



Intelligent Cooperative Sensing for Improved traffic efficiency – ICSI



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General Information

ICSI is FP7 STREP project co-funded by the European Commission under the ICT theme (Call 8) of DG CONNECT

Funded by the European Commission under the Seventh Framework Programme (FP7).

Budget:
4,538,143 EUR

Project Coordinator:
INTECS

<http://www.ict-icsi.eu>

Intelligent Cooperative Sensing for Improved traffic efficiency
Grant Agreement Number: 317671

Work programme topics addressed:
ICT-2011.6.7 Cooperative Systems for energy efficient and sustainable mobility



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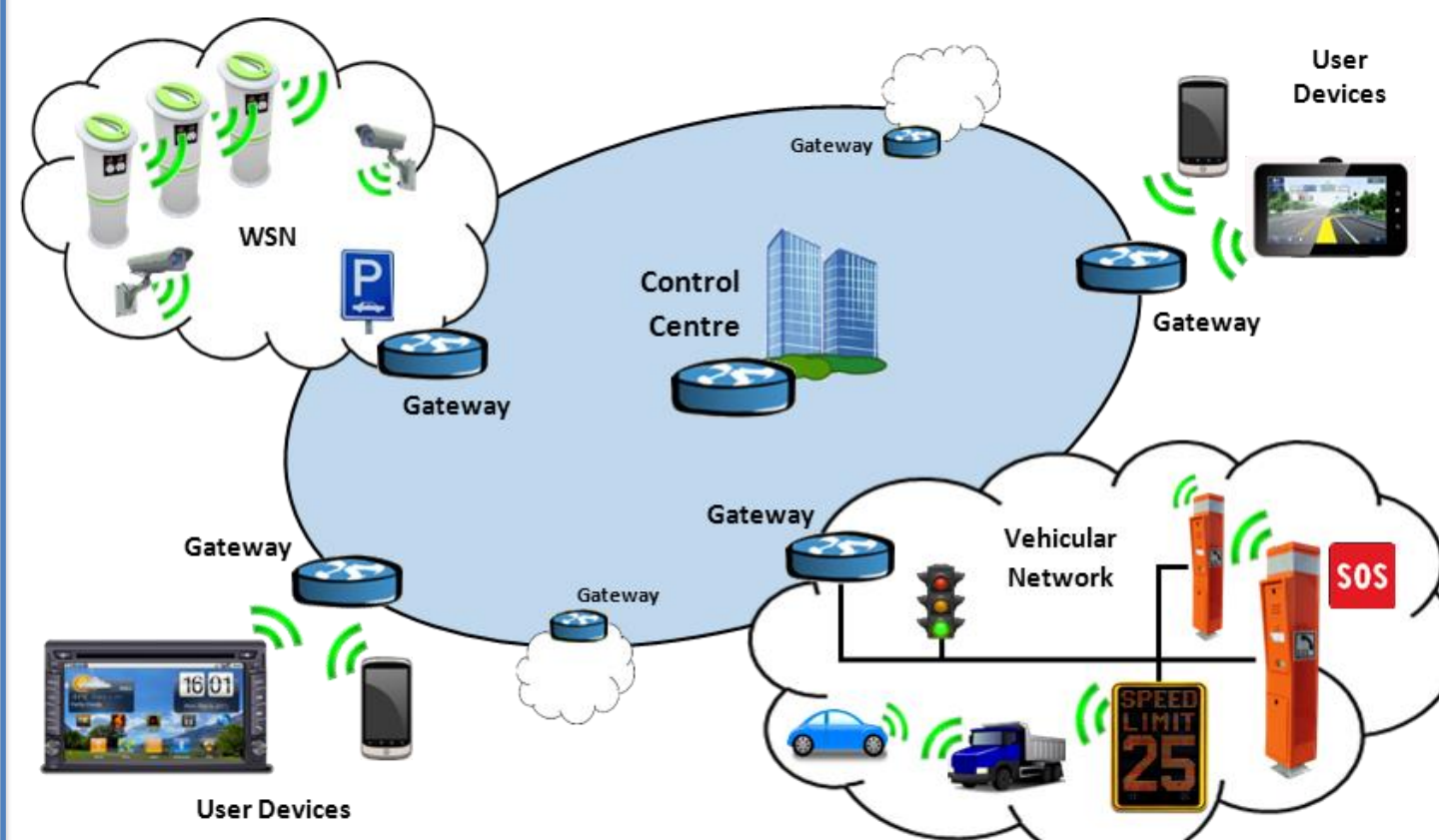
Project Objectives

The goal of the project is to define a **new architecture** to enable **cooperative sensing** in intelligent transportation systems and to develop a reference end-to-end implementation.

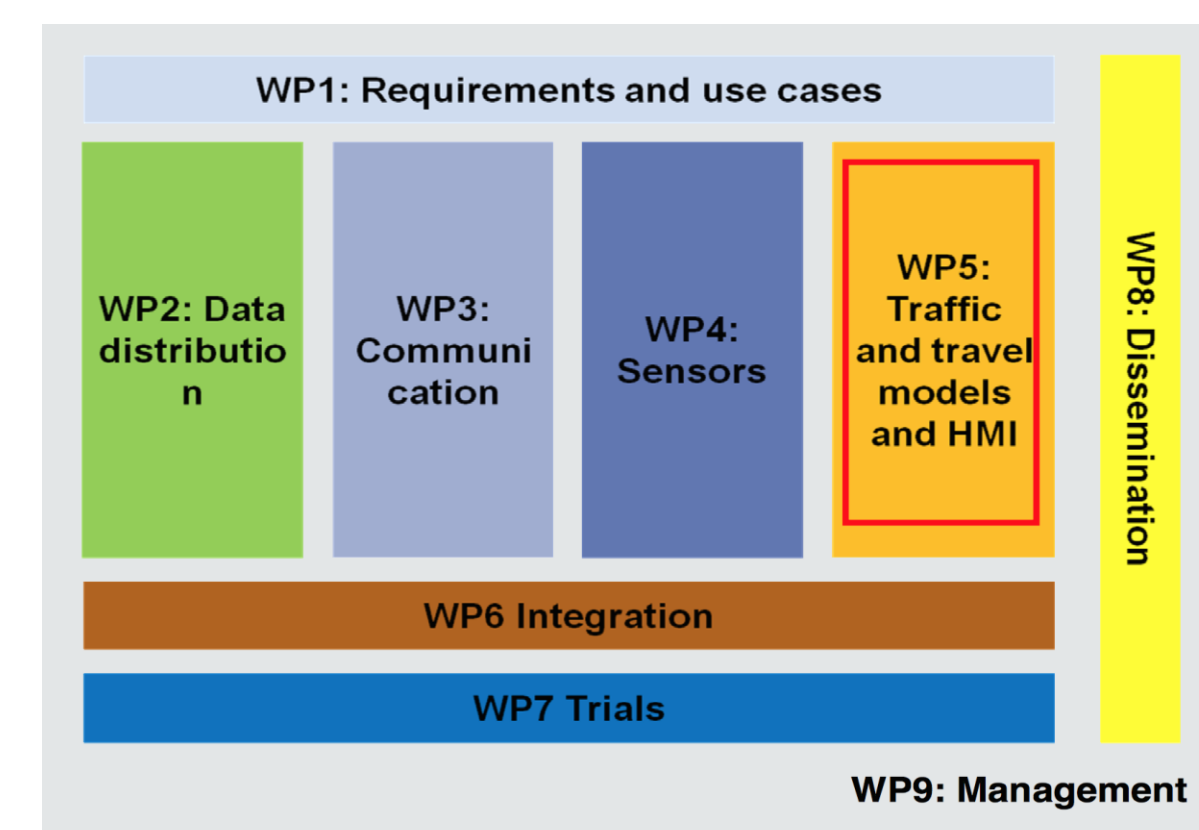
The project results will enable **advanced traffic and travel management strategies**, based on reliable and real-time input data.

The effectiveness of such new strategies, together with the proposed system, **tested in two field trials**.

- Design of a new architecture for M2M communication and local intelligence implementation in ITS
- Development of a reference implementation of the data distribution layer
- Development of a new class of road sensors with pervasive communication capabilities
- Adaptation of V2X and backhauling communication technologies to the proposed architecture
- Definition of novel traffic and travel management strategies leveraging the proposed solution
- Validation of the proposed solutions via field trials



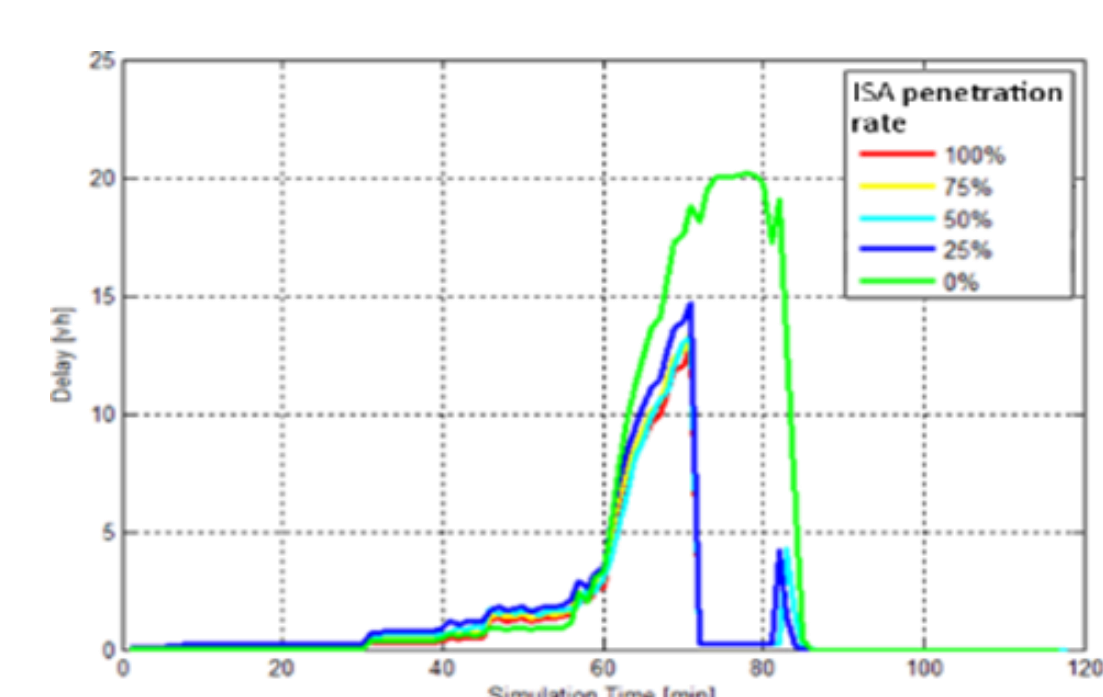
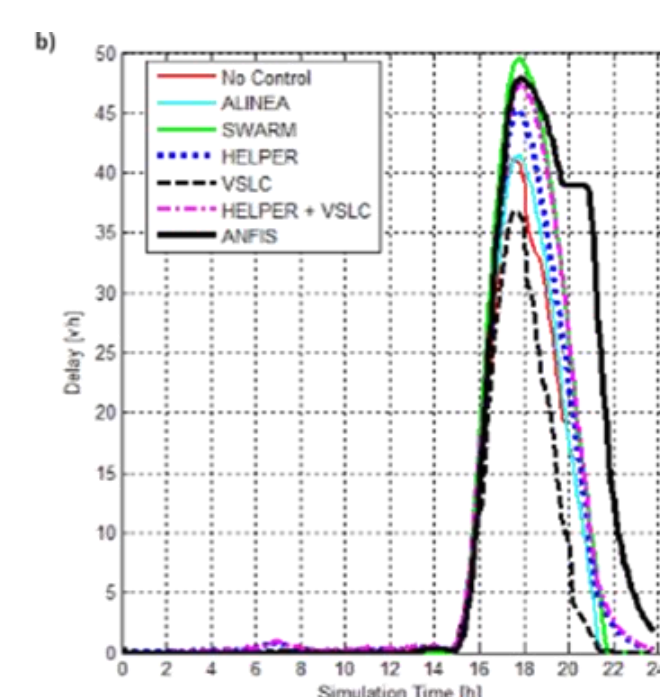
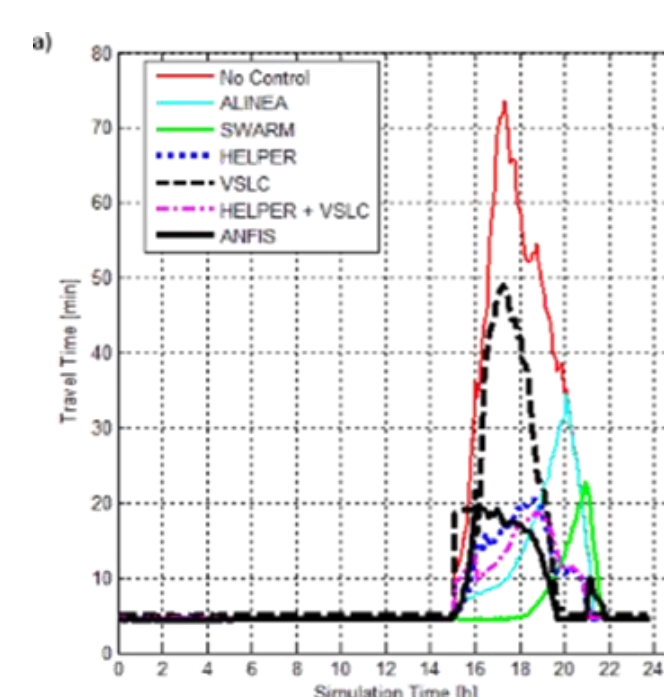
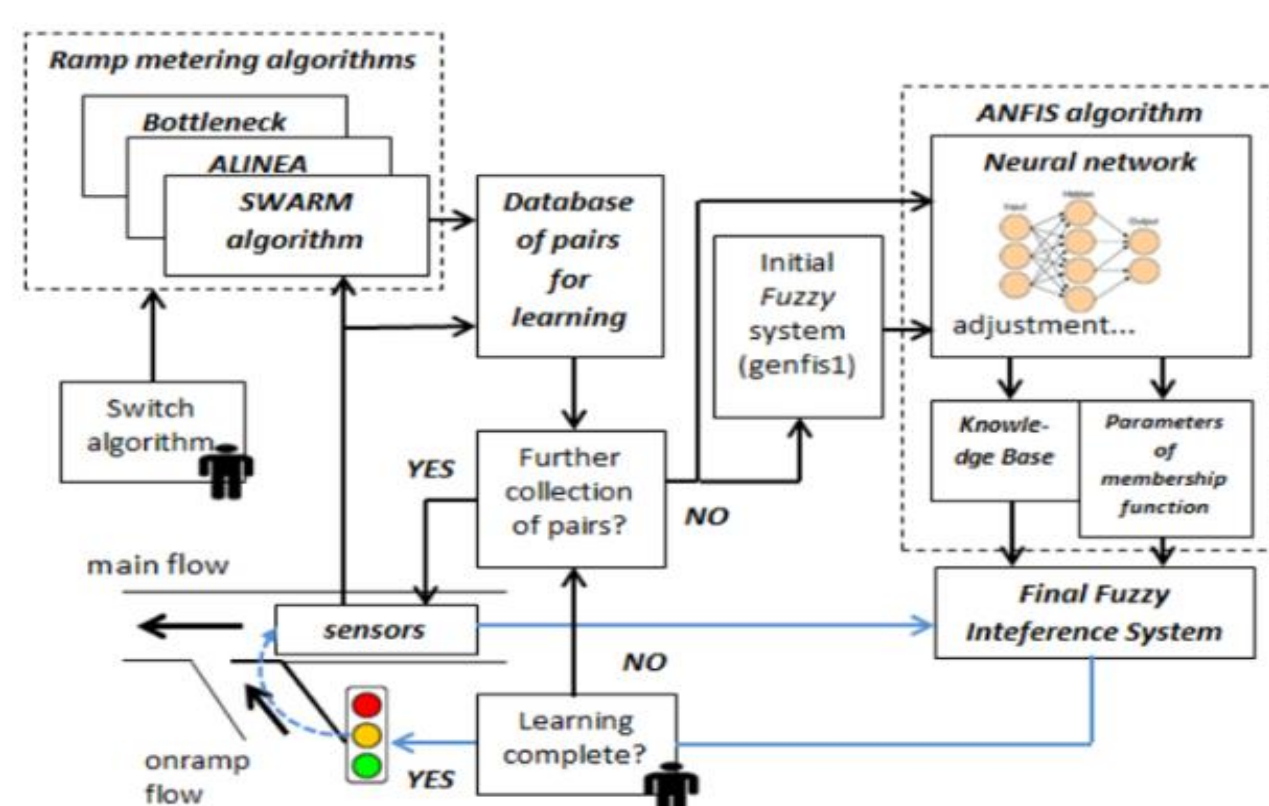
WP Structure



FPZ Task

Task: T5.1 Traffic models and travel management strategies definition

- Sub-task T5.1.1 Information analysis and integration
- Sub-task T5.1.2 Design and identification of rules and traffic patterns
- Sub-task T5.1.3 Formal representation of the knowledge
- Sub-task T5.1.4. Novel ramp metering algorithms



ANFIS based algorithm for cooperative Ramp metering

Comparative analysis of various Ramp metering algorithms

Impact of ISA penetration rate