# “OneM2M workshop"

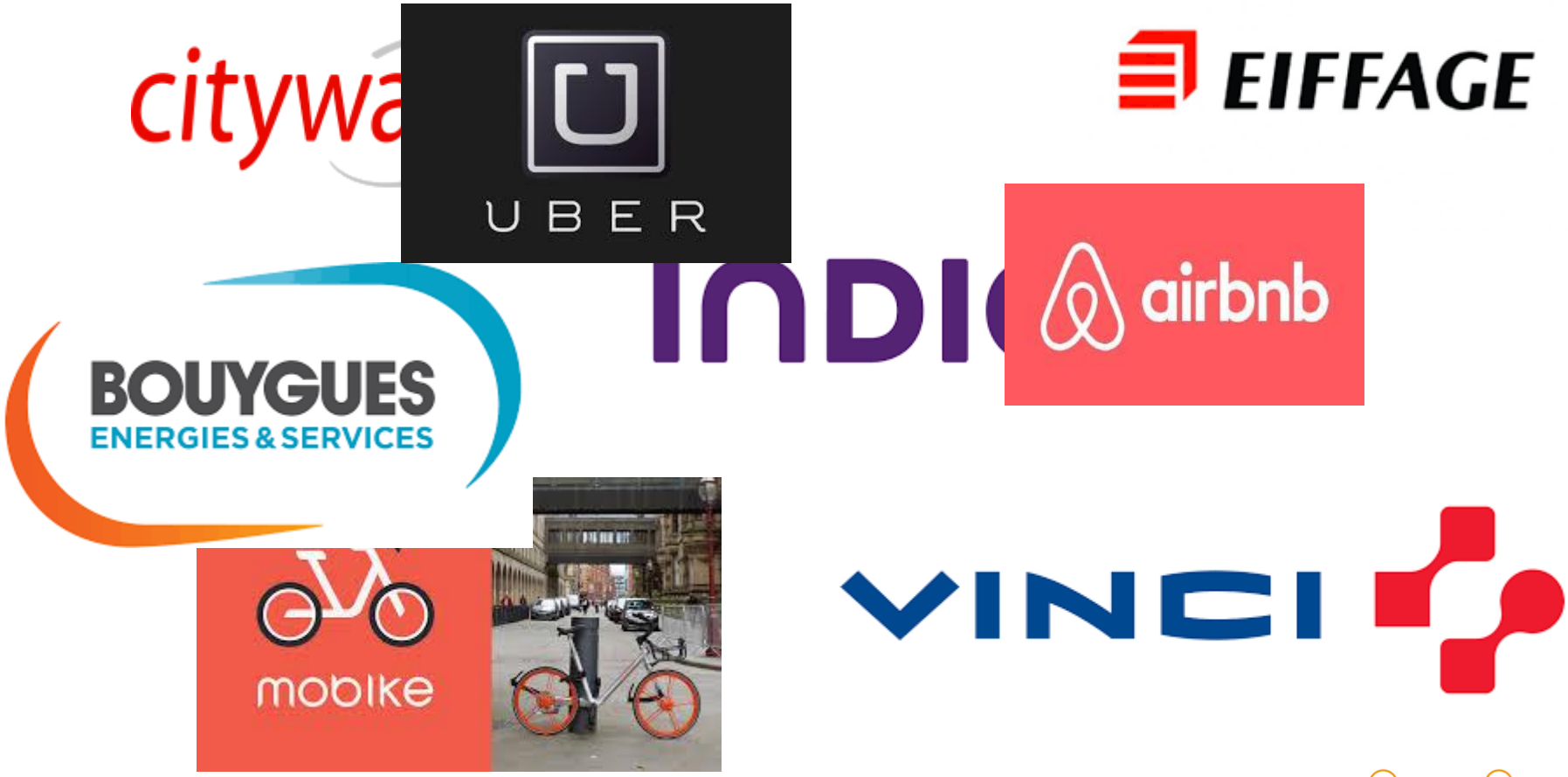
INDIA-EU ICT STANDARDISATION COLLABORATION

“OneM2M a glu to fix interoperability issues for the public sector"

26 August 2019 – New Delhi

# Smart Cities and Communities: Essentials and public sector concerns

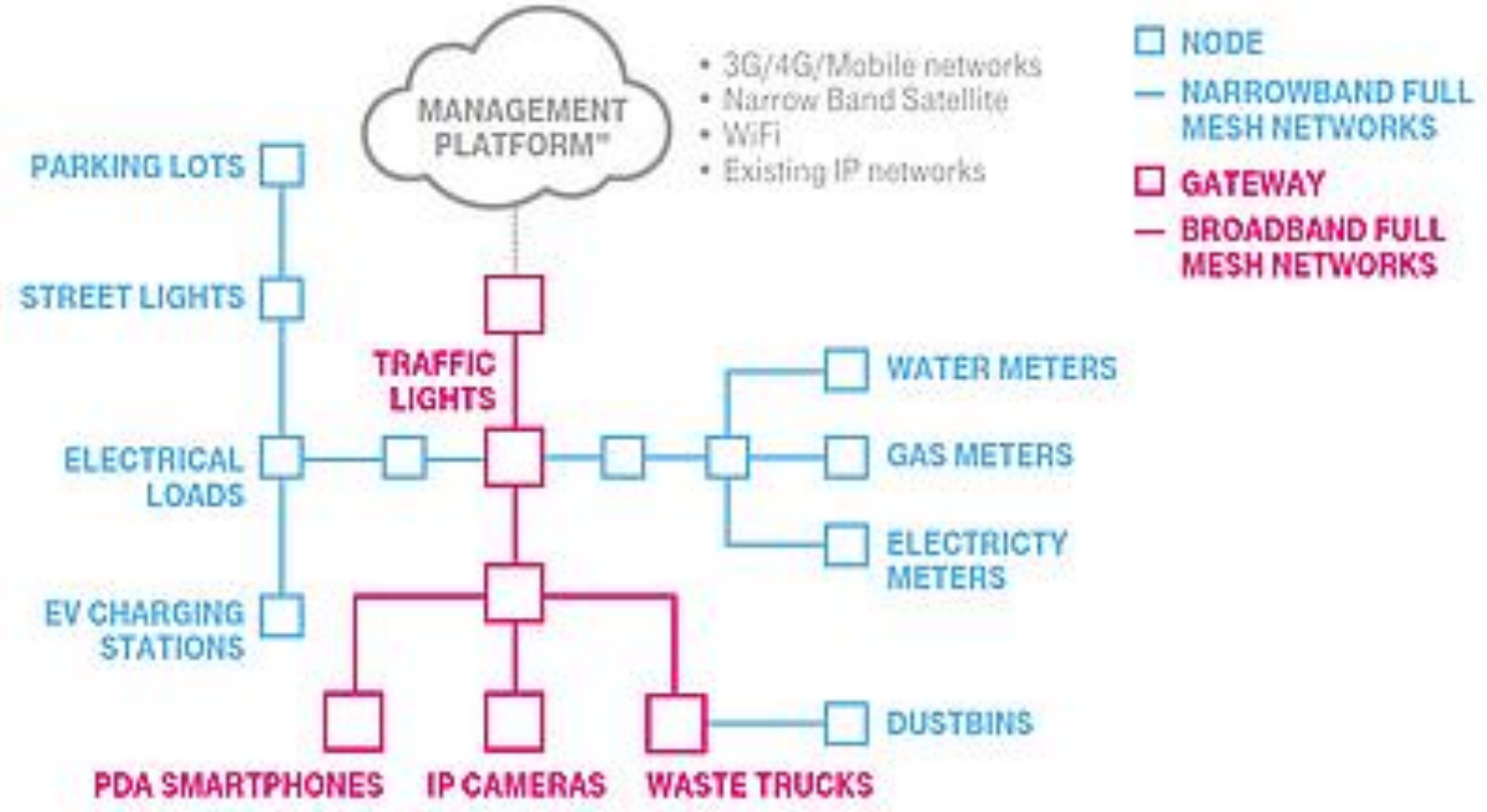
## Services disintermediation:



# Smart Cities and Communities: Essentials and public sector concerns

- **ICT: To manage data, drive cities assets and support decision making**
- **Governance: fundamental pillar to build the next generation of sustainable city**
- **Citizen: A key and privileged player at the heart of the design of new smart city services.**

# Smart Cities and Communities : ICT



# Smart Cities and Communities : Citizen concerns

## 1. Universal and equal access to the internet, and digital literacy

Citizen need to access to affordable and accessible internet and digital services on equal terms, as well as the digital skills to make use of this access and overcome the digital divide.

## 2. Privacy, data protection and security

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through open, participatory and transparent digital processes. Everyone should have the opportunities to participate in shaping local digital infrastructures and services and, more generally, city policy-making for the common good.

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## 5. Open and ethical digital service standards

Everyone should be able to use the technologies of their choice, and expect the same level of interoperability, inclusion and opportunity in their digital services. Cities should define their own technological infrastructures, services and agenda, through open and ethical digital service standards and data to ensure that they live up to this promise.

# Smart Cities and Communities : Cities answers to citizen concerns

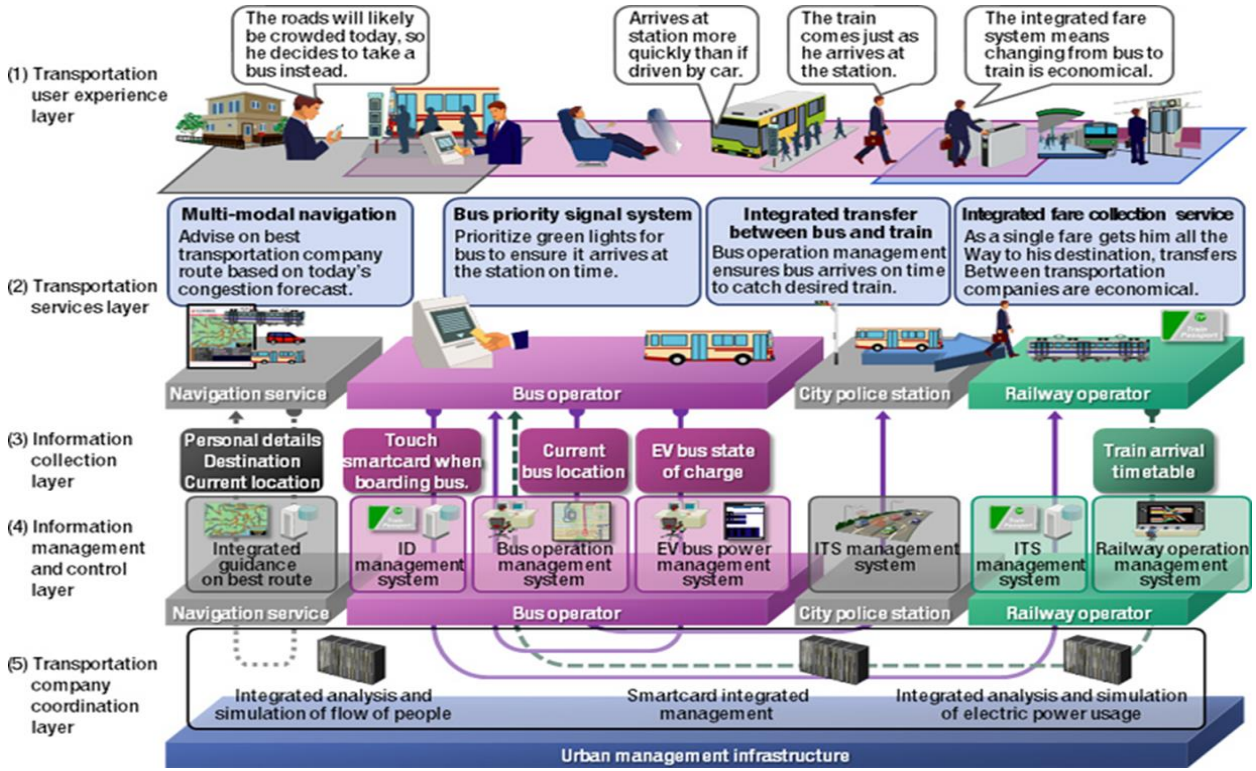
**The Cities Coalition for Digital Rights, CC4DR, is a nascent organization, founded in 2018 with the mission to promote, support, and defend the digital rights of city residents and visitors.**

After about six months, here are the first outcomes:

• 45 members from five continents and growing;
• 6 languages for the principles — English, Spanish, Catalan, French, Italian, and Albanian;
• 4 international gatherings — Mozfest, Smart Cities Expo Barcelona, Helsinki AI, and We Make the City Amsterdam;
• 3 conference and forum presentations — EUROCITIES, Smart Cities NYC, and NYC Forum;
• 3 major global partners — United Nations Habitat, United Nations Human Rights, and United Cities and Local Governments;
• 2 international organizations adopting digital rights principles — G20 Tokyo Communique and US Conference of Mayors resolution;
• 1 robust website, https://citiesfordigitalrights.org/, with 29 different local case studies.

# Smart Cities and Communities : 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.**



# Smart Cities and Communities : Interoperability is key

What if … If there is a lack or no interoperability by design

**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:

# Smart Cities and Communities : But standards don’t mean necessarily interoperability

# Smart Cities and Communities : How to bring interoperability

How to transform an heterogenous and siloed legacy infrastructure towards interoperable and industrialised smart city services.

In Europe: EC, ESOs, European projects, European cities networks working together








# Users'involvement in the standardisation process

eG4U is a Non Governmental Organisation of ICT (Information & communications technologies) users from public and private sector, working together in order to improve Energy Management & Waste monitoring in the three main domains of ICT Sites, Smart Cities and Electrical and Electronic Equipment.

eG4U has been created early December, 2015, by ICT users, members of ETSI(*) Industry Specification Group (ISG) called Operational energy Efficiency for Users (OEU).

eG4U is an ETSI member.

https://www.eg4u.org/

# Users'involvement in the standardisation process

WG SDMC will work on deployment of ICT systems, and networks, and sites allowing interactions for data capture (both data consumers and providers) and management of data within each service and between different functions and services and will produce:

- Standardisation work on specific engineering of SDMC ICT
- Specifications of topology and functional requirements
- Specifications of functional and physical characteristics of interfaces
- Standardisation work on operational sustainability management

**TS 103 463 published**

Defining indicators (KPIs) for Smart Cities expressing city level in terms of People, Planet, Prosperity and Governance.

# ETSI a strong and reliable ESO supporting users

## STF 562 and Deliverables

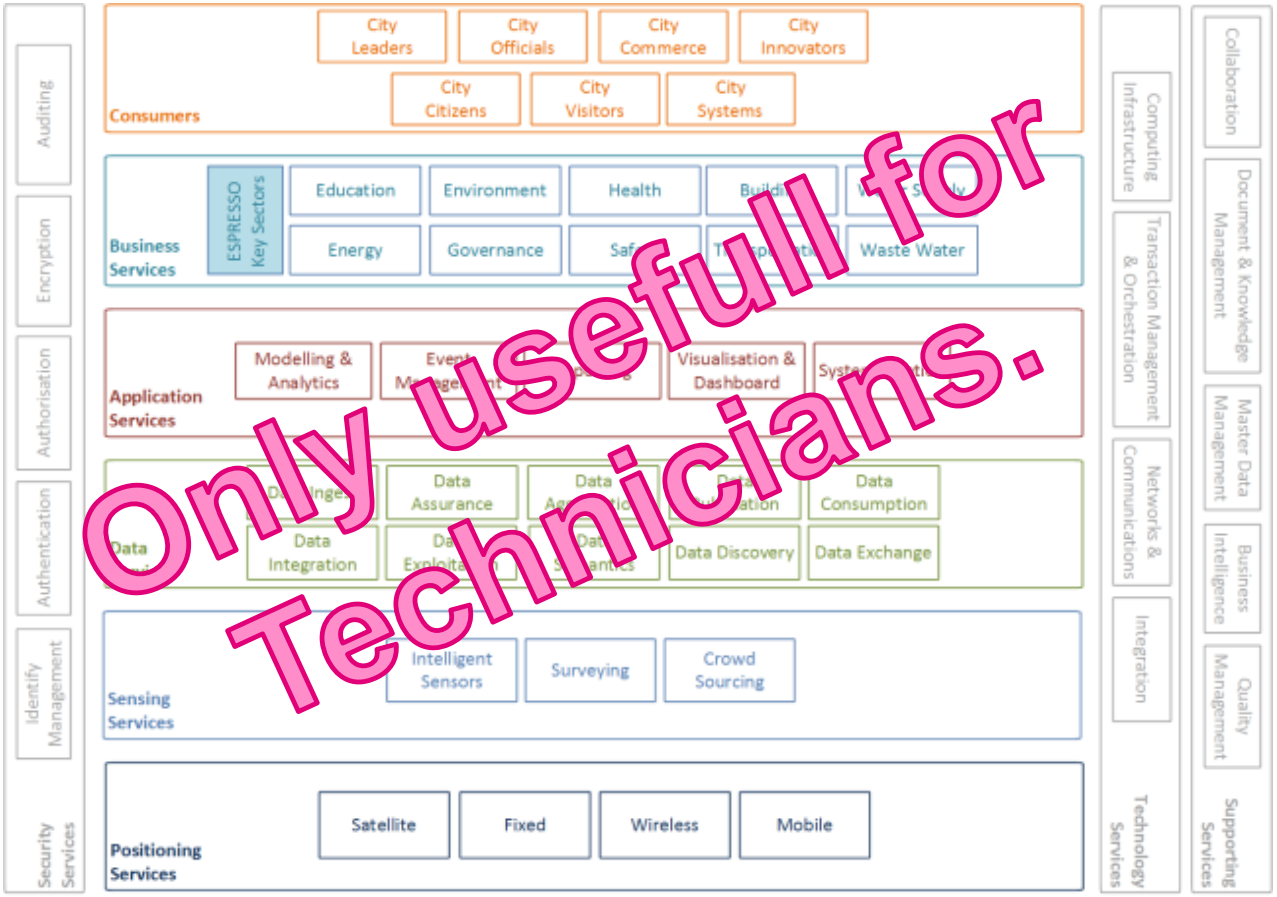
| | |
|---|---|
| *STF 562 Leader* | **Mike Gilmore** |
| *Experts* | **Flavio Cucchietti** |
| | **Eric Stern** |

**TC ATTM**

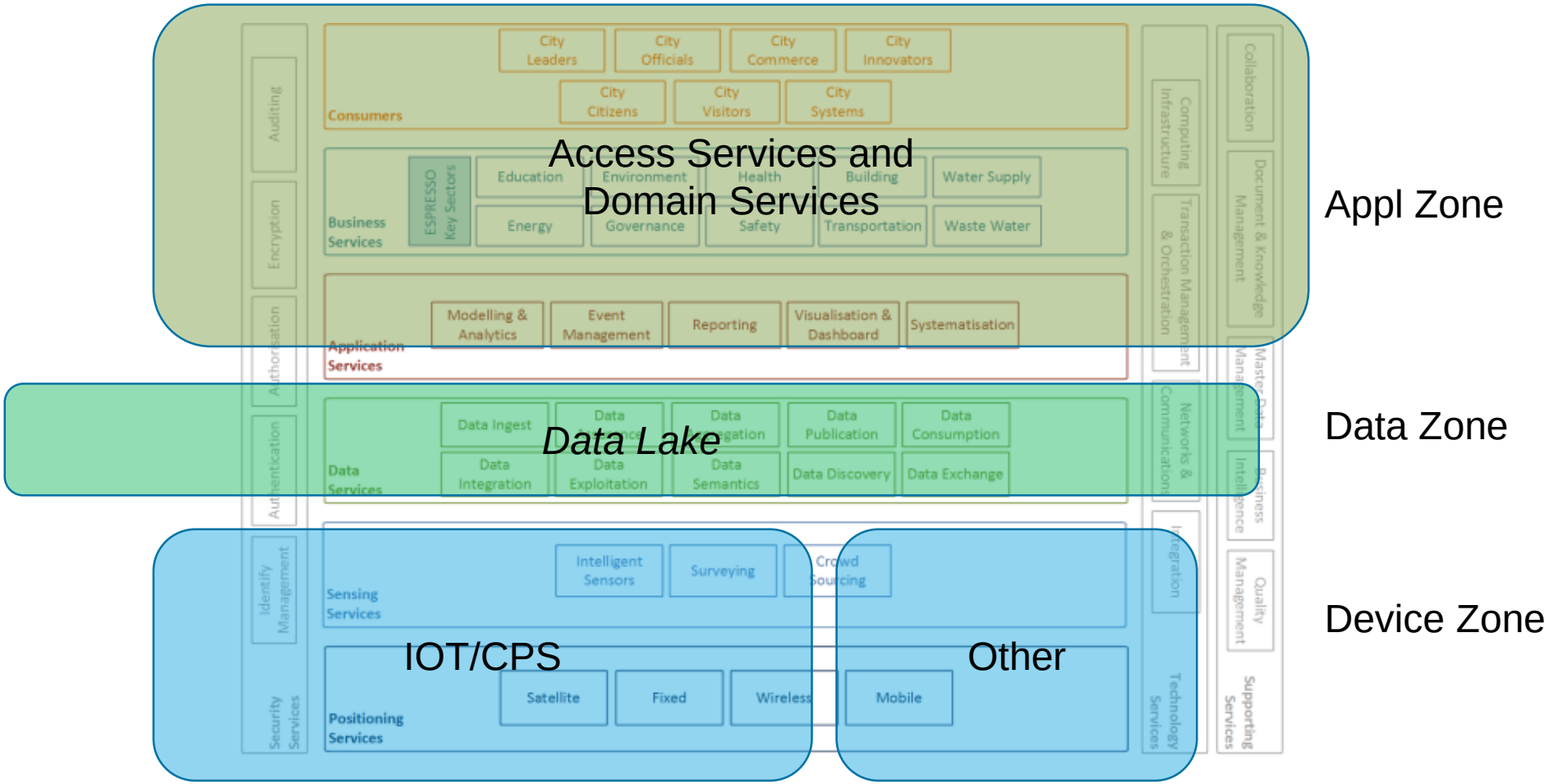
| | | | |
|---|---|---|---|
| **TS 103 463-2** | D1 | **DTS/ATTMSDMC-4** | |
| | | *WORKING TITLE* | *Global KPI Modelling for Sustainable Digital Multi Service Areas* |
| **TS 110 174-2-2** | D2 | **DTS/ATTMSDMC-5** | |
| | | *WORKING TITLE* | *Femtocell 5G connectivity on light poles* |

| | |
|---|---|
| *Milestone A* | **16th JANUARY 2019** |
| | **AGREEMENT OF SCOPES AND ToCS** |

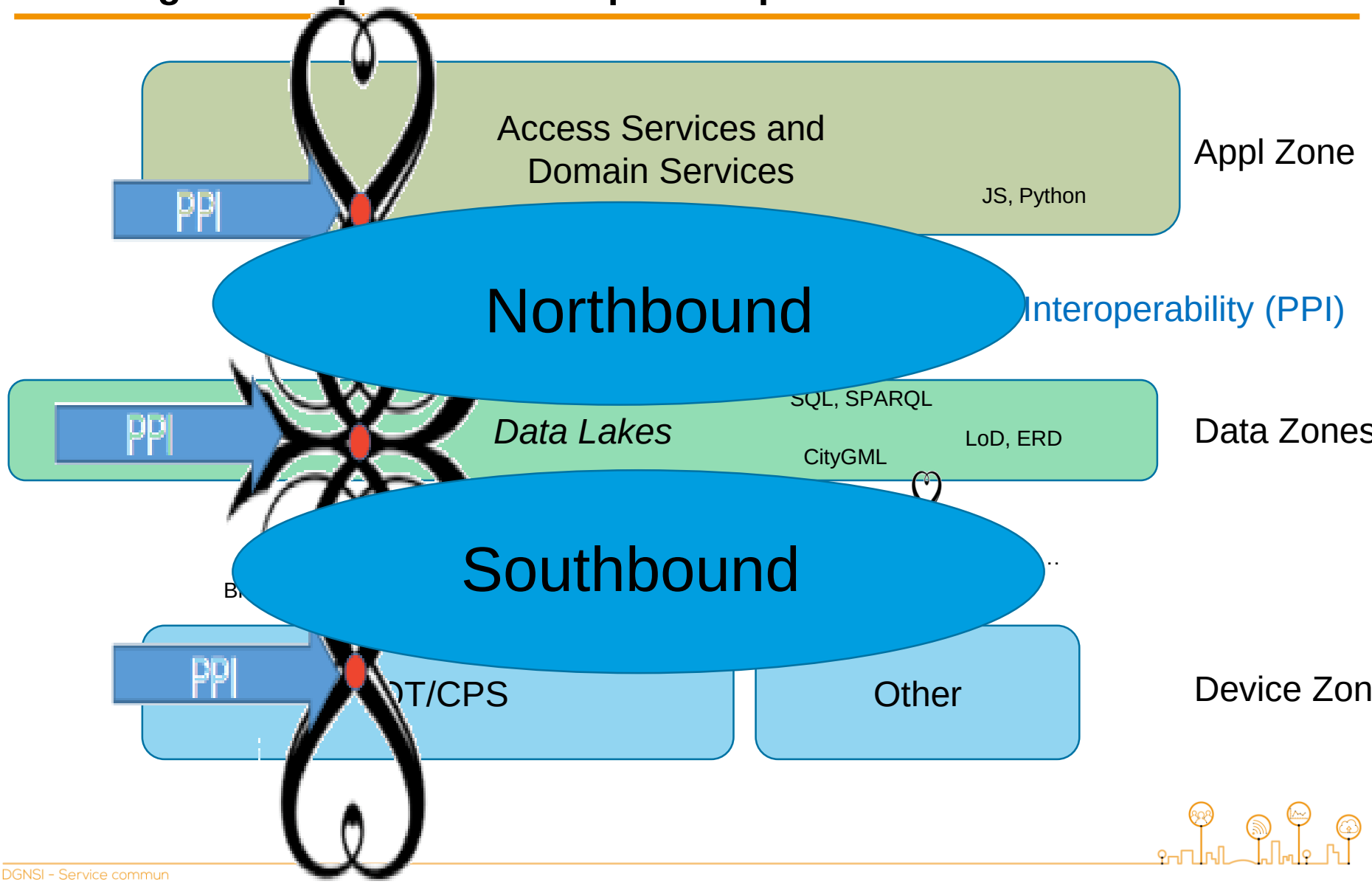
# Looking for an open and interoperable platform



# Looking for an open and interoperable platform



# Looking for an open and interoperable platform



# OneM2M a glu 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<br>• EV chargers<br>• Street access control management | • Energy management in public buildings<br>• Water, gas, electricity meters<br>• 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 a glu to fix the southbound layer interoperability issues







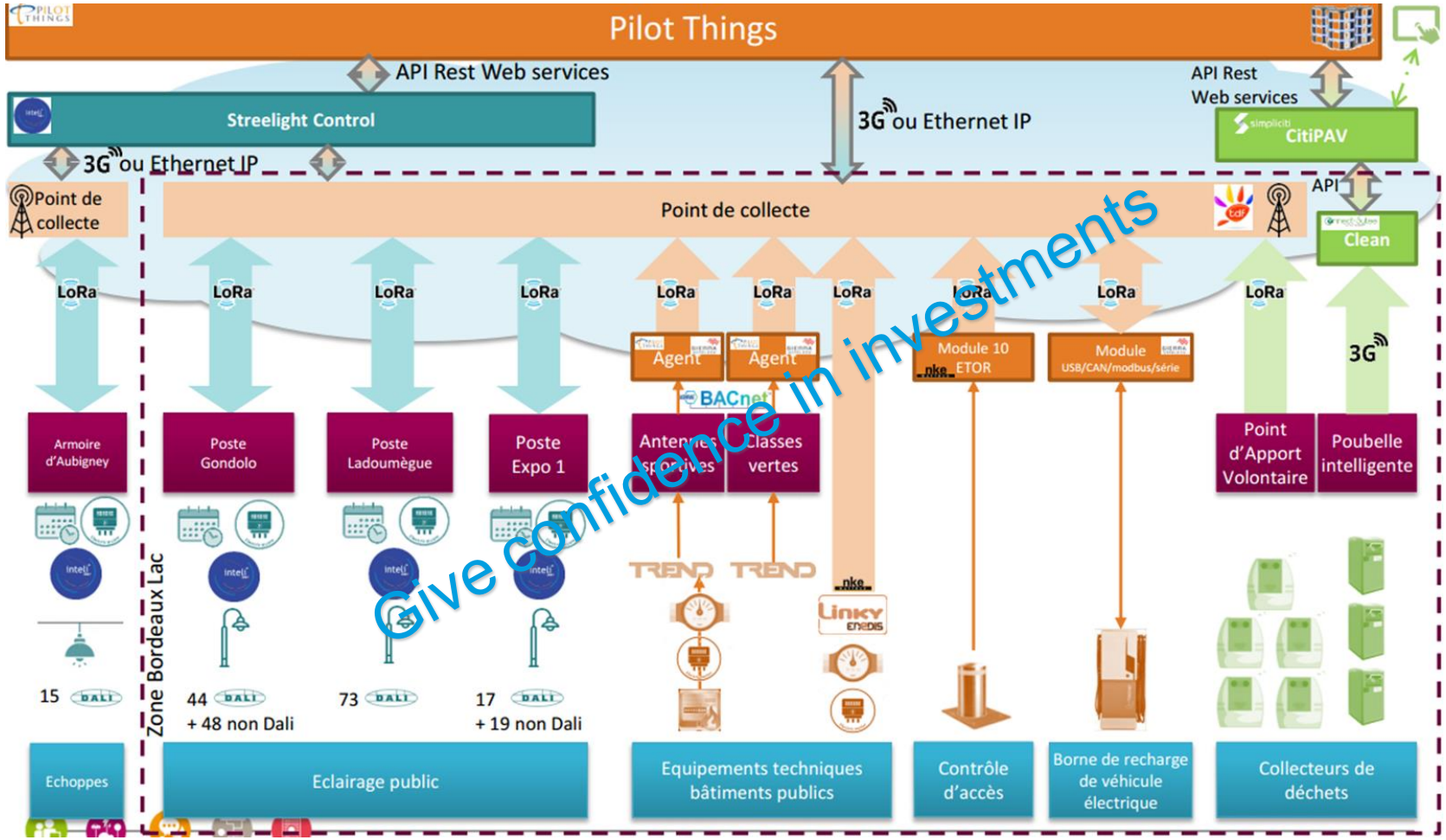


# OneM2M a glu to fix the southbound layer interoperability issues

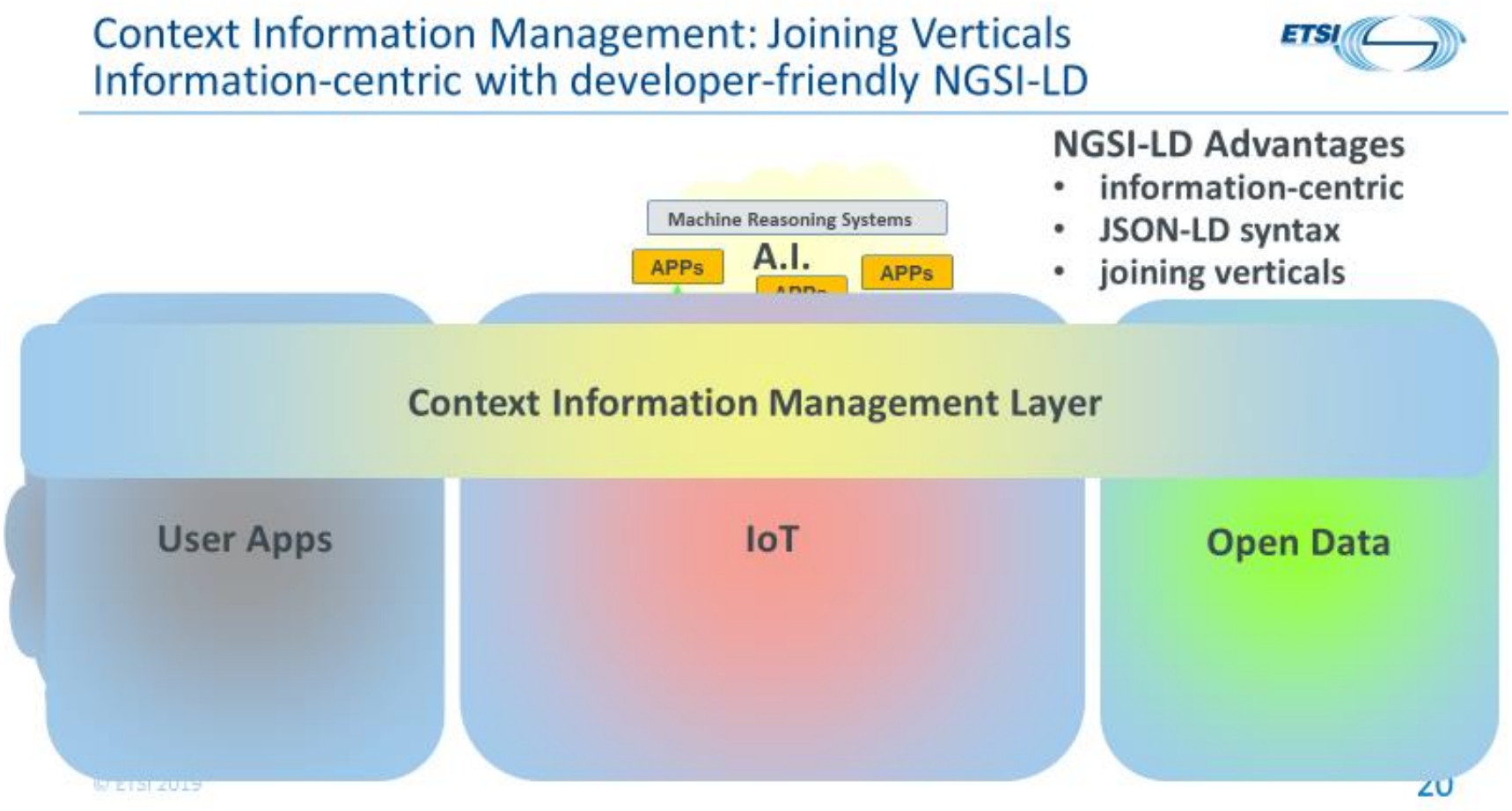

- The cheapest
- The best technical one and …

- **The only one compliant with OneM2M**

# OneM2M a glu to fix the southbound layer interoperability issues

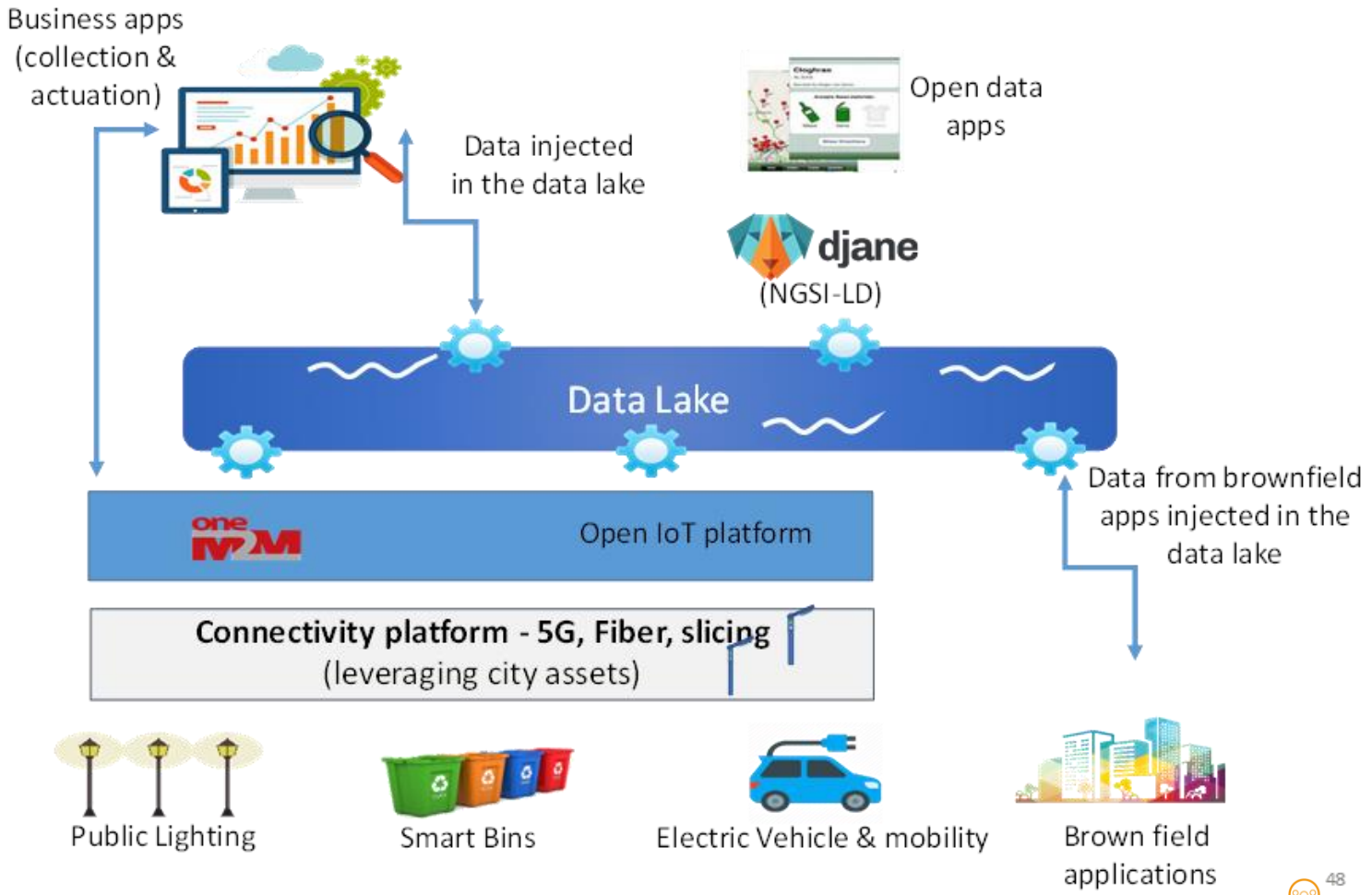


# What about the northband ? ETSI ISG CIM and NGSI-LD



# ASAP-VALUE to close the loop





# What's next in Bordeaux !

## Building a true multi-service network:

**To manage its own data (or responsibly manage citizen data),** data collection must rely a city-managed network, without the city necessarily being the owner of the network. Multi-service networks will also encourage smart city innovation by increasing the speed and cost-efficiency with which new ICT services could be introduced.

**Based on a combination of fibre and 5G**, to realise the 5G vision of enhanced mobile broadband, massive-scale Internet of Things and ultra-reliable and low latency communications for sectors such as healthcare or transportation.

**Using existing city's assets and furnitures to advocate a in favour of next-generation infrastructure 'as a service':** utilities, network operators and city administrations could enter joint ventures to share in infrastructure investment and the benefits to result from this investment. At a technical level, this would be materialized through the provisioning of network slices that could be reused by the different venture stakeholders (including the city).

https://lnkd.in/dx3CAHf to know more !

# Thanks for your attention

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