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Smart City IoT Convergence: Platform and Solutions Convergence & Interoperability

SPANISH CITY MODEL PLATFORMS

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Cabinet SESIAD

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CURRENT SITUATION

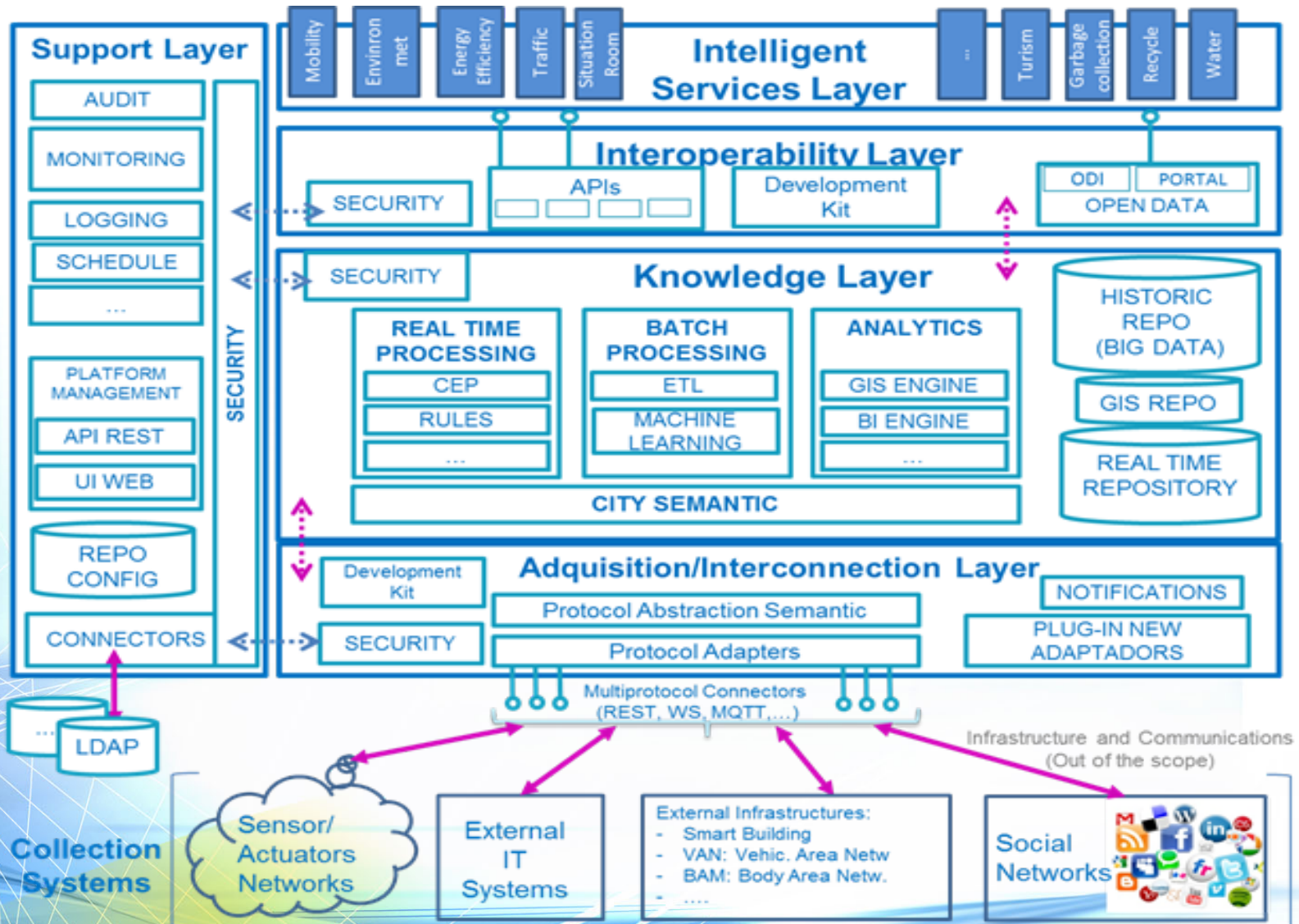
- **CHAOS OF PLATFORMS AND PROPIETARY SYSTEMS**
- **CHAOS IN SEMANTIC**
- **VERTICALS WITHOUT HORIZONTALITY.**
- **SERVICE NEEDS GO AHEAD OF STANDARDIZATION**

EVOLUCION

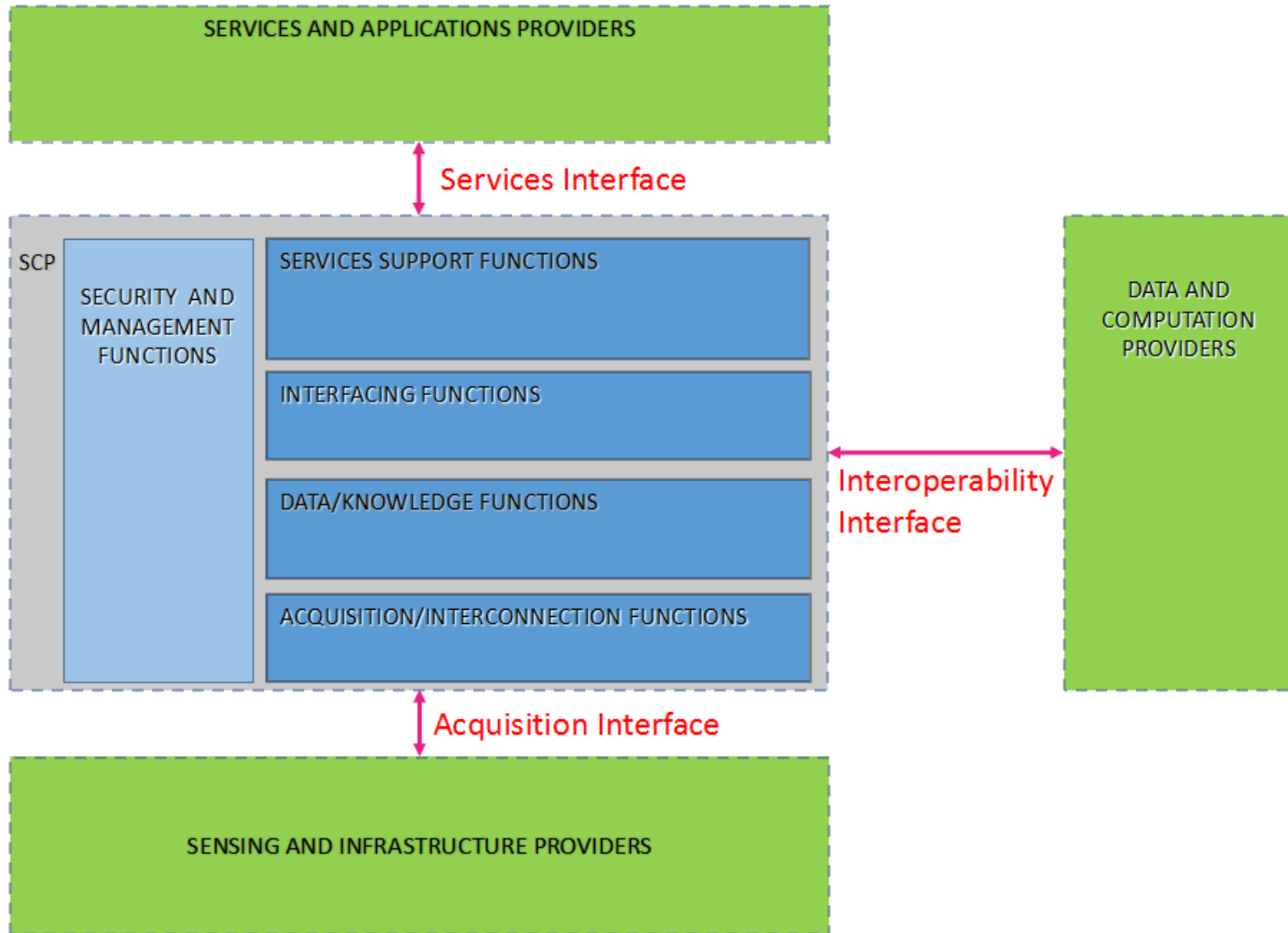
- **OPEN AND STANDARDISED PLATFORMS**
- **SEMANTIC RULES**
- **STANDARDIZATION: UIT, ISO, ETSI, TM FORUM,
ONEM2M...**

MODEL OF PLATAFORM APPROVED IN SPAIN

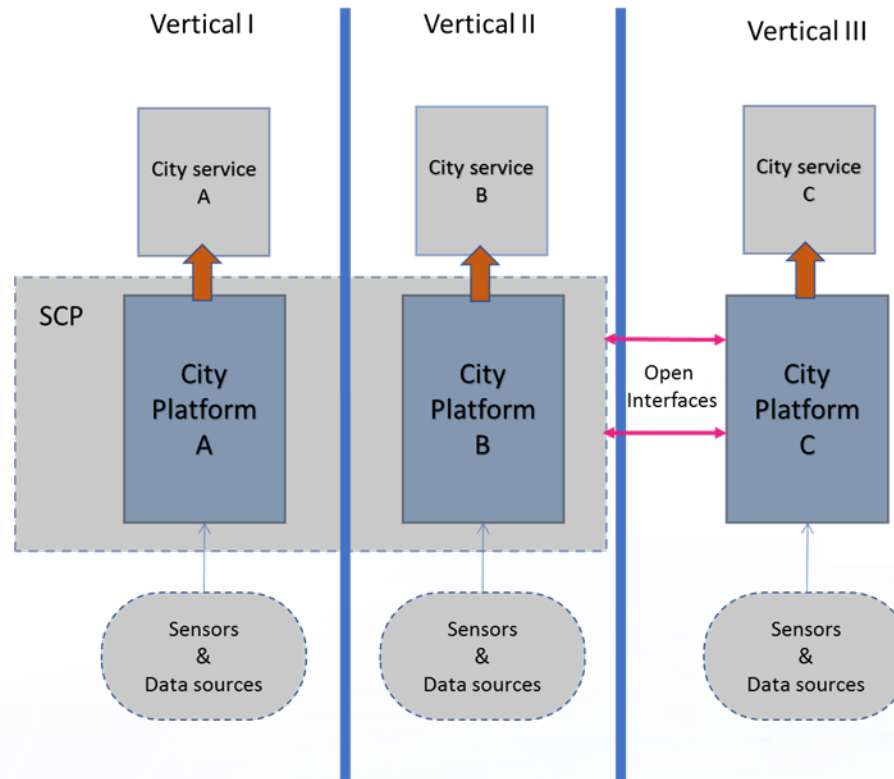
Approved as ITU-T Recommendations Y 4200 & Y4201

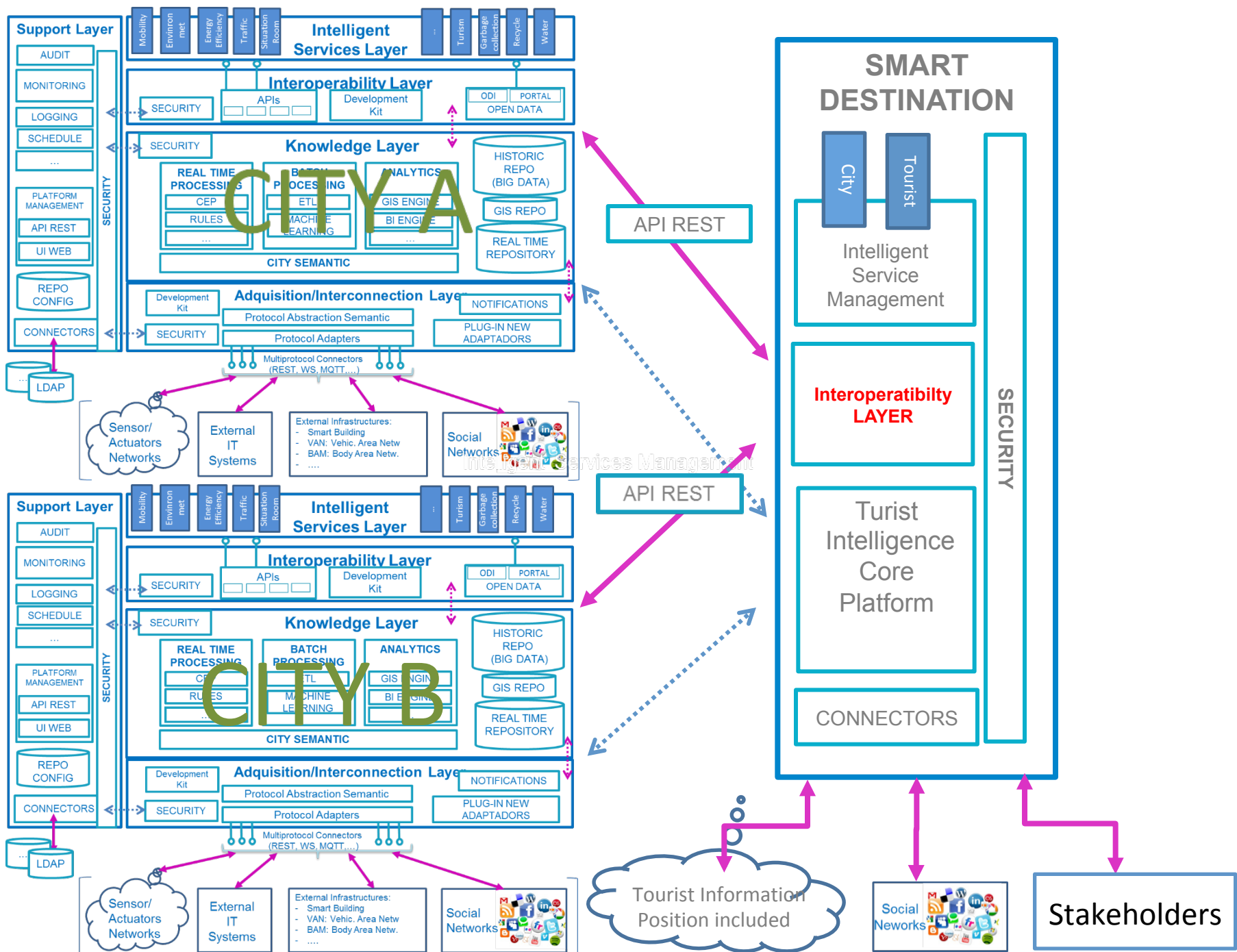


APPROVED BY ITU: ITU-T Y.4200 (ex Y.SCP)



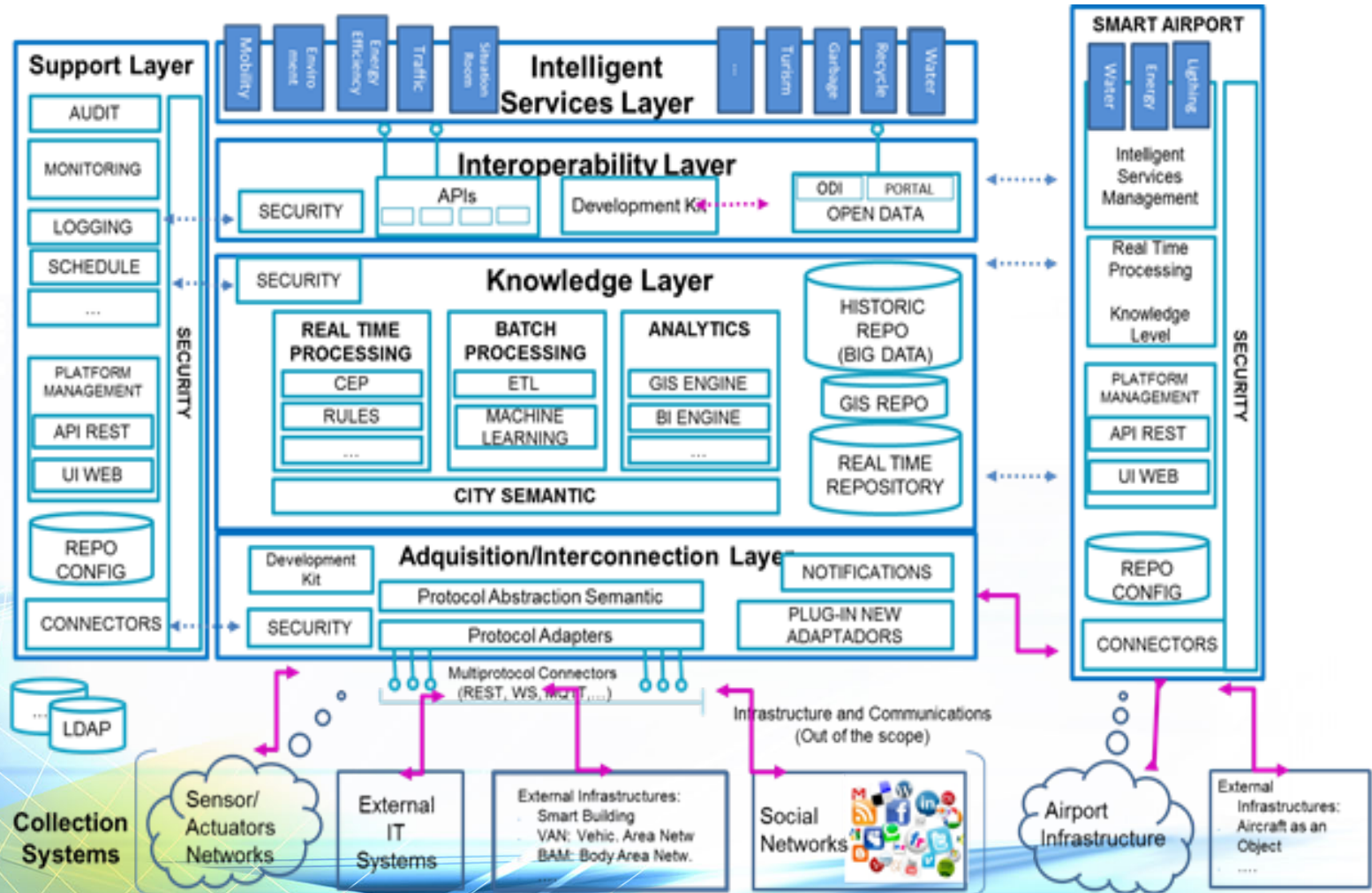
CREATING A SCP PLATFORM ITU-T Y.4200 (ex Y.SCP)



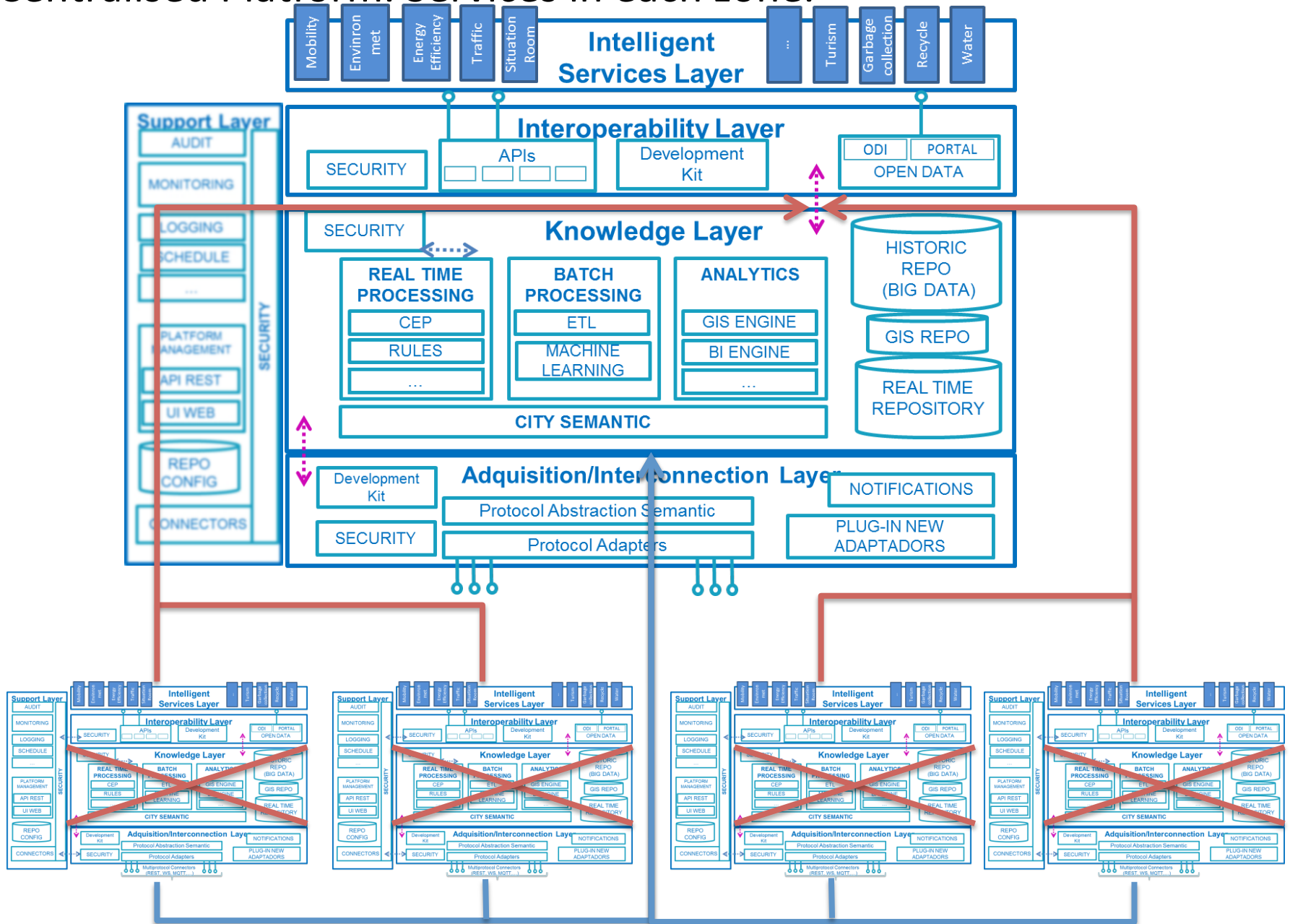


USE CASE: CITY CONNECTED TO PORT/AIRPORT

EXTERNAL PLATFORMS



Centralised Platform. Services in each zone.



DATA MODELS

- According to Sematic Rules
- Diagram of entities and attributes.
- **Ej Parking Harmonized Data Models:** Parking, museum, beach... linked
 - These data models are intended to model entities relevant for parking use cases in smart cities scenarios. When feasible these models reuse types, properties and enumerations from [DATEX II version 2.3](http://datexbrowser.tamtamresearch.com). A data dictionary for DATEX II terms can be found at <http://datexbrowser.tamtamresearch.com>.
 - Nonetheless, these data models are intended to NGSI-based systems and many simplifications has been made with respect to DATEX II version 2.3.
 - The main entity types identified are:
 - [OffStreetParking](#). An offstreet parking site with explicit entries and exits.
 - [ParkingAccess](#). An access point to an off street parking site.
 - [OnStreetParking](#). An on street, free entry (but might be metered) parking zone which contains at least one ore more adjacent parking spots.
 - [ParkingGroup](#). A group of parking spots. Granularity level can vary. It can be an storey on a parking garage, an specific area belonging to a big parking lot etc or just a group of spots, differentiated for an specific purpose (usage, restrictions, etc.).
 - [ParkingSpot](#). An individual, usually monitored, parking spot.

CONCLUSION

IF THE CITY PLATFORMS BECOMES:

OPEN AND STANDARDISED (ACCORDING TO ITU-T Y.4200)

WITH DATAMODELS ACCORDING TO SEMANTIC RULES

GOOD PLANS WITH INTELLIGENCE COULD BE DONE

Thanks for your attention