Standards for interoperability

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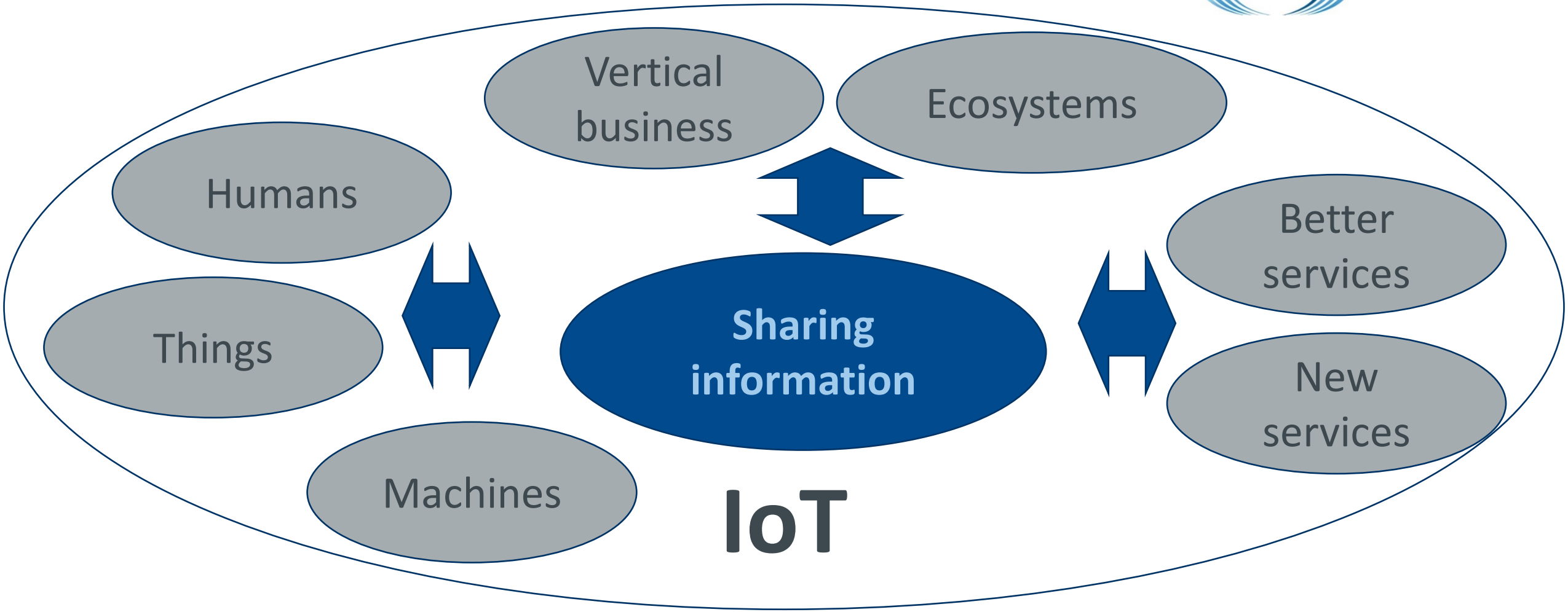
TC SmartM2M Chair
oneM2M Steering Committee Chair

IoT week

IoT and Edge Computing Standardisation

Dublin, 22 June 2022

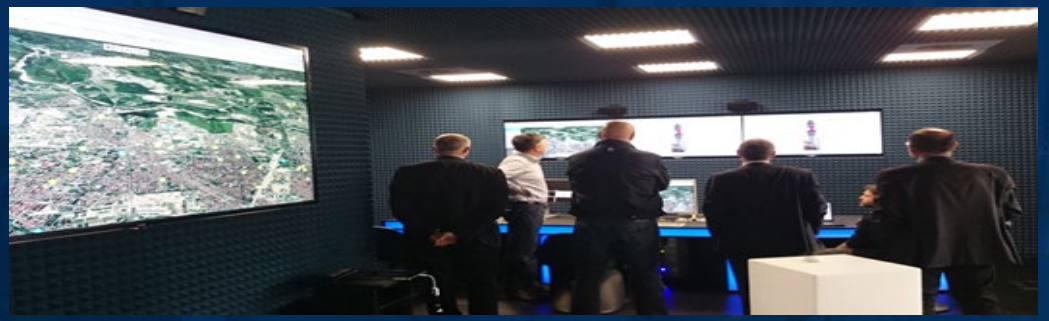
IoT: what is about!



Cloud | Connectivity | protocols | API | platforms | Edges

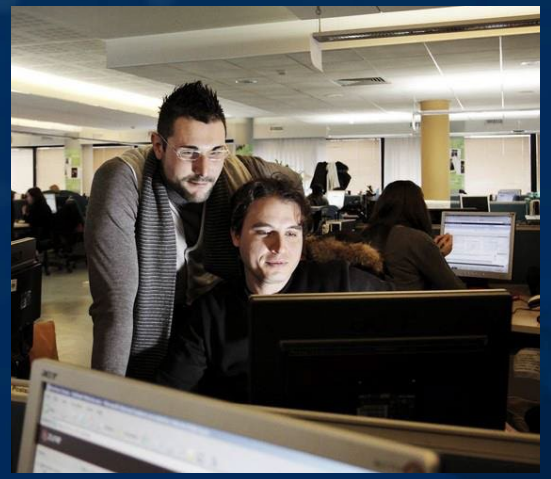
IoT EcoSystem: The vision of interoperability

Communication networks



Control Rooms (remote tests, predictive maintenance, etc…

Augmented reality for technicians and for users



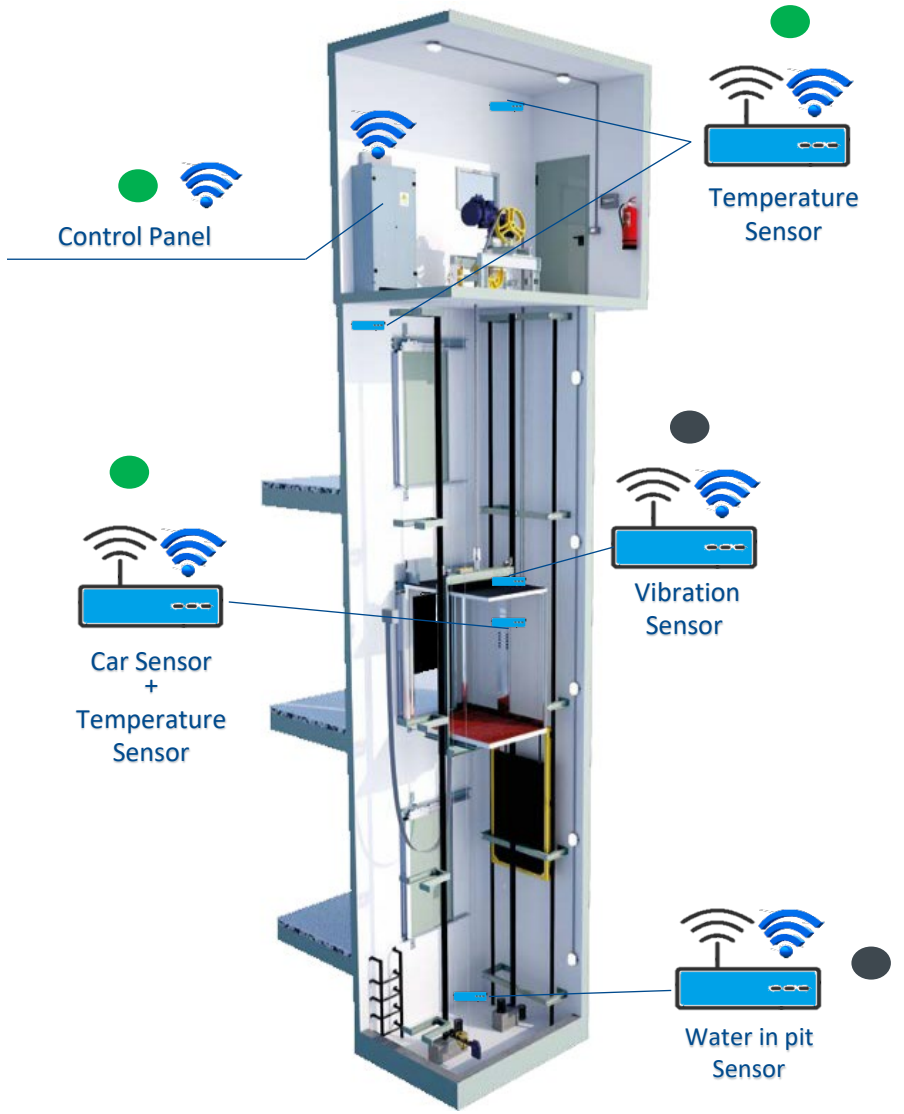
Building Managers

Smart City

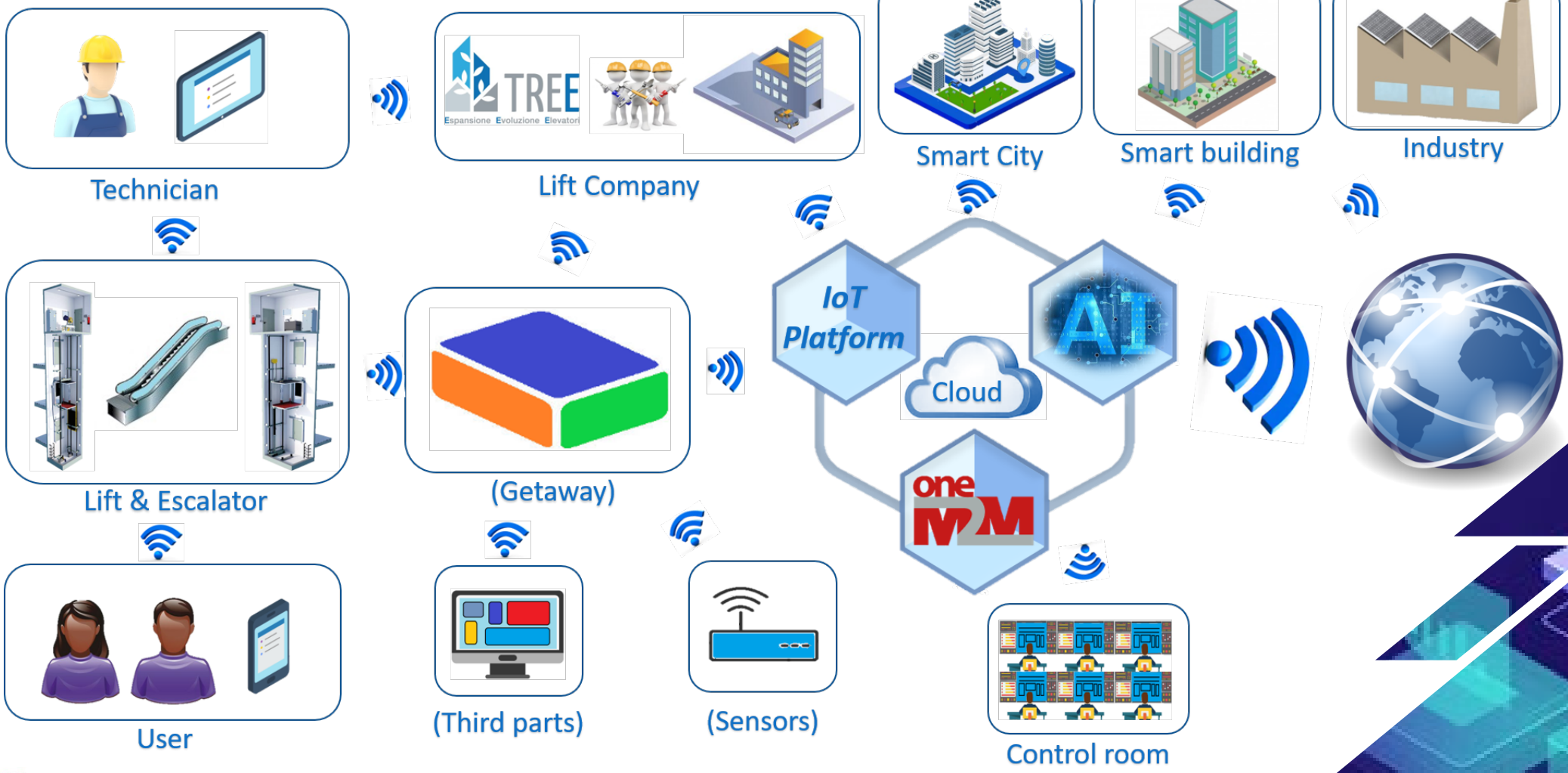
Intelligent services for users

Example -TC SmartM2M ETSI Smart Lifts Standardization

- TS 103 735 SmartM2M; Smart Lifts IoT System Aiming to evolve the Lifts to IoT and integrate it in the big picture of IoT.
  - Developed with the support of major Lift Stakeholders:
  - Excellent collaboration with vertical stakeholders (www.efesme.org) and (www.ela-aisbl.eu)
  - Parallel PoC (TREE/TIM) developed
  - 9 months to develop the full system specification (leveraging on oneM2M communication/interworking framework)
- TS 103 410-11 SAREF4LIFTS extension developed on the basis of TS 103.735
- A twin specification on escalators is under development:TS 103 849 Smart Escalators IoT System



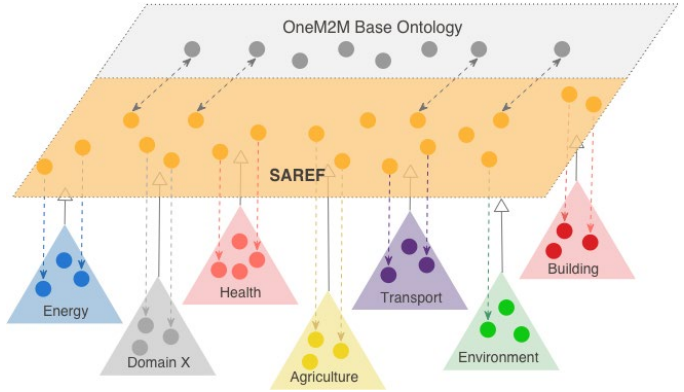
“Smart Lift – TRE-E - IoT System”



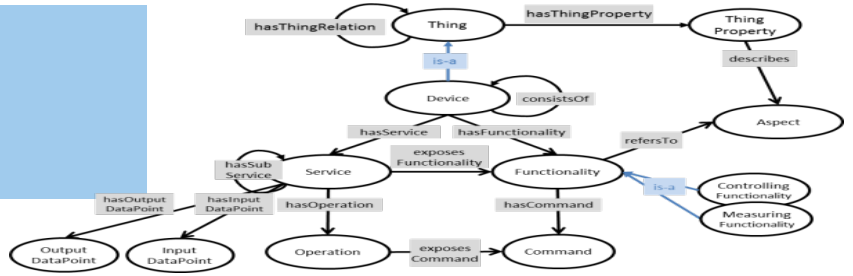
Courtesy of Marco Cogliati, TREE, SBS/EFESME Expert

Universal semantic interoperability using SAREF/oneM2M

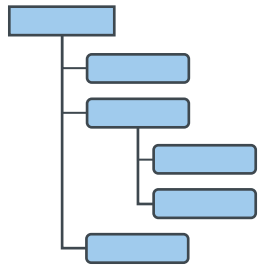
Specific Abstraction Models, grouped around a core common ontology



General base Ontology



OneM2M resources
Semantic annotation of data



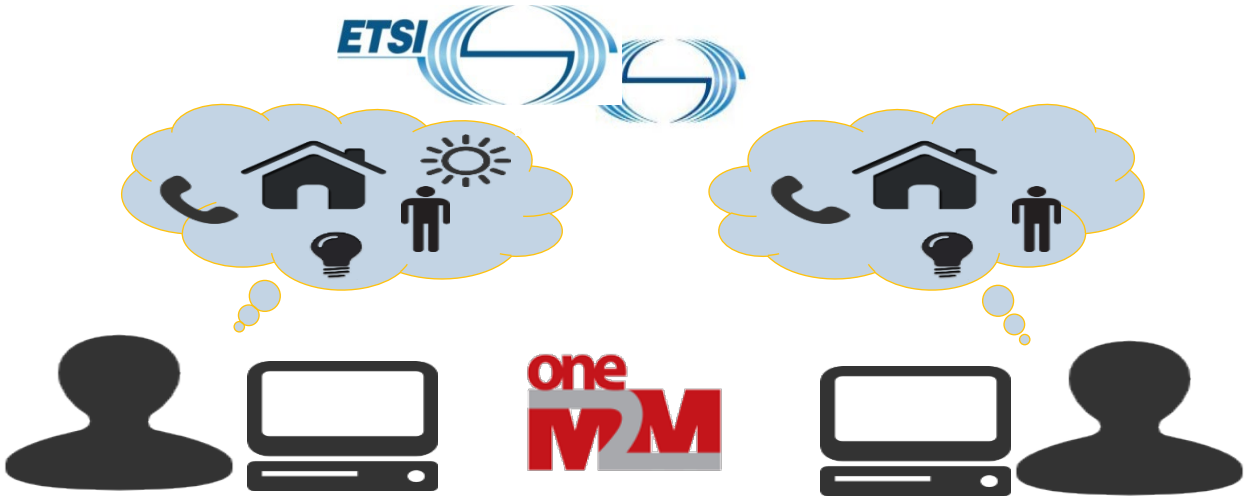
1) Vertical ontologies support → **SAREF and its extensions**

2) Semantic Support → **IoT base ontology + Data annnotation**

3) Communication Framework → **IoT Data sharing**

SAREF and its extensions

saref.etesi.org



Semantic interoperability

- SAREF Core
- Energy
- Building
- Environment
- Smart Cities
- Industry & Manufacturing
- Smart Agriculture
- Automotive
- E-Health/ Aging Well
- Wearables
- Smart Water
- Smart Lifts
- Smart escalatorsi

01/2017 | Q3/2019 | Q2/2020 | H12021 | H12022

IoT is NOT
about selecting a protocol… nor a platform… nor a cloud….

IoT is
sharing the information and its meaning among
different systems,
different applications,
different business sectors !

Grazie!
Thank you!

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M2M/IoT Standardization Manager

TIM | Communication and Standards

OneM2M Steering Committee Chairman

ETSI TC SmartM2M Chairman

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