Welcome
Industrial Internet Consortium
SMART CITIES FORUM

14-June-2017
Welcome and Overview
Industrial Internet Consortium

Dr. Richard Mark Soley
Executive Director
14-June-2017
The Industrial Internet is leading the next economic revolution

GDP data extracted from the Futurist 2007
The Measurable Outcome will be in the Trillions of Dollars

GE: $32.3 trillion opportunity representing 46% share of GDP today.
Cisco: Internet of Things (IoT) will increase private sector profits 21% and add $19 trillion to the global economy by 2020
Gartner: IoT product and service suppliers will generate incremental revenue exceeding $300 billion in 2020.
McKinsey Global Institute: $36 trillion operating costs of key affected industries could be impacted by IoT.

The convergence of Internet of Things, Industrie 4.0, Cyber-Physical Systems presents an enormous opportunity.
Yet there are current roadblocks to widespread adoption
The IIC: Things are coming together
**Vision:** The Industrial Internet Consortium is the world’s leading organization transforming business and society by accelerating the Industrial Internet of Things (IIoT).

**Mission:** To deliver a trustworthy IIoT in which the world’s systems and devices are securely connected and controlled to deliver transformational outcomes.

Launched in March 2014 by five companies:

- at&t
- CISCO
- GE
- IBM
- intel

The IIC is an open, neutral “sandbox” where industry, academia and government meet to collaborate, innovate and enable.

Over 260 Member Organizations Spanning 30 Countries

February 2017
# IIC Founders, Contributing Members, & Large Industry Members

<table>
<thead>
<tr>
<th>IIC Founding and Contributing Members</th>
</tr>
</thead>
<tbody>
<tr>
<td>BOSCH</td>
</tr>
<tr>
<td>OLYMPUS</td>
</tr>
<tr>
<td>KUKA</td>
</tr>
<tr>
<td>MICHELIN</td>
</tr>
<tr>
<td>InterDigital</td>
</tr>
<tr>
<td>NEC</td>
</tr>
<tr>
<td>CISCO</td>
</tr>
</tbody>
</table>
IIC Small Industry Members
IIC Small Industry Members
Current Steering Committee

Mr. John Tuccillo
IIC SC Chairman
Senior VP of Global Industry & Government Affairs
Schneider Electric

Dr. Tanja Rueckert
IIC SC Vice-Chair
Executive VP IoT and Customer Innovation Unit
SAP

Dr. Jacques Durand
Director of Standards and Engineering
Fujitsu

Mr. Sven Schrecker
Solutions Architect
Intel

Mr. K. Eric Harper
Senior Principal Scientist
ABB

Mr. Robert Martin
Senior Principal Engineer
Mitre

Mr. Don O’Toole
Business Development Executive, IBM Watson Internet of Things
IBM

Mr. Peter Marx
Vice President, Predix - General Electric

Dr. Stan Schneider
CEO
Real-Time Innovations, Inc.

Mr. Dirk Slama
Director of Business Development
Bosch Software Innovations

Dr. Richard Soley
Executive Director
Industrial Internet Consortium

Dr. Said Tabet
Chief Architect for IoT Solutions
Dell EMC

Mr. Wang Xuemin
Director,
Standardization and Industry Department
Huawei

June 20, 2017
Activities fall into three main areas that ultimately drive new opportunities for IIC members:

- **The IIC Ecosystem**
  - Companies joining together to advance innovation, ideas, best practices, thought leadership and insights

- **Technology & Security**
  - Architectural frameworks, standards requirements, interoperability, use cases, privacy & security of Big Data

- **Testbeds**
  - Innovation to drive new products, processes, services

Innovative products!

BSSL: Business Strategy & Solutions Lifecycle
Approved Testbed Portfolio - www.iiconsortium.org/test-beds.htm

- **High-Speed Network**
  - GE

- **Microgrid**
  - RTI, NI, Cisco, BMW

- **Asset Efficiency**
  - Infosys, PTC, Bosch, Intel, GE, IBM, Ali, Foghorn, KUKA

- **Time Sensitive Networks**
  - Cisco, Bosch, GE, KUKA, TITech, Intel, Schneider Electric, B&R, Innovasic

- **Track & Trace**
  - Bosch, Tech Mahindra, Cisco, SAP

- **Edge Intelligence**
  - HP, RTI

- **Factory Operations Visibility & Intelligence**
  - Fujitsu, Cisco

- **Smart Water Management**
  - Infosys, GE, EMC, Cisco

- **Security Claims Evaluation**
  - Xilinx, UL, Atos, RTI, Infineon, GMO GlobalSign

- **Connected Care**
  - Infosys, GE, PTC, RTI, MD PnP

- **Manufacturing Quality Management**
  - Huawei, Haier Group, China Telecom, CAICT

- **Smart Supply Chain: Manufacturing**
  - TCS, Cisco, Siemens, Oracle, Infineon, Telega

- **INFINITE**
  - Dell, EMC

- **CM & PM**
  - IBM, NI, SparkCognition

- **Industrial Digital Thread**
  - Infosys, GE

- **CM & PM**
  - IBM, NI, SparkCognition

- **Security Claims Evaluation**
  - Xilinx, UL, Atos, RTI, Infineon, GMO GlobalSign
Interconnecting Regional Efforts

• Collaboration announced in February with German Plattform Industrie 4.0
  • First three meetings (November 2015, May 2016, September 2016) are producing proposals for consideration by both Steering Committees
  • Real collaboration happening in architecture & testbeds especially
• Collaboration announced in April with Japanese Industrial Valuechain Initiative
• Collaboration announced in September with Japanese IoT Acceleration Consortium
• The Consortium is also developing ties with other regional efforts
  • France: Alliance Industrie du Futur
  • China: Internet+ and China 2025
  • United States: Cyber-Physical Systems
  • Japan: Robot Revolution Initiative
  • Chile: Industrial Internet Centers of Excellence
  • Russia: National Association of Industrial Internet
What about Standards? And Open Source?

• Already plenty of standards at the communications level (e.g., OMG DDS)

• Semantic standards are going to be critical in all verticals

• IIC is a source for standards requirements & priorities through the I3C process
Summary: The Industrial Internet Consortium Today

• More than **260 organizations** from more than 30 countries and growing
• **26 running testbeds** all over the world
  • More than 20 coming through the approval process and in design
  • Expanding into **new verticals** (agriculture, security, etc.)
• **Reference Architecture** second version published in January
• **Security Framework** published in September
• **Business Strategy & Solutions Lifecycle** a year+ old
• **Connectivity Framework** published in February
• Strategy for influencing standardization on track
• Much more breadth in Steering Committee