



# The Accelerator Program

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The Industrial Internet Consortium (IIC) held its third quarter member meeting of 2019 on September 9<sup>th</sup> ~ 12<sup>th</sup> in Anaheim, California at Disney's Grand Californian Hotel & Spa. It was as busy and productive as ever, with 76 working sessions, 25 breakout sessions, 16 testbed sessions, two panels and 197 people in attendance.

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The mission of the Industrial Internet Consortium is to accelerate the development of the industrial internet, but what is that? At the beginning, now over five years ago, the answer is that we didn't know. Or perhaps more accurately, there were many overlapping, but conflicting, views of what it is. We have our ideas, but it is difficult to communicate and therefore progress. Confusion reigned.

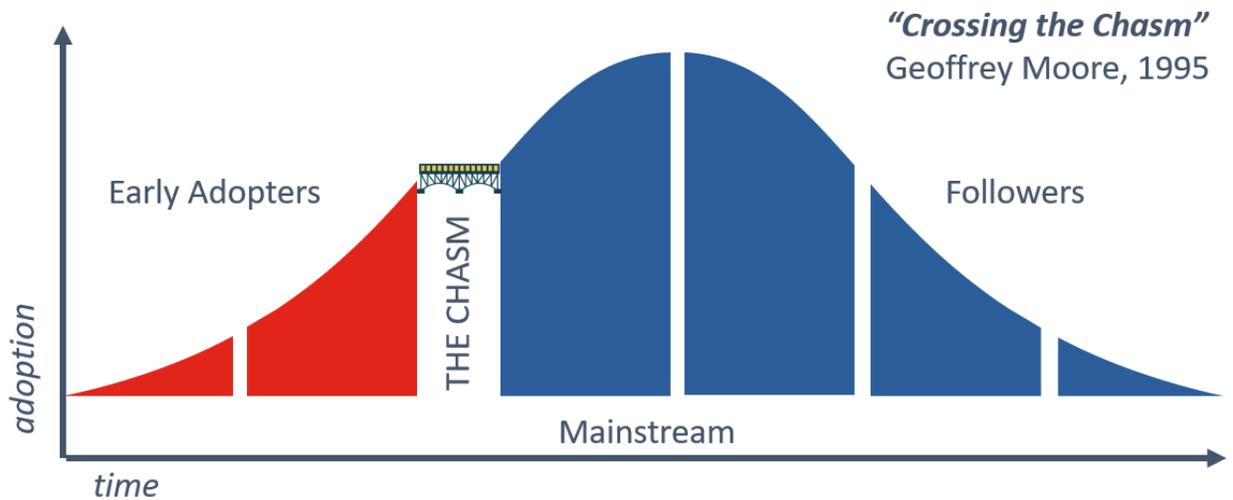
The first step then is to create an ecosystem in which people can work together towards shared goals, and in the process develop a shared vocabulary and a shared understanding. We have, over time, created the [Industrial Internet Reference Architecture](#), the [Industrial Internet Security Framework](#) the [Industrial Internet Vocabulary](#). And more. These have established, in large measure, a shared understanding of what the industrial internet is.

The next step is to apply that understanding. For example, [Endpoint Security Best Practices](#), the [IoT Security Maturity Model: Practitioner's Guide](#) and the [Project Explorer](#). These all apply the principles in the several framework documents on real projects. However, these projects are often technology driven, rather than driven by a burning need of the business.

For the IIC to claim success in accelerating the development of the industrial internet, we need *adoption*. That is, we see should industrial internet technology in factories, in energy companies, in transportation and so on. To achieve that, we need to demonstrate business value, and win support from business leaders in organizations in those vertical industries.

This is a common challenge for the introduction of any technology. In 1995, Geoffrey Moore wrote "Crossing the Chasm". He posits a Bell curve from early adopters through mainstream to laggards. His key insight is that there is a chasm between the early adopters and the early majority. The curve is not smooth. There is a gap.

The gap comes about because there's a risk for business leaders. Put yourself in their place. Here is a new technology and your technical people are excited about it. They (and vendors) are promising great things. What would you do? Unless you've had a previous success, probably, you'd ask for an example. "Show me where this has worked before!" A working example is evidence that this can be made to work.



However, the most convincing examples come from your own industry. A success story in healthcare is not necessarily convincing for a smart factory or connected cars. The implication is that several success stories are needed, at least one for each vertical. The question now is how.

This is the genesis of the Accelerator Program. It is a program to provide multiple entry points for each vertical to apply industrial internet technology. Here are the elements of the program, starting with those more driven by industry-users.

- [IoT Challenges](#),
- [Test Drives](#) and
- [Testbeds](#).

An IoT *challenge* is a competition initiated by an industry user or a group of industry users and enabling technology partners. Challenges are aimed at solving high-profile, real-world problems and advancing the validation of industrial internet applications and solutions. Each challenge is to be conducted over several months, culminating in the announcement of winners selected by a jury. Challenges are open to vendors, organizations, teams and individuals worldwide.

The industry user, known in our challenges as the Principal, defines the challenge entry requirements and technical parameters. The winner of the challenge is awarded an opportunity to prove out their design in a proof of concept at the Principal’s facilities. Enabling technology partners offer their technology as an option for the entrants to use in their solutions. They also fund the award earned by the challenge winners.

Contestants take up the challenge to design and submit a solution. Contestants are offered hackathons and workshops during their design process. A jury selects the winners among the contestants at the end of each challenge. The jury comprises representatives from the parties above, the co-organizers and often an industry analyst.

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*Test drives* are short-term (3 ~ 6 months), rapid-engagement pilots for industry users to adopt industrial internet of things (IIoT) technologies, based upon industry users' real problems. They stimulate IIoT adoption across industry through accelerated implementation. The IIC's neutral collaboration platform fosters partnering to address leading-edge IIoT use cases.

To consider a test drive pilot deployment, an industry user may begin by selecting a test drive proposal from our growing test drive repository. They may review the choices to find a test drive that applies to their needs.

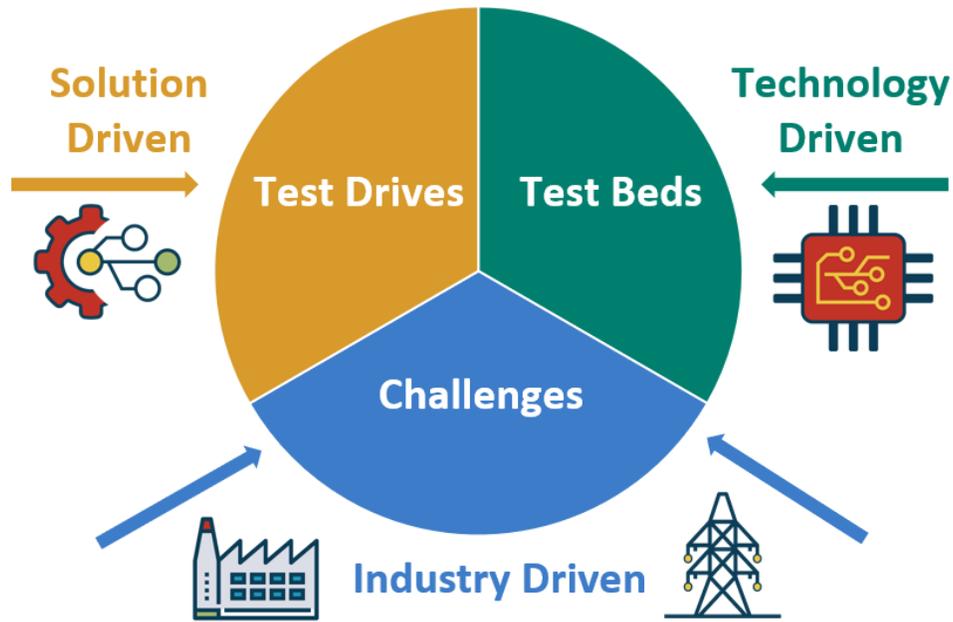
An alternative approach begins with an ideation exercise to determine and define a problem. An output of the exercise is a description of the requirements for a test drive, which are considered by a team built from within our membership ecosystem who respond with a proposal. This approach is still under development.

*Testbeds* have been a focus of Industrial Internet Consortium members since the IIC's inception. Our testbeds are where the innovation and opportunities of the Industrial Internet—new technologies, new applications, new products, new services, new processes—can be initiated, thought through, and rigorously tested to ascertain their usefulness and viability before going to market.

Testbeds have so far been both “horizontal”, i.e. a platform on which many use cases might run, and “vertical”, implementing sample use cases on infrastructure designed specifically for them. Unsurprisingly, there are also combinations. With the advent of challenges and test drives, we expect testbeds to be more technology driven (horizontal), leaving test drives and challenges to focus more on use cases from industry.

Sandwiching the accelerator program are two additional elements. At the “top”, near the industry user, we have *industry leadership councils*. These councils are peopled by CxO's in a particular industry. The goal is to understand problems they face so IIC members can address them. So far, we have one industry leadership council, for manufacturing. As an example of the kind of issue that might arise is a request to specialize the Industrial Internet Reference Architecture specifically for manufacturing.

At the other end, closest to the technology, are *special interest groups* (SIGs). These groups focus on technologies across multiple verticals. Over-the-air updates, for example, are especially valuable for automotive. But they are also useful, for instance, for automating robots on a factory floor. The SIG gathers requirements from several industries to facilitate delivery of common services.



## TESTBEDS

Our testbed program has twenty-seven [Approved IIC Testbeds](#) and five more in the pipeline. You can also visit the [Resource Hub's Testbed Webpage](#) for more detailed testbed information.

The [Negotiation Automation Platform Testbed](#) was approved on 2019-08-05.

## GLOBAL EVENT SERIES

We held a public [Industry IoT in Action Forum](#) with speakers and panelists who contributed to an outstanding agenda and a successful event. The audience was treated to thought leadership from guest speakers and IIC members which included: [Dell EMC](#), [Ericsson](#), [Futurewei](#), [Irdeto](#), [IoTEx](#), [Mocana](#), [Nestlé](#), [The Boeing Company](#), [The Digital Group](#), [Wibu-Systems](#) and [Yo-i Technologies](#). Technology demonstrations were featured over the afternoon break in the conference foyer. Our next event in the series will likely take place in March of 2020. Keep an eye on the [Events Webpage](#) as that agenda and those speakers are finalized.

## GROUP ACTIVITIES

IIC groups continue to make progress on their various activities and deliverables. You can find a complete list of IIC publications on the [Technical Papers, Publications and White Papers Webpage](#).

We launched its [IoT Maturity Assessment Tool](#) in [Resource Hub](#) on 2019-06-24, which will enable individuals to understand their overall organizational readiness for IoT, identify organizational areas that could enhance and connect individuals with key IIC assets to facilitate the overall IIoT journey. We also published the [Managing and Assessing Trustworthiness for IIoT in Practice](#) white

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paper on 2019-07-29, which gives context to risks and the requirements necessary to establish confidence in organizational decisions and processes within systems in an evolving technological landscape.

We held another [IIC Connect](#) event in Anaheim, California during our third quarterly member meeting. 16.5 hours of meeting slots were allocated to the event where 15 one-on-one sessions were scheduled with a total of 29 participants.

Together with the [University of California Irvine Beall Applied Innovation](#) we hosted a Pitch Night event at [The Cove](#) on 2019-09-10 where we had approximately 100 attendees: 50 members, 50 guests, four IoT startups [Veracity Industrial Networks](#), [Xidas](#), [AONdevices](#) and [netObjex](#) pitched their IoT business ventures to a panel of five IIC member judges. Though all four startup pitches were all exceptional, in the end, it was Veracity Industrial Networks who was declared the winner and awarded a one-year Small Industry membership to the IIC.

We expanded the number of active liaisons to 51 by adding the [Trusted IoT Alliance](#) (2019-07-10) and the [Open Geospatial Consortium](#) (2019-07-29).

We launched its [Smart Buildings Challenge](#) on 2019-08-16, which is designed to give smart building technology suppliers the flexibility to collaborate with their customers to create more targeted outcome-based solutions and help overcome existing technology barriers to address the high volume of untapped opportunities in the market.

We published a [Data Protection Best Practices](#) white paper on 2019-07-15, which provides an overview of organizational measures required to achieve a desired level of security for data to resist internal and external disturbances and attacks.

We published the 11<sup>th</sup> edition of the [Journal of Innovation](#) addressing multiple facets of *Artificial Intelligence* on 2019-06-20.

## NEW MEMBERS

Please welcome new members this quarter:

- [KLEO Connect GmbH](#)
- [National Chung Cheng University](#)
- [PMMI](#)
- [SuperMicro](#)
- [Veracity Industrial Networks](#)
- [Yo-i Information Technologies, Ltd.](#)

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*The Industrial Internet Consortium is the world's leading organization transforming business and society by accelerating the Industrial Internet of Things. Our mission is to deliver a trustworthy Industrial Internet of Things in which the world's systems and devices are securely connected and controlled to deliver transformational outcomes. Founded March 2014, the Industrial Internet Consortium catalyzes and coordinates the priorities and enabling technologies of the Industrial Internet. The Industrial Internet Consortium is a program of the Object Management Group® (OMG®).*

Visit [www.iiconsortium.org](http://www.iiconsortium.org).



IIC members gain experience they could never have as a non-member. They experience member meetings unlike any local meet-up groups. Here are some key benefits of membership:

- **Networking**—Make the connections; find the needed expertise.
- **Information & News**—A fast pass to newsworthy industry developments.
- **Competitive edge**—Stay ahead of the competition or take advantage of changes and developments that might otherwise have passed you by.
- **Create a market**—Join a collective voice supporting a single mission; create the disruption in the market and develop the business opportunities.
- **Establish a vision**—Members work to define future architectures and innovate technologies for IIoT.
- **Success**—Members are building businesses and dedicating their professional lives to IIoT. They want to be successful, and they want others to succeed.
- **Professional development**—Grow your career, meet mentors and mentees, career prospects.
- **Solve important problems**—and help your partners and customers.
- **Events**—Capitalize on opportunities for continuous exposure to industry developments.