

PROJECT

**GT**

## **Green battery-less Tire Pressure Monitoring System**

**Funding:** European (Horizon 2020)

**Duration:** Apr 2015 - May 2017

**Status:** Complete

**Total project cost:** €803,179

**EU contribution:** €562,226



**Call for proposal:** H2020-SMEINST-2-2014

[CORDIS RCN : 196399](#)

### **Objectives:**

The main objective of the project is the growth and internationalization of FARSENS by the development of a Tire Pressure Monitoring Systems (TPMS), an electronic system in charge of the monitoring of the wheels air pressure, providing real-time information. This information is very useful regarding security, but also in terms of gas consumption, and thus in terms of reducing air pollution. Besides the intrinsic interest of this system in relation to security and environment, it is also mandatory by legislation to be installed in all the new cars in the USA and it will be mandatory by the end of 2014 for all new models, which makes an increment of around 50 million vehicles equipped with this system until 2015. Taking into account 4 devices per vehicle, it turns out in 200 million TPMS units.

This project will lead the company growth for the next years from a high technology solution developer to an important stakeholder in the automotive industry. During the last years the main strategy of the company has been focused on creating a reliable structure in order to ensure the success once one of the developed products enters the market. This project is "natural" as it is the next logical step to develop its strategy. FARSENS battery-less solution meets all technical specifications and minimizes costs due to:

1. Cost-effectiveness (less subcomponents and the new design makes it half the actual cost). FARSENS solution is based on a battery-less system and a 99% inclusion of the sensor's functionalities in only one ASIC. These decrease the cost of the components and assembly cost.
2. Saving due to less waste management and easier recycling (there is not a battery), without compromising the quality or the service.

Thanks to the SME instrument, 2017 could be the year with the first sales, with an estimated 28% profit (0.55 M€) and during 2018 it is estimated an accumulated balance of 0.5 M€, being the ROI only 2 years.

### **Parent Programmes:**

[H2020-EU.3.4. - Horizon 2020: Smart, Green and Integrated Transport](#)

**Institute type:** Public institution

**Institute name:** European Commission

**Funding type:** Public (EU)

### **Lead Organisation:**

**Farsens, S.I**

**Address:**

PASEO MIKELETEGI 54 0 1 2  
20009 GUIPUZCOA  
Spain

**EU Contribution:** €562,226

## **Technologies:**

Condition monitoring  
IoT based application for monitoring vehicle's condition

**Development phase:** Implementation

**STRIA Roadmaps:** Vehicle design and manufacturing

**Transport mode:** Road transport

**Transport sectors:** Passenger transport, Freight transport

**Transport policies:** Safety/Security, Decarbonisation

**Geo-spatial type:** Other