COMMUNITHINGS

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Communithings brings shoppers back to town with smart-parking solution in Mons

Customer challenge:
Increase parking capacity as well as vehicle rotation in shopping

In Mons, a staggering 30% of traffic congestion was due to parking search. Mons was suffering from insufficient parking capacity in its commercial zones, resulting in cars cruising for space and making it unpredictable to plan shopping visits. In addition, due to lengthy stays of vehicles during the day, each parking spot generated less than three rotations a day. The parking meters in place could not address the low rotation issue, and the steward resources were insufficient to reduce parking infringement. Overall, the municipality felt the impact on local retailers was considerable and required innovative action to reduce parking search while increasing parking rotation and shopping incentive.

> **We, local shopkeepers from Mons, had been waiting for quite a while to benefit from more free parking spots, available for short periods of time. We're delighted now that it has been implemented!**
> *Claire Servais, a Mons shop keeper on Belgian television*

COMMUNITHINGS KEY FIGURES

Wireless, no need for repeaters and inherent setup costs **coverage optimized** **battery lifespan is 5 to 7 years**

Several smart parking solutions were considered, but they entailed resorting to a meshed network, involving repeaters in every street. This approach was deemed too expensive, and undesirable for the preservation of the city landscape.

LoRaWAN allowed an easy and cost-effective rollout of the smart parking service

Once the city of Mons had set its mind on a wireless solution, the choice of the LoRaWAN technology made perfect sense. Achat-Minute was the first wide-scale LoRaWAN deployment in Belgium – over the Proximus national network, thus proving its technical benefits:
● It is wireless and suppresses the need for repeaters and inherent setup costs
● The coverage is optimized making it an obvious alternative to meshed networks.
● Its battery lifespan is 5 to 7 years
As a pioneer in its field, CommuniThings initially carried out a two-month pilot (November-December 2015) in two zones involving 50 merchants. The city granted 30 minutes of free parking in a dedicated zone. Sensors on the ground measured time spent and reported infringements to controllers. Users could use the mobile app to find available parking and follow session duration

on their mobile phones. Merchants could prolong the parking session by 15 minutes after their purchases, using a QR code reader.

The results were staggering: within 2 months, total rotations per space tripled in each spot, from less than three a day before the pilot to over 9 rotations a day! Retailers appreciated the ability to extend parking duration and enable more purchasing. Following the pilot, and an ensuing public tender, the city of Mons proceeded with a wide-scale launch of the solution across 110 spots (representing less than 20% of its capacity in the city center). Achat-Minute is a free visual app that can be downloaded on any smartphone via Apple or Android's app store.

MONS

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Access to the service is kept simple: Once downloaded from the app store, users can view real-time heat map advising on parking availability and enabling navigation to the available space. Once checked-in, the timer on the app advises on time remaining, controllers are informed real-time of elapsed parking duration, allowing for efficient fine-handling of cars in breach. Parking managers receive statistics on usage patterns per parking and comparative analysis between periods (hours, days etc.)

Dynamic use of parking spots to disentangle the city center

CommuniThings was chosen for its ability to deploy a solution that is innovative, technically sound as well as cost effective. CommuniThings developed an end-to-end parking management solution adapted to various uses in every aspect of the city.

Mons "Achat-Minute" offers considerable advantages to all parties involved:

- For residents: real-time availability of spaces, check-in, navigation, timer
- For controllers: occupancy and infringement handling
- For retailers: becoming involved in attracting shoppers even without ownership of adjacent parking spaces
- For the municipality: usage patterns information enabling daily records for further uses

The city's landscape and beauty are preserved. Mons is indeed a beautiful old city and the municipality was keen to preserve the scenery with a wireless solution. The LoRa technology offers considerable improvements without impacting the city landscape. Technical benefits and cost structure are extremely favorable.

Complementary smart parking use cases based on LoRaWAN national network include:

- Scalability: adding new parking spots simply requires to deploy more sensors (no repeaters, no gateways). This means a quicker rollout and a more cost-effective maintenance. The most congested areas can be identified and the offer adapted with specific spots
- Services: address other dedicated areas in the city, such as residential parking, handicapped zones, and parking areas with charging spots for electrical cars

> " At CommuniThings we are focused on the customer journey while remaining agnostic to the technology used. The city of Mons wished to deploy smart parking over LoRa. The service was launched successfully, keeping residents, shoppers and merchants satisfied. "
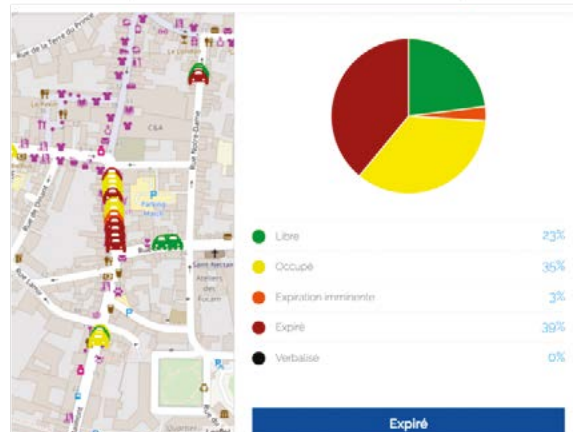> *Etay Oren, Co-founder, CEO of Communithings*

Municipality Statistics

Parking Sessions

Controllers Dashboard

Real Time Parking Occupancy

Residents UI

Availability Guidance