

PLANET

Smart Sustainable Cities

We provide ICT solutions for the sustainability challenges of "smart cities" and as a differentiating element we have an open and transversal technological platform

Our smart city platform allow us to assume market leadership

Sustainability of urban areas is a vital issue, as 70% of the world's population will live there by 2050. Currently, urban areas emit 71% of greenhouse gases and account for between 60% and 80% of world energy consumption. ICT can provide solutions to make them more efficient and sustainable by means of so-called smart cities.

At Telefónica, we offer solutions to the challenges of smart cities, and as a differential element, we have a transversal and open technological platform for the development and integration with applications from other companies. Similarly, we work at a global level with the various departments and companies of the Group to position Telefónica as a leader in the provision of ICT services that promote the sustainability of cities. We encourage processes of innovation, technological development and standardisation for sustainable smart cities.

Business development for smart cities

We provide the best technology and services for smart cities. So, in recent years, and especially in 2013, we have been working to consolidate what we offer customers. Our aim is to emphasise value in the offers made to clients, which include eco-efficiency principles in the management of resources in cities.

In Spain, we have been working on smart cities projects for several years, including the technical advice and support for RECI (the Spanish smart city network), and the choice of Telefónica as technological platform provider for the Valencia Smart City.

We also work in the delivery of smart city services in Latin América. In Brazil we are participated in the Sao Paulo pilot project for the services of education, tourism, health and the public services of street lighting, security, traffic and parking.



facilities, environment, cleaning, waste collection, lighting, crane service, parks and gardens and meteorology. All these services are monitored permanently and connected via the latest optical fibre technology, guaranteeing almost unlimited bandwidth and speed. [More info](#)

Standardisation for smart sustainable cities

Our Smart City value proposal is fundamentally based on the tangible benefits and savings on resources (energy, water, waste, time, etc.) associated with the deployment of ICT services, and an integrated management platform. To this end, we are working to develop global standards for smart cities and sustainability, by so as we contribute with our experience and work to establish uniform measurement methodologies that let us assess the impact of ICT solutions implemented in cities.

- ITU Focus Group Smart Sustainable Cities: Telefónica is the leader and Chair of this international working group whose objective is to increase the role of ICT in the environmental sustainability of cities. [More info](#)
- ITU-T Study Group 5 and Question 18: We are contributing to the development of a methodology to assess the environmental impact of ICT in cities, which is part of the sector's standards for evaluating the carbon footprint of ICT. [More info](#)
- AENOR Technical Smart Cities Standards Committee (AEN/CTN 178): AENOR (the Spanish national standards authority) with the support of the Secretary of State for Telecommunications and the Information Society. We participate in this committee, which aims to define standards for Spain that encourage smart cities and contribute to the ISO infrastructure and performance standards for smart cities. [More info](#)

Technological innovation for smart cities

The Telefónica platform, developed by Telefónica R&D, is the first created that conforms to the FI-WARE platform standard promoted by the European Commission for the deployment and development of applications in the Internet of the Future. It is cloud-based, open, and allows the city data to be managed with flexibility, reliability, security and efficiency, from a single point of access. It simplifies decision-making and improves the efficiency of municipal service management by means of a complete control panel.

The traditional services - traffic, transport, parking, water management and treatment, parks and gardens, cleaning, waste management, commerce, lighting, emergencies, security, health - can be managed, provided and optimised from any device at any time or place, thanks to this platform.

By putting its smart cities platform into service, Telefónica has managed to get ahead of the market and offer the first commercial platform conforming to these standards.

Best Practice

FI-WARE Platform and Smart Santander

During 2013, the European Commission project FI-WARE, led by Telefónica, concluded. It has managed to create the Smart Santander project, which is the largest smart city scheme in the world. With over 20,000 sensors, it offers a test bank that the European Union has classified as essential because it offers a unique platform for experimentation on a large scale in real conditions.

FI-WARE offers APIs (Application Programming Interfaces) whose specifications are public and royalty-free, backed by the availability of a reference implementation in open source code, thus speeding up the appearance of new providers on the market. Telefónica R&D has contributed to the reference implementation with a significant number of FI-WARE platform modules.

Thanks to its open nature, application providers can choose who will provide and operate the environment that will host their applications.

FI-WARE
[More info](#)

