



Alliance for IoT  
and Edge Computing  
Innovation

# WG Standardisation

# AIOTI organisation

## Horizontal WG

## Vertical WG

Research & Innovation

Innovation Ecosystems

SCoDIHNet

Early Innovation Champions

Standardisation

Semantic Interoperability

Landscape, Gaps, Comp Continuum, IoT and relation to 5G

High-Level Architectures

Testbeds

DLT & Web3 Accelerator

Policy

ICT for CO2 reduction methodologies (ICM)

Agriculture

Energy

Health

Manufacturing

Mobility

# Leadership and Vision

## Chair

Antonio Kung  
Trialog



## Co-Chair

Georgios Karagiannis  
Huawei



## Vision:

To be recognized as a major contributor to the worldwide interoperability, security, privacy and safety of IoT and Edge Computing systems and applications, and particularly for the development of the market in Europe

## Deliverables:

<https://aioti.eu/standardisation/>

# Highlights

## Relevant facts

**93** member organisations

**194** participants

## Main achievements

### Deliverables

- IoT and Edge Landscape Reports
- High priority gaps Reports
- IoT relation and impact on (beyond) 5G Reports
- High Level Architecture
- Ontology Landscape
- Computing Continuum Report R2
- Integration of IoT/Edge in Data Spaces
- EU funded projects landscape

### Collaborations

- Cooperation with SDOs/Alliances
- HLF on European Standardisation
- ICT MSP
- Stand.ICT - EU OS
- HSBooster
- 6G IA
- one6G
- EGDC

### Events

- AIOTI signature event 2023
- Workshop today
- Standardisation workshop on energy, mobility and buildings
- ETSI IoT Week
- Webinars to promote reports

# Priorities 2024

## IoT & Edge Computing Landscape

- Cooperation with SDOs/Alliances to foster co-creation and interworking.
- Maintain IoT and Edge Computing landscapes
- Recommendations and guidelines on solving protocol and interface gaps needed to support new IoT and Edge Computing features
- Provide Computing Continuum requirements (on IoT and edge computing) and (Optical Communication) enablers
- Provide guidelines on how IoT can become an enabler for 5G (and beyond 5G) and vice versa
- Provide guidelines on how IoT & Edge Computing standardisation can impact the Industry Digitization, UN SDGs and European Green Deal, and vice versa
- Explore and document the EU funded projects landscape focusing on IoT and Edge computing; (Implementation ion of this action is a report)

## High Level Architecture

- Recommendations of reference architectures, both for experimentation and deployments within IoT domains and cross - IoT domains
- Architecture and interfaces for IoT & Edge Computing Data (Services & Solutions) marketplaces; Guidelines for Data Access and Data Sharing; Guidelines of enhancement of data sharing in support of the Green Deal e.g. GreenData4all, Destination Earth (A European strategy for data - Common European Green Deal data spaces)
- Recommendation of an interoperable IoT Identifier space that transcends geographical limits
- Recommendations for a Digital Twin based IoT and Edge Computing reference architecture
- Recommendations for a Computing Continuum based IoT and Edge Computing reference architecture

## Semantic Interoperability

- Identification of missing (semantic) interoperability standards and technologies within IoT domains and cross - IoT domains and recommendations for solving them. In addition topics related to the impact of edge computing on semantic Interoperability will be as well taken into account
- Promoting the availability, findability, use and development of Open Reference Vocabularies and Open Application Programming Interfaces to allow for flexible ad-hoc communication and interaction between different actors within IoT domains and cross - IoT domains
- Landscape of ontologies supporting users in their assessment of the quality and usability of ontologies.
- Investigate the impact of the Twin green and digital transformations on existing semantic interoperability models and ontologies