“Car2Car - Information protocol of road events, vehicle-to-vehicle communication”
I. INTRODUCTION

II. CURRENT SITUATION OF THE BUSINESS IN SPAIN

III. EVOLUTION FORECAST, OPPORTUNITIES AND STRATEGY

IV. REQUIREMENTS
I. Introduction

Aim:
Design of a communication protocol that can enable the creation of cumulative intelligence between vehicles, as a Web 2.0

Business scope and technologies:
➢ Technology based on WLAN net, each vehicle is a router, repeats and amplifies the received signal
➢ C2C, or V2V (Car2Car or Vehicle-2-Vehicle) communication: information exchange between 2 near vehicles on the traffic ways
➢ Assistance to the driver, stepping up its security:
   ➢ Reduction of the number of accidents
   ➢ Mitigating unavoidable accidents
➢ Clearing a lane for priority vehicles (ambulances, fire brigade)
➢ Warning drivers about traffic problems
   ➢ Congestion anticipation (braking)
   ➢ Route change
II. Current situation of the business in Spain

Business situation in Spain:

❖ MARTA project (Movilidad y Automoción con Redes de Transportes Avanzadas) financed by CDTI in the ZENIT Program: Development of networks and protocols, vehicle equipment (sensors, communication modules, actuators), human-machine interfaces, equipment for infrastructures, services for the end user, services to increase the efficiency of the road network, integrating vehicle and certification.

❖ MARTA project have finished during 2011 having established solid R&D capabilities to exploit.

Main companies involved:

❖ SEAT and FICOSA as OEM and TIER1 supplier, with approach on embedded technology.

❖ Telefónica, ETRA GMV, with approach on networks and infrastructures

❖ Other partners: ADTelecom, Agnitio, AT4Wireless, Atipic, IDOM, Moviquity, Opnatel, SGI y TSS.

❖ PRIs (Public Research Institutes) and Universities.
III. Evolution forecast, opportunities and strategy

- New technology: possibility to launch new applications and services, free or not, to enter in the market.
- Two clear business opportunities: providing / operating the technology.
- Worldwide business, possibly subsidized by the administration, based on technology ready to use.
IV. Requirements

**Legislation:**
- UE has set an operation frequency (5.9 GHz) and a bandwidth (30MHz) for the V2V system in all member countries.
- Range between 5.885 GHz and 5.915GHz to not interfere (without counting with the guard bands).
- USA and Japan have similar operation frequencies.

**Economic aspects:**
- Active participation by the cities and urbanizations (equip streets and roads with this technology).
- Communication limits between vehicles must be improved.

**Product specification:**
- Already operative.
What is Invest in Spain?

We share mutual Interests
INVEST IN SPAIN offers, without charge, an integrated investment support service

I. Study and assessment of opportunities:

i. We provide reports tailor-made studies and all the relevant information you need to establish yourself in Spain.

ii. Starting-up: finding the ideal location identifying suitable partners and/or consultants and assessors, offering institutional contacts; lawyers, management services, accountants, employment agencies and executive headhunting services, assessment in permit and licensing procedures.

iii. Post-investment: specialized assistance and support, facilitating contact with the relevant players, assessing the regulatory and legal environment, with a permanent service of monitoring opportunities and aid, thereby facilitating your integration into the Spanish industrial fabric and its sectored networks
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