

Architecture for Scalable, Self-*, human-centric,
Intelligent, Secure, and Tactile next generation IoT

assist-iot

**NG-IoT Workshop on
Standardization
ASSIST-IoT**

Orange Innovation Poland

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SDO's and standardisation initiatives

- **Impact with active participation**

- **ITU-T** - active partners involvement, full membership
- **ETSI** - partner delegates with active participation in WG's
- **IEEE SA** - three partners active involvement, corporate member (Orange),
- **AIOTI** – two active members, especially in WG3
- **BDVA** - active member
- **ESCO/ENISA** – active members in cybersecurity area



Assist-IoT in SDO's/initiatives

Domain/SDO	IoT	AI	Networking/Cloud	Cybersecurity
ETSI	smartM2M, PDL	AI, ENI	NFV, MEC	SAI
ITU-T	SG-20	SG-13, SG-16	SG-13	SG-17
IEEE SA	CEC, CCSC	AISC		CPSC
AIOTI	WG SD, DLT	WG SD	WG SD, Testbeds	WG SD
BDVA	TF6 (SG1, SG6) TF7 (SG7, SG11)	TF6 (SG3, SG6)		TF6 (SG4)
ESCO/ENISA				Security

Contributed

Active participation

**Following with possible
contributions**

Relevant technical domains



- **IoT architecture**

- HLA

- **Edge/Cloud Computing**

- ETSI MANO, ETSI NFV, Kubernetes, Open standards

- **Data management**

- data spaces,
- interoperability, semantics
- MQTT

- **Networking**

- 5G, SDN
- OpenWRT

- **IoT GW (hardware development)**

- Interfaces, modules (a.o. 5G, UWB)
- Open software

- **Pilots (use cases)**

- requirements,
- specific functionalities

- **Cybersecurity**

- SIEM, SOAR

- **DLT**

- logging., monitoring

- **AI**

- Federated learning

Standardisation contributions



- Use cases
 - ETSI STF601 Cross-domain usability of IoT devices for humans and machines, TC (Technical Committee) SmartM2M, Technical Report „Use cases for cross-domain data usability of IoT devices”
 - ITU-T Y.4478, Y.IoT-SCS, Requirements and functional architecture for smart construction site services, system architecture
- Edge Computing, networking
 - AIOTI, IoT and Edge Computing impact on Beyond 5G: enabling technologies and challenges Release 1.0
 - AIOTI, Computing Continuum Requirements on IoT/Edge Computing & Optical Communication
- Data
 - AIOTI, Position paper about data spaces and interoperability
- Security
 - ESCO, Technical Paper on Internet of Things

Further work



- Areas to contribute:
 - Interoperability of IoT services
 - Architectural frameworks (use cases)
 - Security, privacy
 - AI application, federated learning
- Possible contributions to prepare for the Questions in ITU-T SG 20
 - Q1 Interoperability and interworking of IoT and SC&C applications and services
 - Q2 Requirements, capabilities and architectural frameworks across verticals enhanced by emerging digital technologies
 - Q3 IoT and SC&C architectures, protocols and QoS/QoE
 - Q4 Data analytics, sharing, processing and management, including big data aspects, of IoT and SC&C
 - Q5 Study of emerging digital technologies, terminology and definitions
 - Q6 Security, privacy, trust and identification for IoT and SC&C
 - Q7 Evaluation and assessment of Smart Sustainable Cities and Communities



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Thank You Questions?

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