STANDARDS & INTEROPERABILITY BRIEFING SESSION
IloT World Tour Singapore

Francis Lee
Head of Area Sales Management
Singapore
1st Meeting for Smart Manufacturing Technical Committee

Agenda of discussion and forward action

• Update of the **EDB Smart Industry Readiness Index (SIRI)**
  • Guide to evaluate gap for moving forward, and not score pursuer
  • Local SME lack knowledge of I4.0; SIRI to act as guide
  • Reference Baseline? TRUMPF to share experience Chicago SMART Factory
  • Scale down complex terminology for ease of understanding & adoption

• National Standardization Programme & Term of References
• Expert Group for Smart Manufacturing – Sensorisation essential to Smart Manufacturing
• Standards identified for Cyber Security – review IEC 62443 Standards
• Seek opinion from other major global involvement and opinion (e.g. China, Japan…)

STANDARDS & INTEROPERABILITY BRIEFING SESSION, Francis Lee
Industries 4.0 Standardisation - What’s happening in Singapore?

1st Meeting for Smart Manufacturing Technical Committee – 21st Aug
Has Standardization Started for Industries 4.0?

DIN/DKE Steering Group Industry 4.0 was founded.

Nov 2013 : Version 1: German Standardization Roadmap publication
Feb 2014 : DIN & DKE formed steering body
Jan 2016 : Upd. Version 2: German Standardization Roadmap publication

The Steering Group is to **develop the strategic, conceptual and organizational aspects** of the topic of Industry 4.0 from the point of view of standardization. The Steering Group identifies concrete needs for standardization, coordinates their implementation and advances the development of fundamental concepts.

The aim of the future-oriented initiative Industry 4.0 is to exploit the potential resulting from:

- Extensive use of the internet,
- Integration of technical processes and business processes,
- Digital mapping and virtualization of the real world, and
- Opportunity to create “smart” products and means of production.
Germany National, European and international standardization levels

- **ISO**: International Organization for Standardization
- **IEC**: International Electrotechnical Commission
- **ITU**: International Telecommunication Union
- **CEN**: European Committee for Standardization
- **CENELEC**: European Committee for Electrotechnical Standardization
- **ETSI**: European Telecommunications Standards Institute
- **DIN**: German Institute for Standardization
- **DKE**: German Commission for Electrical, Electronic & Information Technologies of DIN and VDE

DIN and DKE represent German interests in European and international standardization.

- Mechanical engineering
- Building/civil engineering
- Services
- Information technology
- Aerospace
- Medical technology
- Precision engineering
- 63 further fields of activity
- Electrotechnology
- Telecommunications
- ...
The Standardization Council 4.0

Source: EU Stakeholder Conference Essen (Feb. 2017)
TRUMPF SMART FACTORY - Chicago

Ditzingen/Chicago; September 12, 2017 – Official Opening
TRUMPF SMART FACTORY - Chicago
Committed to SMART Factory with EUR26Mio – 50’000 sq-ft
TRUMPF SMART FACTORY - Chicago

Industry 4.0 demonstration factory fitted with digitally networked machines presents the entire sheet metal process chain, from ordering a sheet metal part to its design, production and delivery, experienced as an intelligently interlinked, holistic process.
THANK YOU

Francis Lee, Head of Area Sales Management
Singapore