

# SmartSantander: Towards the Smart City Paradigm

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Smart City/Smart Home in the aspect of R&D/Demonstrations/Standardization  
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AYUNTAMIENTO DE  
**SANTANDER**



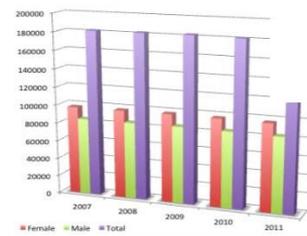
# Santander as a glance

- Situated on the north coast of Spain, Santander is the capital of the Region of Cantabria.
- Santander has about 180,000 permanent inhabitants spread in around 33 Km<sup>2</sup>.
- Lively economy based on the service sector. Municipality is focusing efforts to drive economy to new directions based on the innovation and knowledge.

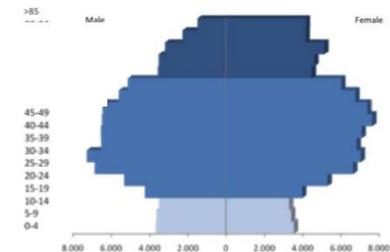
LOCATION



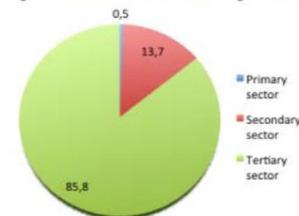
Demographic evolution



Population by age and sex

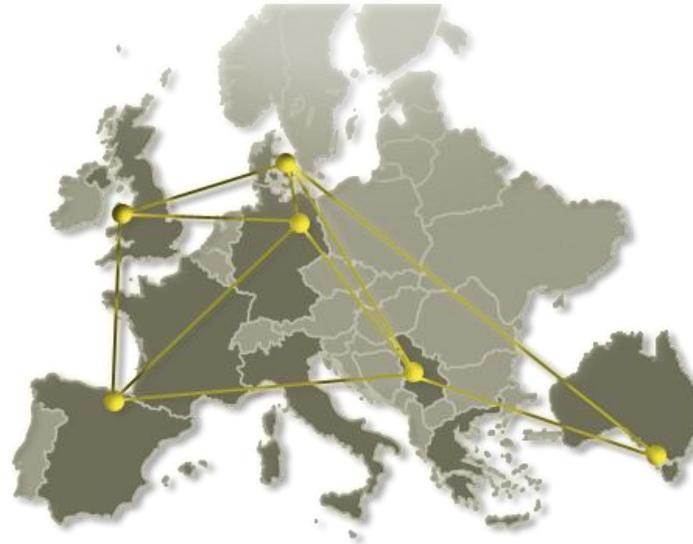


Employment distribution by economy sector



# What was SmartSantander about?

Smart Santander aimed at providing a European experimental test facility for the research and experimentation of architectures, key enabling technologies, services and applications for the Internet of Things (IoT) in the context of the smart city.



20.000 IoT devices

**TARGETING:**

- Researchers
- End Users
- Service Providers

**DURATION**

- 36 months

**CONSORTIUM**

- 15 Organizations
- 8 EU Countries + AU

**BUDGET/FUNDING**

- 8.6 M€ /6M€

**RESOURCES**

- 746.2PM

# Why SmartSantander?

- The City Council and Regional Government were convinced that a new economic cycle based on knowledge and innovation will provide the basis for sustainable growth.
- Public Private Partnership between local and regional authorities, companies and research institutions joining forces and efforts to provide better services and a high quality of life to the citizens.
- Smart Santander was perceived from the very beginning as a golden opportunity for lining up the vectors of the value chain: Industry, in particular SMEs, research centers, other agents.

# Approach

Build **open platform** for experimentation with IoT technologies and services in Smart cities, **not application demonstrator**



Provide a **set of initial services** for the benefit of city and citizens for basic platform **sustainability**



Foster an **innovation eco-system** and experiments with technology ideas, services and business models



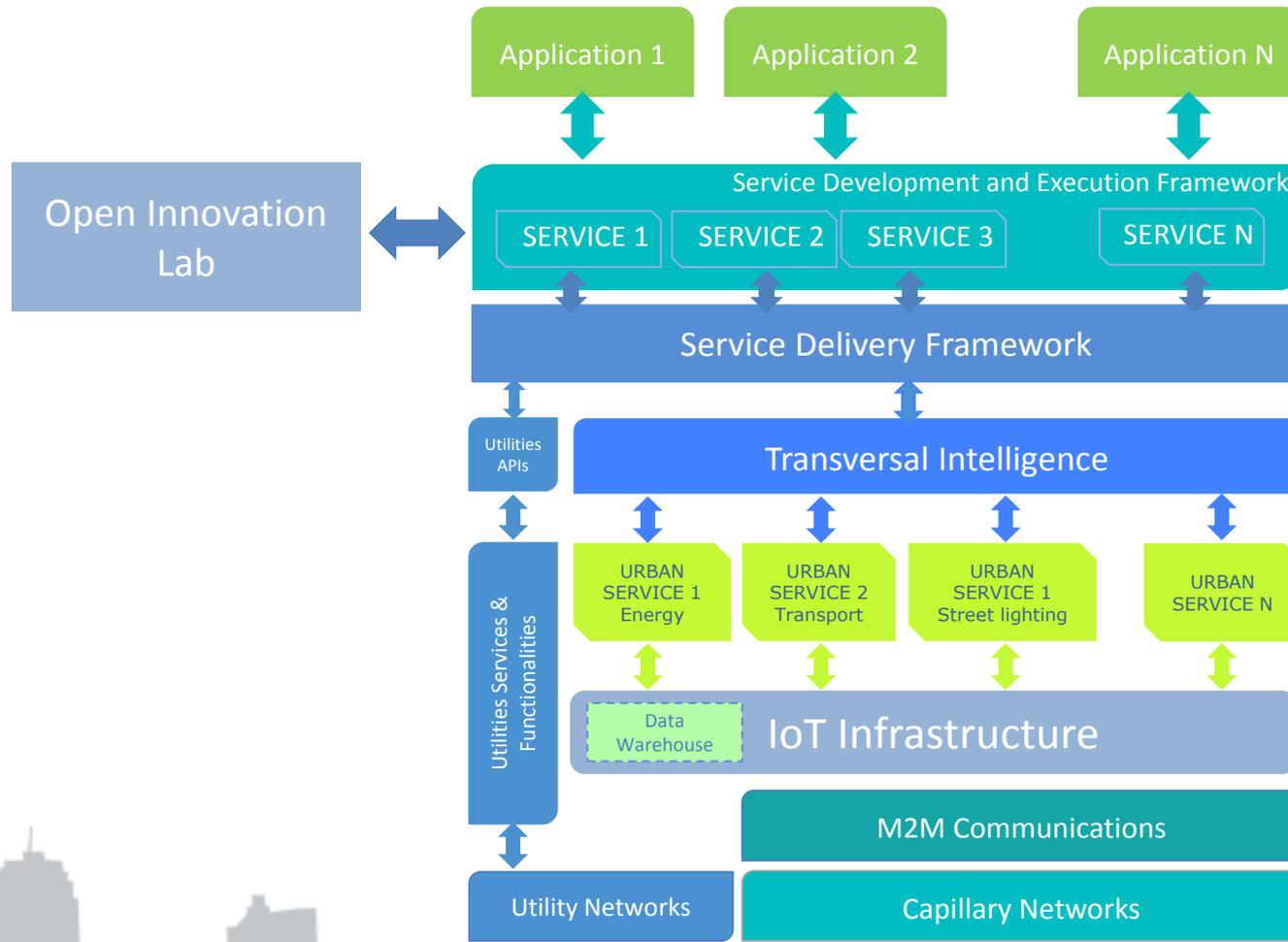
Integrate successful IoT technologies and services for city/citizens and transfer to other markets



# Holistic Management of the Smart City

- After running the project during four years, a plethora of IoT devices, applications and services were available.
  - Massive amount of data generated
- In the short/medium term, more urban services to be integrated.
  - The citizens have to be engaged
- The smart city paradigm playing a relevant role in attracting and mobilizing stakeholders.
- The solution has to rely on an open platform able to integrate new and legacy infrastructures.

# The urban platform

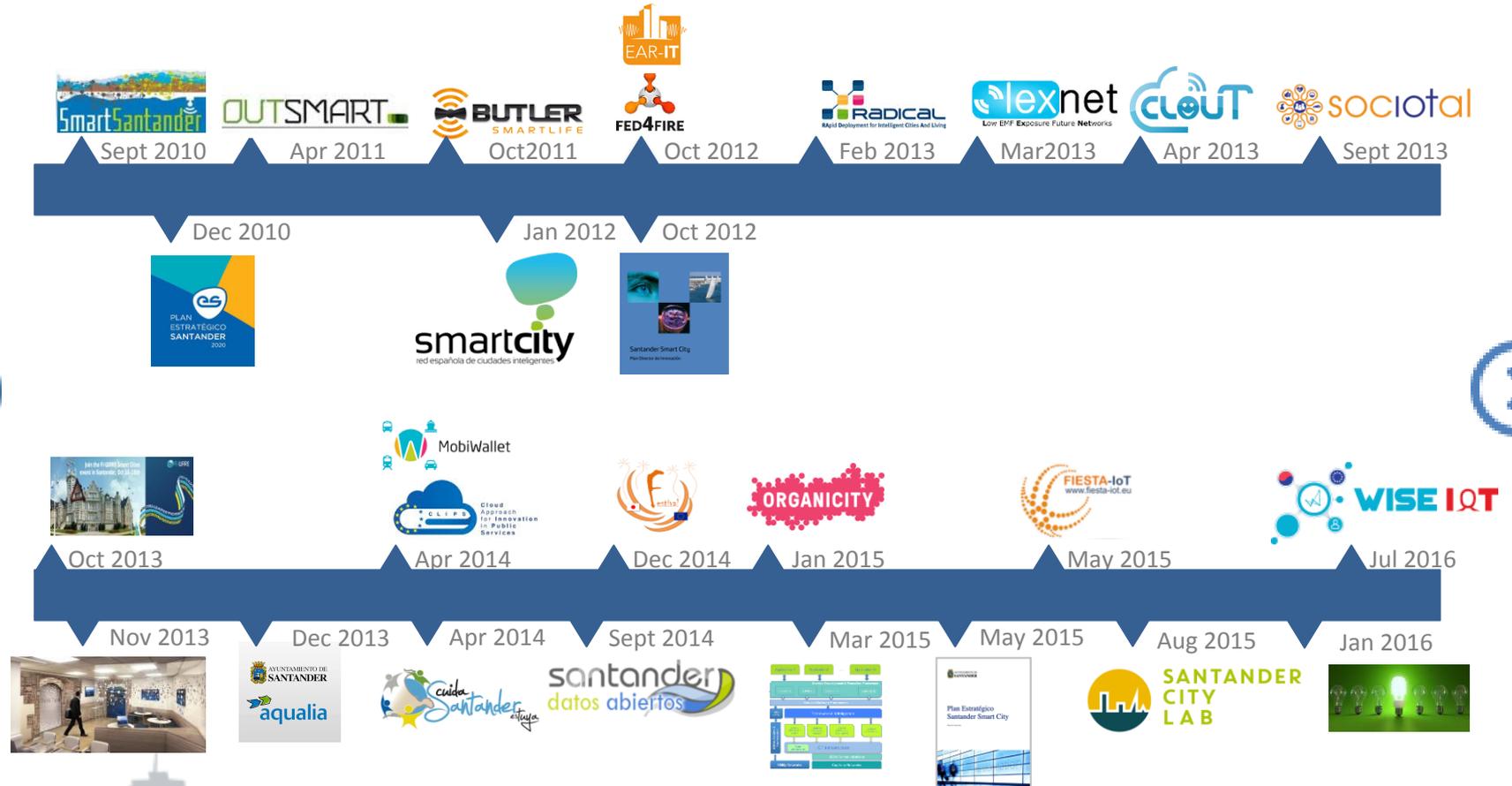


# SmartSantander duality & catalyst

- SmartSantander went beyond the traditional Smart City concept because its unique duality
  - Deployment of an IoT facility for experimentation and research
  - Service provision in the Smart City context, maximizing the benefits of the experimentation platform
- Hence, setting up an innovation ecosystem in which main stakeholders meet:
  - Technology providers, research centres, urban service providers, municipality, finance sector, ...



# City Engagement & Co-creation



# Smart Cities, IoT and big data: The path towards sustainable cities

- Big data will be one of the pillars for building **autonomic cities**.
- Big data alone is not enough. The engine which is able to learn and create knowledge is needed: The **city brain**
- The city brain requires a **holistic view**: Transversal cooperation among services versus the traditional silos perspective.
- ◀ ▪ The city of the future has to operate in a **predictive (proactive)** mode instead of reactive one.
- Big data might become one tool for enabling smart cities to **organically** grow. Hence, stimulating citizens to participate more actively in the design of the forthcoming services and technologies to be adopted by the cities.

# Future challenges

- Co-creation of the smart city, involving the different stakeholders, aiming to consolidate the innovation ecosystem
- To establish the Innovation Hub for start-ups and entrepreneurs
- Further research in the fields of 5G and IoT
  - Large Scale pilots
- Standardization and Interoperability



# Contact

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