

# SAFESPOT INTEGRATED PROJECT - IST-4-026963-IP

## DELIVERABLE



### SP3 – SINTECH – Innovative Technologies

## Implementation Plan

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## 1. EXECUTIVE SUMMARY (CRF)

The document provides a view of the technical choice made in the implementation phase of the SAFESPOT project, related to the three key technologies analyzed in the SINTECH subproject: the Vehicle Ad-hoc Network (VANET), Positioning and Local Dynamic Maps (LDM). Moreover a short description related to Esposytor (the SAFESPOT monitor) is reported.

For VANET a brief description about the available platforms (SW and HW) are provided and the planned choices of the consortium illustrated.

The beaconing and other type of VANET messages are explained.

VANET SW implementation is dealt in depth and a full detail of the SW architecture is provided illustrating all the blocks through description and UML diagram. The main block of the VANET SW are: Transmission and Reception engine, Congestion Control, Neighbour Table Manager, Relevance and Forwarding Core. Also the specific internal messages (using UDP protocol) are presented in order to explain the interaction with the other SAFESPOT units. Moreover the VANET SW access LDM data.

The SW will be developed in open-form and for practical experimentation will be ported in more HW platforms.

For Positioning D3.3.2 (dedicated to specifications) already provided details about implementation. For this reason there is a brief recall of architecture and implementation choices and then more details are provided to the Synchronization which is another key issue of the SAFESPOT system.

For LDM two parallel implementation are planned :one based on PostGres Data base developed by Tele Atlas and Bosch and another based on SQLite developed by Navteq.

Both solution will be implemented in order to be interchangeable. This is basic requirement due to the fact that in a specific Test Site only one implementation will be available due to the link with the static maps (which have proprietary formats). In order to have vehicles working in different Test Sites the LDM implementation must be interchangeable,

For this reason a basic set ( level 1)) of Query API (Q-API) were agreed. More specific API could be requested by single LDM users (e.g. Application developers) and will be implemented in a second step ( Level 2).

Esposytor implementation plan is presented in the final chapter.