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Barcelona: Crowd Management

Mobile World Capital Barcelona, a public-private partnership, has been working with the city of Barcelona and local network operator Orange to monitor the number of visitors to the Sagrada Familia in Barcelona. This is one of the main tourist sites in Barcelona and is on the itinerary of most tourists visiting the city. Although many people visit the site, only a small proportion actually pay to enter the Sagrada Familia, with many more only visiting the piazza outside. The city of Barcelona wants to track more precisely the number of visitors to the immediate area, so that it can plan transport networks accordingly, and encourage more visitors to actually pay to enter the cathedral.



Mobile World Capital has worked with the city to set up a series of mobile-enabled sensors around the site to track the number of visitors in total and the direction from which they approach the site. By deploying IoTenabled sensors, Mobile World Capital have been able to provide the city with detailed information on the number of visitors to the piazza throughout the day and their arrival route, enabling transport modes to be analysed and the city to set up ticket booths at appropriate locations to encourage the sale of additional tickets to visitors outside the Sagrada Familia.

This local information has been combined with data from mobile operator Orange in an IoT Big Data framework to understand how these visitors move around the city as a whole, where they stay and the sites that they visit. The City of Barcelona can use these insights to plan appropriate measures to accommodate and transport the visitors.





The GSMA is working with mobile operators, governments and city councils to agree a common approach to smart city solutions that will deliver real, long-term benefits to businesses and citizens.

For more information visit the website: **www.gsma.com/smartcities** or contact: **smartcities@gsma.com**



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