

In the framework of

SESEI



In association with



Confederation of Indian Industry

3rd Indo-European Conference on Standards and Emerging Technology

26th April, 2018 – New Delhi



SERVICE PLATFORMS MODEL FOR SMART CITIES. INTEROPERABILITY. BUSINESS MODELS

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GOBIERNO
DE ESPAÑA

MINISTERIO
DE ENERGÍA, TURISMO
Y AGENDA DIGITAL

ICT ON SERVICE CITY PLATFORMS

CURRENT SITUATION

CHAOS OF PLATFORMS AND PROPRIETARY SYSTEMS

CHAOS IN SEMANTIC

VERTICALS WITHOUT HORIZONTALITY.

SERVICE NEEDS GO AHEAD OF STANDARDIZATION

EVOLUTION: NEEDS

EVOLUCION: NEEDS

OPEN AND STANDARDISED PLATFORMS

SEMANTIC RULES

STANDARDIZATION: ITU, ISO, ETSI, TM FORUM, ONEM2M.....

SOLVING THE PROBLEM



SC 1, Infraestructuras

- GT 1, Redes de los Servicios públicos (RSP)
- GT 2, Despliegue de Infraestructuras TIC
- GT 3, Convergencia de los Sistemas de Gestión-Control en una Ciudad Inteligente
- GT 4, Sistemas integrales para una Ciudad Inteligente
 - Interoperabilidad de Plataforma de ciudad
 - Edificio inteligente
 - Estación inteligente
 - Semántica aplicada a Turismo
- GT 5, Accesibilidad universal

SC2, Indicadores y Semántica

- GT 1, Definición
- GT 2, Indicadores

- GT 4, Alumbrado exterior
- GT 5, Gestión en puertos inteligentes
- GT 7.1, Sistema de control de la contaminación atmosférica
- GT 7.2, Sistema de control de la contaminación acústica
- GT 7.3, Sistema de riego inteligente

SC 4, Energía y Medio Ambiente

Más de 700 expertos:

Administraciones públicas (local, central)
Industria (grande, pymes), patronales,
proveedores de servicios, dústers, colegios
profesionales, universidades...

CTN 178
Trabaja
en equipo



GT AD-HOC, Despliegue Internacional

- Laboratorio virtual
- Smart building (estación, puerto, aeropuerto, etc.)
- Vertical de smart destination
- Open Data
- U4SSC

SC 3, Movilidad y Plataformas de Transporte

- GT 1, Infraestructura de Recarga Inteligente de Vehículos Eléctricos
- GT 2, KPI para Logística Urbana o Distribución Última Milla
- GT 3, Movilidad accesible

SC 6, Gobierno y Servicios Públicos 4.0

- GT 1, Territorios Rurales Inteligentes: Definición, atributos y requisitos
- GT 2, Gestión inteligente de territorios rurales
- GT 3, Servicios Públicos 4.0
- GT 4, IoT aplicado a las Administraciones Públicas
- GT 5, Derechos de los ciudadanos
- GT, Datos Abiertos
- GT, Gestión de activos de la ciudad

SC 5, Destinos Turísticos

- GT 1-5, Sistema de gestión DTI
- GT 6, Indicadores y herramientas DTI

UNE
Normalización Española



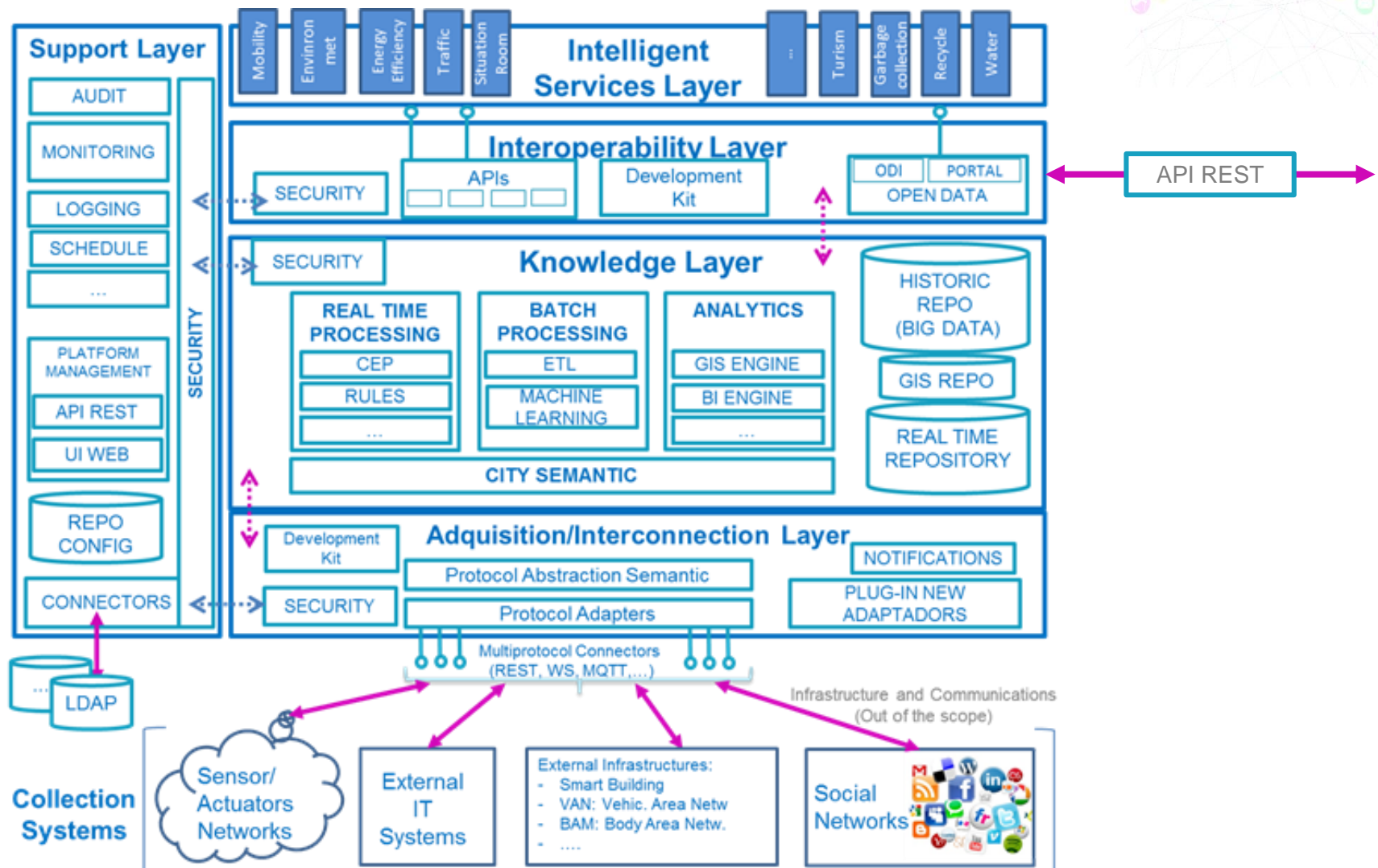
MINISTERIO
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Y AGENDA DIGITAL

SECRETARÍA DE ESTADO
PARA LA SOCIEDAD DE LA INFORMACIÓN
Y LA AGENDA DIGITAL

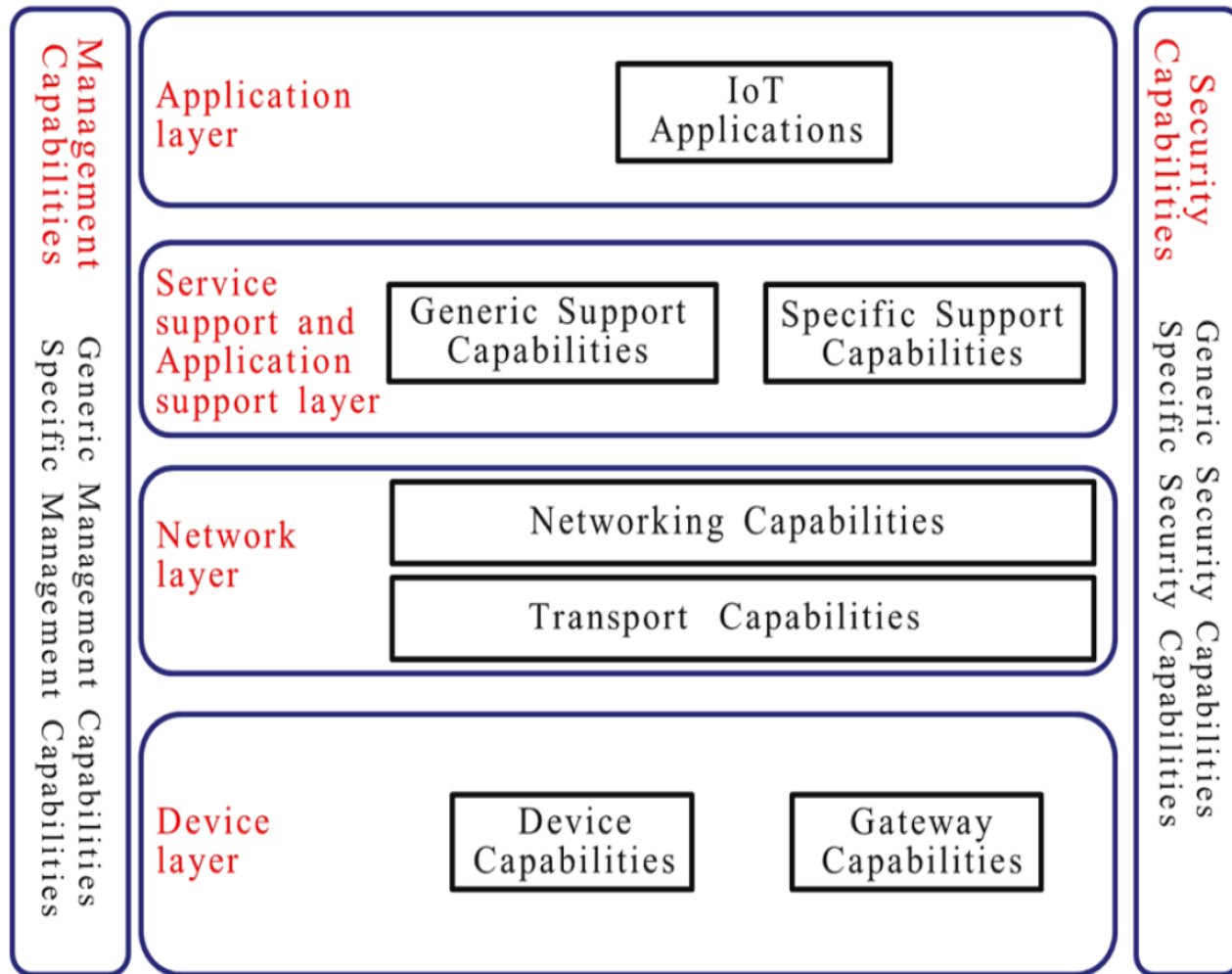
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SPANISH MODEL FOR SMART CITIES SERVICES PLATAFORMS



ITU IoT MODEL FOR SMART CITIES SERVICES PLATAFORMS

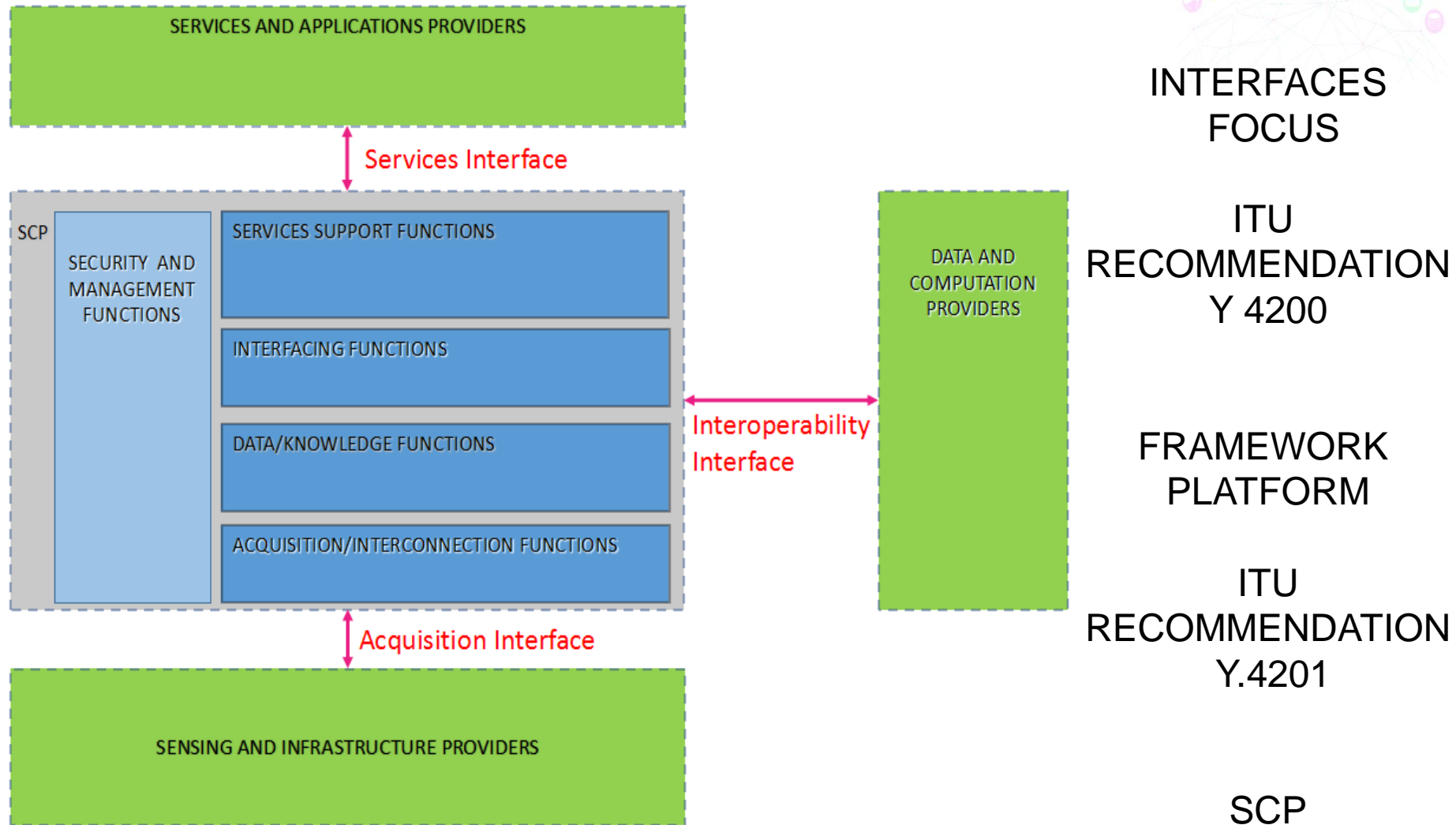


IoT FOCUS

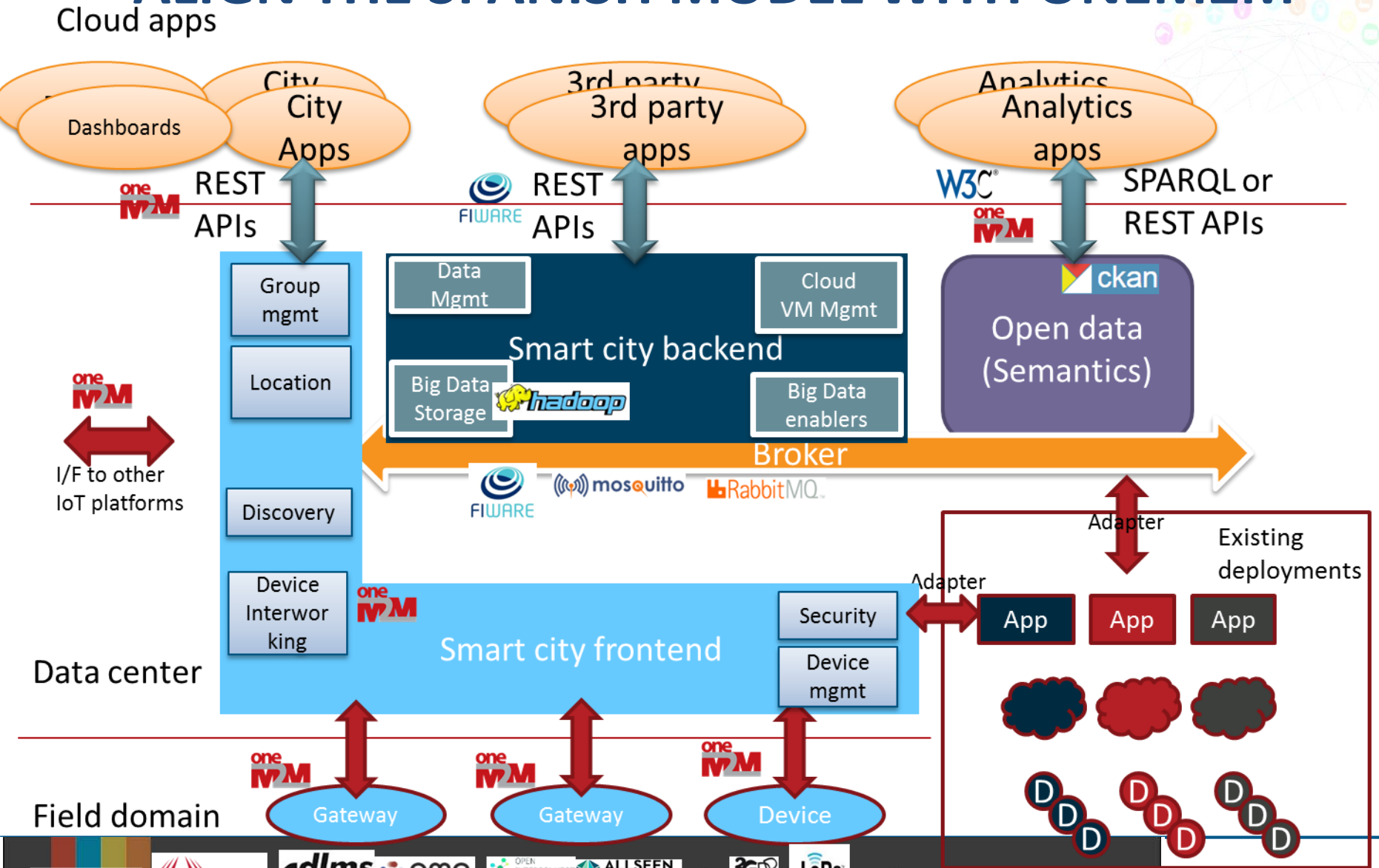
ITU
RECOMMENDATION
Y.2060

ITU MODEL FOR SMART CITIES SERVICES PLATAFORMS

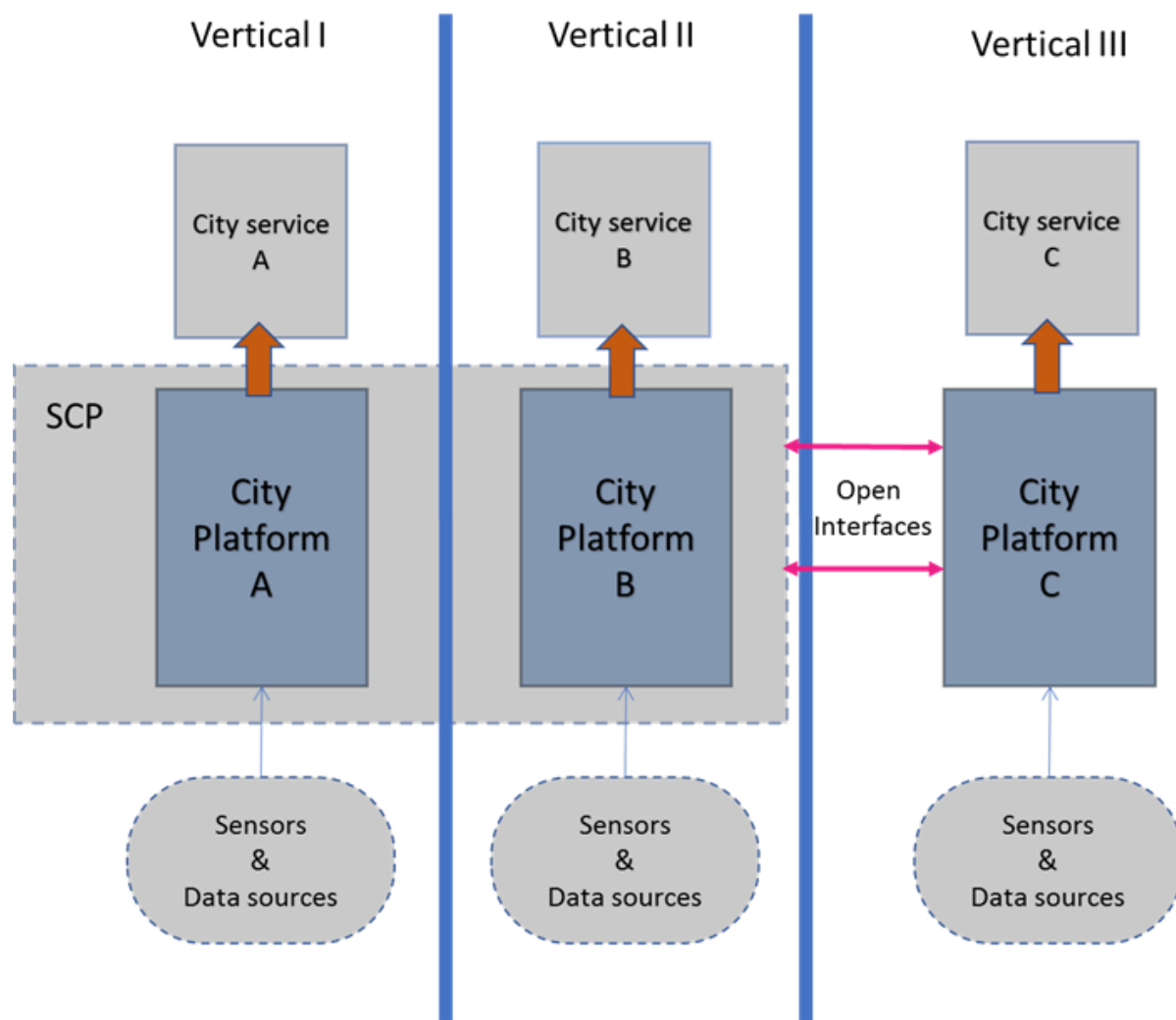
(Based on spanish model)



ALIGN THE SPANISH MODEL WITH ONEM2M



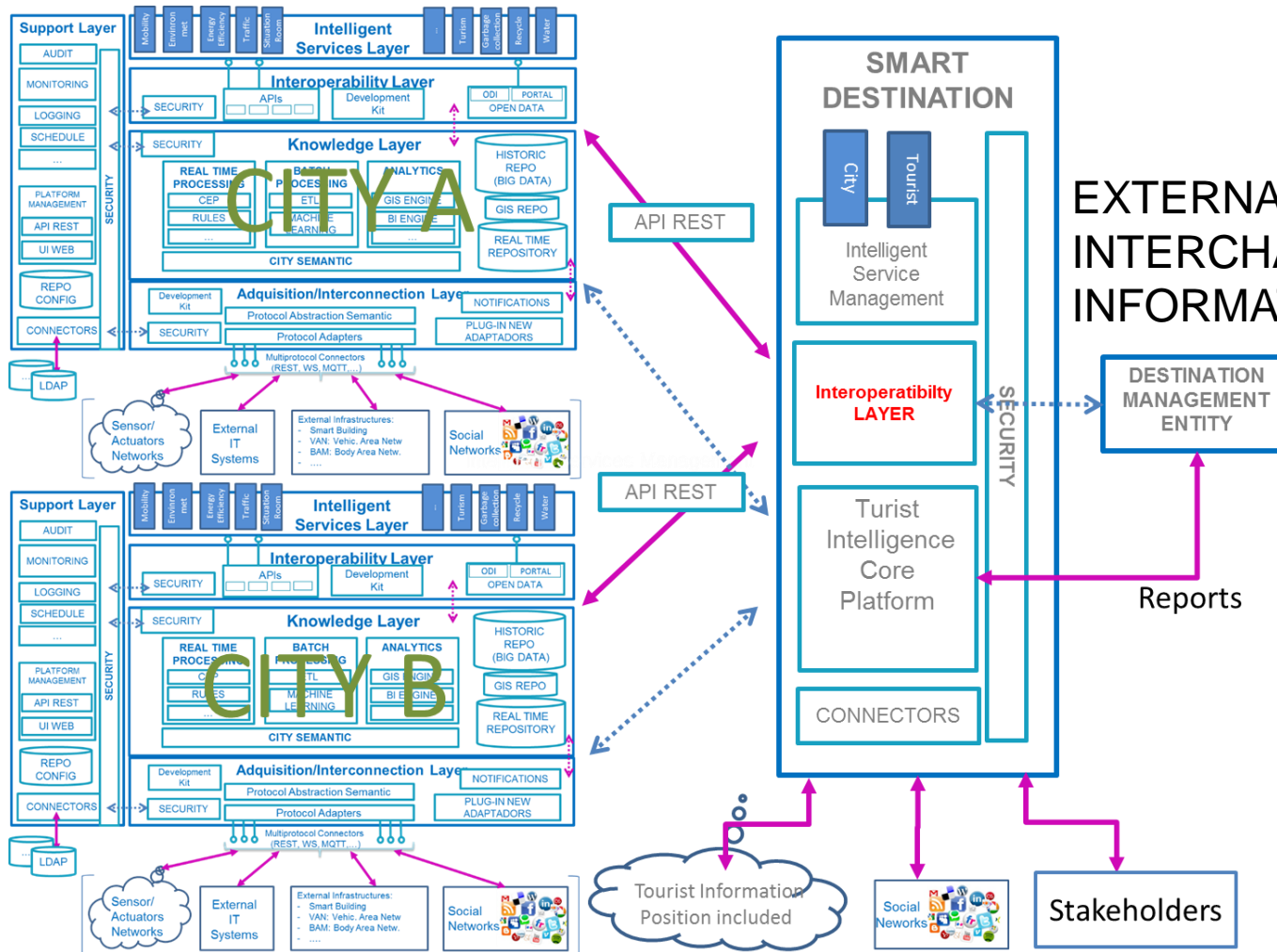
TRANSFORMING VERTICALS INTO SCP



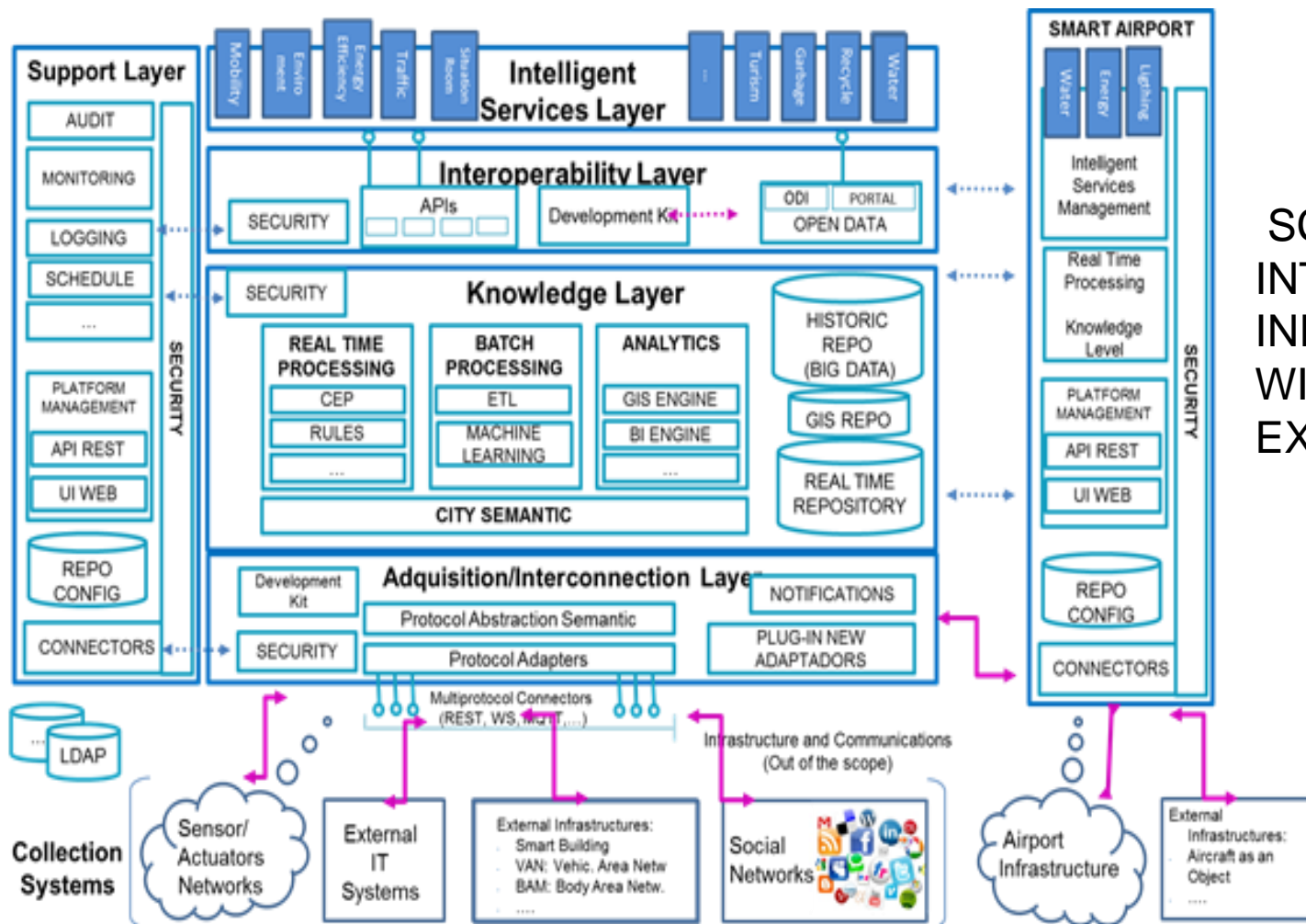
SCP
FULFILL
REQUIREMENTS OF
RECOMMENDATIONS

ITU-T Y. 4200
ITU-T Y. 4201

ADVANTAGES OF STANDARDISATION:

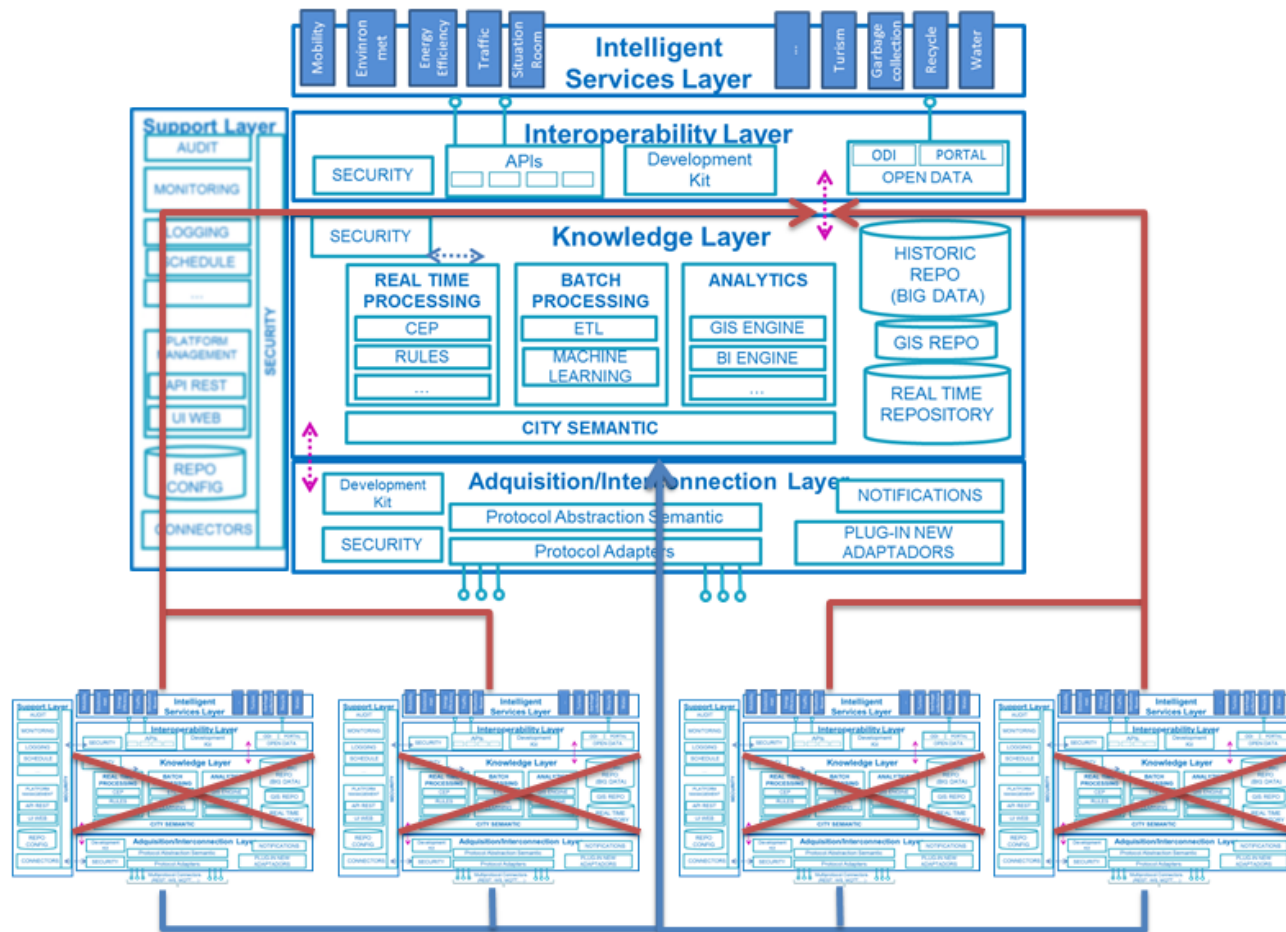


ADVANTAGES OF STANDARDISATION:



SCP
INTERCHANGING
INFORMATION
WITH
EXTERNAL PLATFORM

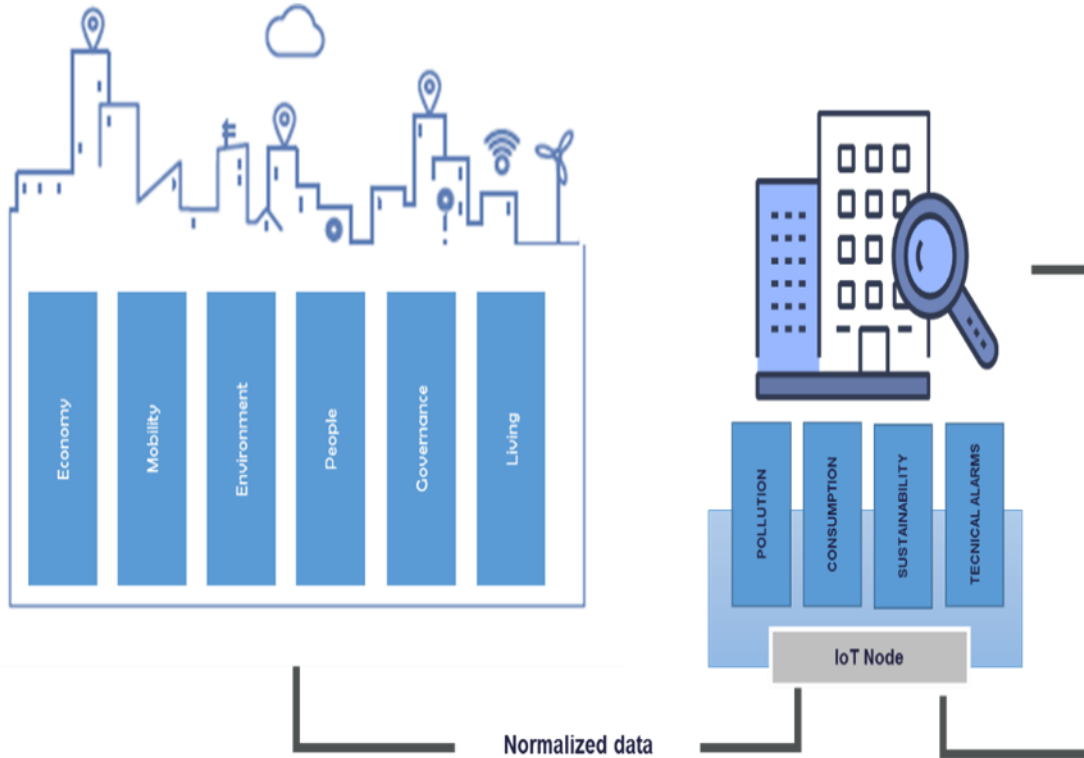
ADVANTAGES OF STANDARDISATION:



SCP
DISTRIBUTING
INFORMATION

RURAL
APPLICATION

ADVANTAGES OF STANDARDISATION:



SCP
RECEIVING

SMART BUILDING
INFORMATION

ADVANTAGES OF STANDARDISATION:



- **Pollution information:** The building can work as a powerful pollution sensor of air pollution levels (at street level and at roof level), noise pollution levels and water pollution levels.
- **Consumption public services:** The building is also an information unit that can give information about the consumption of the basic public services such as electric power, water, fuel gas and diesel. In the case of electric power, the building also provides information of the electric power generated by itself and its capacities of energy storage. This information will be used by the city to improve the power supply.
- **Events and Crisis Management:** From a reactive point of view, in a critical or anomalous situation (fires, occupancy levels, floods, gas leaks, spills of dangerous substances, level of CO2 in garages, etc.).
- **Seismic and structural stability information:** As a constructive element, the building is one of the most important elements in seismic risk management. It provides valuable information about structural stability by using types of sensors such as micro-electro mechanical sensors (MEMS), inclinometers, crack meters, temperature sensors for structures, etc.
- **Energy efficiency:** As a consumer, or producer and of energy manager, the building is a key element into the energy efficiency. It can provide valuable

information and can adapt its behavior to the needs.

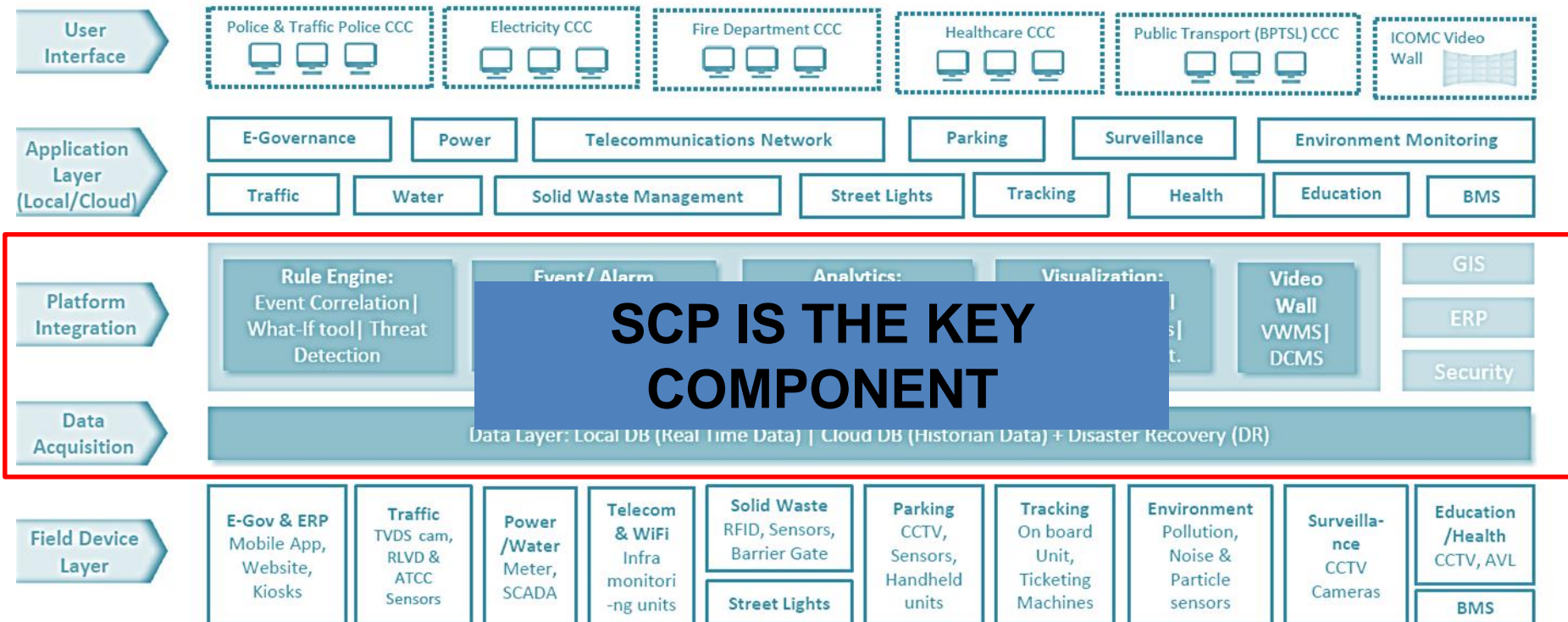
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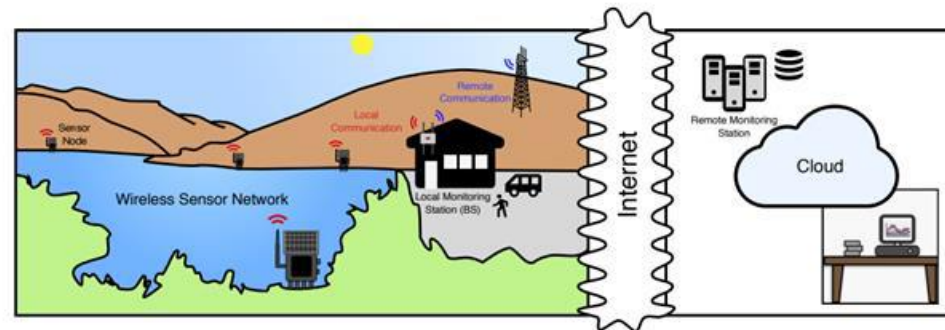
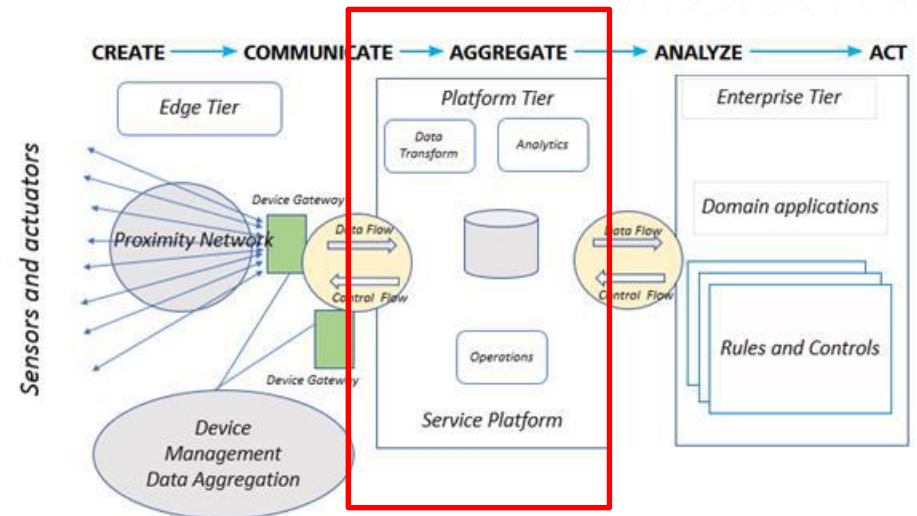
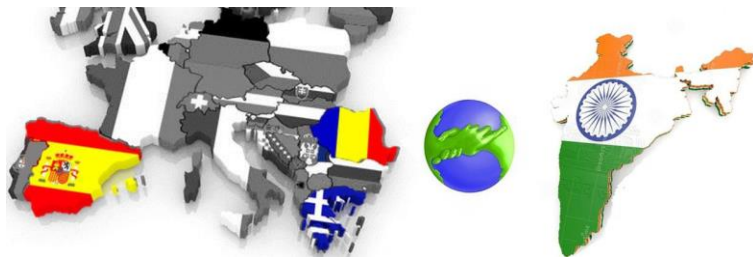
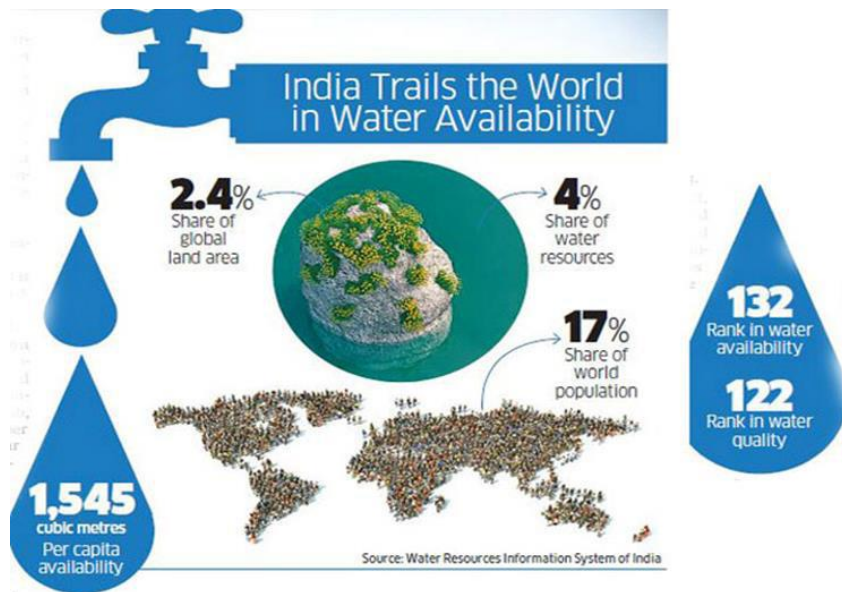
Smart City Project Scope



- Required SC components



Also Platform needs in other sectors: Water



EU-INDIA Water cooperation programm

CONCLUSION

IF THE CITY PLATFORMS BECOMES:

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

WITH DATAMODELS ACCORDING TO SEMANTIC RULES

GOOD BUSINESS PLANS WITH INTELLIGENCE

COULD BE DONE

Thanks for your attention

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