Intelligent Cooperative Sensing for Improved traffic efficiency – ICSI

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General Information

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

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**Budget:**
4,538,143 EUR

**Project Coordinator:**
INTECS

http://www.ict-icsi.eu

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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

WP1: Requirements and use cases
WP2: Data distribution
WP3: Communication
WP4: Sensors
WP5: Traffic and travel models and HMI
WP6: Integration
WP7: Trials
WP8: Management

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