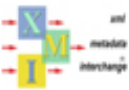




WE SET THE STANDARD®



Consortium for IT Software Quality





OMG[®] Standards Activity



Software / Hardware Standards
300+ Organizations
60+ Universities



Addressing IT standards for more than two dozen verticals, including: C4I, Finance, Healthcare, E-Government, Space, Industrial Internet of Things, etc.

The mission of the Object Management Group (OMG) is to develop technology standards that provide real-world value for dozens of vertical industries. OMG is dedicated to bringing together its international membership of end-users, vendors, government agencies, universities and research institutions to develop and revise these standards as technologies change throughout the years.



Cloud Computing End User Advocacy Group
600+ Organizations
Cost = Free on Registration



Industrial Internet of Things
270+ Organizations



Software Quality
500+ Organizations
Cost = Free on Registration



ARTS Standards Technology Reduce Retailer's Expenses

- International suite of standards to manage and share data in the retail enterprise
- Reduces risk of new technology
- Preserves value of legacy technology
- Reduces time to market and cost of integrations
- Source of information about how retail works
- Developed and implemented by retailers and vendors around the world



Money in the bank... 71% of retailers who deployed ARTS standards saved 20% or more in development and integration (time and cost.)
 Taking a closer look, time and cost savings for development and integration were valued at 30-40% or more for:

49%

of ARTS Retail Transaction Interface users

44%

of ARTS POS log XML Schema users

43%

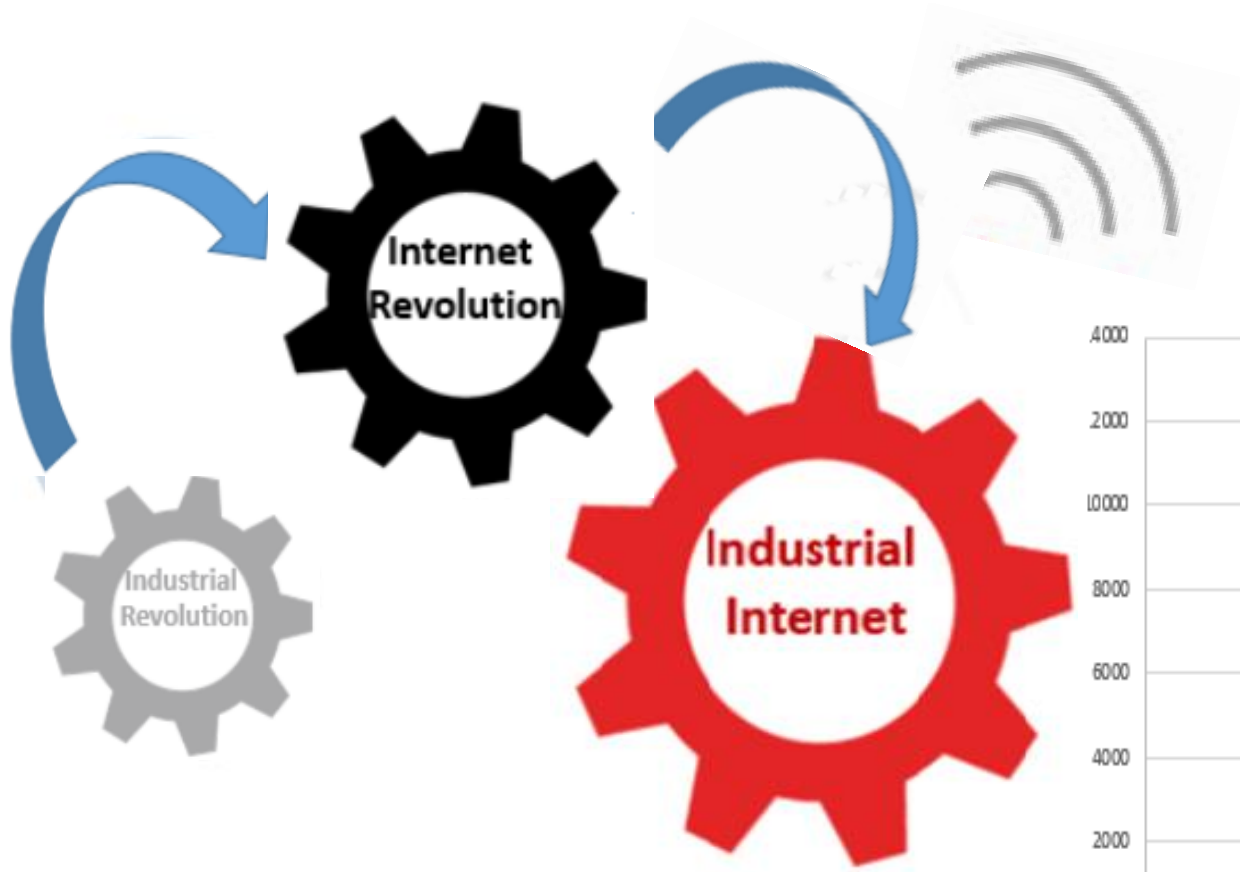
of Unified POS users

43%

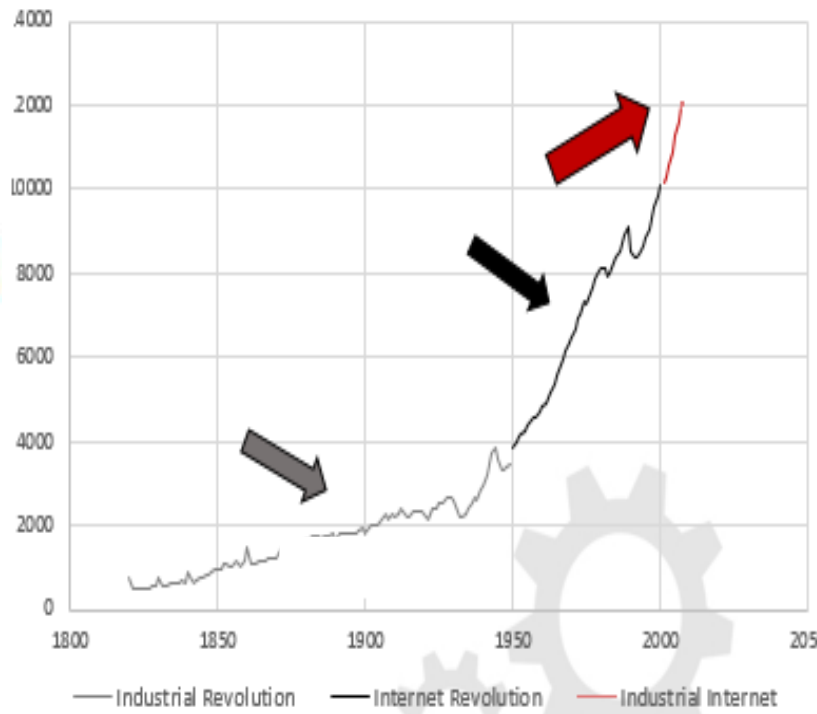
of ARTS Data Warehouse Model users

Source: Research by TechValidate. Survey of users of Association for Retail Technology Standards (ARTS)

The Industrial Internet is leading the next economic revolution

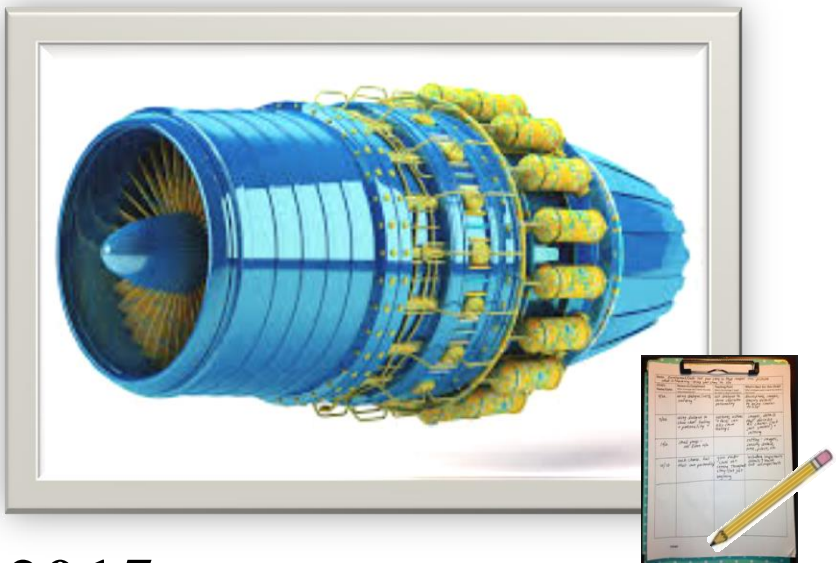


Global GDP Per Capita



GDP data extracted from the Futurist 2007

1960 — Jet performance data is downloaded by hand



2015 — Jet performance data is downloaded by hand



2017 — Jet Performance Data is Downloaded Wirelessly on the Fly

	15 Years ago
Listening to music	
Watching a movie	
Contacting people	
Reading the news	
Making music	





The Industrial Internet in Action

Airbus

Challenge

- Minimize mistakes in a complex manufacturing environment involving tens of thousands of steps, where errors could cost hundreds of thousands of dollars
- Improve the competitiveness of manufacturing processes where manual operations are still predominant

Solution

- National Instruments solutions to add intelligence to tools and shopfloor systems

Results

- Simplify the production process and improve efficiency by removing physical data logs and manuals
- Allow operators and machines to collaborate in the same physical environment
- Pinpoint the procedures and processes requiring review for quality control and certification

www.iiconsortium.org/case-studies



The Industrial Internet in Action

Intermodal Container Tracking

Challenge

- Improve inventory management of intermodal containers moving around the globe
- Improve capacity planning

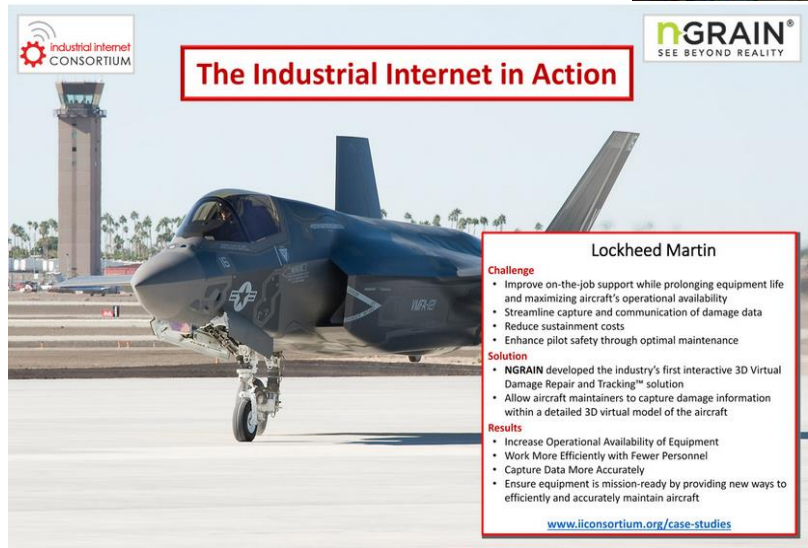
Solution

- AT&T GPS location monitoring tracks shipments as they move from major ports worldwide

Results

- Improved theft prevention
- Risk management and mitigation
- Efficient auditing

www.iiconsortium.org/case-studies



The Industrial Internet in Action

Lockheed Martin

Challenge

- Improve on-the-job support while prolonging equipment life and maximizing aircraft's operational availability
- Streamline capture and communication of damage data
- Reduce sustainment costs
- Enhance pilot safety through optimal maintenance

Solution

- NGRAIN developed the industry's first interactive 3D Virtual Damage Repair and Tracking™ solution
- Allow aircraft maintainers to capture damage information within a detailed 3D virtual model of the aircraft

Results

- Increase Operational Availability of Equipment
- Work More Efficiently with Fewer Personnel
- Capture Data More Accurately
- Ensure equipment is mission-ready by providing new ways to efficiently and accurately maintain aircraft

www.iiconsortium.org/case-studies

Connected tools in manufacturing

In the International Track and Trace project, Bosch and its partners in the Industrial Internet Consortium are exploring the interconnection and management of industrial tools.

Tools send information about their position as well as measuring data to a central database. Software is then used to analyze this data. This analysis helps ensure manufacturing quality.

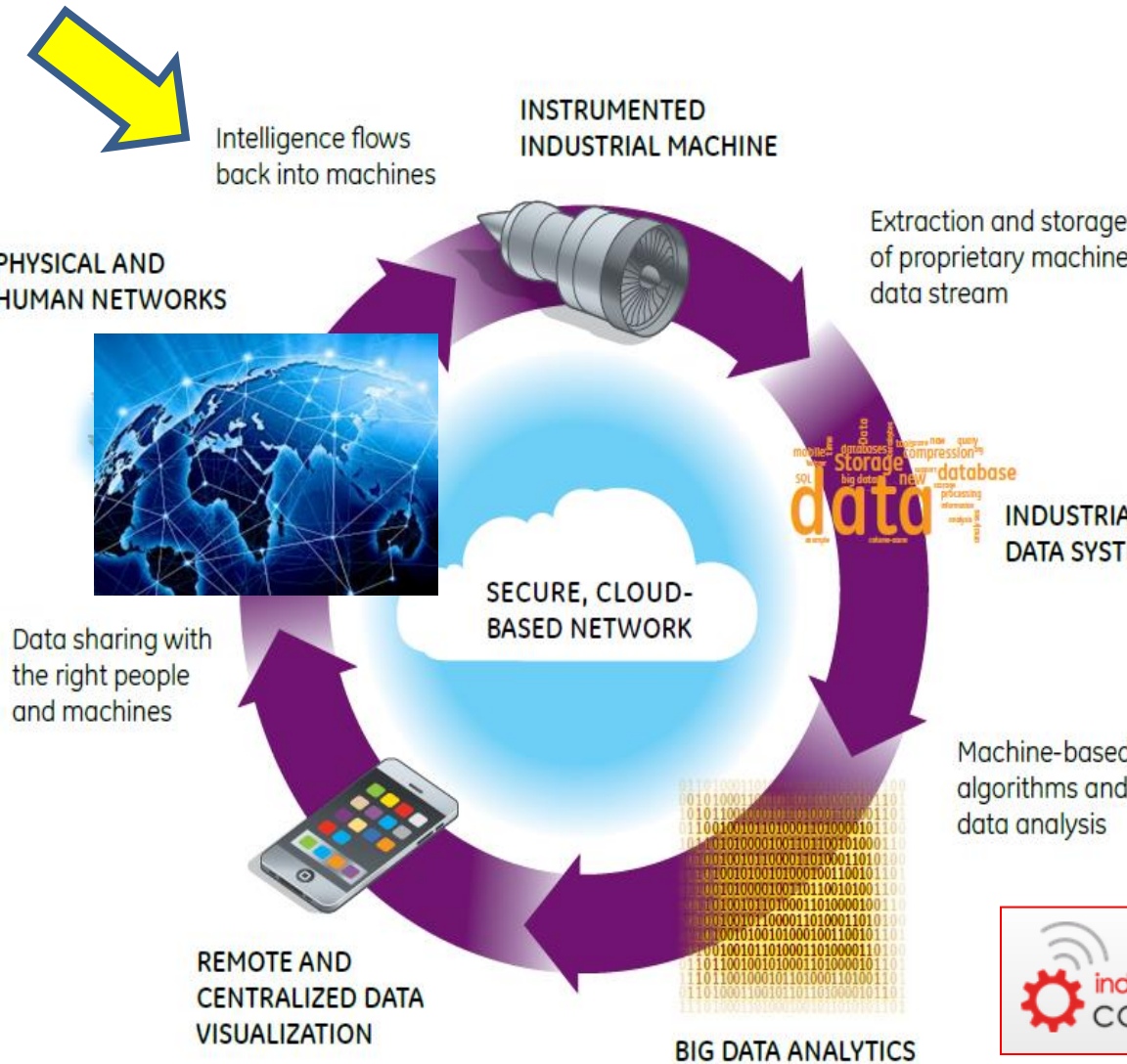
Depending on the specific location of each tool, the appropriate program for the task at hand is automatically deployed on the tool.

Measurement

Tightening

Riveting

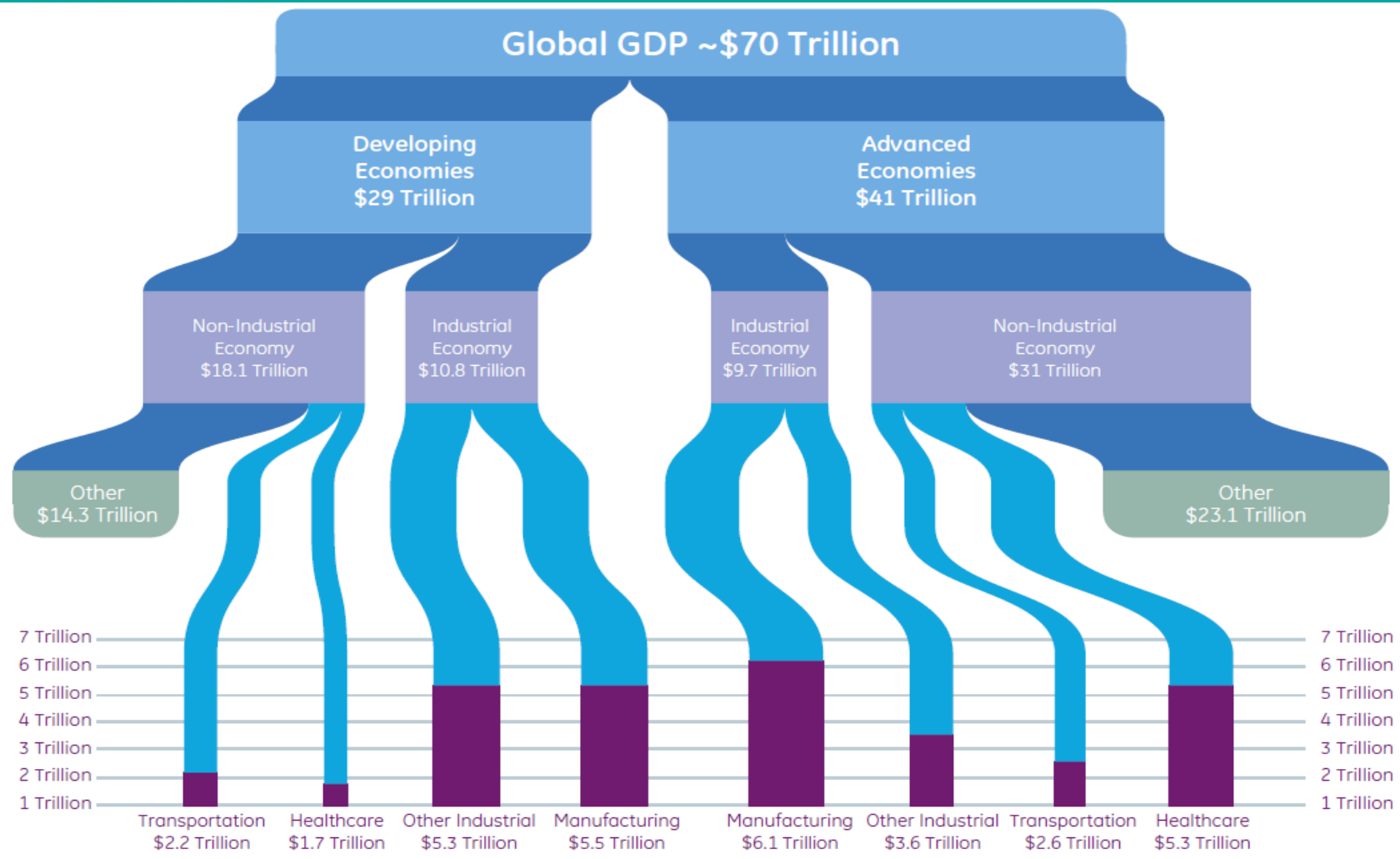
Source: Bosch



Causing:

- Needs for Standards (OMG)
- Data Residency Challenges (OMG)
- IoT Architecture & Security (IIC)
- Cloud Best Practices (CSCC)
- Software Quality (CISQ)





Industrial Internet opportunity (\$32.3 Trillion) 46% share of global economy today

Source: World Bank, 2011 and General Electric

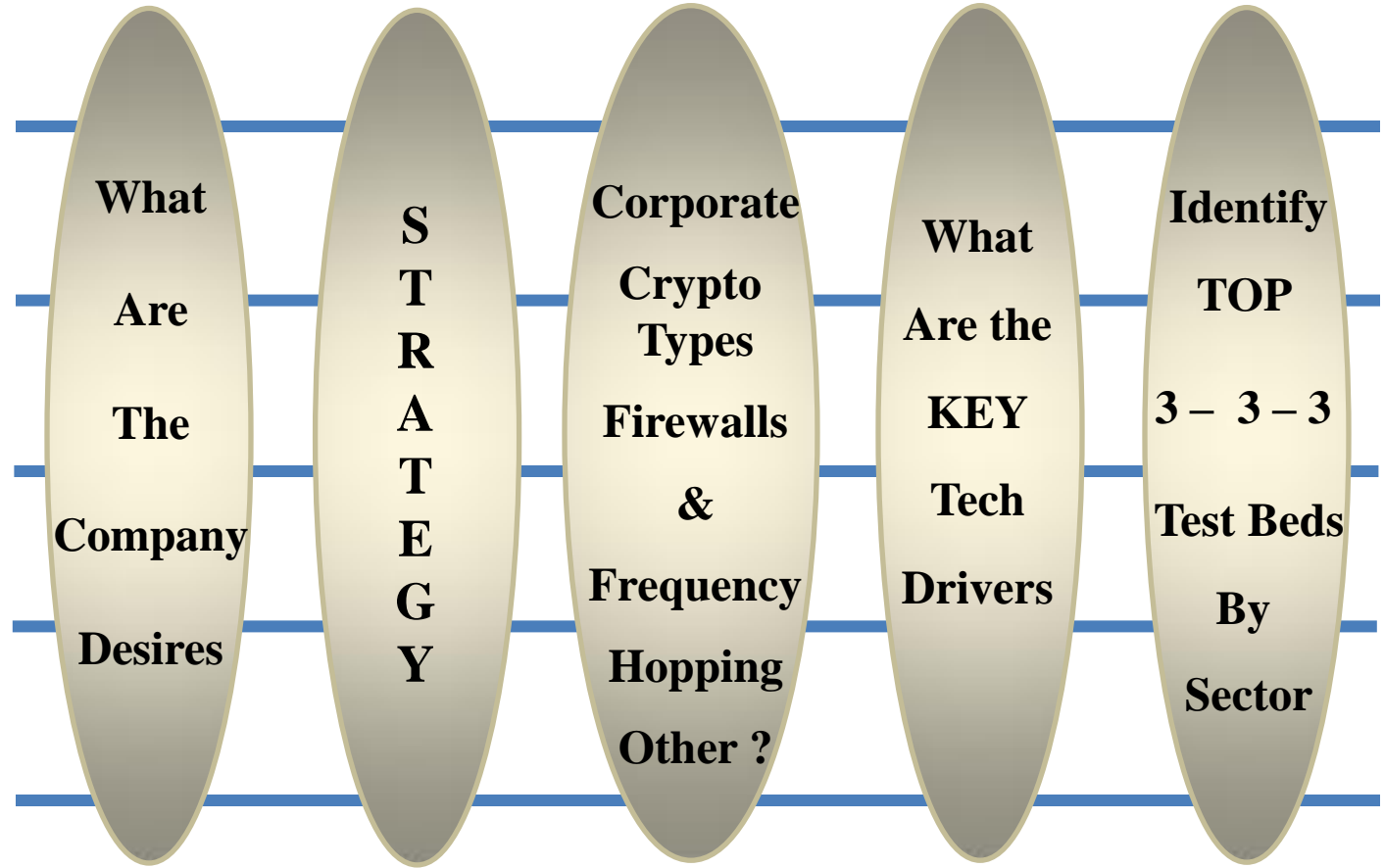


Connecting Industry / Internet Innovation Through A Strategy

Sectors: Business Solutions Marketing Security Technology Test Beds

Committees

- Energy
- Health
- Manufacturing
- Public Sector
- Transportation

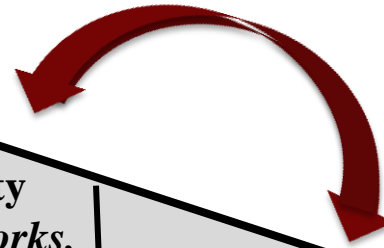


Activities fall into three main areas that ultimately drive new opportunities for members:

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!







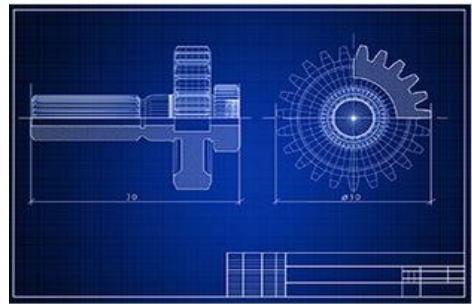
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- <http://www.cloud-council.org>
- <http://www.it-cisq.org>
- <http://www.iiconsortium.org>



Standards for the future of information management are a contact sport – you need to participate in order to define the future.

Join the organization(s) that make(s) the most sense for you: OMG, IIC, CSCC and/or CISQ.
Help us help you!





Hyper Links & Back Ups

OMG INDUSTRY MEMBERS



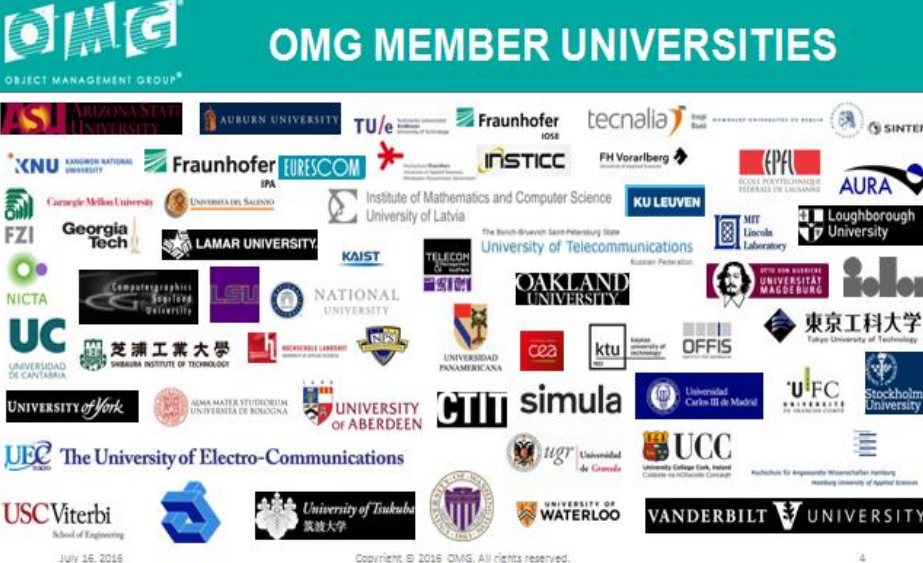
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MEMBERS FROM GOVERNMENT



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OMG MEMBER UNIVERSITIES



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Liaison Relationships



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Mission & History

Mission: To **accelerate growth** of the Industrial Internet by **coordinating ecosystem** initiatives to connect and integrate objects with **people, processes and data** using common architectures, interoperability and open standards that lead to **transformational business outcomes**.

Launched in March 2014 by five founding members:



**Community.
Collaboration.
Convergence.**

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



Example of Members





- 1) **Set the Direction for the Industrial Internet Consortium (IIC)**
 - **Ensures your company requirements are addressed**
 - **Allows your company to utilize the IIC to maximize the efficiencies & priorities desired**
 - **Allows for opportunity creation early on**
- 2) **Grows your company and opportunities surrounding your company**
- 3) **Allows your company to keep up with Technology & Technology Trends**
- 4) **Allows your company to network with collaborators who are leading the technology in Energy, Health Care, Manufacturing, Public Sectors & Transportation & address Business Solution Development, Security, Technology & Testbeds**
- 5) **Don't be left behind in the estimated \$32.8 B 10 year estimate**

Air Bus Test Bed



The Industrial Internet in Action

Airbus

Challenge

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The Industrial Internet in Action



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