

SUCCESS STORY

AWARD-WINNING INTELLIGENT TRANSPORTATION SYSTEM (ITS) IN CUNDINAMARCA

COUNTRY:

Colombia

PROJECT TYPE:

Highway Management

SECTOR:

Intelligent Transportation System (ITS)

MAIN PRODUCT:

Smart Cities powered by OneMind

Challenge

In 2013, the Colombian Government made the decision to invest 47 trillion Colombian pesos (1.5 trillion €) in its transport infrastructure with the objective to transform the country by 2020. With an area of over 22 thousand square kilometers and a population of close to 3 million, Cundinamarca, the region in central Colombia surrounding the country's capital, Bogotá, is investing in cutting-edge technology to become a reference in intelligent transport management. The region needed an intelligent operating solution which provides real-time mobility information to monitor the 28km long transport corridor between the towns of Chía, Cota, Funza and Mosquera which is an important connection for commuters. There was no holistic view of the different highway incidents and the gravity of those situations and there was no monitoring of the impact mobility has on the environment.

Solution

With the aim to deploy a smart mobility management system, Cundinamarca chose Worldsensing's Traffic Flow Monitoring system, Bitcarrier and a mobility management application powered by OneMind including its incident management feature and a mobile app.

As Worldsensing previously implemented a mobility solution in the city control center of Bogota, the knowledge gathered during the project and the tools developed for the city facilitated the deployment of the system in Cundinamarca.

While Bitcarrier captures vehicle movements by means of smart sensors placed in strategic locations along the transport corridor, the OneMind core technology allows integrating Bitcarrier and any other sensor or system Cundinamarca uses to run its operations.

Environmental sensors are also connected to the OneMind core to monitor air quality and trigger alerts. The incident management feature is configured to gather reports from the users of the mobile app and also to provide updates using the mobile app.

A smart transport corridor

Cundinamarca won the Indigo2017 prize by the Colombian Ministry of Technology and MinTIC for deploying this ITS project powered by Worldsensing technology on the first intelligent road in Colombia.

ADVANTAGES

- Manage traffic operations in real time
- Visualize the current status of the highway
- Gather incident reports from the citizen mobile app and from other 3rd party data sources
- Improve mobility, security and response times of emergency services
- Integrate multiple highway systems and data sources
- Foster cross-departmental collaboration through data sharing
- Increase citizen engagement through the "Movilidad Cundinamarca Helios" app
- Reduce operational costs, congestion and pollution

Benefits

Thanks to WorldSensing’s experience and technology, Cundinamarca can manage all traffic and incidents from one single location while monitoring CO2 emissions. Cundinamarca's mobility concept also includes an on-the-road support team called the Road Safety Promoter Group (GPS) in charge of emergency response, reporting accidents and supporting the emergency services.

The vehicle counting and classification system in two points of its route provides information on the volume and type of vehicles that use this road network which can be used to support future extensions, mobility policy decisions and to reduce traffic congestion at traffic intersections.

Users of the transport corridor can now benefit from the mobility app WorldSensing developed which allows drivers to plan their journeys based on real-time traffic information, request help or report accidents. For users who do not have the application, real-time traffic information is also displayed on two variable messaging signs installed along the route.

The smart corridor with incident and environmental information displayed in the application powered by OneMind





Find out more:
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