



22 – 26 APRIL 2024

5GACIA

# ENERGIZING A SUSTAINABLE INDUSTRY

Invitation

## Hannover Messe 2024

Experience the transformative power of Industrial 5G!

5G Alliance for Connected Industries and Automation



## Hannover Messe 2024



## About

### HANNOVER MESSE

is the most important international platform and hot spot for industrial transformation - with excellent innovations or unusual products. At the world's leading industrial trade fair, companies from the mechanical engineering, electrical engineering and digital industries as well as the energy sector will come together to present solutions for a high-performance, but also sustainable industry. More than 4,000 companies will be acting as an inter-connected industrial ecosystem and demonstrating how climate neutrality can be achieved through electrification, digitization and automation.

### Industry 4.0 is the future of manufacturing,

with smart factories linked to the Industrial Internet of Things (IIoT). But an appropriate communication framework and comprehensive connectivity are also essential ingredients for achieving flexible, autonomous, and efficient production plants and intra-logistics (the organization, implementation, and optimization of material flows). The Industrial 5G standard opens up major new opportunities for achieving flexible, scalable connectivity that can be precisely tailored to the specific needs of industry.

### At HANNOVER MESSE 2024, 5G-ACIA and its partners

will team up to present the "5G and Industrial Wireless Arena" (5G Arena for short) as a practical illustration of how it all works. It will feature the participation of companies and organizations of the industrial 5G ecosystem within the scope of a comprehensive five-day on-stage program and forum. As a special addition at this year's 5G Arena, 5G-ACIA will present its unique Demo Wall, showcasing various devices and solutions built for Industrial 5G.

[www.hannovermesse.de](http://www.hannovermesse.de) >>

## Venue / Tickets

### Fairgrounds

D-30521 Hannover  
Germany  
[Open in Google Maps >>](#)

### Dates

April 22-26, 2024

### Hours

Daily from 9 a.m. to 6 p.m.



### 5G-ACIA invites you to Hannover Messe.

Take advantage of this unique opportunity to meet experts from around the world and learn all about Industrial 5G and its potential for taking your business to the next level.

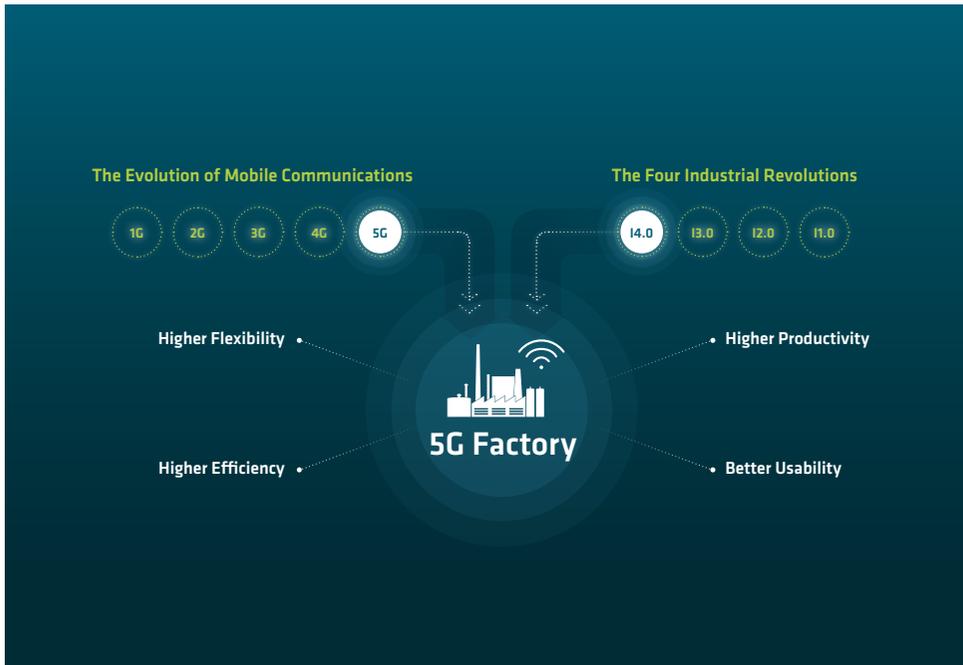
You'll find us in Hall 14 (booth H06/47)  
at the "5G and Industrial Wireless Arena".

[Tickets & Exhibitor Passes >>](#)

## Making Industrial 5G Happen

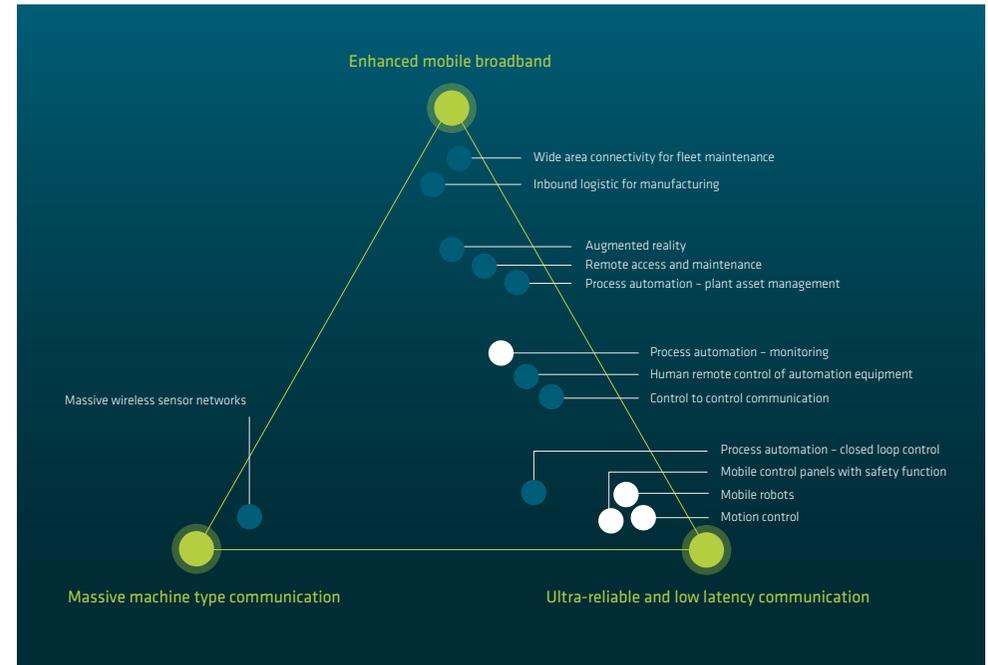
**5G-ACIA** is the number one global forum for shaping 5G in the industrial domain.

It's the leading platform for companies and organizations spanning a variety of industries worldwide to create a new ICT and OT ecosystem and forge the framework of a highly attractive new market. To learn more about the emerging market for Industrial 5G, visit our booth.



### Designing 5G for Industrial Use

One of the main ways in which 5G differs from previous generations of cellular networks is its strong focus on machine-type communication and the Internet of Things (IoT). This paves the way for the next era in industrial production, dubbed „Industry 4.0“, which aims to significantly improve the flexibility, versatility, usability, and efficiency of future smart factories and industrial plants.



### A Key Enabler of Industrial 5G

The rationale for developing 5G was not only to expand the broadband capabilities of mobile networks, but also to provide advanced wireless connectivity for a wide variety of vertically integrated industries.

To achieve this, 5G supports three essential types of communication: enhanced mobile broadband (eMBB), massive machine-type communication (mMTC), and ultra-reliable low-latency communication (URLLC).

## Exhibition Halls

-  **Future Hub**  
Hall 2
-  **Engineered Parts & Solutions**  
Halls 3-4
-  **Automation, Motion & Drives**  
Halls 5-9, 11
-  **Energy Solutions**  
Halls 11-13
-  **Digital Ecosystems**  
Halls 14-17



**Hall 14**  
“5G and Industrial Wireless Arena”

## The current state of the Industrial 5G Ecosystem

# Demo Wall

Experience the world of Industrial 5G at Hannover Messe 2024 with the debut of the **5G-ACIA Demo Wall**, representing the latest state of the Industrial 5G Ecosystem.

For the first time ever, the Demo Wall will **showcase the devices that help make Industrial 5G a reality**. Find out about industrial 5G routers, modules and dongles, fieldbus communication over 5G, safety over 5G, industrial 5G radio access networks and core networks as well as many more 5G devices that are on display. Don't miss out on this opportunity and get in touch with the experts at the 5G-ACIA booth.

## Digital Twin

You will not be able to attend Hannover Messe and see the Demo Wall in person?

Have a look at its digital twin via the following link to the 5G-ACIA website or the QR-Code.

[5G-ACIA Demo Wall >>](#)



1	Industrial 5G Routers		6	5G Devices / #1	
2	Industrial 5G Routers/Modules/Dongles		7	5G Devices / #2	
3	Fieldbus Communication over 5G		8	Industrial 5G Radio Access Networks	
4	Safety over 5G / #1		9	Industrial 5G Core Networks	
5	Safety over 5G / #2				

## 5G-ACIA Members at Hannover Messe 2024

# Exhibition

## Insights and Value Adds

Hannover Messe 2024 offers the unique chance to experience the whole Industrial 5G ecosystem in one place. 5G-ACIA members will also be present and showcase their contributions and innovations.



## 5G-ACIA Members on Stage

# Forum

### Sharing Experiences

#### Taking Industrial 5G from Theory to Practice

5G has the potential to provide (wireless) connectivity for a wide range of use cases and applications in industry. In the forum of the 5G Arena, the following 5G-ACIA members will contribute interesting points of view.



## 5G-ACIA Members on Stage

# Forum

## Sharing Experiences

5G-ACIA brings together key stakeholders for advancing the standardization and regulation of 5G in the industrial domain. In the forum of the 5G Arena, several 5G-ACIA members will present key 5G-ACIA deliverables for Hannover Messe 2024. Detailed information on the entire forum program is available on the [Hannover Messe website](#).



### Industrial 5G | State of the Union

Lecture

**Monday, April 22 | 10:30 – 11:00 a.m.**

Speakers: Dr. Andreas Mueller, 5G-ACIA General Chair  
Dr. Afif Osseiran, 5G-ACIA General Vice Chair



### Industrial 5G | 5G campus networks in business: open solutions for the communication of the future

Panel

**Monday, April 22 | 12:00 – 12:45 p.m.**

Panelists: Elena Kempf-Loeck, Fraunhofer HHI  
Prof. Dr. Slawomir Stanczak, Fraunhofer HHI  
Prof. Dr. Frank Fitzek, TU Dresden  
Thomas Höschel, Startup "CampusGenius"



### Industrial 5G | Mission-critical use cases and applications with Industrial 5G

Presentation

**Monday, April 22 | 1:30 – 1:50 p.m.**

Speaker: Daniel Mai, Siemens



### Industrial 5G | Vertical drivers for Open 5G Campus Networks

Panel

**Monday, April 22 | 2:25 – 2:55 p.m.**

Panelists: Prof. Dr. Thomas Magedanz, Fraunhofer FOKUS  
Dr. Frank Hofmann, Bosch  
Ansgar Bergmann, Still  
Raimo Vollstädt, Topcon  
Dr. Bernd Schröder, brown-iposs  
Klaus Nagora, SML



### Industrial 5G | Addressing multiple connectivity technologies to underpin various industrial needs

Talk

**Monday, April 22 | 3:00 – 3:20 p.m.**

Speakers: Dr. Shamik Mishra, Capgemini  
Anastasia Karatrantou, Capgemini



### Industrial 5G | The status of 5G technology adoption within the Manufacturing sector

Talk

**Monday, April 22 | 3:55 – 4:15 p.m.**

Speaker: Carlijn Williams, Nokia



### Industrial 5G | 3GPP sensing – new eyes for robots in I4.0

Talk

**Monday, April 22 | 4:15 – 4:35 p.m.**

Speaker: Joseph Eichinger, Huawei

## 5G-ACIA Members on Stage

# Forum

## Sharing Experiences



### Industrial 5G | Security risks in networked adaptive production

*Presentation*

**Monday, April 22 | 5:05 – 5:25 p.m.**

Speaker: Maximilian Ortmann, Fraunhofer IPT



### Industrial 5G | Frequency allocation options for nomadic 5G networks

*Panel*

**Monday, April 22 | 5:30 – 6:00 p.m.**

Panelists: Prof. Dr. Thomas Magedanz, TU Berlin / Uniberg

Dr. Muslim Elkotob, Vodafone Germany

Prof. Dr. Hans Schotten, DFKI

Dr. Jörg Schneider, BNetzA

Andreas Möller, UNIBERG

Dr. Afif Osseiran, Ericsson



### Industrial 5G | The Challenge and Promise of Computer Vision and AI in Smart Manufacturing

*Lecture*

**Tuesday, April 23 | 10:00 – 10:25 a.m.**

Speaker: Parm Sandhu, NTT



### Industrial 5G | Validation of 5G and TSN for fieldbus communication: A case study.

*Presentation*

**Tuesday, April 23 | 11:35 – 11:55 a.m.**

Speaker: Pierre Kehl, Fraunhofer IPT



### Industrial 5G | 5G evaluation scenarios – AGVs on the factory floor

*Presentation*

**Tuesday, April 23 | 12:00 – 12:25 p.m.**

Speakers: Thomas Höschele, CampusGenius

Eike Lyczkowski, SEW-EURODRIVE



### Industrial 5G | From Analog to Augmented: Empowering the Future Workforce

*Panel*

**Tuesday, April 23 | 2:45 – 3:15 p.m.**

Panelists: Parthasarathi Kar, Cisco Webex

Dave Landreth, Augmentir

Chris Parkinson, RealWear

Filipe Rodrigues, Cisco Systems



### Industrial 5G | o2 Telefónica Campus Networks with 5G Stand-alone Slicing for healthcare and medical technology

*Best Practice*

**Tuesday, April 23 | 3:20 – 3:40 p.m.**

Speakers: Frank Schmidt-Küntzel, o2 Telefónica

Prof. Dr. Christoph Thümmler, 6G Health Institute

## 5G-ACIA Members on Stage

# Forum

## Sharing Experiences



### Industrial 5G | Wifi 6 vs. Industrial 5G: which technology is the best?

*Presentation*

**Tuesday, April 23 | 3:45 – 4:10 p.m.**

Speakers: Jörg Brasas, Phoenix Contact Electronics  
Jürgen Weczerek, Phoenix Contact Electronics



### Industrial 5G | Automation needs 5G – and 5G needs automation

*Talk*

**Tuesday, April 23 | 5:30 – 5:50 p.m.**

Speaker: Bernd Schröder, brown-iposs



### Industrial 5G | A rounded approach to effectively adopt advanced connectivity for industrial operations

*Lecture*

**Wednesday, April 24 | 9:40 – 10:00 a.m.**

Speaker: Anastasia Karatrantou, Capgemini



### Industrial 5G | Unlocking advanced capabilities for Industrial IoT

*Lecture*

**Wednesday, April 24 | 1:15 – 1:35 p.m.**

Speaker: Sebastiano Di Filippo, Qualcomm Europe



### Industrial 5G | The role of 6G in shaping the next industrial era

*Panel*

**Wednesday, April 24 | 2:45 – 3:30 p.m.**

Panelists: Dr. Andreas Müller, Bosch / 5G-ACIA  
Prof. Dr. Slawomir Stanczak, Fraunhofer HHI  
Daniel Mai, Siemens  
Andreas Pfaff, Mitsubishi  
Prof. Hans Schotten, RPTU  
Göran Malmgren, Nokia  
Dr. Konstantinos Chalkiotis, Deutsche Telekom



### Industrial 5G | Overcoming real-world Manufacturing workforce challenges with Connected Worker systems

*Best Practice*

**Wednesday, April 24 | 3:35 – 3:55 p.m.**

Speaker: Tom Richter, Nokia

## 5G-ACIA Members on Stage

# Forum

## Sharing Experiences



**Industrial 5G | First steps into flexible and automated manufacturing**

*Talk*

**Wednesday, April 24 | 5:35 – 6:00 p.m.**

Speaker: Janez Ori, Kontron



**Industrial 5G | Private Network Deployments in Industrial Scenarios**

*Talk*

**Thursday, April 25 | 9:40 – 10:00 a.m.**

Speaker: Atte Lämsäsalmi, Nokia; Chair WG 3 (5G-ACIA)



**Industrial 5G | Integration of OPC UA with 5G Networks**

*Talk*

**Thursday, April 25 | 10:05 – 10:25 a.m.**

Speaker: Dr. Xueli An, Huawei; Vice-Chair WG 1 (5G-ACIA)



**Industrial 5G | How to objectively assess private 5G SA network performance?**

*Lecture*

**Thursday, April 25 | 11:00 – 11:25 a.m.**

Speaker: Meik Kottkamp, Rohde & Schwarz



**Industrial 5G | BSI-funded project COBRA-5G - Containerbased resilient architecture for 5G campus networks**

*Lecture*

**Thursday, April 25 | 11:55 a.m. – 12:20 p.m.**

Speakers: Amina Ayadi-Mießén, HMF

Simone Gitschier, HMF



**Industrial 5G | Key learnings from private cellular network early adopters in manufacturing**

*Panel*

**Thursday, April 25 | 1:40 – 2:10 p.m.**

Panelists: Joe Wilke, Ericsson

Niels König, Fraunhofer IPT

Dr. Eike Lyczkowski, SEW-EURODRIVE



**Industrial 5G | Condition monitoring in industrial environment by means of wireless sensors**

*Lecture*

**Thursday, April 25 | 3:05 – 3:30 p.m.**

Speaker: Daniel Moest, Pepperl+Fuchs

## 5G-ACIA Members on Stage

# Forum

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## Sharing Experiences



**Industrial 5G | The role of AI in mobile communication system:  
from 5G towards 6G**

*Talk*

**Friday, April 26 | 9:40 – 10:00 a.m.**

Speaker: Dr. Xueli An, Huawei

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**Industrial 5G | 5G in Production - from Use Case to Business Case**

*Talk*

**Friday, April 26 | 10:05 – 10:25 a.m.**

Speaker: Niels König, Fraunhofer IPT

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**Industrial 5G | How manufacturers can strategically  
empower the next generation workforce using 5G**

*Talk*

**Friday, April 26 | 12:15 – 12:35 p.m.**

Speakers: Joe Wilke, Ericsson  
Jan Diekmann, Ericsson

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## 5G-ACIA Members on Stage

# Panels

## Insights on Experiences

5G-ACIA member companies in various sectors are working on Industrial 5G integration and early-stage manufacturing implementations.

In these panels, end users and key technology partners of the Industrial 5G ecosystem will contribute fascinating insights while discussing Industrial 5G deployments with 5G-ACIA members.

### Tuesday, April 23, 2024, 10:30 – 11:30 a.m.

Moderated by Dr. Afif Osseiran, 5G-ACIA General Vice Chair; Director, Industry Engagements & Research (Ericsson)

#### Market Adoption of Industrial 5G: Where are we on the way to the usage of 5G in manufacturing?

The panel will delve into the global testing and deployment of industrial 5G, exploring its added values and challenges.

The discussion will be on the forefront of industrial innovation as the panel delves into the dynamic world of industrial 5G. From Asia to Europe and the US, this panel brings together leading voices from across the end-to-end industrial 5G ecosystem to share their latest insights, experiences, and strategies for success.

The panelists represent a diverse array of perspectives, including OT end users, OT automation players, Mobile Network Operators (MNOs), and infrastructure providers. Together, they will offer unique insights into the testing, deployment, and ongoing utilization of industrial 5G, exploring its added values and the challenges it presents in today's global landscape.



#### Panelists:

Michael Lee, ASE  
Dr. Andreas Müller, General Chair 5G-ACIA; Bosch  
Allan Zheng, China Mobile  
Daniel Mai, Siemens  
Arving Singh, Verizon

### Wednesday, April 24, 2024, 1:40 – 2:40 p.m.

Moderated by Niels König, Vice-Chair WG 5 (5G-ACIA) and Coordinator 5G-Industry Campus Europe (Fraunhofer Institute for Production Technology IPT)

#### Industrial 5G in Practice – What is the readiness of Industrial 5G?

The panel will delve into the practicalities of industrial 5G, exploring best practices, proven benefits and potential improvements.

The discussion will focus on 5G deployments established in industry, they implemented use case. The results will be discussed alongside with how 5G positively affected the companies IIoT activities, but also potential improvements will be recommended to further improve the ecosystem.

The panelists represent perspectives mostly from OT end users and OT automation players. Together, they will share their insights in to their practical experiences with 5G.



#### Panelists:

Dr. Olive Murphy, Analog Devices  
Dr. Christian Bauer, Belden  
Philippe Herbert, Ministère de l'Économie et des Finances  
Christina Fischer, Schaeffler Technologies

# See you in Hannover!

If you have any questions in connection with your visit to our booth,  
please don't hesitate to contact us!

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Published in April 2024 by:

ZVEI e. V. – Electro and Digital Industry Association ([zvei.org](http://zvei.org)) and  
5G-ACIA – 5G Alliance for Connected Industries and Automation ([5g-acia.org](http://5g-acia.org)),  
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