

Transportation Services of the City of Madrid

Integrated Mobility Management Solutions

Madrid's road network experiences constant high demand, with limited or no space to add lanes and increase the capacity. The result is significant traffic congestion and related impacts such as air pollution and increased risk of accidents.

Traffic data is the key to further analyses and improvements

In August 2017 Kapsch has been selected by the Madrid City Council to carry out the Service contract for obtaining and processing real traffic data in the city of Madrid.

The purpose of the project is to capture comprehensive data in order to accurately identify real traffic situations in the city, including all mobility modes and to process these information, the city council has installed the Kapsch EcoTrafIX™ software platform which is designed to improve traffic data management thanks to its capacity to produce new types of reports and objective data.

The result will be better management of transport infrastructures and systems while also providing new tools to suitably plan future activities, aiming to reinforce options made available to citizens to commute which consequently, will result in reduced congestion and improved air quality.



Project Scope:

- Service contract for obtaining and processing real traffic data in the city of Madrid.
- Installation and operation of IMD data collection stations for vehicles (120), bicycles (20) and pedestrians (20).
- Installation of system pneumatic tube counting / radar for IMD and weekly VMD and data acquisition of directional counting.
- Obtaining INRIX data of speeds and travel times.
- Installing EcoTrafix™ system for information representation of the counting data obtained from all counting of system

The Challenges:

- Automation of the processes to 100%, identifying and implementing new equipment and new systems that improve the quality of data, allowing to reduce the cost of operation and maintenance
- Start working with Software based on Artificial Intelligence and IoT.
- Enhancing EcoTrafix™ to allow integrating and merging additional data sources from both external providers and the Council itself through personalized reports and the use of dashboards. The more information the Platform can integrate and process, the better knowledge for the City Council to make the right decisions.

The Solution:

- Implementing the Integrated Mobility Data Management Solutions.
- Obtaining real information about all the means of transport in the city including bicycles and pedestrians, 24 hours a day and 365 days a year.
- To process the information, installing the Kapsch EcoTrafix™ software platform; a tool designed to capture, aggregate, archive and supervise various data sources, helping municipal technicians to obtain an aggregate overview for subsequent analysis.
- Verifying the data obtained from the stations with subsequent programs and automatic verification processes.
- Integrating the data coming from different sources with various specific measurements by the urban traffic management solution. This way, the Madrid City Council will analyze and identify the causes of congestions and propose efficient solutions for mitigation.



The Added Value

- *An accurate overview of the current traffic situation based on comprehensive mobility data through EcoTrafix™*
- *Improved city traffic data management*
- *Reducing congestion and pollution, as well as risks of accidents.*
- *Friendly system in the configuration of the parameters*