Main Conclusions of Industry Data Value Workshop

Objective:

Share the experience and practice on national industrial data value chains and the building of connected, global digital industry ecosystems in EU, China and Japan.

Our Speakers Connected Across the Globe

William Xu, GIO

Jianbo Hu, AII

Meik Billmann, IDTA

Boris Otto, FhG-ISST

Sha Wei, AII

Yasuyuki Nishioka, IVI

Jinsong Ouyang, SAC TC/124

Massimo Canducci, E.G.

Ting Wang, ECC

Zhenhua Chen, CMTBA

In sequence of presentation

The Industry Data Value Workshop Agenda

Session	Topic	Speaker	Organization	Time (CET)
Opening	Opening Remarks	William Xu Jianbo Hu Meik Billmann	Co-chairs	9:30-9:40
Enabling Technology	Industrial Data Spaces	Boris Otto	Fraunhofer ISST	9:40-9:55
	Trusted Data Matrix Foster Industrial Data Sharing and Circulation	Sha Wei	All	9:55-10:10
	The Role of Industrial Digital Twins for Sustainable Manufacturing and Cross Industries Collaboration	Meik Billmann	IDTA	10:10-10:25
	Enabling Technology of Connected Industries Open Framework (CIOF)	Yasuyuki Nishioka	IVI	10:25-10:40
Coffee Break				10:40-10:50
Go to Market Approach	Equipment Data Value	Jinsong Ouyang	SAC/TC 124	10:50-11:05
	Present and Future of Data Value from Digital Twin	Massimo Canducci	Engineering Group	11:05-11:20
	Digital Asset Model Research and Exploration Sharing	Ting Wang	ECC	11:20-11:35
	Machine Digital Asset Case Sharing	Zhenhua Chen	CMTBA	11:35-11:50
Open Discussion	1, How to support and identify data sharing among stakeholders to jointly create global ecosystems in the value network, and what are the different needs and services of various stakeholders, such as infrastructure providers, suppliers, industrial integrators and end users? 2, How can SME (small medium enterprises) be supported to market industry knowledge starting new market place oriented business?	All	--	11:50-12:50
Summary		Juergen Grotepass Haiping Che	Moderators	12:50-13:00

Industry Data Value Workshop Participants (30+)

Role	Organization	Guest	Title
Chair	Huawei	William Xu	Director of the Board, President of the Insititute of Strategic Research
Co-chairs	AII	Jianbo Hu	Secretary General
	IDTA	Meik Billmann	CEO
Speakers	Fraunhofer ISST	Boris Otto	Director
	AII	Sha Wei	Vice-Chief Engineer
	IVI	Yasuyuki Nishioka	Chairman
	SAC/TC 124	Jinsong Ouyang	Vice Chairman
	Engineering Group	Massimo Canducci	Chief Innovation Officer
	ECC	Ting Wang	Chairman of New Industrial Controlling Committee
	CMTBA	Zhenhua Chen	Leader of the Platform Team
Participants	5G-ACIA	Andreas Mueller	Chairman
	5GSA	Luigi Licciardi	Chairman
	AII	Xinhao Jiang	Vice Director of the Vertical Industry Working Group
	CHINA INFO 100	Yan Zhu	Member of the Executive Committee
	EuropElectro/ZVEI	Xu Wang	General Manager
	Fraunhofer FOKUS	Thomas Magedanz	Director of NGNI
	German Platform Industrie 4.0/ZVEI	Juergen Grotepass	Member of Research and Innovation WG
	IDSA	Markus Spiekermann	Director
	SAC/TC 124	Dan Liu	Vice-Chief Engineer
	UK 6GIC	Rahim Tafazolli	Director
GIO Special Advisors	5GDNA	Zemin Yang	Chairman, GIO Special Advisor
	GIO Secretariat	Martin Creaner	GIO Special Advisor
	GIO Secretariat	Christopher Ganz	GIO Special Advisor
Moderators	GIO Secretariat	Haiping Che	Coordinator
	German Platform Industrie 4.0/ZVEI	Juergen Grotepass	Member of Research and Innovation WG

6 in Barcelona MWC, 10+ in Beijing meeting room, 15 online

Our Speakers Connected Across the Globe

Opening Speeches

William Xu, GIO

Jianbo Hu, AII

Meik Billmann, IDTA

GLOBAL INDUSTRY ORGANIZATIONS

工业互联网产业联盟
Alliance of Industrial Internet

IDTA

- This workshop is best practice of collaboration between China, EU and Japan
- The specification of a unified data system based on trust is the common challenge of global industry.
- The vision is to share data for value aggregation to deliver valuable services.

Keynote Speeches

1. Enabling technology
2. Go to Market Approach

Our Speakers Connected Across the Globe

Boris Otto, Fraunhofer ISST

Industrial Data Spaces

Key Messages

- Catena-X is creating a data space for the automotive value chain: 3 pillars technology, business, legal
- Data ecosystems require federation across data spaces
- Both IDS and Gaia-X pursue the same »magic triangle« (3 pillars)
- The EDC project aims at a Gaia-X and IDSA compliant implementation of a dataspace connector

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Trusted Data Matrix Foster Industrial Data Sharing and Circulation

Sha Wei, AII

Key Messages

- Based on consensus-made requirements, standards and management tools, the trusted data matrix (TDM) is a data and resource sharing digital infrastructure to facilitate trusted, secure, transparent and accountable data sharing, circulation and trading among different stakeholders.
- The system architecture for a TDM is established, which includes business, functional and technology viewpoints.
- The TDM facilitates the functions from data sovereignty, data source traceability, identification verification of participants and facilities, data classifications, smart contract, access control, data usage control, to the log record of the data lifecycle, etc.

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Meik Billmann, IDTA

The role of Industrial Digital Twins for sustainable manufacturing and cross industries collaboration

Key Messages

- The Asset Administration Shell (AAS) implements this Digital Twin for Industry 4.0 for Greater digital value creation
- The AAS maps the entire life cycle of products, devices, machines and plants.
- The digital product passport builds on the digital twin, including an AAS sub-model for product carbon footprint
- The AAS makes it possible to use different communication channels and applications and connects objects to the networked, digital and decentralized world.

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Enabling Technology of Connected Industries Open Framework (CIOF)

Yasuyuki Nishioka, IVI

Key Messages

- CIOF(Connected Industries Open Framework) is a mechanism to enable data transactions valuable between companies by connecting directly to the business partners and the external business processes, where the data are originating from manufacturing sites through pre-registered software, based on relationships between companies which can trust each other.
- CIOF has features such as essential types of data trade contract, data profiles defined by common / individual dictionary, distributed architecture cooperated with other standards etc.

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Equipment Data Value

Jinsong Ouyang, SAC TC/124

Key Messages

- Equipment digitalization is the deep integration of digital technologies with equipment and their development and service processes, for the development of intelligent equipment and building of a new value system.
- The value of equipment has evolved from that of equipment itself, supplemented by value of services, to a new value system of "physical equipment (value of equipment itself & value of services) + data assets".
- The convergence of new technologies has given rise to new product forms, service modes, and management modes of equipment, and has driven typical digital application scenarios, such as man-machine interaction, multi-machine collaboration, unmanned operation, remote control, and predictive maintenance, in different fields, significantly expanding the interests of manufacturers, users, and service providers.

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Present and Future of Data Value from Digital Twin

Massimo Canducci, Engineering Group

Key Messages

- Engineering Approach for Digital Twins: Using Artificial Intelligence Reinforcement learning
- The future of digital twins: The Human Being will be the next actor in new digital ecosystems based on technology and Digital Twin
- Four Digital Twin Case Studies in Transport, Aviation Business, Process Industry, Society & Fashion

Our Speakers Connected Across the Globe

Ting Wang, ECC

Digital Asset Model Research and Exploration Sharing

Key Messages

- In the context of Industry 4.0, manufacturing are undergoing major changes, and model-based manufacturing will become the mainstream.
- Data asset models are model-based manufacturing enabling technologies.
- It is described how data asset models enable model-based manufacturing from four aspects: modeling, development, operation, and promotion.
- Typical cases of application exploration with data asset models are provided.

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Machine Digital Asset Case Sharing

Zhenhua Chen, CMTBA

Key Messages

- The elements of digital economy implementation in the manufacturing field are incomplete, especially due to the lack of standard systems adapted to the digital economy.
- To build a digital economy system in traditional fields, “assets" with strong industry attributes must be used as data anchors.
- Industry digital asset operators are key players in exploring new systems, models, and business forms of the digital economy in traditional fields.

Open Discussion

Moderated by Haiping Che, Juergen Grotepass, Christopher Ganz

2. Questions to ALL: 给所有人的问题

Discussion and Panel:
How to Support ecosystem-based, sustainable Value Creation ? 如何支持基于生态系统的可持续价值创造?

Scan or go to www.menti.com
and use the code **8129 1843**

Q1: How to support and incentify data sharing among stakeholders to jointly create value in networked ecosystems?

Q1：如何支持和激发利益相关者之间的数据共享，从而在网络生态系统中共同创造价值?

Scan or go to www.menti.com
and use the code **7566 3244**

Q2：What are the needs of the stakeholders (infrastructure providers, suppliers, industrial integrators, end users, etc.) and what services could address these in the digitalized ecosystem?

Q2：利益相关者（基础设施提供商、供应商、工业集成商、最终用户等）的需求是什么？在数字化生态系统中，哪些服务可以满足这些需求?

Scan or go to www.menti.com
and use the code **6495 0128**

Q3：How can the entry barrier for SME (small medium enterprises) be lowered to gain value from digitalized ecosystems?

Q3：如何降低中小企业的进入壁垒，从数字化生态系统中获取价值?

Open Discussion

1. How to support and incentify data sharing among stakeholders to jointly create value in networked ecosystems?

Open Discussion

2. What are the needs of the stakeholders (infrastructure providers, suppliers, industrial integrators, end users, etc.) and what services could address these in the digitalized ecosystem?

Open Discussion

3. How can the entry barrier for SME (small medium enterprises) be lowered to gain value from digitalized ecosystems?

Summary of the industry data value workshop

Sharing National, European, Japanese, Chinese and Global Strategies for Value Creation in Ecosystems:

- Giving Insight into first Industrial Use Cases on Value Creation based on Digital Twins of Assets
- Highlighting the importance of ICT for the Twin Transition of Industries (Green & Digital)
- Presenting solutions, how SME can offer manufacturing skills to benefit from future market places

Key findings:

- The 9th GIO Roundtable Workshop shows the need for data usage in larger scale cross enterprises / industries / regions.
- Data movement and sharing maximizes data value enabling data driven services across industries.
- The enabling technologies are data dictionary / information models standard (digital twin, asset administration shell), IDS to protect data privacy and security, industrial or regional data center / cloud (e.g. GAIA-X) to share data and knowledge among enterprises and industries.

Thank You !