

PROJECT

## Jam

### **Enhancing fuel efficiency and reducing vehicle maintenance and downtime costs, using real-time data from vehicle sensors (IoT) and a machine learning algorithm for big data analysis.**

**Funding:** European (Horizon 2020)

**Duration:** Feb 2016 - May 2016

**Status:** Complete

**Total project cost:** €71,429

**EU contribution:** €50,000



**Call for proposal:** H2020-SMEINST-1-2015

[CORDIS RCN : 200341](#)

#### **Objectives:**

Jam is an IoT solution (hardware & software), aiming to improve the efficiency of businesses operating medium/heavy-duty vehicle (e.g. passenger and distribution fleets) and industrial fleets (e.g. mining trucks and agriculture vehicles), targeting key needs:

- Fuel efficiency: fuel represented, in 2011, 32% of the total cost of fleet operation
- Compliance with environmental regulations and reduction of GHG emissions
- Vehicle off-road (VOR) time and maintenance costs: Many operators put the cost of having a single VOR as being in the hundreds, if not thousands, euros/day

According to Frost & Sullivan, the OBD market is expected to reach 117.8 million subscribers in 2019 and to become a billion-dollar industry by 2020. Although there are already solutions on the market for ECU interpretation on light-duty vehicles, the amount of new protocols, physical interfaces and differences in details in the way industrial vehicles operate constitute a barrier, not yet surpassed.

Business and industrial fleets need an agnostic solution that allows optimizing the fleet management by reducing the maintenance costs and VOR time. Jam brings an innovative approach and focus on prevention and constant analysis of real-time vehicle data through a machine-learning algorithm allowing companies to save money on fuel costs, vehicle parts and hours of labour due to a more efficient management of fleet resources.

Competitive advantages:

- Designed for medium/heavy-duty and industrial vehicles
- Agnostic system
- Machine-learning algorithm that compares the ECU sensor data with historical data, predicting critical events
- New eco-driving approach
- Troubleshooting and scheduled repairs approach focused on prevention and constant analysis of real-time vehicle data

The solution will be implemented at a global scale, starting in European markets: Portugal for early market uptake and testing; and then the biggest EU markets (Germany, UK, France, Poland, Italy and Spain).

#### **Parent Programmes:**

**Institute type:** Public institution

**Institute name:** European Commission

**Funding type:** Public (EU)

**Lead Organisation:**

**Stra Lda**

**Address:**

RUA ARLINDO VICENTE LOTE 22 6 FTE ESQ  
3030 298 COIMBRA  
Portugal

**EU Contribution:** €50,000

**Technologies:**

Condition monitoring  
IoT based application for monitoring vehicle's condition

**Development phase:** Research/Invention

**STRIA Roadmaps:** Smart mobility and services

**Transport mode:** Road transport

**Transport sectors:** Passenger transport, Freight transport  
Societal/Economic issues, Decarbonisation,

**Transport policies:** Digitalisation

**Geo-spatial type:** Other