IoT Week 2022

Why Interoperability is key for local authorities to master data sovereignty and ICT carbon footprint

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Bordeaux Métropole

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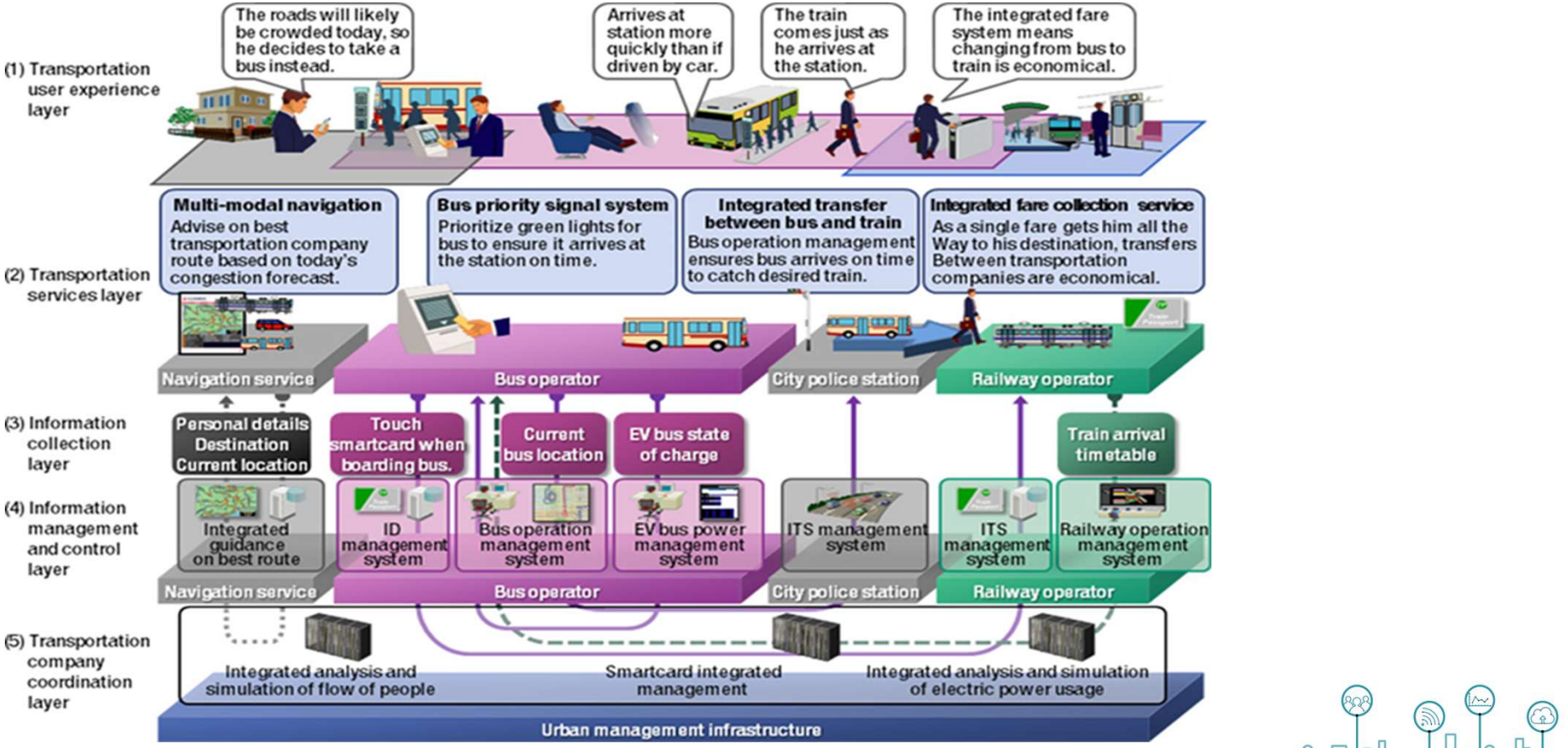
Interoperability: What are we talking about ?

Interoperability is key:

1. To ensure citizen digital rights protection
2. To avoid vendor lock in and stimulate the market by giving confidence in the ecosystem as a whole: citizen, public and private sector.



Interoperability: examples from daily life

EU Project SESEI @euprojectsesei3

In India, the government asked public charging stations to install Japanese and Chinese charging technology both platforms, ending months of ambiguity that delayed electric vehicles procurement by Energy Efficiency Services Ltd (EESL). Read more at:

The value of interoperability in the context of cross-sector solutions

OneM2M: A glue to fix interoperability issues for communities

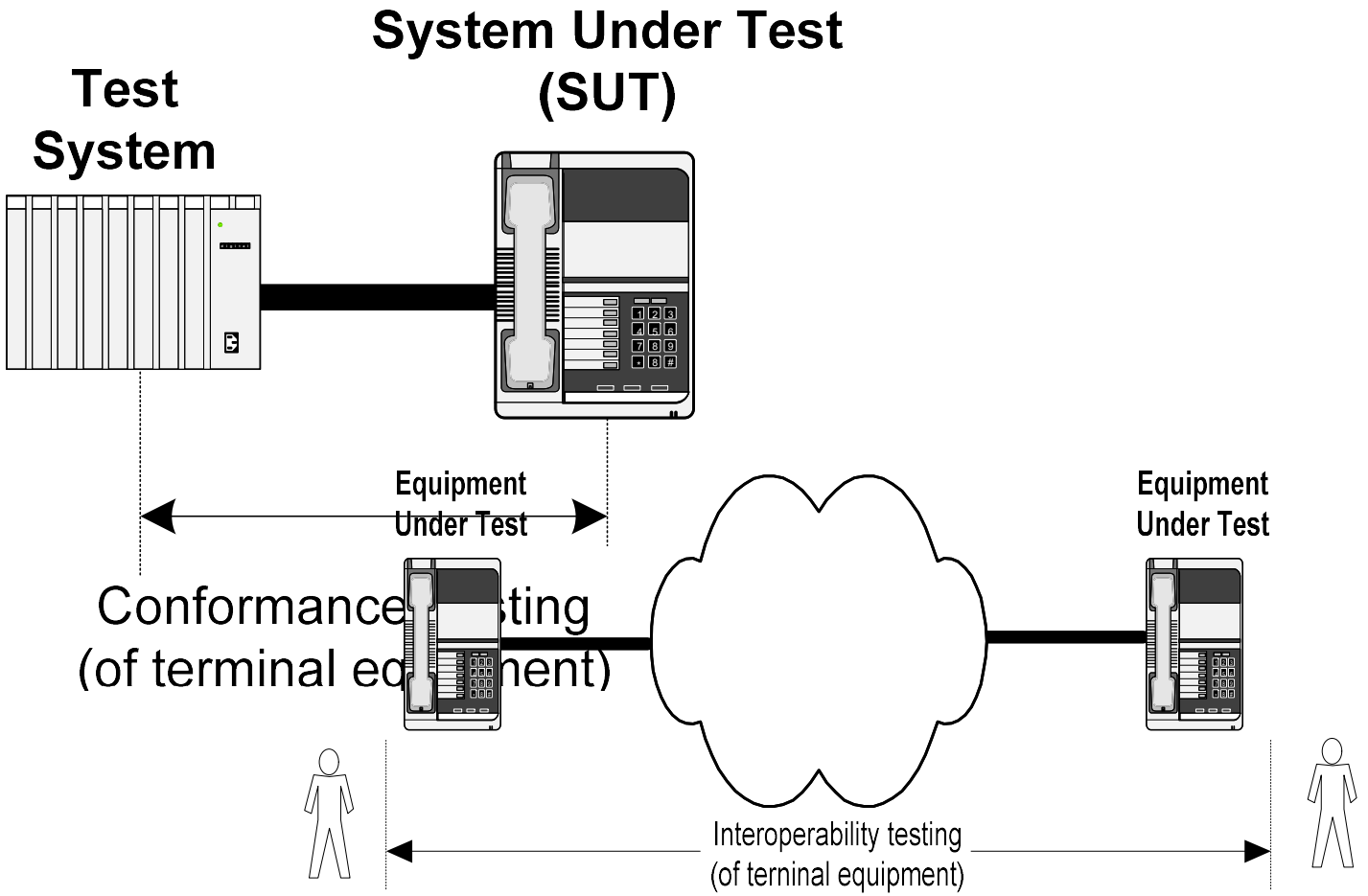
oneM2M's Value Proposition

Interwork different underlying IoT technologies, devices, applications and data together with one another

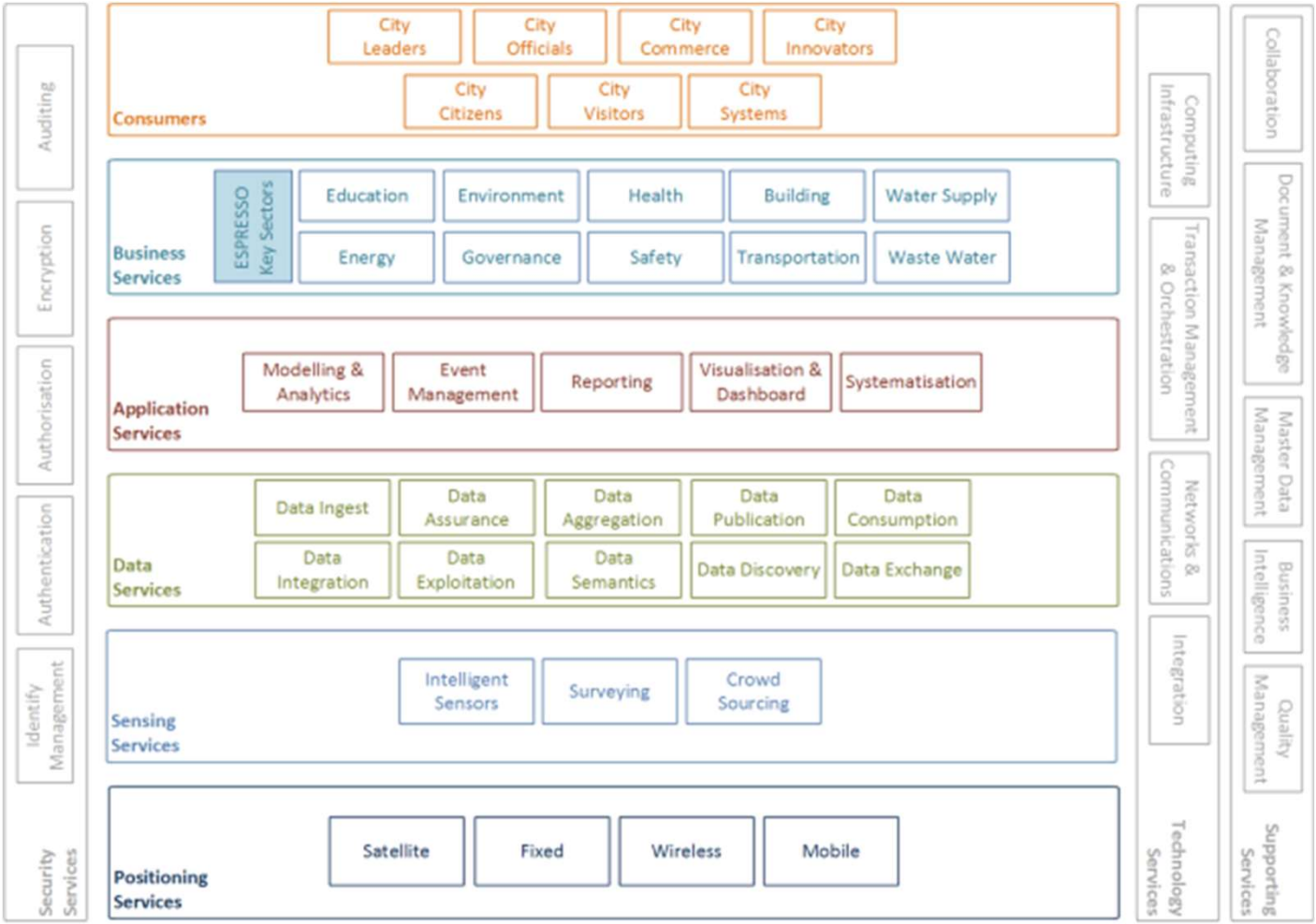
Abstract and hide the complexity of these different forms of interworking from the various stakeholders

Simplify life for IoT Stakeholders!!!

One M2M the glu « and » the label to give confidence to communities



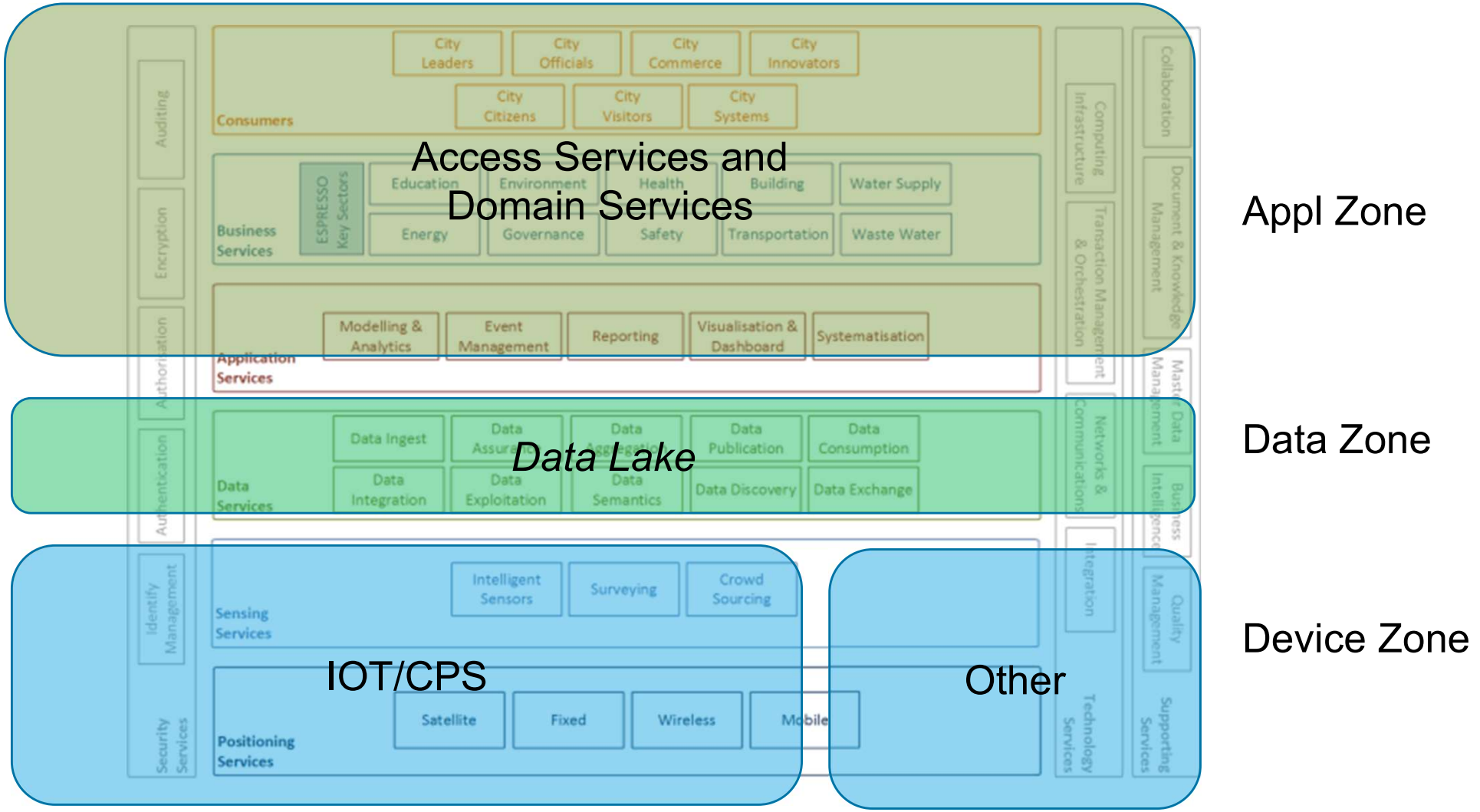
European Approach for Smart Cities: Looking for an open and interoperable platform



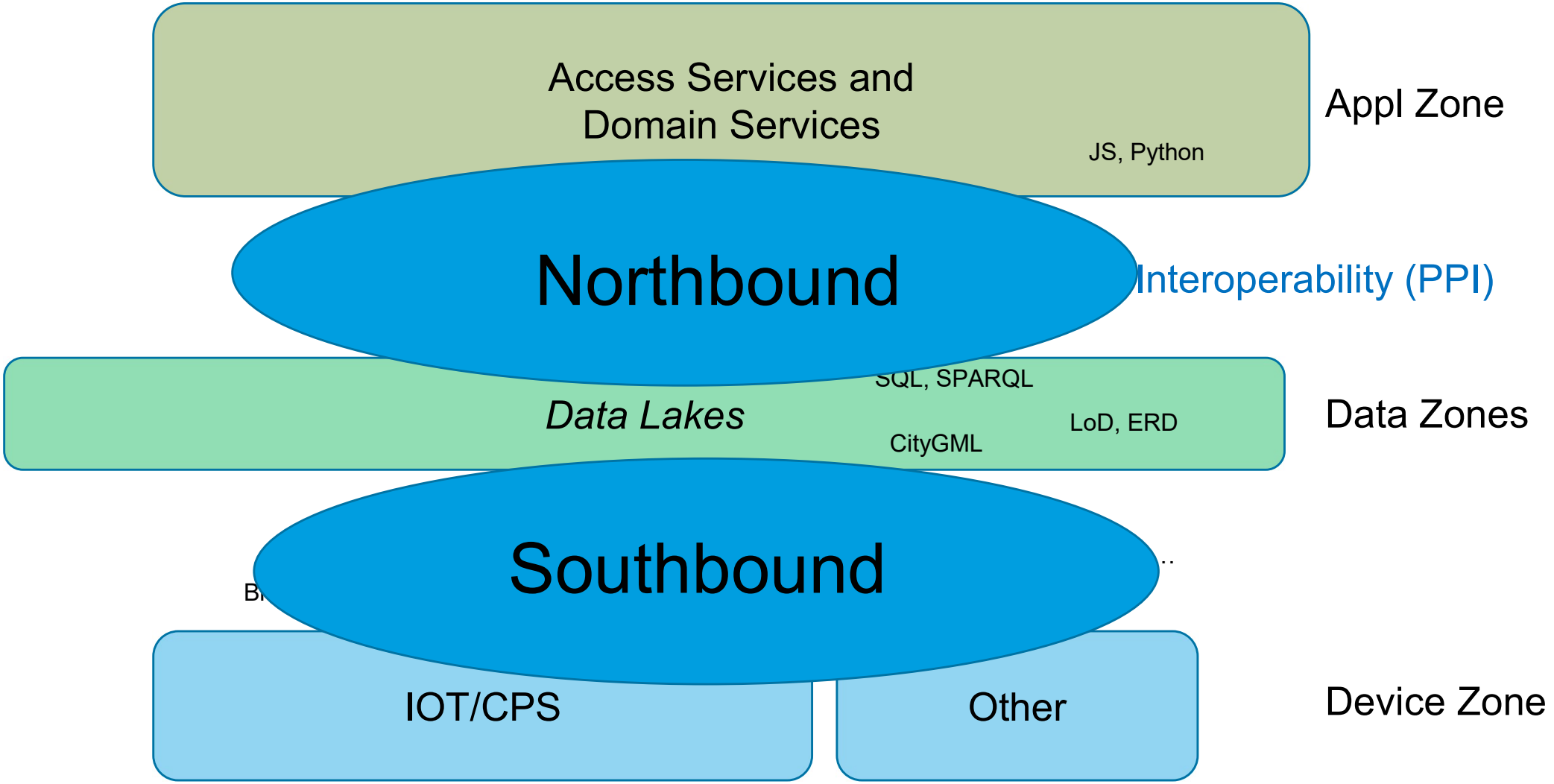
ESPRESSO

systEmic Standardisation apPRoach to Empower Smart citieS and cOmmunities!

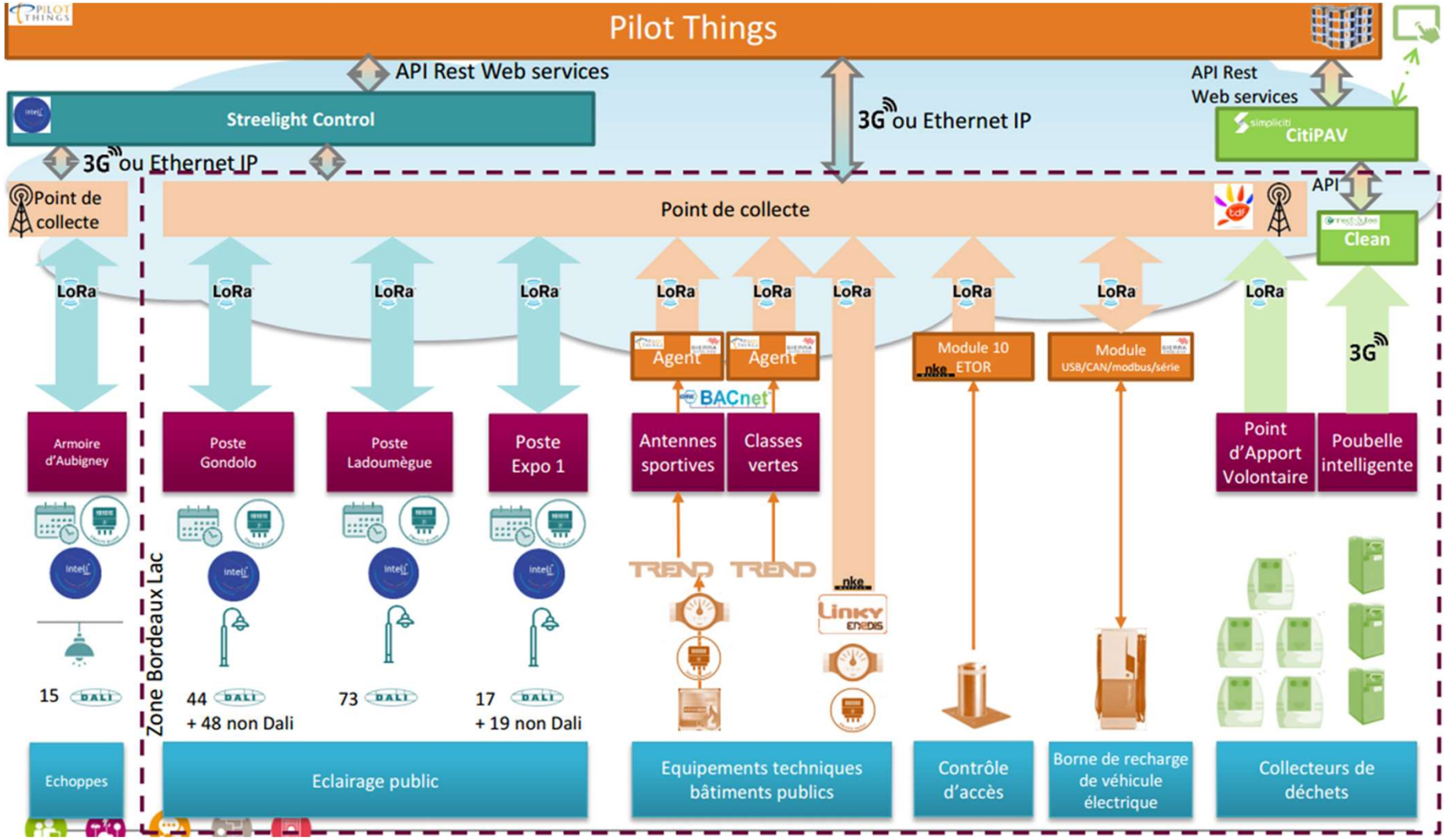
European Approach for Smart Cities: Looking for an open and interoperable platform



European Approach for Smart Cities: Looking for an open and interoperable platform



Smartlight: A“Use case” for Bordeaux



oneM2M standards, a glue to fix the southbound layer interoperability issues

Early 2017, Bordeaux launched a call to equip a Smart district located in the north of the city:

- **220 lamp posts**
- **EV chargers**
- **Street access control management**
- **Energy management in public buildings**
- **Water, gas, electricity meters**
- **Smart bins …**

The procurement specified: **Sensors connectivity to IoT network has to be compliant with the oneM2M specifications release 2 published in september 2016 which describes a standardised API:** www.oneM2M.org

oneM2M standards, a glue to fix the southbound layer interoperability issues

Solutions providers from different backgrounds propose to deliver a global smart city services portfolio. However, they can just address a part of the solution !

Smart lighting

Telecom Operator

Network infrastructure

Water and sanitation

oneM2M standards, a glue to fix the southbound layer interoperability issues

- The cheapest
- The best technical one and …

- **The only one compliant with oneM2M**

Hambourg and the H2020 consortium mySMARTLife also chose OneM2M

[mySMARTLife - MySMARTLife]

https://www.iot-now.com/2021/02/24/107978-hamburg-deploys-onem2m-smart-city-standards-to-go-greener/

This is also the European Commision approach

MIMs Plus - Technical Specifications V3 | Living in EU (living-in.eu)

Extrait:

“OneM2M Release 2 and release 3 set of specifications. oneM2M Release 2 has been formally approved as ITU-T recommendation under Y.4500 series. oneM2M is a partnership project (where EU is represented by ETSI) that specifies a common service layer for IoT. OneM2M is applicable to many verticals including Smart Cities. oneM2M specifications cover requirements, architecture, APIs, security, interworking and data models. Although not chartered to produce open source, there are several open source implementations supporting oneM2M, those include Eclipse OM2M and S. Korea OCEAN.”

Which is spreading all over the world

https://www.tec.gov.in/onem2m

OneM2M Release 2 specifications (transposed by TSDSI), adopted as National standards

Telecommunication Engineering Centre (TEC) is the National Standardisation Body for Telecom and related ICT sector in India. "**Standardization Guide –A policy document for adoption of Domestic/ international standards into national standards**" was issued vide O.M. No. 2-1/2018/SD/TSDSI/TEC/5 dated 08-05-2020.

TSDSI (Telecommunications Standards Development Society of India) is a membership based, standards development organization(SDO) for Telecom/ICT products and services in India. It is registered as a not-for-profit society, under the Indian Societies Registration Act XXI of 1860.

oneM2M: ETSI (Europe), TTC (Japan), ARIB (Japan), ATIS(USA), TIA (USA), TTA (Korea) CCSA (China) had come together and created a partnership project oneM2M in 2012, to avoid creation of competing M2M standards. Later, TSDSI from India had also joined as a partner member in oneM2M. They are working to create standards for the common service layer.

Thanks for your attention

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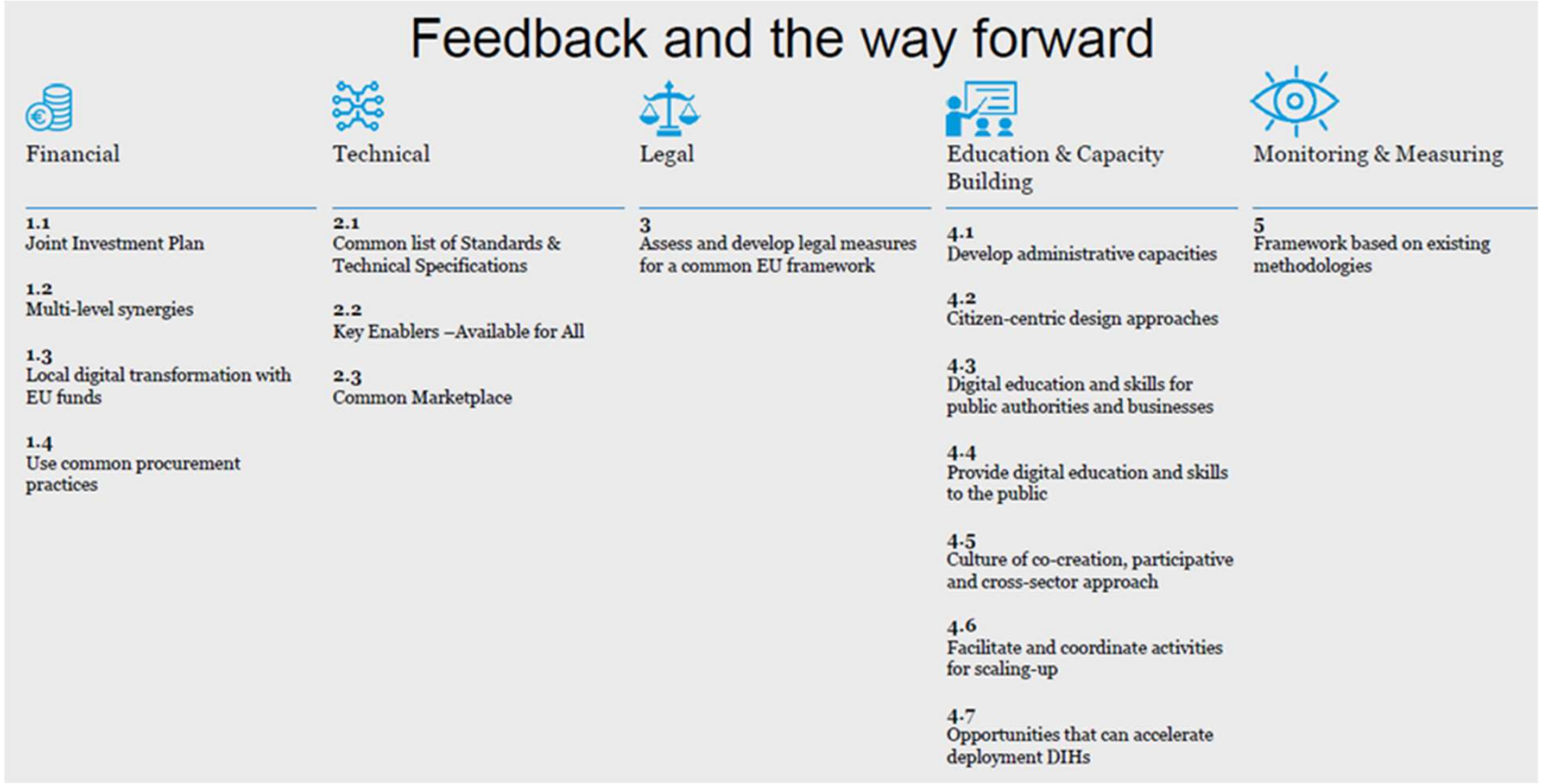
Eurocities KSF S&I WG Chairman
eG4U: General Secretary
ETSI ATTM SDMC Chairman

European Commission approach for Smart Cities

LI.EU: 5 topics and five dedicated subgroups



European Commission approach for Smart Cities

LI.EU le GT Tech, Commitments and deliverables

- Tech Commitment Principles:
  - Use common standards and technical specifications
  - Make key enablers (including data, infrastructure and services) available to all
  - Establish a common market
- Deliverables:
  - Concept paper (scope, plan)
  - Specifications (MIMs Plus)
  - Operational Guide (jointly with other LI.EU commitments?)