



Santander North of Spain



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SANTANDER



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ISAF SAILING
WORLD
CHAMPIONSHIPS

SANTANDER

Santander Smart City
Smart City Networks



SANTANDER
STRATEGIC
PLAN 2010 - 2020



MASTER
PLAN FOR
INNOVATION

3

Main Axes



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Santander Smart City
Smart City Networks

- 
- 1 Santander Smart City**
 - 2 Santander Open Innovation**
 - 3 Public Administration Modernization**



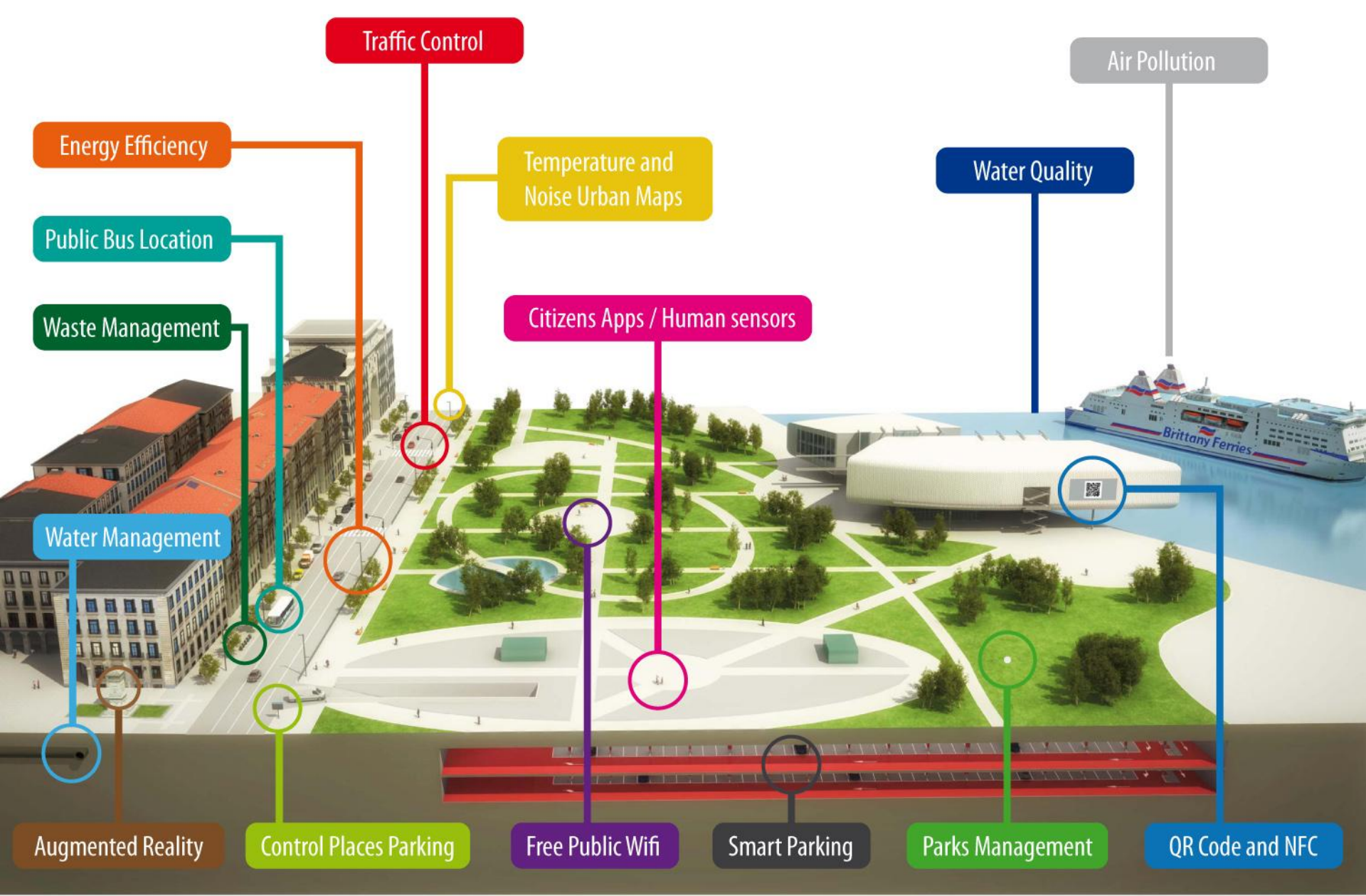
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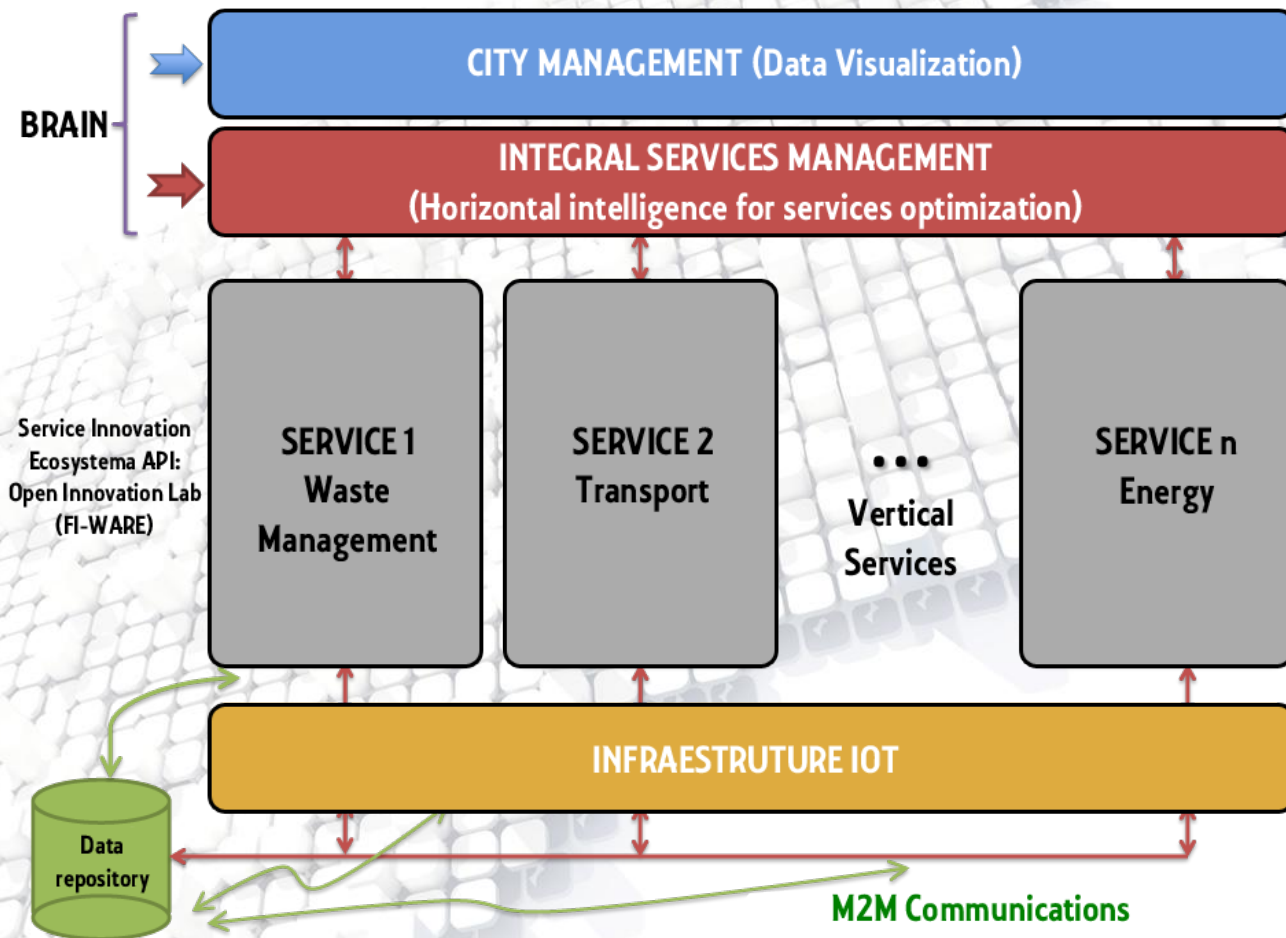
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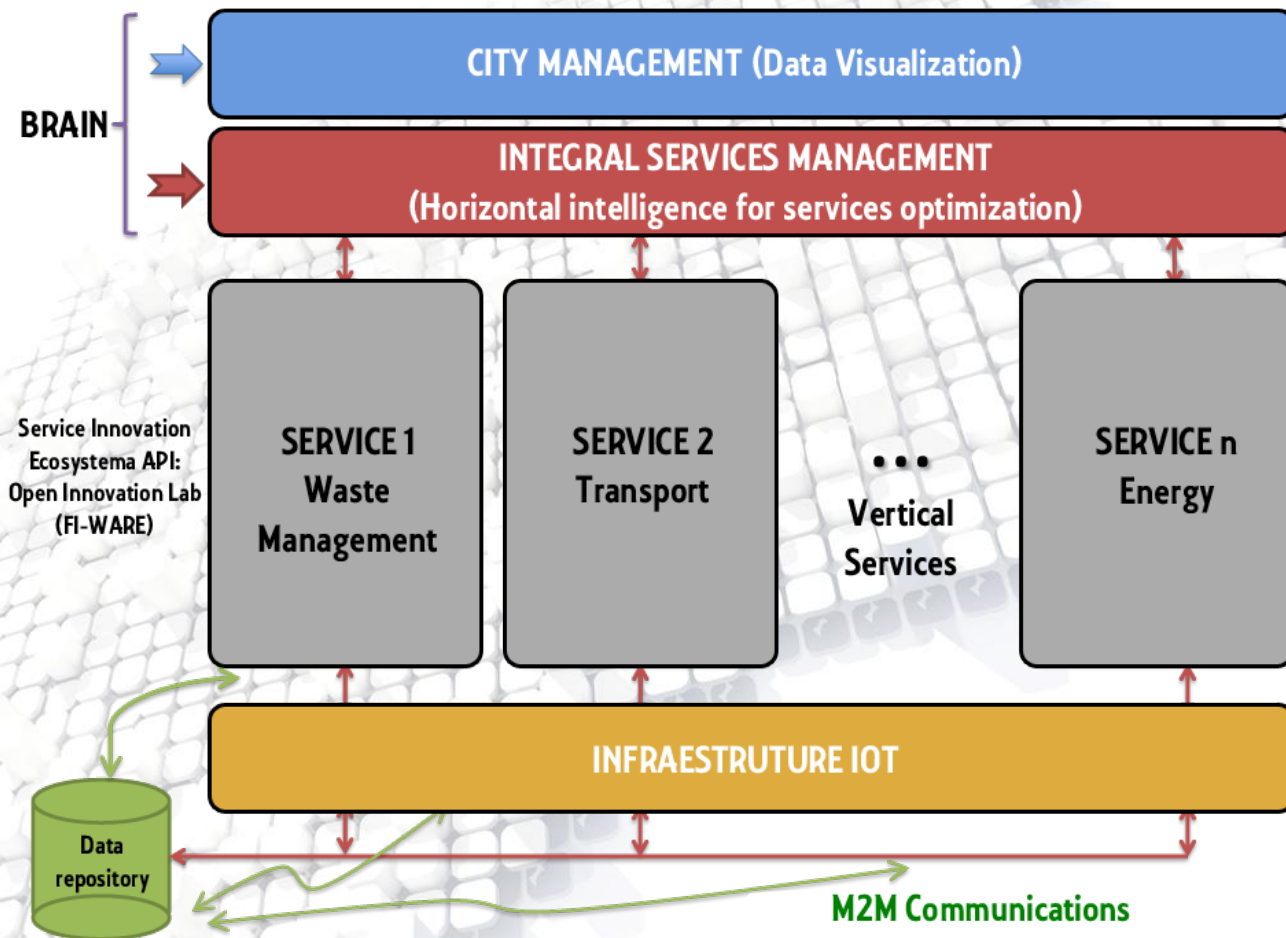
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SmartSantander Project

City-scale experimental research facility in support of typical applications and services for a smart city.



Telefónica

ERICSSON

UC

LANCASTER UNIVERSITY

LANCASTER UNIVERSITY

UNIVERSITY OF SURREY

CECI

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UNIVERSITY OF MELBOURNE

20.000

IoT devices

TARGETING:

- Researchers
- End Users
- Service Providers

DURATION:

- 36 months

CONSORTIUM:

- 15 Organizations
- 8 UE Countries + AU

BUDGET / FUNDING

- 8.6M€ / 6 M€

RESOURCES

- 746.2PM



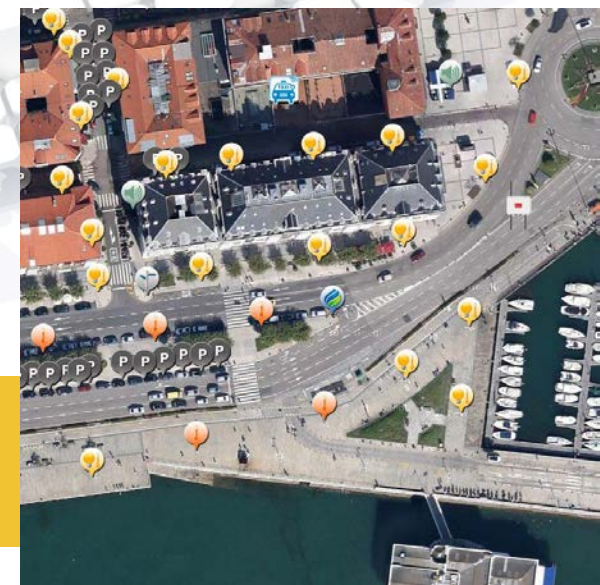
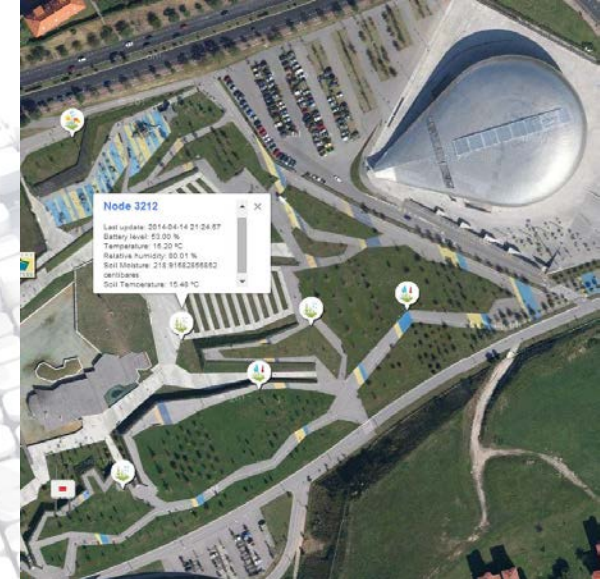
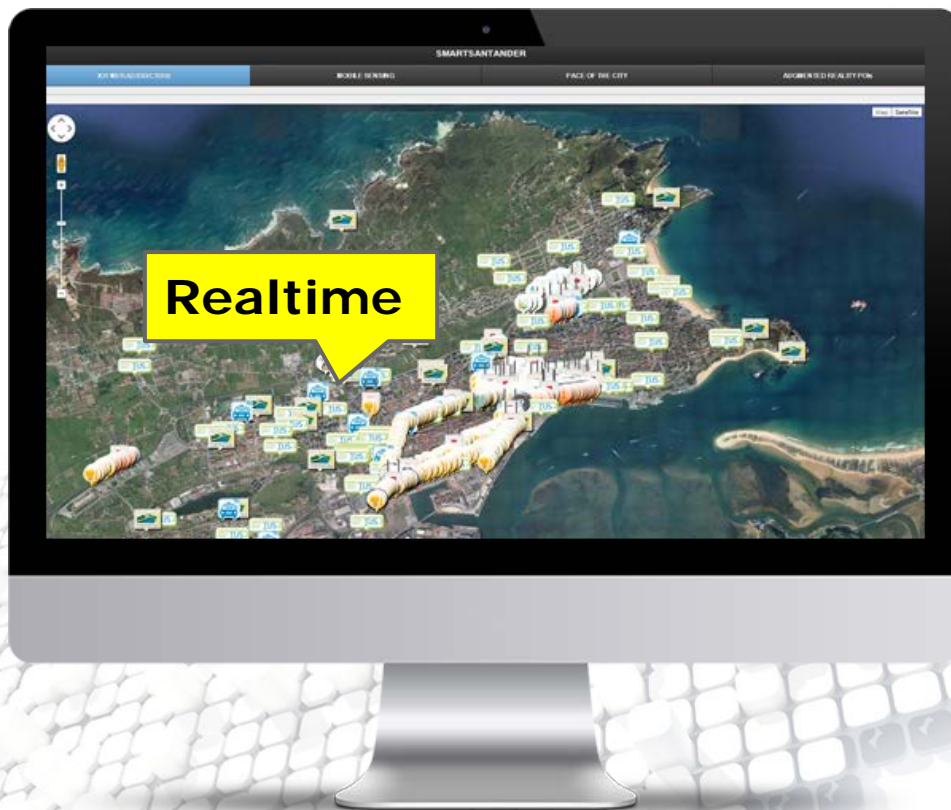
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IoT Facility

Internet of Things technology is the pillar for future developments, services and applications of the Smart City

<http://maps.smartsantander.eu/>



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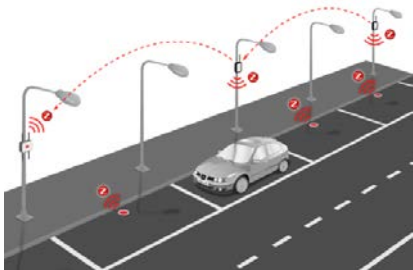


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Different Sources of Information



Fixed sensors



Mobile sensors



QR Code and
NFC
technology
stickers



Citizens Apps
-
Human sensors



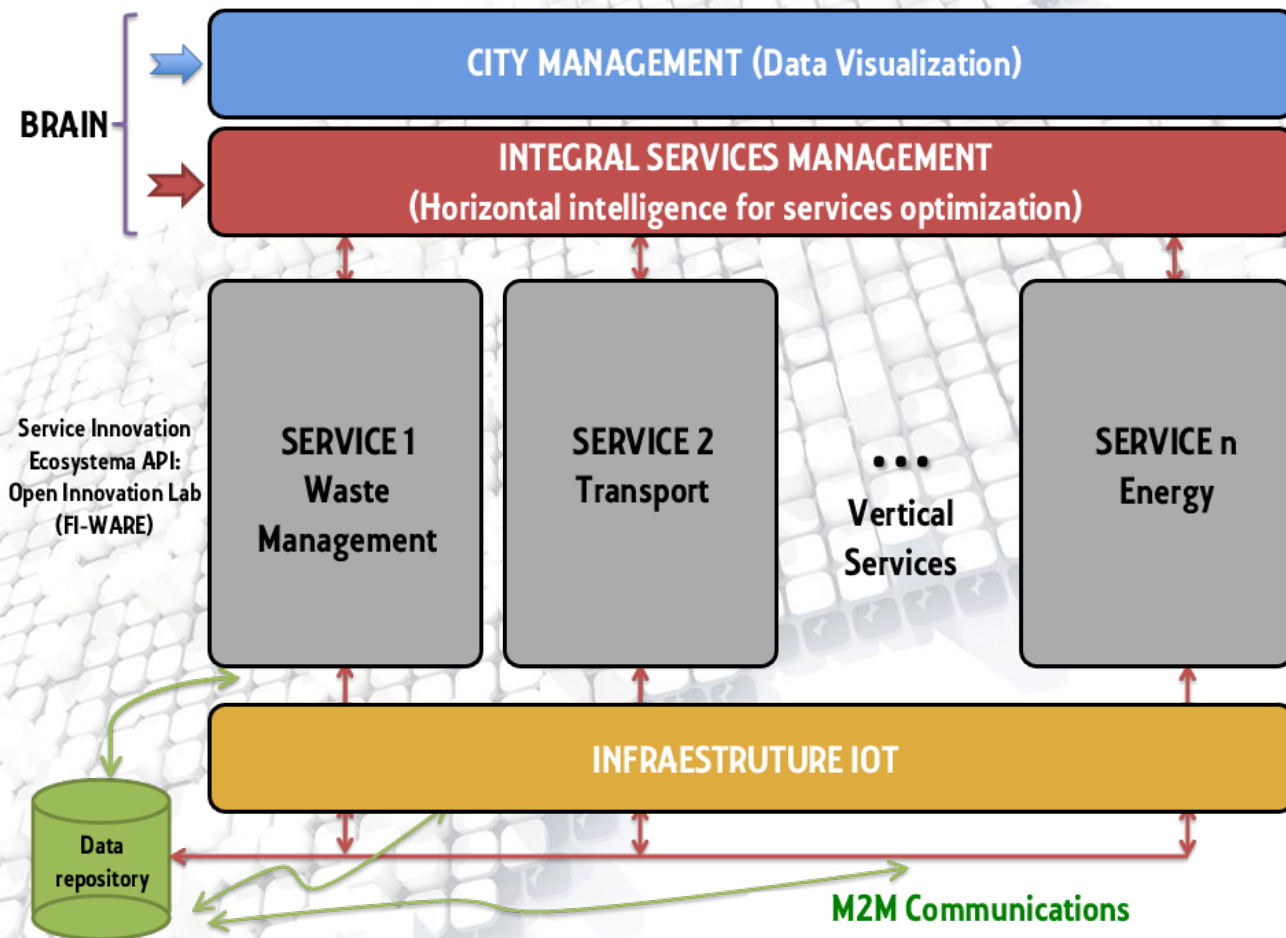
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Urban Waste Collection and Management Service



Sensors capable of measuring garbage levels in bins

System for identification and monitoring litter bins

Fleet Management Systems



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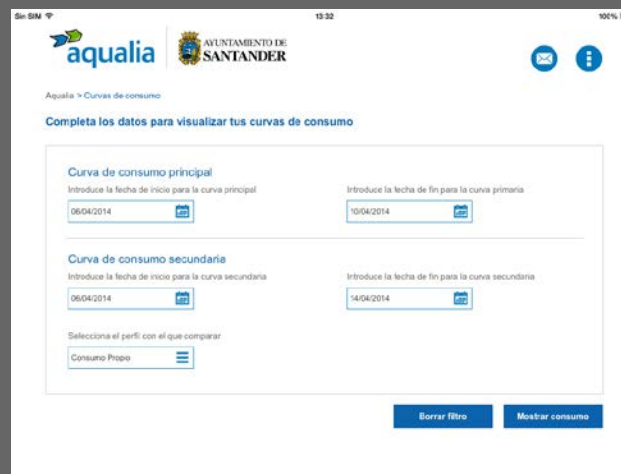


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Smart Water Management



- Events reporting
- Tools for accessing to individual water usage consumption
- Linked to Aqualia company means:
 - Virtual Office
 - Client Customer Office
- Tools for reporting incidences on the network



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Energy Efficiency



Energy audits will be carried out in:

- Municipality buildings
- Libraries
- Education centres
- Public sports facilities
- Street lighting



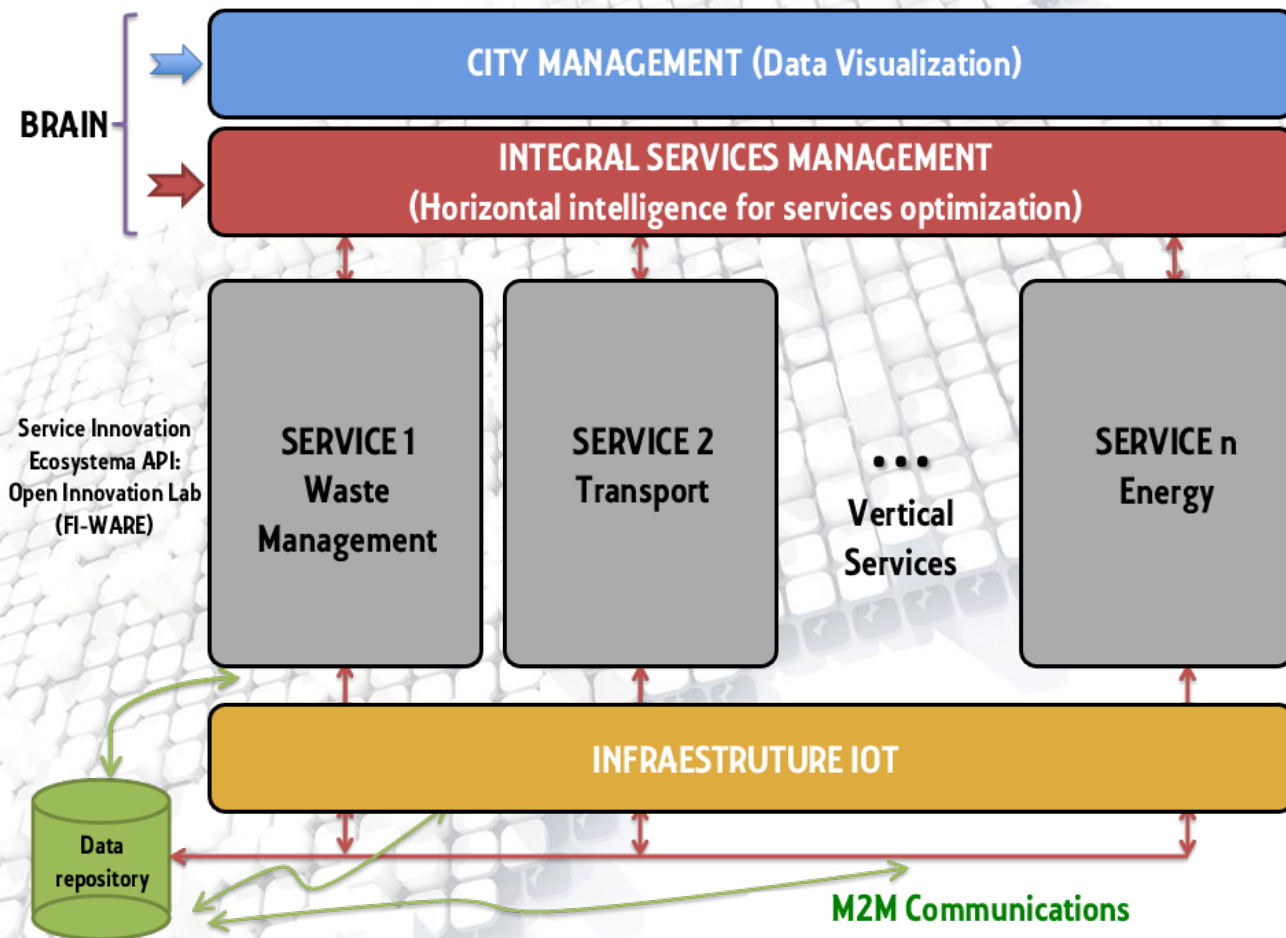
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Flotas

Vehiculos **Zonas**

MOBA-ISE (3/3)

- Furgonetas (4/4)
 - Citroen Berlingo
 - VW Caddy 5007CXL
 - VW Caddy 8106HPF
 - VW Transporter
- Limpieza Varia (1/1)
 - E8524BDZ
- Recogida (3/3)
 - 3623-GND
 - 5765-MBA
 - 8033-BCZ

Buscar

- Centro de Informes
- Mobiliario urbano
- Incidencias
- Mantenimiento
- Planificación de Rutas
- Personal
- Panel de Control

Mapa

Localidad
Santander

Google



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CITIZENS ENGAGEMENT



**Santander
City Brain**



**Smart Santander Centre
for Demonstrations and
Entrepreneurship**



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Examples



SmartSantanderRA



Pulso a la Ciudad

SANTANDER AL MÓVIL

Santander al móvil

Medicitas, El Paso, SmartSantander RA, Santander Visual, Pulso de la Ciudad

Santander reúne todas sus aplicaciones móviles gratuitas en una sola
Las futuras app's se cargarán automáticamente en **Santander al móvil** sin necesidad de preocuparte por buscarlas

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Santander City Brain

Online free platform for citizens participation
by sharing ideas, or by voting and
commenting on ideas shared by others

<http://www.santandercitybrain.com/>



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Smart Santander Centre for Demonstrations and Entrepreneurship



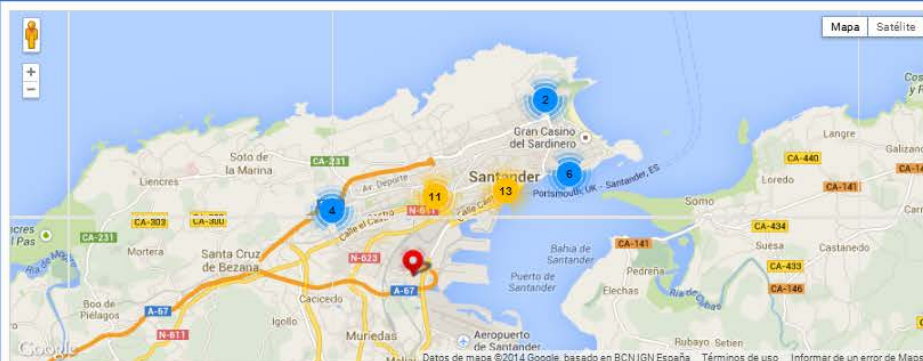
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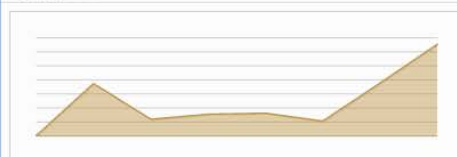
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MAPA DE PARADAS DE TAXI

★★★★★



POBLACION POR DISTRITOS

★★★★★



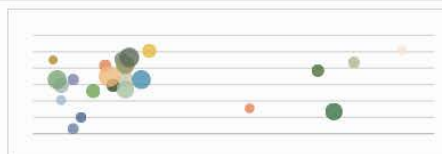
PH MEDIO DEL AGUA

★★★★★



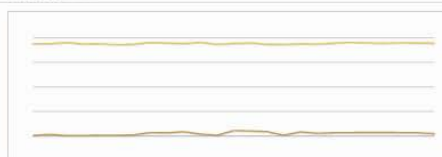
PH MEDIO POR PUNTO DE MUESTREO

★★★★★



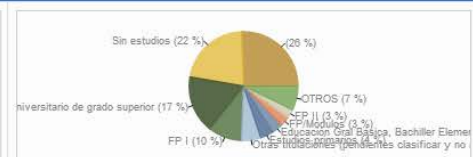
CONDUCTIVIDAD / PH / TURBIDEZ

★★★★★



VARIACION DEL PH Y TURBIDEZ EN MARZO (SALIDA DE LA PLANTA)

★★★★★



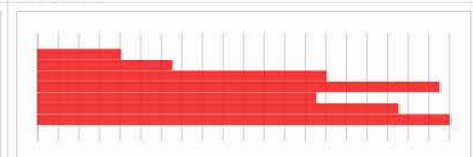
TITULACIONES REQUERIDAS EN LAS OFERTAS DE EMPLEO

★★★★★



MAPA DE PARADAS DE AUTOBUS

★★★★★



NUMERO DE EMPADRONADOS POR MES EN EL EJERCICIO 2013

★★★★★

PARTICIPA



APP

Comparte tu aplicación que usa nuestros datos



IDEAS

¿Tienes una idea de cómo aprovechar mejor nuestros datos?



SOLICITUDES

Seguro que hay otros datos que te gustaría que compartamos

Open Data Santander

Data catalogues are available for citizens and companies, enabling new business models and promoting the development of services and applications.

<http://datos.santander.es/>



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**European
Network of
Living Labs**

The European Network of Living Labs

**Santander, urban laboratory
for national and international initiatives**



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SMARTSANTANDER Project

20,000 sensors deployed in the city for applications of street lighting, energy monitoring and control, waste management, parking space finder, environmental monitoring

OUTSMART Project

The adoption of FI enablers within the utilities infrastructure for the provision of Smart City services. In particular, a smart street lighting

BUTLER Project

IoT major challenges are, from a systemic viewpoint, smart resource management and digital security; and from a user/service perspective

SMART Project

SMART will introduce a holistic open source web-scale multimedia search framework for multimedia data stemming from the physical world

BURBA Project

It proposes an innovative method of optimization of the waste management through the application of RFID and LBS technologies integrated into an intelligent waste container (IWAC) of 600/1200 liters of capacity for its use in densely populated areas.

CLOUT Project

ClouT will provide infrastructures, services, tools and applications that will be reused by different city stakeholders such as municipalities, citizens, service developers and application integrators, in order to create, deploy and manage user-centric applications taking benefit of the latest advances in internet of things and cloud domains

LEXNET Project

The LEXNET supports the development of future network infrastructures that allow the convergence and interoperability of heterogeneous mobile, wired and wireless broadband network technologies as enablers of the future Internet.

RADICALProject

It will ease the fast creation of interoperable and socially-aware services, by leveraging Internet of Things and Social Networking technologies, emerging from the results of four R&D EU-funded projects: SmartSantander, BonFIRE, SocloS, and +Spaces

SOCIOTAL Project

It aims to design and provide key enablers for a reliable, secure and trusted IoT environment that will enable creation of a socially aware citizen-centric Internet of Things by encouraging people to contribute their IoT devices and information flows

MOBIWALLET Project

MobiWallet project aims to make use of Smart mobility partnerships and demonstration projects (pilots) for sustainable urban transport solutions based on interoperable fare management, demonstrating the benefits of a unified platform that can cope with the payment schemes of a varied range of transport operators

CLPS Project

The main idea of CLIPS is to provide to the community a methodology and a toolkit which allow civil servants and other external stakeholders (both citizens and businesses) to co-operate in the conceiving and the development of new cloud-based services, starting from a set of basic micro-services already available in the "cloud"

Funding: More than 47M€

Building Effective

PUBLIC PRIVATE PARTNERSHIPS



FI-WARE is developing a core platform that eases the creation of innovative applications by lowering the costs and complexity of serving large numbers of users globally and handling data at a large scale.

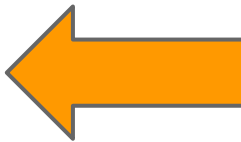
EXAMPLE

Centro de
Investigación Ciudades
Inteligentes



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RECI

Spanish Network of Smart Cities

<http://www.redciudadesinteligentes.es/>



49 CITY MEMBERS

Main goal

To promote the economic growth, social development and new business models within the cities through the innovation.

Objectives

Sharing experiences.

To strengthen mutual cooperation.

Identify synergies and developing new smart innovation strategies.

To implement and develop new policies based on technological development.



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