

Engineering and maintenance teams are enhancing the reliability and performance of their assets through the intensive use of sensors and their real-time monitoring. Vehicles are being developed with an ever-increasing number of these detection components, which together with the ability to capture, securely transmit, store, manage and analyze large volumes of data at an affordable cost, enable the consolidation of the concept of **PdM - Predictive Maintenance**.

Traditionally, teams perform preventive, corrective maintenance and variations such as MTBF (mean time to failure) and MTTR (mean time to repair) that are based on an event (a date or a failure).

In predictive maintenance, operating conditions are monitored in real-time and Artificial Intelligence systems detect anomalies, diagnose, indicate solutions, and then predict when maintenance will be required, reducing downtime and improving spare parts logistics.

Deloitte studies indicate that **PdM** can reduce the time needed to plan maintenance by 20 to 50 percent, increase uptime and availability by 10 to 20 percent, and reduce overall maintenance costs by 5 to 10 percent.

Stratio Automotive has developed automotive equipment (stratio.databox) that connects to the vehicle diagnostic interface (ODB II), collects data from all sensors in real time, such as battery, engine, gearbox, brakes, suspension and other systems available. This data is transmitted online to the "cloud" where Artificial Intelligence algorithms are used to track the vehicle, predict and identify faults before they occur, avoiding serious breakdowns and extended stops for repair. Each problem identified by the System includes details about the causes as well as step-by-step information to support the repair work. Where necessary, the workshop can access real-time data for any sensor available on the vehicle. Anything can be monitored remotely.

The **Stratio.Databox** provides quick and easy access through a web interface for malfunctions, faults and anomalies in the fleet divided by gravity and vehicle system along with operational KPIs. Information about each vehicle is simple to understand. Technical and operational details are immediately displayed on malfunction, its severity and the affected system.

Stratio Automotive is a startup born at the University of Coimbra, Portugal. It has as customers some of the largest road transport operators in Europe. Highlight for the UK, where thousands of buses, including the characteristic Double-Deck (double-decker buses) in the city of London make use of our technology. Stratio Automotive has offices in the United States, Portugal, England, Spain and Brazil.

Leonardo Moreira
lmoliveira@mettrix.com

Technology Director
Brazil

5521 99407.3374