SENSIT's parking data is used for Smart Taxi Management at Swiss Central Station of Wintherthur

The station square of Winterthur is one of the busiest railways stations of Switzerland. More than 100,000 people come and go on the square daily. With these high traffic flows, the pressure on the parking- and stop and go places causes a lot of search traffic around the rail station. To optimize the utilization of parking places and pitches for buses and taxis, Nedap's SENSIT sensors are implemented for real-time parking data. The occupancy data is implemented in an individualized application from Nedap's platform partner MOVEu2.

Central station Wintherthur (Switzerland)

The central station Winterthur is the main railway station for the city of Winterthur. Winterthur is a city in Zurich (Switzerland) and counts more than 108,000 residents. With more than 100,000 passengers passing by every day, the station is one of the busiest railway stations in the country and is a transport hub of the "Swiss Federal Railways" (SBB).

High traffic flows cause pressure on parking

The station square of Winterthur is the central element of the city, both in terms of use and design. More than 100,000 people come and go on the square every day by means of public transport, non-motorized traffic, small-scale logistics and taxi's. With these high traffic flows, there is pressure on the parking- and stop and go places, which causes search traffic around the Winterthur Hauptbahnhof.

Curbside management for extra parking capacity

In order to keep traffic flows on the right track, it is important that parking places and pitches for buses and taxis are optimally utilized. Therefore, the municipality has opted for "adoptively designed stops". This means that at peak times, parts of the street/curb in front of the main station are used as additional spaces for buses and taxis. At these times, a maximum of 3 taxis are allowed in waiting position in front of the station.

Need for smart guidance solution

Despite more stops, there was still a need for a smart guidance solution to make optimal use of this capacity by referring to available pitches to reduce search traffic and remove stress from taxi drivers. For them, no free stand in front of the station square means that the first option for another stop is at 500 meters distance, without having vision on availability of spaces at the railway station forecourt.

Real-time parking data for taxi dispatching procedure

In September 2020, the so-called "Winterthur solution" was implemented: an intelligent taxi dispatching procedure for smooth and demand-oriented coordination for the taxi fleets of the various taxi providers. SENSIT's sensors where installed at the various stops to detect and report the occupancy in real-time. The occupancy data is implemented in an individualized application from Nedap's platform partner MOVEu2.

MOVEU2 application to guide taxi drivers

The MOVEu2 application links the occupancy data to the availability issued for that time of that particularly day. This information becomes transparent via digitally displays to inform the taxi drivers about how many spaces are available at the taxi stand. This will reduce needless navigation and driver's annoyance.

Occupancy data also used for trends and insights

SENSIT's parking data not only provides a direct solution for guiding traffic flows, but also extends the use of occupancy data for logistic applications (e.g. construction site management) and traffic management. The municipality, in close cooperation with the taxi drivers and the Winterthur city police, regularly analyzes the parking data to optimize parameters for the control algorithm. For the first time in such a Swiss project, Social Media channels are used for user feedback. Customer relevance is an essential aspect for the success of the implementation, in addition to the facts from the parking data.

Nelson Carrasco, Head of Traffic management Winterthur:
"The city of Winterthur was able to count on the expertise of MOVEu2 in implementing a specific taxi guidance system solution for the main station, with the Nedap SENSIT products. The custom made solution is designed according the customer's needs, taking into account the interaction between public transport and taxis of the numerous foot traffic in front of the main station."

Jan Hofman, Strategic Business Development Manager BU Mobility & Smart Parking at Nedap:
"This is a perfect example where the added value of Smart Parking Technology offers an optimal utilization of the taxi stand by continuously checking the occupancy status. Both taxi drivers as well as traveler's benefit from this service and make the City attractive to visit."