



Now incorporating OpenFog

# Industrial Internet Consortium

*Intelligent Transport Systems Forum*

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Industrial Internet Consortium  
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# Accelerating Industrial IoT

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A light blue world map is visible in the background of the text.

**A Global,  
Open Membership Consortium  
Over 200 organizations  
Spanning 30+ Countries**

## Industrial Internet Consortium, now incorporating OpenFog

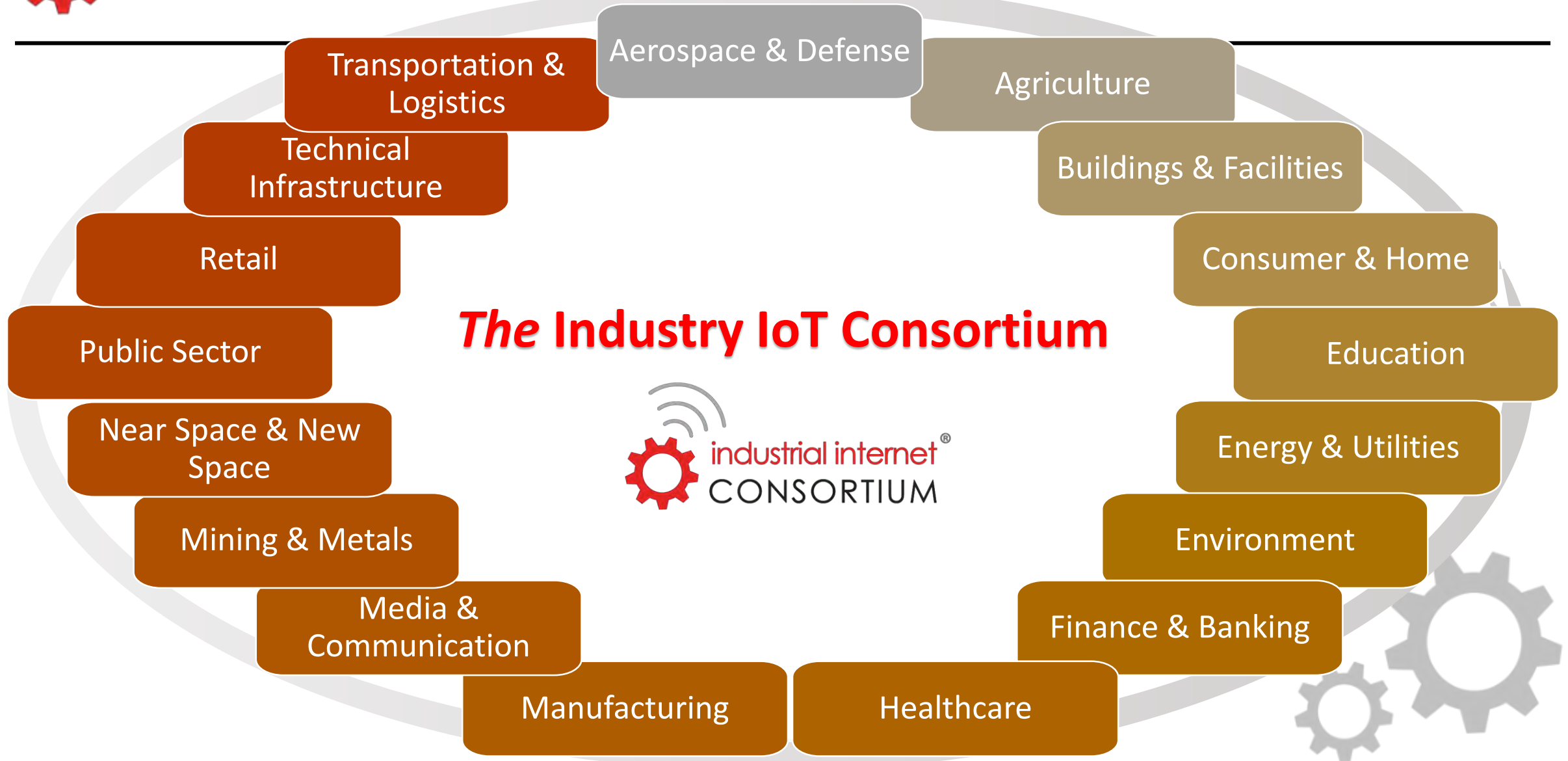
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Mission: Deliver a trustworthy Industrial Internet of Things (IIoT) in which the world's systems and devices are securely connected and controlled to deliver transformational business outcomes.





# Disruption Across All Industries





# The Industrial Internet Consortium Ecosystem



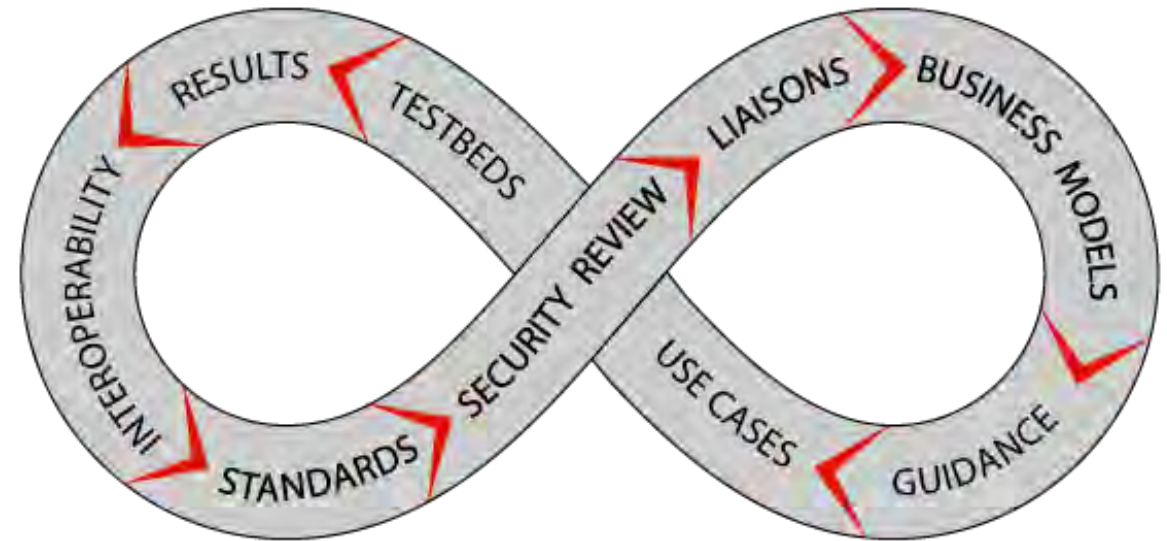
*Ecosystem of Industry Experts*



Collaborate in  
*Working & Task Groups*



Deliver Results via *Testbeds*



*A continuous flow of inter-related activities*







# Ecosystem of Industry Experts

## IIC Founders, Contributing Members, & Large Industry Members



## IIC Founders, Contributing Members, & Large Industry Members



## IIC Small Industry Members



**A Global,  
Open Membership Consortium  
over 200 member organizations**

## IIC Small Industry Members



## IIC Nonprofit, Academic, & Government Members



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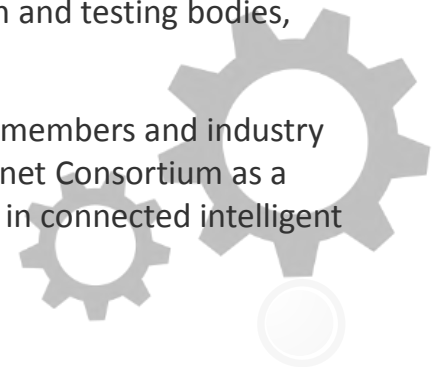


# Collaborative Working Groups

Playing a major role in the future of the industrial internet through collaboration



- ★ **Technology Working Group:** define and develop reference architectures, frameworks for connectivity, business strategies, industrial analytics, edge computing and more.
- ★ **Security Working Group:** determine and develop security and privacy frameworks, evaluate testbed security concerns, deliver trustworthiness best practices, guidance and maturity models.
- ★ **Testbed Working Group:** accelerate the creation and implementation of innovations for the industrial internet. Foster partnerships to build real innovations, provide processes and an infrastructure for effective operations.
- ★ **Liaison Working Group:** develop coalitions for collaboration in the Industrial internet ecosystem. Operates as the gateway for formal liaisons with standards development organizations, open-source organizations, certification and testing bodies, government entities.
- ★ **Marketing Working Group:** Work with members and industry at large to establish the Industrial Internet Consortium as a community that champions innovation in connected intelligent machines and processes.







# Deliver Testbed Results

- ❑ **Innovate and Initiate** untested technologies or existing technologies working together
- ❑ **Build** end to end solutions with **Industry Partners**
- ❑ **Influence standards** and **drive multi-vendor interoperability**
- ❑ **Test** solutions to **ascertain usefulness and viability before going to market**
- ❑ **Convergence** of Operational Technologies (OT) and Information Technologies (IT) to identify changes in **business models** and **best practices**
- ❑ **Don't wait** for standards to be implemented and replace equipment before implementing IIoT systems. **Adapt existing equipment** to the internet with confidence, **now**.





# Intelligent Transport Systems

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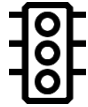
- Disruption to our transportation systems is well underway
- ITS technologies are testing and proving their worth in improving the operating capabilities and safety of our systems
- Industrial Internet Consortium members leading the way
  - Automotive Task Group
  - Automotive Security Task Group
  - OTA Special Interest Group
  - End User Leadership Council
  - Collaboration with transportation-related associations
  - Designing Best Practices, Guidance and Maturity Models







# ITS Landscape



Use  
Cases

Driver Assistance | Autonomous Vehicles | Platooning | Robo-Taxi | Sharing Economy | Passenger Services | Efficiency | ...

Software-defined-  
Vehicle

Fog/Edge Computing | Cloud | IoT | Big Data | AI | ...

Networking

TSN | V2V | V2X | 5G | ...

Lifecycle  
Management  
(Secure, Safe, Reliable)

DevOps

Agile Product Development (HW+SW)

Over the Air Updates (OTA)

Security

Secure Development Lifecycle

Verification  
& Validation





# ITS Forum Agenda

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- |       |   |      |   |
|-------|---|------|---|
| 9:05  | <i>A Market of Assured and Trustworthy Complex Cyber/Physical Systems – The MITRE Corporation</i>         | 1:00 | <i>IoT @ the Edge – The Boeing Company</i>  |
| 9:25  | <i>OTA Silicon update and Dynamic Function eXchange (DFX) for Automotive ECUs – System View, Inc.</i>     | 1:30 | <i>Connectivity Architecture for Highly Autonomous Vehicles - RTI</i>   |
| 9:45  | <i>OTA infrastructure for semi-autonomous to autonomous systems – Bosch Software Innovations</i>          | 2:00 | <i>The Future Car as an Edge Device – Leveraging the Full Power of Telematics – aicas GmbH</i>  |
| 10:05 | <i>Network Orchestration for Automotive Communication Lockdown - GuardKnox</i>                            | 2:20 | <i>The Machine Revolution – Technological, Business, and Cultural Impacts of Intelligent Transportation Systems – LHP Engineering Solutions</i> |
| 10:25 | <i>Deep Learning with Dynamic Function Exchange for Autonomous Vehicles - Xilinx</i>                      | 2:50 | <i>Panel: Practical Applications for Building Trustworthy Transportation Solutions – LHP, aicas, Irdeto, MITRE</i>                              |
| 10:45 | <i>Panel: Semi-autonomous and Autonomous Vehicle Secure Networking and Connectivity – above companies</i> |      |   |
| 11:45 | <i>Digital Twin for Transportation Industry - Oracle</i>  |      |   |





# *The Industry IoT Consortium<sup>®</sup>*



**BOSCH**  
Invented for life



**FUJITSU**



**HUAWEI**

**MITRE**



**Microsoft**

**PURDUE**  
UNIVERSITY

College of Engineering



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