

## 0031003 – English for specific purposes

### Worksheet 2

**Article:** Smart city case study: Barcelona

**Full story:**

Barcelona has an impressive 500km (311-mile) fibre-optic network, which acts as a backbone for a host of connected services as well as providing citizens with city-wide wi-fi.

The city's lighting works hard:

- 1,100 lamp-posts have been converted to LED, offering cost savings of 30%
- Sensors in the lights can determine when people are passing beneath and light up or dim according to footfall
- They form part of the wi-fi network
- They are equipped with air-quality sensors

There are 19,500 smart meters in targeted areas of the city, which monitor and optimise energy consumption.

Smart bins monitor waste levels and optimise collection routes.

In transport, Barcelona has plenty of electric cars and bike-sharing schemes, while digital bus-stops don't just give waiting passengers updates on when buses will arrive but also provide charging stations, free wi-fi and information about the best apps to download to learn more about the city.

Drivers can take advantage of an app - *ApparkB* - that can identify empty parking spaces and allow users to pay for the spot online.

Even the irrigation systems in Barcelona's parks are hooked into the network.

Sensors monitor rain and humidity, allowing park workers to decide how much water is needed in each area, which has led to a 25% cut in the city's water bill.

Barcelona has made its city operating system - *Sentilo* - which controls all the sensors open-source and available to other cities.

Through the system, data is also shared with citizens.

**Source:** <http://www.bbc.com/news/technology-37384152>



