



INTELLIGENT TRANSPORTATION SYSTEMS

System for efficient and ecological driving (Eco-Driving) for Avanza

The project

- “Eco-display” on-board equipment in more than 700 vehicles mainly in Regional Transport Consortium of Madrid (CRTM):
 - Autonomous efficient driving analysis system
 - Integration with the CANBUS of the vehicle
 - Driver interface with alerts display and real-time assessment of driving style
- Backoffice tool for analysis of results and decision making

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«The main benefits of the system are the reduction of polluting emissions, the improvement of comfort and the reduction in the number of accidents, and the improvement in energy consumption and efficiency»

Juan Abel Arias, Corporate Maintenance Director of Avanza

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Initial situation and objectives

The main objective, in accordance with Avanza's commitment to sustainable transport, is to reduce polluting gas emissions and improve energy efficiency, all aligned with the Sustainable Development Goals of the 2030 Agenda. To achieve this, they highlight the importance of acting on the way of driving to get a greener, more efficient and safer service.



Solution

The project responds to the need for solutions that reduce CO₂ and NO₂ emissions, limiting the damage caused to people and the planet due to climate change. Also looking for the consequent saving of fuel with the economic effects derived from it, as well as improvements in the service provided to end users with a more comfortable, pleasant and safe driving.

GMV's Eco-Driving system collects technical data and alarms, measures performance and provides real-time KPI feedback to drivers, as well as generating automatic alerts to the maintenance team for a proactive service. The system collects real-time vehicle data through the FMS-CANBUS interface, such as fuel consumption, rpm, acceleration and braking that are used to assess performance in terms of comfort and Eco-Driving.

Results

Avanza, with the implementation of the Eco-Driving system, has gradually achieved, through the combination of real-time information to drivers and the analysis of data and training processes, a 9% of improvement in fuel consumption and in efficiency. This leads to a decrease in polluting emissions which can be estimated at around 7% in CO and 30% in HC/NOx.

A more efficient driving style has also led to a perception of improved comfort by users at the same time that there has been a reduction in the number of accidents, around 30%.

Implementation of an Efficient and Ecological Driving System (Eco-Driving) for Avanza in Regional Transport Consortium of Madrid

Avanza, company of the group Mobility A.D.O., committed to a sustainable, efficient and safe public transport, has implemented the GMV Eco-Driving system in its fleets of CRTM (Madrid)



«The reception has been very positive, both from the drivers and the rest of the operating personnel and from the users»

Juan Abel Arias, Corporate Maintenance Director of Avanza

Through a powerful reporting module, the results are provided to drivers, maintenance personnel and management on the evolution of performance or the optimization of fuel consumption, allowing comparison between drivers, lines, services, etc. and establishing a suitable training plan.

The implementation process has overcome the difficulties derived from the large number of vehicles (more than 700) of different brands, models, age, etc., together with being distributed in several fleets.

