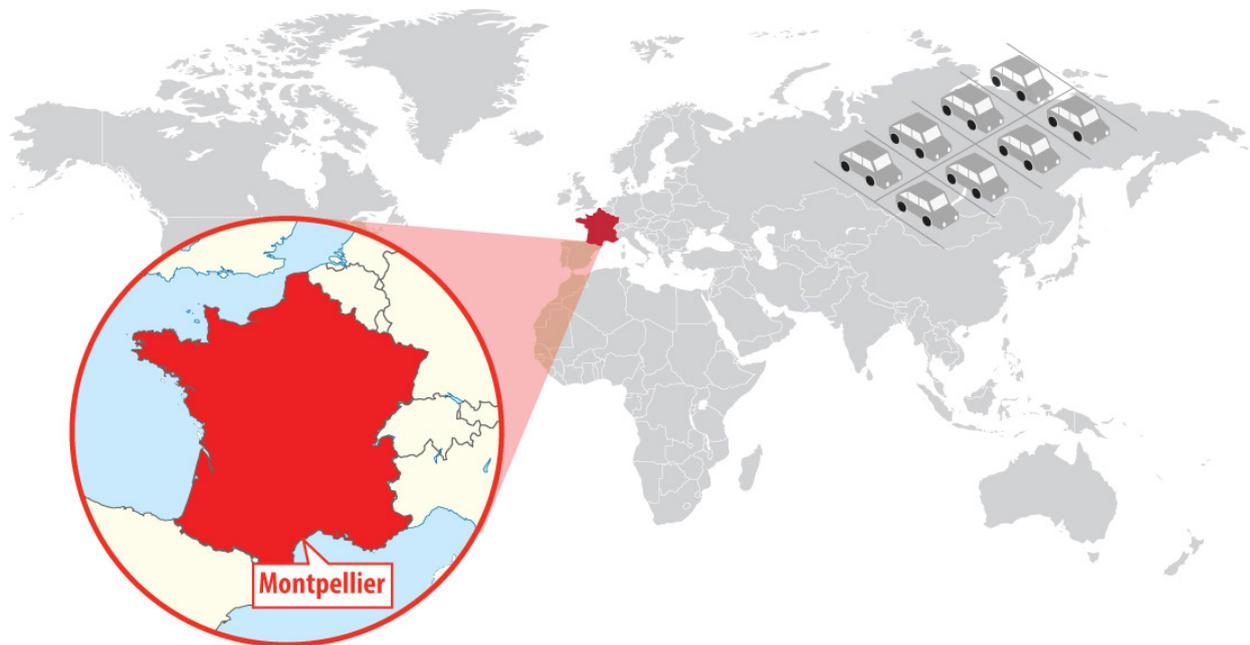


## Smart Parking project in Montpellier to relieve traffic congestion and reduce car parking search

Ten minutes searching for **car parking** several times daily means **more than 240 hours per year**, and an average of 700 complete days in your life. Driving around looking for an available car slot **wastes fuel, produces anxiety and increases pollution** in city centers.



*Location of Montpellier (France)*

Montpellier is a small French city of the region of Occitanie. Its 270,000 inhabitants suffer, as in every other city, from **traffic jams and lack of available parking slots**. This city has historically been **pioneer in smart cities projects related to mobility** at first stage and moving to larger IoT deployments nowadays.

Montpellier Mediterranean Metropolis (Montpellier Méditerranée Métropole in French) is the public intercommunal structure which promotes all these IoT projects thanks to its commitment to the "Open Data" solutions to enrich the services offered to the citizens.

With its 10-years experience, the French company [Synox](#) has shared all its knowledge and know-how to Montpellier Mediterranean Metropolis with new and innovative urban services and **particularly a smart parking solution, developed with Libelium's technology, named "Connected Parking"**.



*Connected Parking project at Montpellier*

[Synox](#), who is customer of Libelium's official distributor [Factory Systemes](#), is actively involved in smart cities projects since its foundation due to the fact that **its mission aims to contribute to the development of urban services thanks to the new technologies**. Some months ago, the company won a public tender of the Montpellier Mediterranean Metropolis which gave [Synox](#) the opportunity to benefit from a wide range of projects, involving inter alia different companies, start-ups, laboratories and universities.

Along with the creation of this large-scale smart cities project, the Montpellier Mediterranean Metropolis set the stages for a **private network** based on [LoRaWAN](#) communication protocol. Some [LoRaWAN](#) antennas were installed by the company Synox in strategic locations on the urban area in order **to give coverage to the upcoming smart cities projects**.

Montpellier shopping center has limited parking slots and there are traffic jams in some streets habitually. The main goal of this project was **to make traffic more fluid and increase rotation at parking spaces** near the town hall and a shopping center.

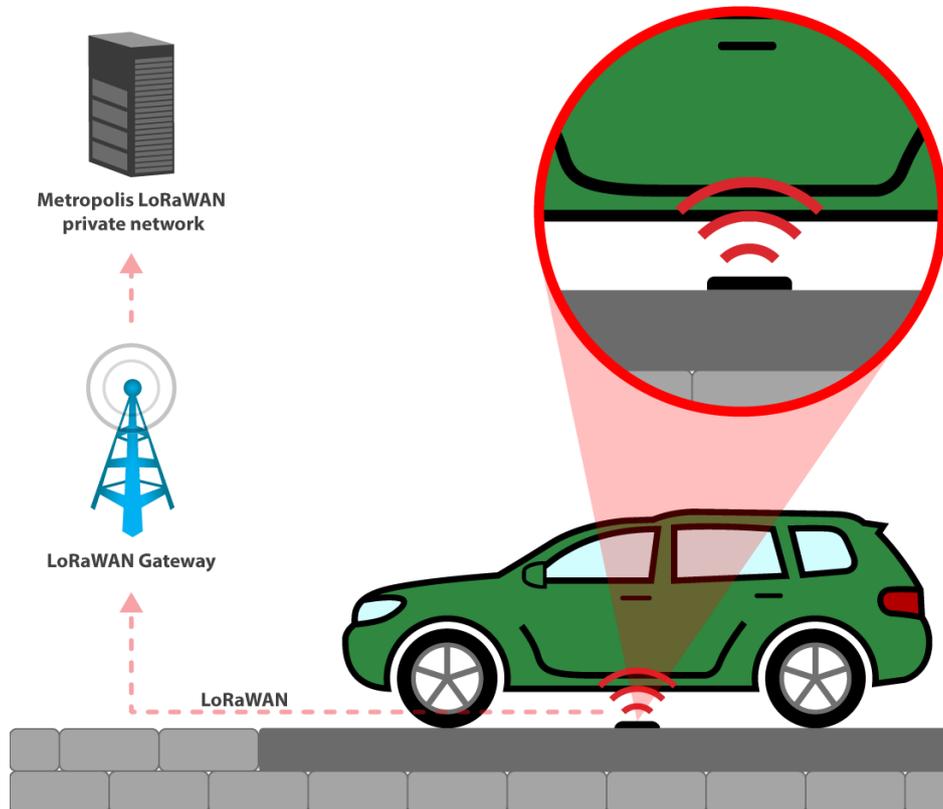
Twenty [Plug & Sense! Smart Parking](#) nodes were installed by Synox in two different areas of the city: six at the surroundings of the Montpellier Town Hall (Hôtel de Ville de Montpellier) and the rest on the nearby Parc Marianne district.



*Waspnote Plug & Sense! Smart Parking at Montpellier*

These devices were installed in the surface of the roadway on the parking areas for people with reduced mobility and delivery services with the aim **to relieve congestion, streamline traffic, and improve access to car park areas**. In the future, more people will benefit from this project since **it is planned to enlarge the quantity of nodes throughout the territory** of the metropolis.

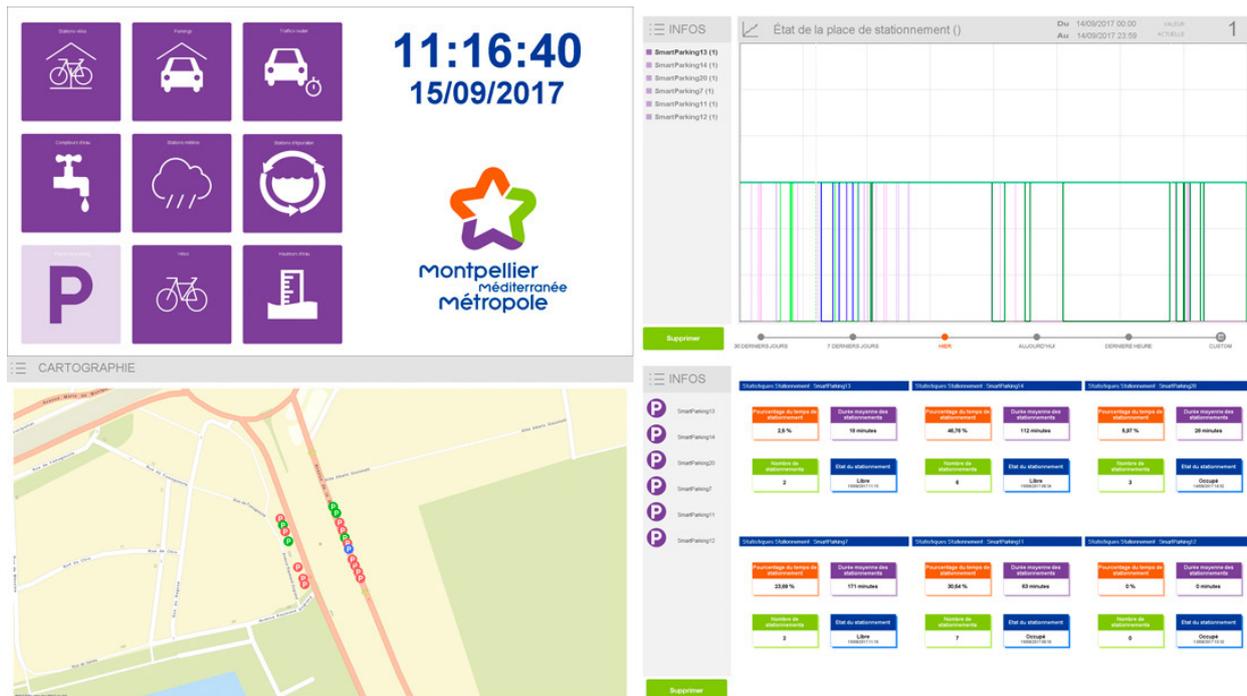
Besides, sensors also gather data about the **temperature of the roadway** which will be used by the metropolis road authorities to take action in case of the **presence of ice sheets**.



*Diagram of Connected Parking project*

The [Plug&Sense! Smart Parking sensor network](#) is connected to the Metropolis [LoRaWAN](#) private network which has been deployed thanks to the expertise provided by [Synox](#), who has built a specific infrastructure to allow the entity to keep sovereignty in the data from end to end. Data management displays show this real-time information and indicators of the use of car parking slots in order **to improve the traffic conditions and diminish car parking search time**.

**“Connected Parking”** as part of the “Open Data” approach **helps citizens to have more information and on-line data available**. Users, laboratories and other start-ups can use this data and benefit from it, creating new services for smarter, more dynamic and environmentally friendly city.



Connected Parking Dashboard

Pieter Brice, CTO at Montpellier Mediterranean Metropolis remarks that “an additional step was taken by the Metropole of Montpellier in the Smart City program. **The Smart Parking project allowed us to consolidate our collaboration with Libelium** and to look forward **new services offered to users on car park solution.**”

“The Smart Parking project made it possible to easily deploy on private [LoRaWAN](#) network infrastructure an analysis of the **strategic car park availability, for the city mobility services, the City Police, and soon the citizens themselves.** Have a better understanding and a better management of car park availability and traffic in the city is a major key point to improve citizen’s life”, explains Jérôme Fenwick, CTO at [Synox](#).

If you want to download the article in Spanish, please [click here](#).

For more information about our products, contact the [Libelium Sales Department](#).

#### More info:

- For technical details on Waspnote Plug & Sense! Smart Parking: [Plug & Sense! Smart Parking Technical Guide](#)
- Read more about Libelium sensor product lines in the [Waspnote](#), [Waspnote Plug & Sense! Sensor Platform](#) and [Meshlium Gateway](#) websites.

#### References:

- Synox: [synox.io](#)
- Factory Systemes: [factorysystemes.fr](#)
- Montpellier Mediterranean Metropole: [montpellier3m.fr](#)
- Montpellier Medriterranean Metropole Smart City Project: [montpellier3m.fr](#)
- Montpellier Town Hall: [montpellier.fr](#)
- Waspnote Plug&Sense! Smart Parking Sensors: [libelium.com](#)

Discover our [Smart Parking Kits](#) at [The IoT Marketplace](#).

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