

IVI スタートアップセミナー

海外動向と国際標準化へむけた活動予定

2022年4月14日

IVRA タスクフォース 主査

小倉 信之

- IEEE-2413 (IoT Framework)とのリエゾン
 - 2020年3月に制定の同規格にIVRA(Industrial Value chain Reference Architecture)を記載
- ISO/IEC/JWG21 Smart Manufacturing Reference Model
 - 2022年5月頃発行予定のISO/IEC TR 63319 A Meta-modeling analysis approach to smart manufacturing reference modelsに national modelの一つとして紹介の記述がされる（右記）
- IIC(Industrial Internet Consortium ⇒International IoT Consortium)とのリエゾン
 - 2021年5月 Smart Manufacturing Task Group とWeb会議：CIOFを紹介
- 2021年6月 G20 産業におけるDX フォーラム
- 2022年3月 GIO/BSI共催 GIO Roundtable

65/812/DTR

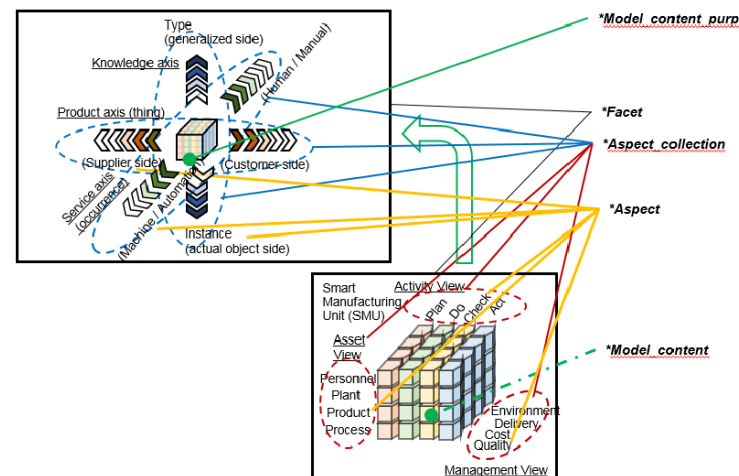
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IEC TR 63319 Ed1 © IEC

1309 7.8 Mapping for IVRA Next

1310 7.8.1 Graphical depiction of IVRA Next mapping

1311 Figure 15 shows the IVRA Next mapping to three axes of SM and SMU.



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1313 NOTE 1: The mapping shown in Figure 15 is to illustrate how the same meta-model configuration can be used to map a submitted model regardless of submitted model's representation and configuration. It is not intended to represent the details of each model's mapping. Information on the submitted model can be obtained from the model's referenced documents.

1317 NOTE 2: Not every *aspect is identified.

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Figure 15 – IVRA Next: Mapping to Three Axes of SM and SMU

欧州メンバー(独i40, ZVEI, IDTA等),中国メンバー, 日本よりはIVIのみが出席

2月28日 Industry Digital Transformation Workshopにて西岡先生がCIOFの状況を発表

3月1日 Workshopを受けて、第9回GIO Roundtableに小倉が出席

GIO Secretariat/ Martin Creaner氏よりIVIのCIOFをさして、「データ共有の実応用という面では、一番進んでいるのが日本で実現している」という評価をいただいた。

データ共有というのは、巨大な分野であり、1つのシステムですべて満足するということはありません

GIO supporting industry organizations collaboration



GLOBAL INDUSTRY
ORGANIZATIONS



Global Industry Organization BSI (英国規格協会) 共催

海外での評価 (GIO)



Dear participants,

With the digital economy growing at a breakneck pace, digital technologies are accelerating the upgrade of industrial productivity and structural optimization of industry value chains. Many countries and regions around the world, especially Europe, Japan, and China, are actively exploring how to drive the upgrade of traditional vertical industry with ICT, develop and promote digital industrial equipment, and fully realize the value of industrial data. They are also working to jointly build industry-specific platforms and create new value. While valuable practices are being formed, many new challenges have emerged along with new developments.

You are cordially invited to attend the **Industry Data Value Workshop** at 09:30 – 12:30 (Central European Time) / 16:30 – 19:30 (China Standard Time) / 17:30–20:30 (Tokyo Time) on February 28, 2022, jointly hosted by the Global Industry Organizations Roundtable (GIO), the Alliance of Industrial Internet (All), and the Industrial Digital Twin Association (IDTA).

This workshop will gather together industry organization representatives, opinion leaders, business leaders, and industry experts. Together, we will discuss cutting-edge technologies and practices for fully realizing the value of industrial data in Europe, Japan, and China, exploring potential directions and opportunities for cooperation to promote industrial digital



Agenda

Link	Topic	Speaker	Organization	Time (CET)
Opening	Guest introduction	Moderator		9:30-9:35
	Opening speech	William Xu Meik Billmann Jianbo Hu	Co-chairs	9:35-9:50
	Industrial digital space progress	Boris Otto	IDSA	9:50-10:05
Enabling technology	Development trend and exploration of industrial data	Sha Wei	All	10:05-10:20
	The role of Industrial Digital Twins for sustainable manufacturing and cross industries collaboration	Meik Billmann	IDTA	10:20-10:35
	Enabling Technology of Connected Industries Open Framework (CIOF)	Yasuyuki Nishoka	IVI	10:35-10:50
	Coffee Break			10:50-11:00
Market the industry	Equipment data value	Jinsong Ouyang	SAC TC/124	11:00-11:15
	Present and Future of Data Value from Digital Twin	Massimo Canducci	Engineering Group	11:15-11:30
	Digital asset model research and exploration sharing	Ting Wang	ECC	11:30-11:45
	Machine digital asset case sharing	Zhenhua Chen	CMTBA	11:45-12:00
Panel	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	Guided by Moderator		12:00-12:25

Workshop at 09:30 – 12:30 (Central European Time) / 16:30 – 19:30 (China Standard Time) / 17:30–20:30 (Tokyo Time) on February 28, 2022, jointly hosted by the Global Industry

Industrial digital space progress	Boris Otto	IDSA
Development trend and exploration of industrial data	Sha Wei	All
The role of Industrial Digital Twins for sustainable manufacturing and cross industries collaboration	Meik Billmann	IDTA
Enabling Technology of Connected Industries Open Framework (CIOF)	Yasuyuki Nishioka	IVI

1. 産業データの企業間流通に対するCIOFのビジョン
2. NEDOプロジェクトの狙いと国内動向
3. CIOFアーキテクチャの特徴
4. 基盤実装の現状(共通部分の画面など)
5. 各社のユースケース(実証実験結果)
6. カーボンニュートラルへの貢献
7. 今後の展開(ビジネスモデル)

各社の成果を1ページで紹介します。

G20での発表（生産におけるDX）



13.15 – 14.00 A-1: skills and intangibles for digitalization

- Mariela Balbo, Undersecretary of Entrepreneurs from the Secretariat for Small and Medium Enterprises and Entrepreneurs, Ministry of Productive Development, Argentina
- Luciano Massone, Director of World Class Manufacturing Development Center, Stellantis, United States of America/France/Italy
- Francesco Manaresi, Economist (STI), OECD
- Francesca Passudetti, Representative, Youth 20
- Mlindi Mashologu, Deputy Director-General of the Information Society and Development branch, Department of Communications and Digital Technologies, South African Government, South Africa

14.00 – 14.45 A-2: Policies to build a digital and inclusive recovery

- Carlos Lopez-Gomez, Head Policy Links, IfM Education and Consultancy Services, University of Cambridge, United Kingdom
- Yasuyuki Nishioka, IVI President, Hosei University & Industrial Value Chain Initiative, Japan
- José Sampaio Gondjo, Deputy Secretary of Entrepreneurship and Innovation, Ministry of Science, Technology and Innovations, Brazil
- Linda Laura Sabbadini, Chair, Women 20
- Semih Özkan, Technical Director, MEXT Technology Center, Turkey

データ主権 Data Sovereignty

- ドイツの IDSA: International Data Space Association と 欧州のGaia-X が競合
- いくつかの日本企業もIDSAと提携しているのも事実
- 2020年3月 IDSAよりDIN SPEC 27070 が発行された。ただし、DIN SPECは、規格ではなく、規格案 (Publicly Available Standard)であり、DIN規格でさえない。(ドイツのネーミングの妙!)
 - これからISO標準化を図る
 - 内容的にもIEC62443セキュリティ規格からの要求が主でレファレンスアーキテクチャの記述は少ない
- IVIとIDSAのリエゾン
 - 2019年6月のIDSA Summit(独ボン)で後川さんが、IVI活動を報告

INTERNATIONAL DATA
SPACES ASSOCIATION



March 2020

DIN SPEC 27070:2020-03

REQUIREMENTS AND REFERENCE ARCHITECTURE
OF A SECURITY GATEWAY FOR THE EXCHANGE
OF INDUSTRY DATA AND SERVICES

IVRAタスクフォース

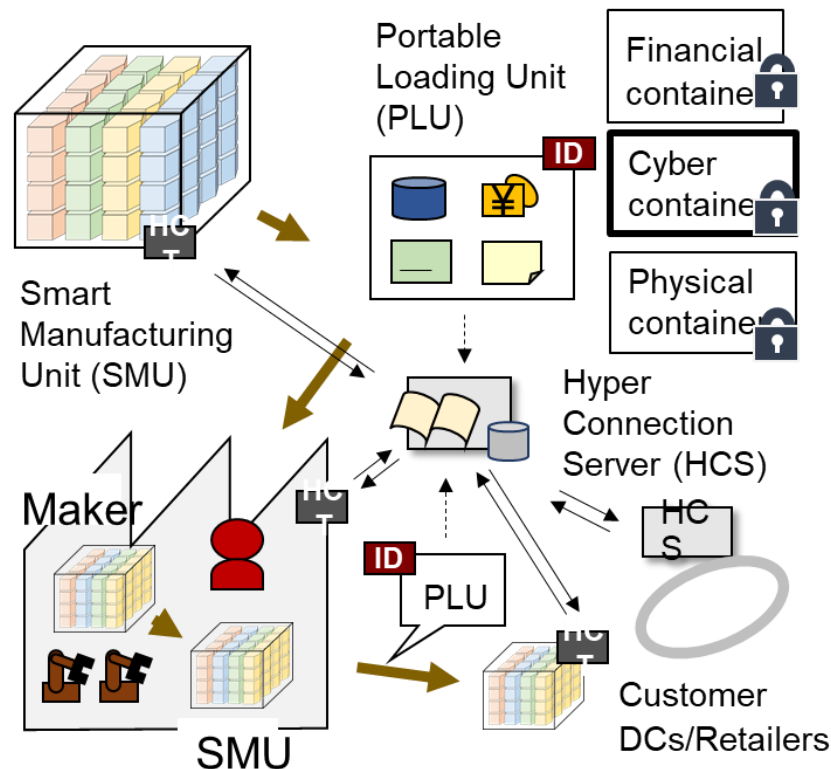
- 製造業のアーキテクチャーの参照モデルを、海外の動向などをフォローしつつ日本独自の提案を、スマートシンキングやIVRAなどとして議論し提案する
 - 海外動向の追求
 - 国際標準化、海外団体との連携
 - 辞書システム(オントロジー) 推進
 - スマートシンキングの海外展開



IVRAタスクフォース

- 従来(IEC・IIC・GIO)の国際標準化活動の継続
- CIOFの国際標準化をめざした仕様の検討
-

ご関心をお持ちいただける みなさま のご参加を是非お願いいたします。



ご質問・コメント をお願いします。

