Implementing an On-Street Parking Management System

MONTREAL, QC

CASE STUDY

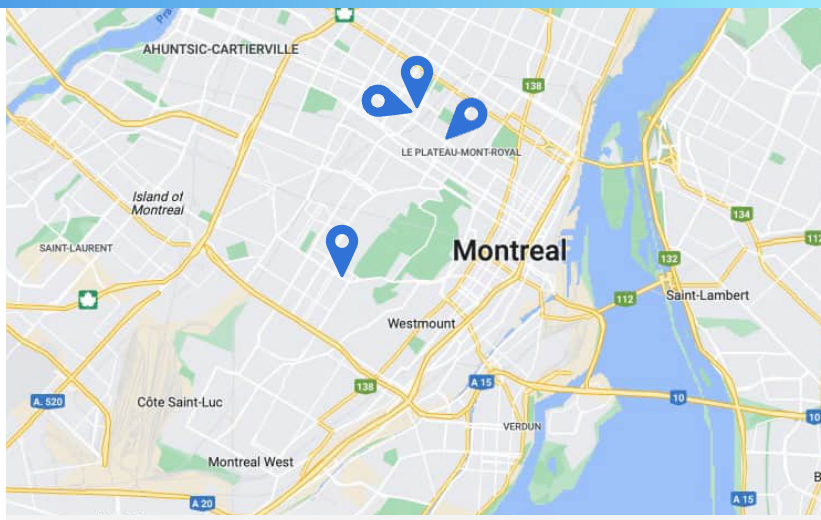
DIMONOFF

Business Analysis

This pilot project was carried out as part of the call for demonstration and showcase projects in ground transportation and sustainable mobility issued by the Ministère de l'Économie et de l'Innovation (MEI).

The objective of the project was to see whether these sensors could meet the operational needs of parking managers in the boroughs of Rosemont-La Petite-Patrie and Plateau-Mont-Royal.

Dimonoff's smart parking management system was used to carry out the project.



This technological solution was intended to:

01 Provide relevant data on the use of parking spaces: occupancy rate, rotation, time of use, payment compliance

02 Facilitate efficient parking management

03 Test the robustness of the technology to the environment and the seasons

Montréal

Investissement Québec

Économie, Science et Innovation Québec

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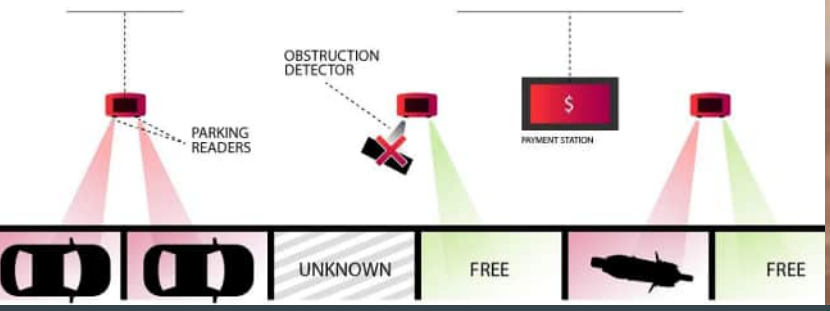
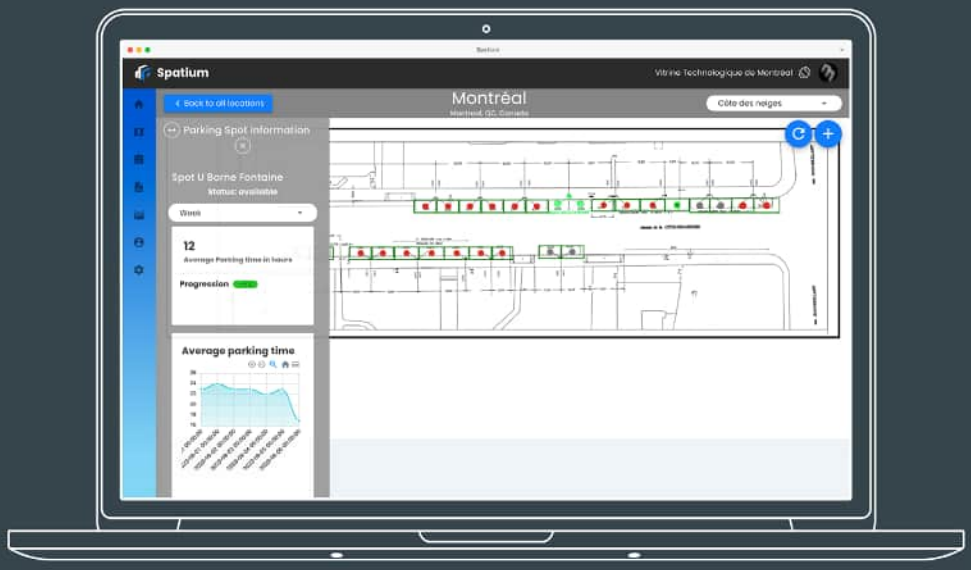
Project Development

The pilot project's deployment began with the installation of 60 smart sensors (MPS sensors) to manage the occupancy of 120 parking spaces.

Custom-designed and developed by Dimonoff, these sensors are battery-powered and each of them guarantees accurate and simultaneous detection of two parking spaces. In addition, the system has been fitted with LED lights to identify different types of signals (no parking, paid parking, reserved parking, etc.) and regulations (exceeding legal time limits, etc.).

Curbside Parking Management Solution





Data collected by Dimonoff's MPS sensors is gathered, processed and managed through Spatium, Dimonoff's smart parking management platform.

This platform plays a key role in transforming raw information into actionable intelligence, helping parking managers to better understand trends and make informed parking management decisions.

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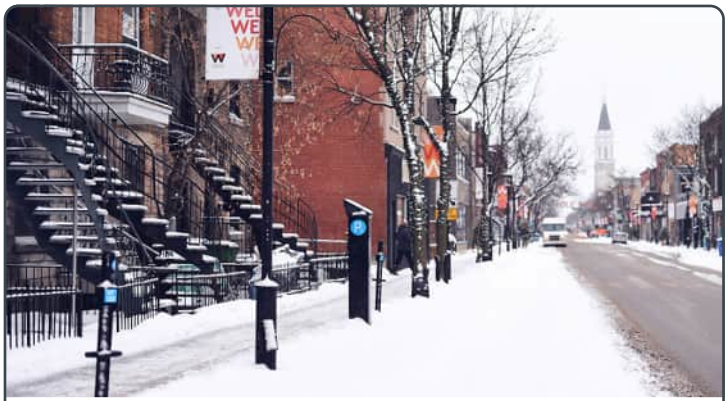
Project Key Benefits

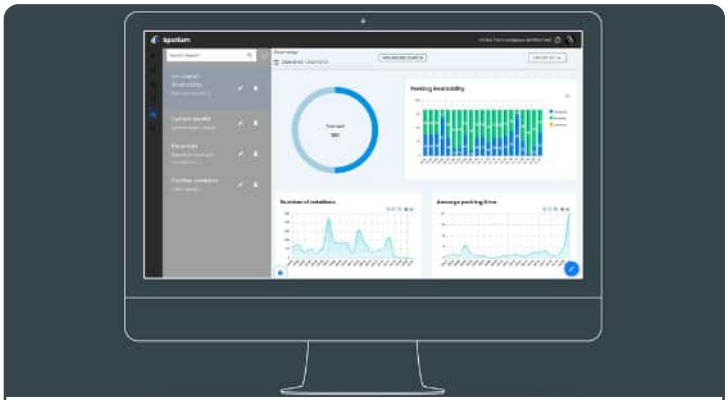
Tailor-made sensor design

High adaptability of sensors to street furniture



Robustness of devices: resistance to weather and vandalism

Reliable communications



In-depth data collection and analysis to maximize the use of parking spaces and to identify users' parking habits

Monitoring of areas subject to special regulations

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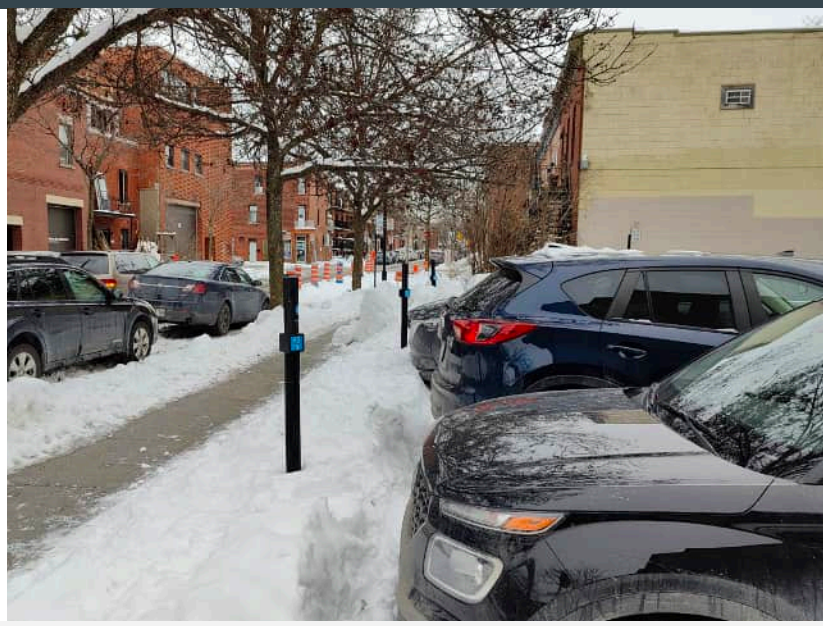
Project Results

Dimonoff's smart curbside parking management project also highlights the remarkable benefits of MPS sensors specifically tailored to meet the city's needs.

01 Ease of Installation

Dimonoff MPS sensors are easy to install (less than 5 minutes per sensor) and efficient, demonstrating the robustness of these devices and their suitability for demanding urban conditions.



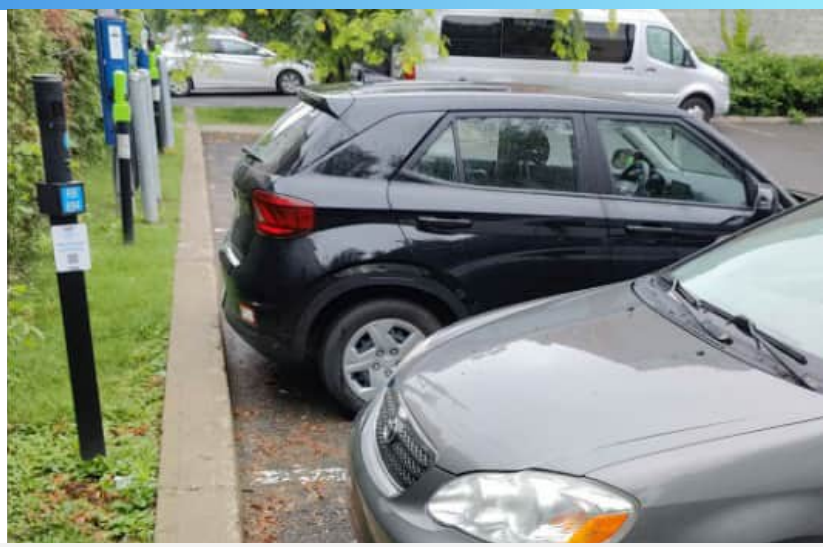
02 Customized Design Adapted to Street Furniture

One of the main advantages of Dimonoff's MPS sensors is their customised design. These sensors were specifically designed for this project and blend harmoniously with existing street furniture.

Project Results

03 Reliable Real-Time Communications

MPS sensors have proven their reliability by constantly transmitting data in real-time without interruption, which is essential for the smooth operation of the parking management system.

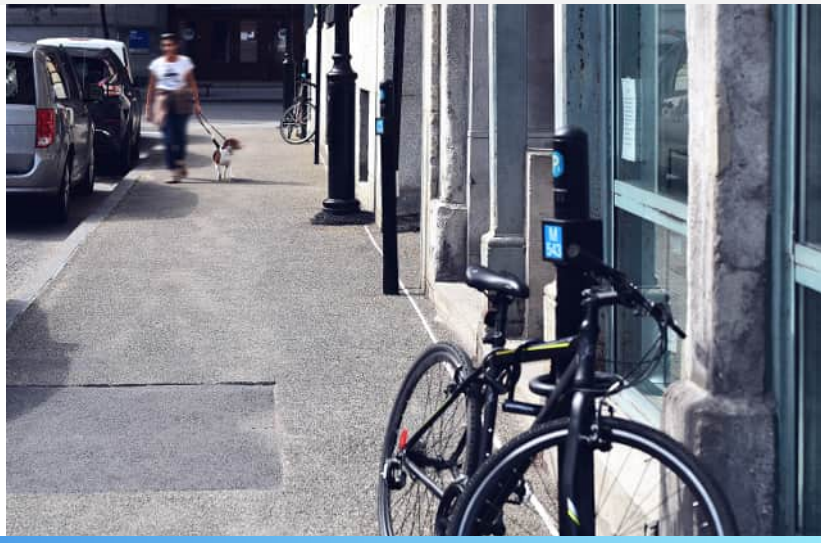


04 Weather Resistance

Montreal's harsh winter climate was no challenge for Dimonoff's MPS sensors, which proved highly resistant to winter conditions and bad weather.

05 Minimized Road Interference

MPS sensors are designed to be non-intrusive, adding nothing to the road surface. This ensures that streets remain clear and free of potential obstructions for vehicles.



Project Results

Dimonoff's Spatium platform also acts as a centralized management system capable of transforming parking sensor data into actionable information for parking managers.

It offers a complete overview, detailed analysis and powerful visualization tools to improve parking management.

Flexibility and continuous improvement have also played a key role in the success of this pilot project. For instance, Dimonoff is constantly adjusting its equipment based on the feedback it receives (e.g., reacting quickly to improve the power of the LiDARs after they were found to be insufficiently powerful).

This demonstrates our commitment to the ongoing success of the project by providing an optimal, tailor-made solution.

"Urban mobility is a major challenge for our constantly evolving cities. With our smart curbside parking management system, we provide a concrete response to these concerns. With access to reliable, real-time data, we facilitate parking management and offer an enhanced citizen experience."

Adrien Orceau
Product Owner - Dimonoff

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