

**COMPANY NAME**

TECNOLOGÍA DE SEGURIDAD VIAL Y ACÚSTICA, S.L.

**CHALLENGE SHEET****CHALLENGE CODE**

03.1\_TSVA

**TITLE**

Active road safety for transportation infrastructures using machine vision

**DESCRIPTION**

Accident rates on roads and in urban environments are still too high. Advances such as digital technology, IoT or 5G technology can bring a differential value by converting passive elements into active safety instruments.

We have developed a first version of a technology that transforms classic equipment into connected and intelligent equipment for roads, railroads and urban areas.

TSVA has created and patented a digital technology that makes it possible to provide the infrastructure with active road safety, i.e. the ability to identify risks on the road by means of valuable information and channel it in real time to the user for safer driving through adaptive signaling. This technology also provides the competent Administration with diagnostics on road safety and accident rate factors.

**HOW COULD WE**

The functionalities we wish to incorporate consist of:

- Advanced Vision/Artificial Intelligence technology to provide the equipment with a differential value, totally new and disruptive worldwide.
- Technology that, applied to all types of equipment, allows not only to act according to a specific configuration, but also to analyze its own experience, learn and optimize its own operation.
- A system that allows us to increase the efficiency in the exact detection of risks and that allows us to report information to the competent Administration with greater precision and in real time.

**SELECTION CRITERIA**

- Years of experience using artificial intelligence.
- Projects implemented in the application sector: road safety, mobility, transportation.
- Execution time.
- Robustness of both HW and SW components for outdoor environments with high speed of vehicles.

**TARGET INDICATORS**

- Reduction of accident and accident rates before and after the application of this technology in specific locations.
- Efficiency and precision in the identification of risks on the road in order to communicate and activate the most appropriate actions for each case. (identification of various elements: pedestrians, animals, cyclists, vehicles, smaller or larger objects, weather, etc).

**REQUIREMENTS**

- Open communication protocols to integrate with current TSVA solution.
- Robust technical solutions compatible with outdoor exposure (IP protection, vandalism...).
- Open communication and integrable with any remote management platform.
- Real-time identification-analysis-action.
- Reasonable cost.
- Minimal maintenance.
- Attention to RGPD..

**CHALLENGE TYPOLOGY**

Process

Technology

Business

Product

**KEYWORDS**

Visión Artificial. Inteligencia Artificial. Identificación en tiempo real, Predicción, Smart Roads. Seguridad vial activa.