



## **UrbaMet: Impact of weather on the efficiency of urban cleaning services. The case of Barcelona**

Marc J. Prohom, Anna Miró, and Jèssica Amaro

Meteorological Service of Catalonia, Area of Climatology, Barcelona, Spain (mprohom@meteo.cat)

Two of the main pillars of the Smart City concept are based on the incorporation of new technologies in the daily management of the city, in order to improve their energy efficiency and strengthen the bond between the different actors that make up the urban space: the local authorities, citizens and the businesses.

Here is presented an initiative in this area that seeks to anticipate and minimize the negative impact that adverse weather has on the efficiency of cleaning services in the city of Barcelona (Urbamet project).

Through the analysis of the complaints reported by citizens and the volume of trash collected daily on the public road, the project identifies which incidents and dynamics associated with cleaning have a dependency on the meteorological component.

Approximately 22% of the complaints have a meteorological component (irrigation demands, presence of leaves on the ground, odors) while two out of three cases with outstanding trash is linked to an identifiable meteorological motivation.

A pilot with one of the cleaning companies has reduced the amount of incidents received from the citizen and has allowed the implementation of a warning system to improve the internal business planning and management.