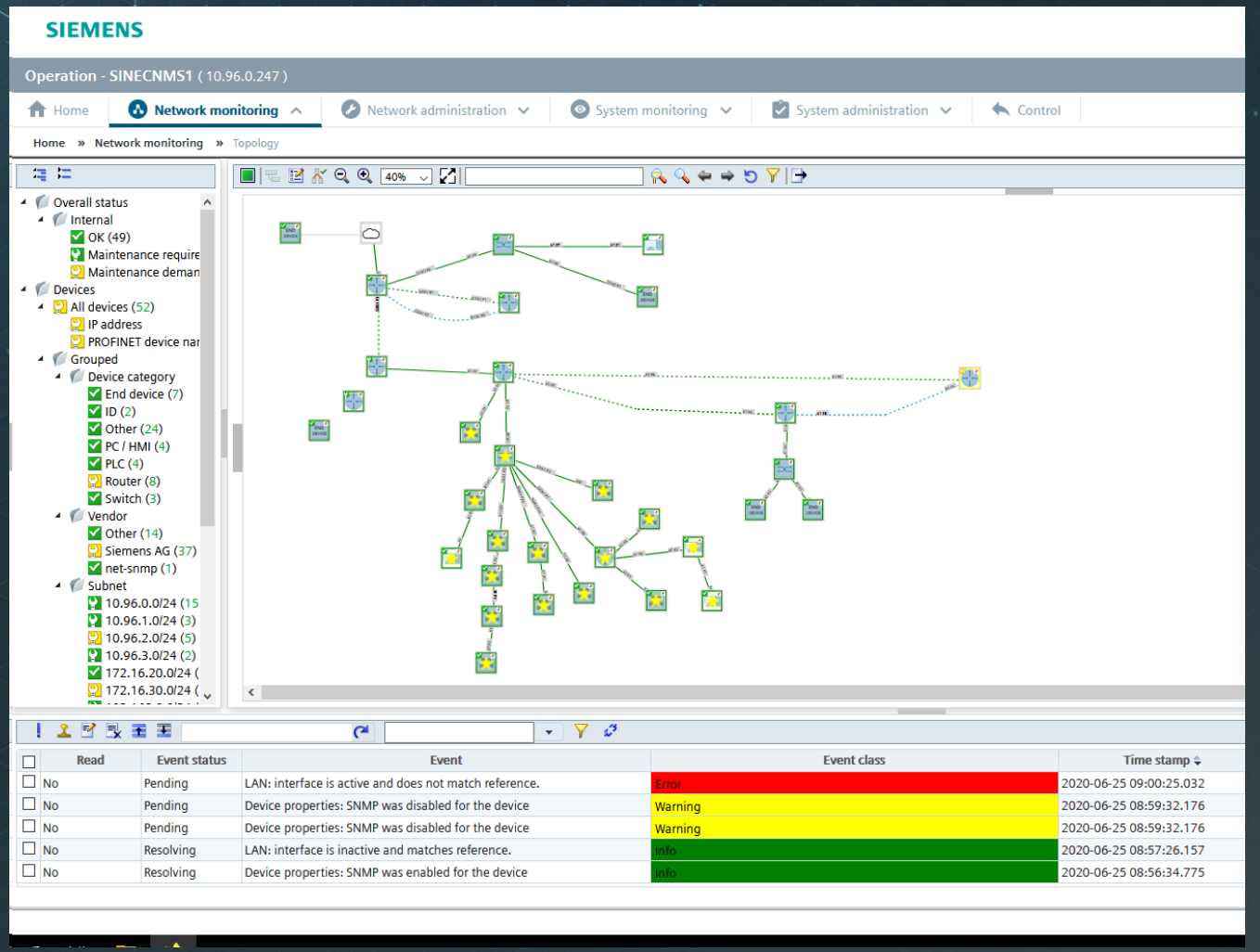
- Based on open standards e.g. MQTT, OPC UA

- Fast response within the current production cycle



Network Management

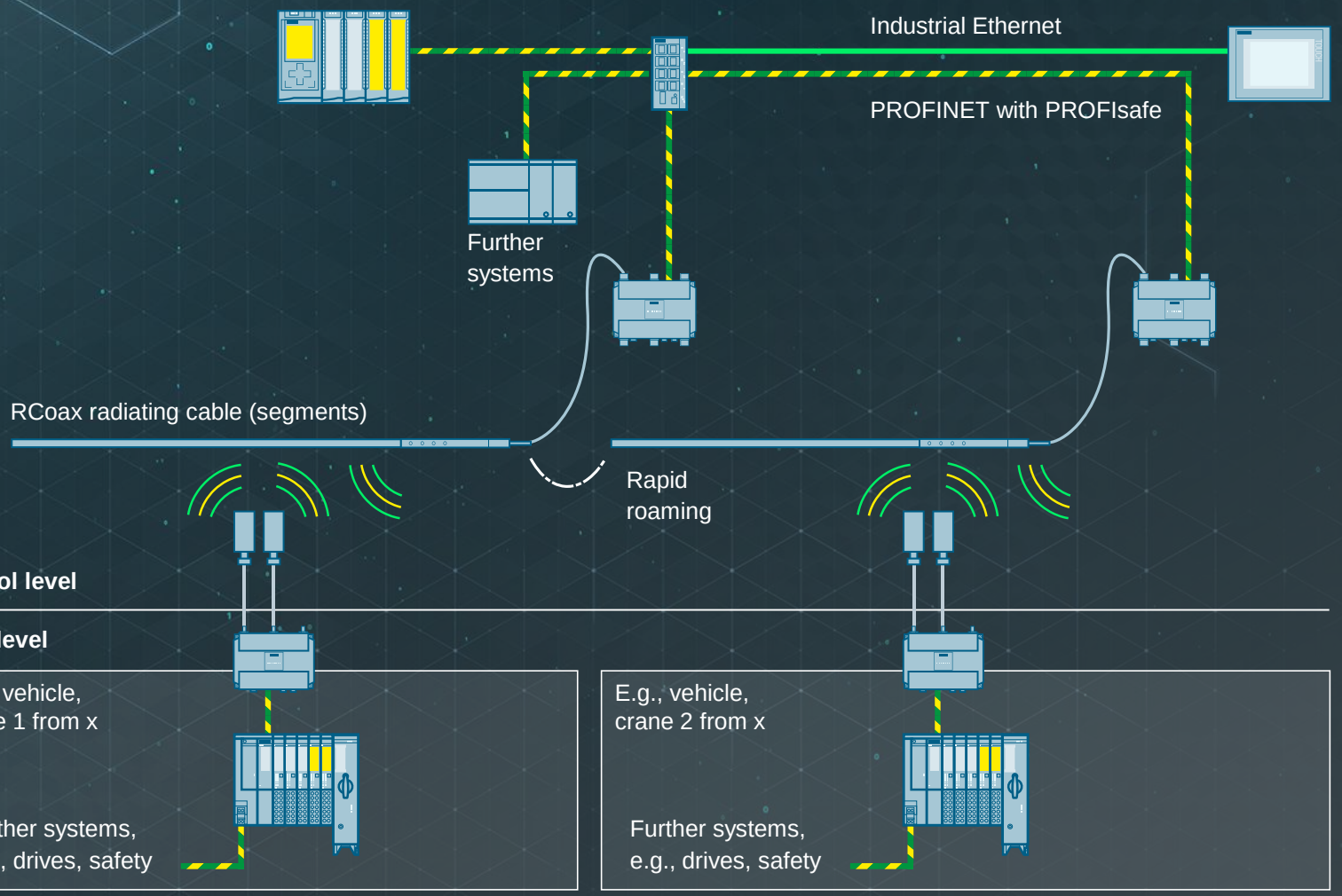
- All-around Network Management System for industrial networks
- Policy-based network management
- Maximum transparency



Functional Safety

- Maximum flexibility in automation and production through safety integrated applications

  Building safe systems including safety stops up to SIL3 acc. to IEC 61508 also over wireless

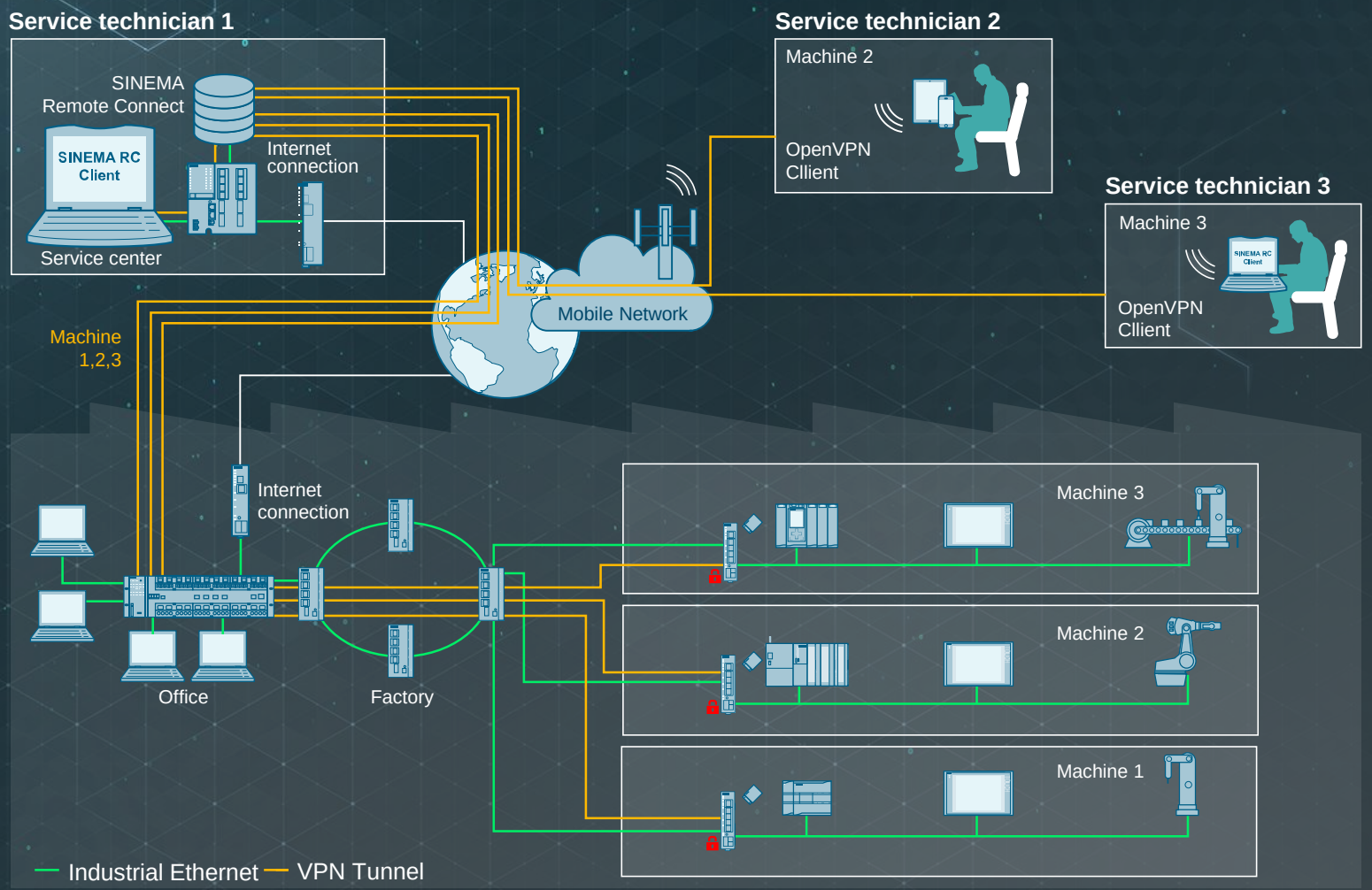


Remote Communication

- High security (VPN) remote access to “things” for maintenance and troubleshooting

- Easy integration in existing plant networks and Auto-configuration

- Standard user interface and flexible administration



Industrial Security

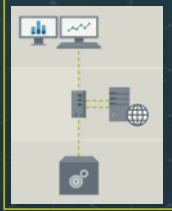
- Multi-layer concept providing sophisticated in-depth protection

Assess, Implement & Manage

Remote access

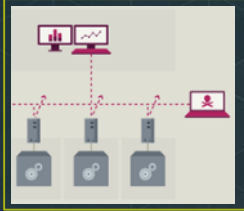
- Secured **remote maintenance**
- Secured **data exchange**

DMZ

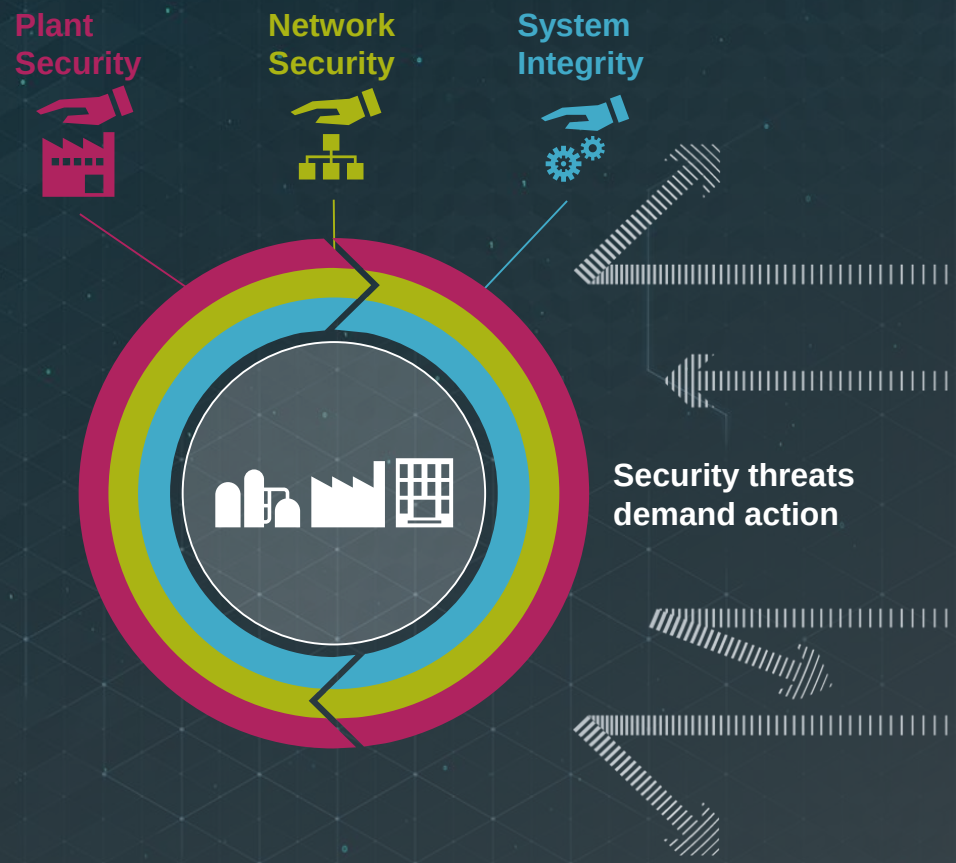


- **Decoupled net-works** to prohibit unchecked communication
- **Firewalls**

Cell protection

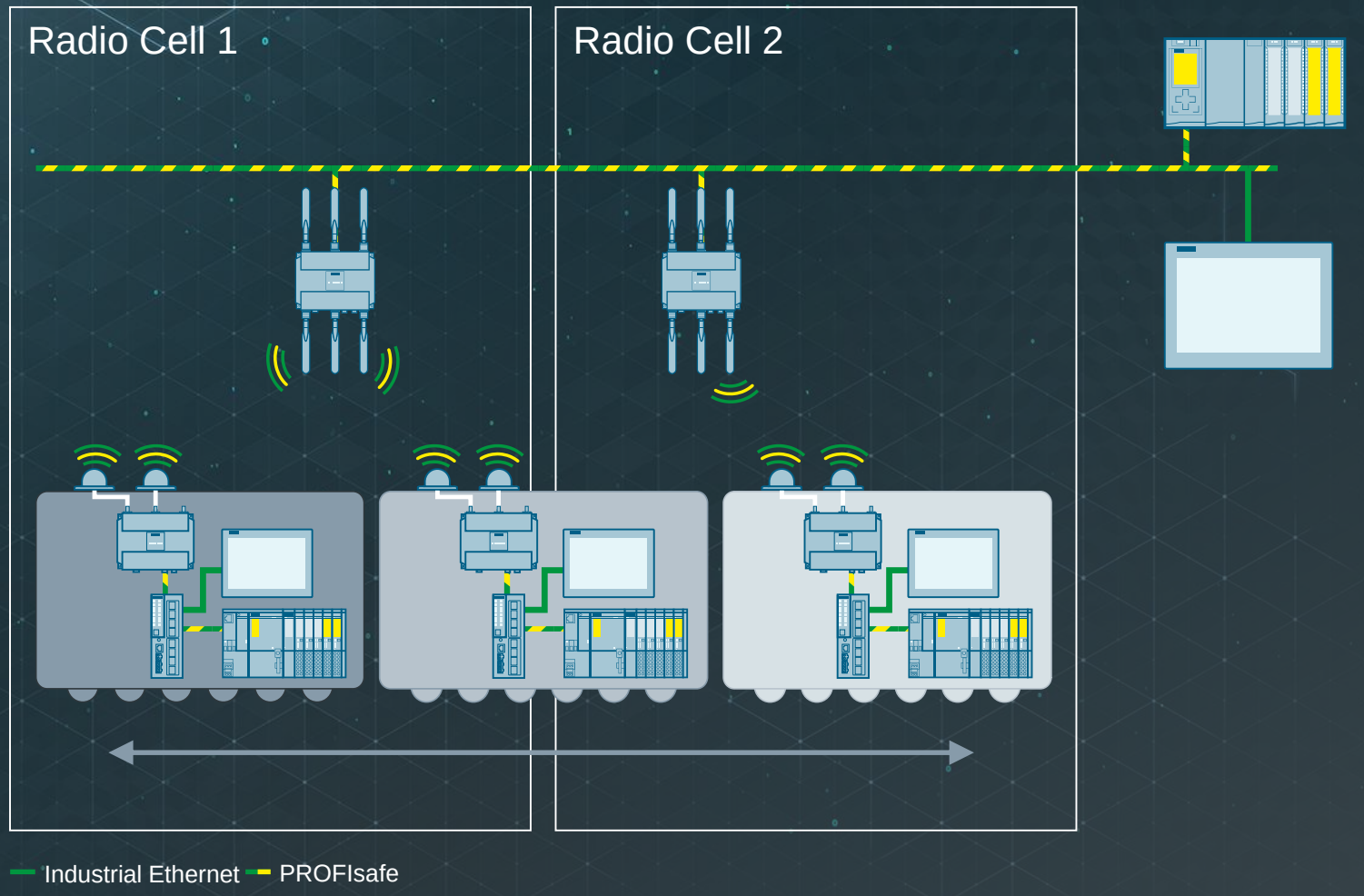


- Avoid **unautho-rized access**



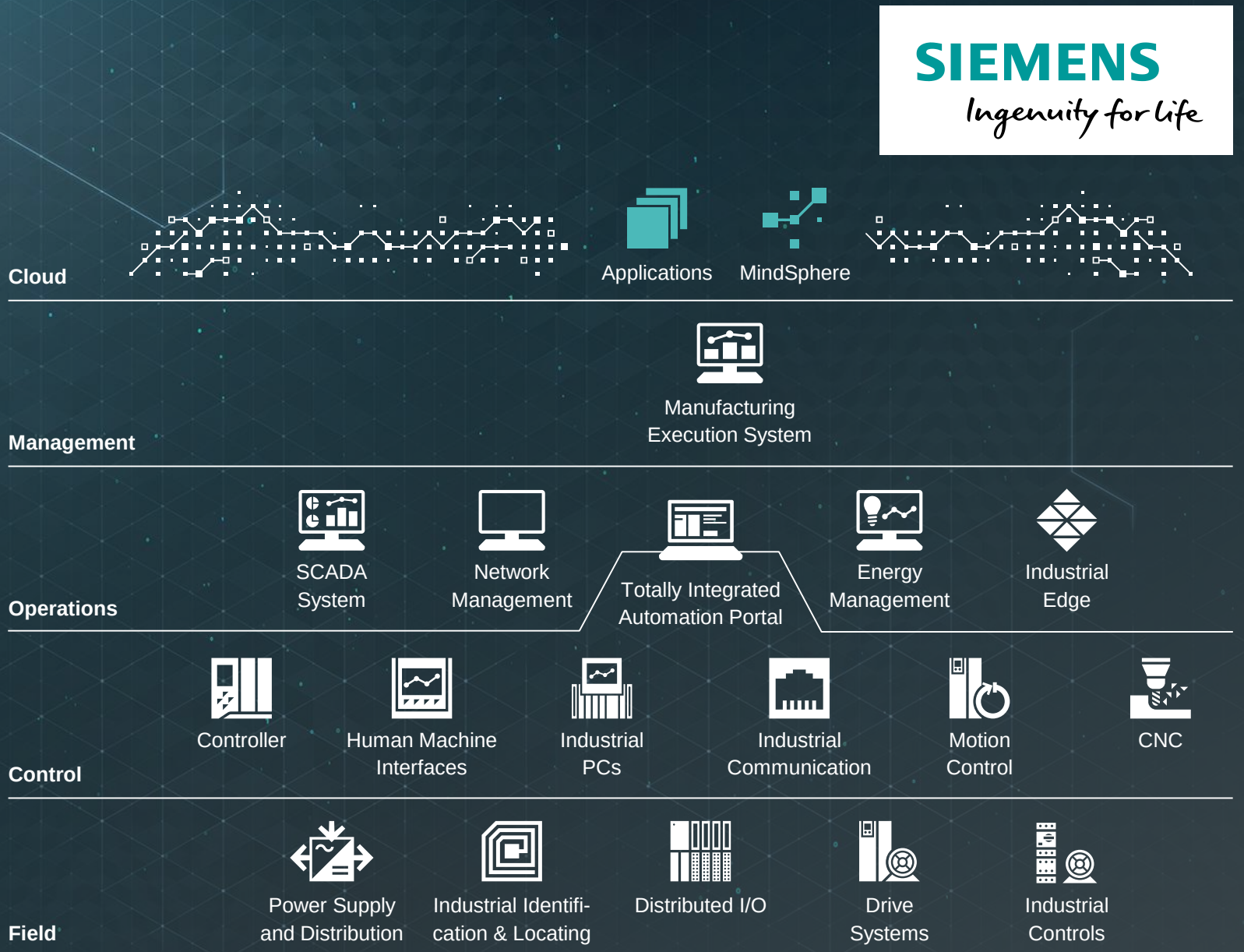
Mobile Communication

- Common infrastructure for Safety and Non-Safety communication
- Realtime capable incl. Safety also for roaming application
- Advanced Diagnostics for maximum availability
- Ease of use



Totally Integrated Automation

- Integrated Engineering
- Industrial Data Management
- Industrial Communication
- Industrial Security
- Functional Safety



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Best-in-class Communication Portfolio

+

Expertise in Industrial Networks

+

Services, Solutions and **Training**

Together with our global partner network,

we are the

trusted partner

for entire Industrial Network Solutions.

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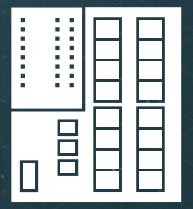


Leading portfolio

Professional services

Certification trainings

Global partner network

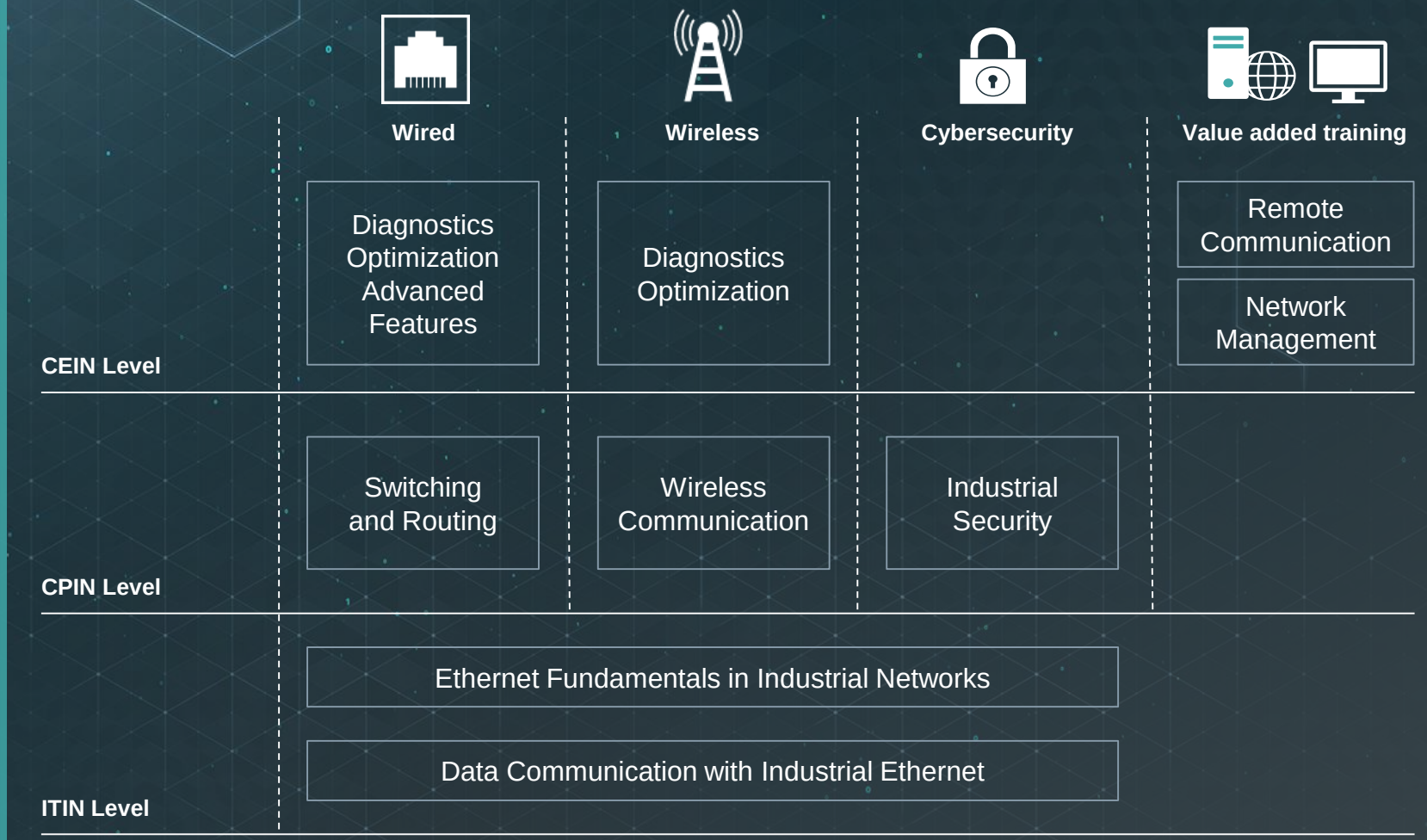
Based on more than
30 years of experience

Certification Training

Building strong and industry relevant expertise.

Tailored to OT and IT staff involved in OT operations.

Increasing plant availability through skilled personal.



CEIN – Certified Expert for Industrial Networks; CPIN – Certified Professional for Industrial Networks; ITIN – Initial Training for Industrial Networks

Siemens is your trusted partner for Industrial Communication Networks

SIEMENS
Ingenuity for life

We understand **your Industry**

We understand **Industrial Communication**

We understand **Cybersecurity**

We have a proven **track record**

Let us help you build your digital connectivity infrastructure!

Gense webinar og download materiale på www.siemens.dk/di-webinarer

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Næste webinar

Fredag den 21. august kl. 11.00

Digitalisering og virtual commissioning

Invitation sendes ud i starten af uge 33

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