

IOTWeek

Dublin — June 20-23, 2022

IoT and Edge Computing Standardisation in the context of Data Spaces Introduction

GLOBAL VISION:

IoT TODAY AND BEYOND

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Objective of the panel

- ❑ Focus - Standards related to IoT and Edge computing which enable the integration of data spaces.
- ❑ Topics:
 - Data space challenges
 - Data space standardisation
 - Interoperable data spaces
 - Example of energy data spaces
- ❑ The move to the Far Edge
 - Leverage a local, distributed computing infrastructure,
 - Facilitates the creation of new services and business models rooted in verticals around the applications
- ❑ ...



Industrial Internet of Things: the strategic picture for Europe

Next generation IoT

Power to the edge,
where the data is
Seamless
connectivity



Next generation operating Systems
Decentralised/swarm intelligence
Cognitive computing continuum

Investment in Data Spaces
EU 5G & cloud-edge
infrastructure/services

**Standardisation &
Interoperability**



**Vertical, horizontal &
cross-sector integration**

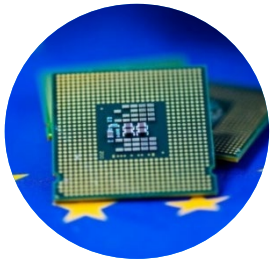
Common Open Digital Platforms & Ecosystem

**Competition law,
Geopolitics**



**Strategic
autonomy**

Next generation chips
powering intelligence
at the edge



Semiconductor
Chips made in Europe



Transition pathways
towards resilient,
innovative, sustainable
and digital ecosystems



Open, dynamic
ecosystems for EU
tech businesses

Data legislation, e.g.:

- Data Act: Access and fairness on data market
- Digital Market Act: limited role of gatekeepers

Chips Act

Data Strategy

New Industrial Strategy

EC projects on IoT and Edge computing and the relationship with data spaces

- ❑ OpenDEI - Design Principles for Data Spaces
 - High-level architecture
 - Design Principles
 - Building blocks
 - Sector-specific data spaces
 - Governance and business models
 - Roadmap
 - Data Spaces supported by an Ecosystem
- ❑ SynchroniCity - Minimal Interoperability Mechanisms (MIMs)
 - Minimal but sufficient capabilities
 - AI-and IoT-enabled market-ready services: 50 services in 21 cities
 - Focusing on cross-domain interoperability
 - Easy, simple, quick and cheap to implement and easy to test for compliance
 - Reuse existing standards - NGSI LD, SAREF(4Cities), etc.
 - Development of a viable market –minimising risk and cost and preventing vendor lock-in



MetaOS for Next Generation IoT and Edge Computing

EU funding: **€64 million**

HPC

Cloud Edge

5G Network Edge

Operational Edge

Device Edge



Supply Side



Demand Side



Horizon Europe and DIGITAL programme

- Horizon Europe
 - Projects establishing the grounds for Common European Energy Data Space
- DIGITAL programme
 - Deployment projects for data spaces including mobility, energy, agriculture
 - Data spaces Support Centre
 - Smart middleware
 - Edge and cloud services





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Thank you!

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