

The PRoPART positioning solution is supported by a low cost Ultra-Wideband (UWB) solution for ranging and baseline estimation, as well as base stations for communication using V2X (ETSI ITS-G5).

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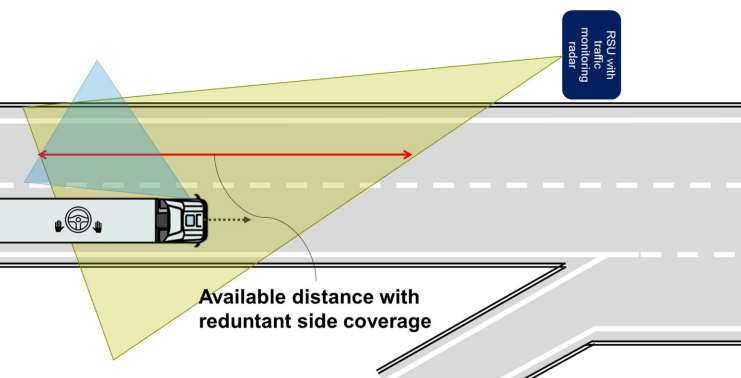


HORIZON 2020

COLLABORATIVE AUTOMATED

VEHICLE FUNCTION USING V2X

Automated driving functions require a high degree of confidence in the environment model along with an accurate and highly robust positioning solution. This can be targeted by connecting automated driving systems together to form Connected Automated Driving (CAD) systems. However, in doing this, some new challenges arise. One of these is how to spatially relate information from a distributed set of sources. This can only be solved by using a common spatial reference frame, which in turn requires highly robust and precise localisation.



PRoPART

Precise and Robust Positioning
for Automated Road Transports

PRECISE AND ROBUST POSITIONING

FOR AUTOMATED ROAD TRANSPORTS



Innovative Positioning Technology Enhanced RTK Solution Enhanced V2X Positioning Messages and RSUs Perception On-Board and Surrounding Data Fusion End-User Vehicle Application Test and Validation Platforms



The PRoPART system will provide a deeply integrated, multi-constellation, multi-channel navigation system that fulfils the availability and precision requirements for automated driving.



European
Global Navigation
Satellite Systems
Agency

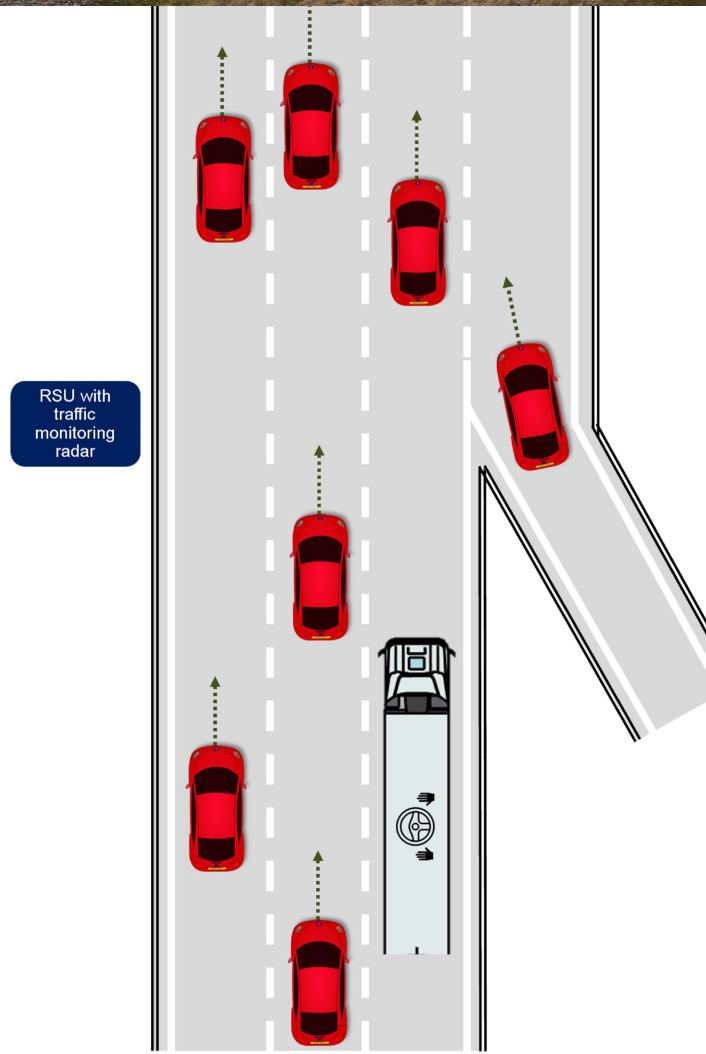
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USING GALILEO

DISTINGUISHED FEATURES

The PRoPART system is a robust and accurate combined positioning solution based on the features of Galileo and EGNSS signals in combination with sensor fusion of in-vehicle sensors. The PRoPART positioning solution is supported by a low cost Ultra-Wideband (UWB) solution for ranging and baseline estimation, as well as base stations for communication using V2X (ETSI ITS-G5).

The PRoPART positioning solution fulfils the requirements of a collaborative automated vehicle function that will also use V2X technology to fuse information coming from a distributed set of roadside sensors. After this fusion, within the perception layer of the PRoPART system, the environment model will be confident enough to plan and execute a safe and fully automated lane change of a heavy commercial vehicle.



FOR HIGH AVAILABILITY

IN DEMANDING ENVIRONMENTS

Title
Precise and Robust Positioning for Automated Road Transports
Project Number and Programme
776307 - H2020
Call
Applications in satellite navigation - Galileo
Topic
GALILEO-1-2017: EGNSS Transport applications
Start Date 1st Dec 2017
Duration 24 months