

Modern way of evaluating, monitoring and managing the Heavy Maintenance of Olympia Odos' infrastructures

Heavy Maintenance tools

As part of its long-term responsibilities, Olympia Odos has to inspect and maintain all assets to guarantee the good performance throughout the Concession Period in terms of operation and safety of road user.

Today at Olympia Road we have an integrated decision-making tool that enables us to distinguish and plan heavy maintenance works.

Infrastructure Works can be defined as "the procedure for the implementation and monitoring of the Operation & Maintenance phases of Major Road Infrastructure Works" i.e. of: Bridges, Tunnels, Culverts, Retaining Structures, Storm water drainage systems, Signage infrastructure (gantries), Pavement infrastructure, safety equipment (barriers, fencing, etc.).

Aiming at ensuring:

- A specific/defined quality and level of service for the road network users;
- Sustainable, long-term and cost-efficient conservation and operational serviceability/performance of the above Road Infrastructures
- within the framework of a set of Obligations (contractual, legal, financial) and Corporate Objectives (financial and "political").

MIRANDA

It is a smartphone application allowing maintenance vehicles (patrols) to detect problems with the road surface. This first level tool for the real-time monitoring of the motorway profile detects pavement irregularities which are in relation with the level of comfort of users.

Until now two patrollers of Olympia Odos Operation have been equipped with MIRANDA devices (smartphone plus MIRANDA app) and they run along the motorway on weekly basis.

The benefit of this tool is improving maintenance efficiency and quality.

Satellite Radar ground movement / settlement monitoring

This monitoring is about satellite data analysis over large areas (Location and magnitude of ground motion over 200 km x 200m over an 18-month history) with no site intervention.

It allows comparison between measurement in different time of satellite passes to reveal surface deformation with mm precision

The main objective is to move to a more efficient Risk Management by monitoring Man-made slope landslide & erosion, Ground/Rock mass detachment, Pavement / embankment settlement, Network settlement due to leakage, vertical deformation of bridge deck, movement/cracks of houses close to manmade crest,

Smart Tunnel program

Innovative tunnel equipment monitoring and maintenance system on the tunnels of the motorway.

The system continuously monitors the tunnel equipment by means of sensors and sends all data wirelessly to the cloud through "smart" data collection hubs, while it populates the system with detailed maintenance data.

The "Smart Tunnel" program aims at better planning and implementing the infrastructure maintenance campaigns, using the new tools offered by the Internet of Things. Moreover, the system will also contribute to increase the equipment lifetime, to improve the safety and the service levels, as well as to make considerable tunnel maintenance cost savings.

Services for better trips

LED Project

In order to minimize high energy costs and reduce the carbon footprint, Olympia Odos launched an extensive energy saving program. Changing traditional tunnel lights to LED technology ones, making them the first tunnels in Greece to do so.

As a result, at least 60% of saving in energy consumption was achieved in the old tunnels of existing sections.

But the most important is that the upgrading of the tunnels with LED lighting offers better visibility to the drivers.

Road Traffic Prediction Service

To drive quality, Olympia Odos has done more and introduced an innovative road traffic prediction service accessible through our website. Travelers now receive real time data on traffic at the Elefsina- Korinthos section. The application communicates traffic density for the previous 15 minutes. Our clients also receive traffic predictions at two selected Toll Stations (Elefsina & Isthmos) for the next 72 hours.

The first "green" Motorist Service Stations in Greece

Our innovation also extends to service stations, where the first "green" stations have seen the light. Gas stations at Psathopyrgos area are already showing a 45% decrease in energy consumption compared to a conventional building. These are also the first stations where you can charge your electric vehicles and fill up with natural gas.