

The SafeTRIP project

Sébastien Grazzini - Eutelsat



What is SafeTRIP ?

Satellite Applications For Emergency handling, Traffic alerts, Road safety and Incident Prevention

- An integrated project (IP)
 - From user requirements to development, integration, demonstration and evaluation
 - Integration and reuse of emerging technologies developed in other European initiatives
- To improve road safety, mobility and environment protection
 - ► For passenger vehicles
- Using satellite 2-way satellite communications and positioning
 - Data communication
 - DVB-SH broadcasting
 - GNSS positioning



Project key figures

- Call: FP7-SST-2008-RTD-1
- Project n° SCP8-GA-2009-233976
- Duration: 36 months
- Project Start: 01/10/2009
- Project End: 30/09/2012
- Budget: € 11.250.269
- EC-contribution: € 7.890.199
- 20 partners of 7 countries
- Coordinated by Sanef



SafeTRIP consortium

- Service operators
 - Masternaut (fleet management), IMA, MAIF, MACIF (Insurance and assistance), Eurolines (long distance coaches operator)
- Road operators
 - ► Abertis autopistas, Acesa, Sanef
- Telecommunication providers
 - Eutelsat, Retevision (Abertis Telecom)
- Technical partners
 - DLR, Fraunhofer, Fondazione Ugo Bordoni, Indra Espacio, MBI, Quantum, Masternaut
- Academia
 - University of Budapest (BME), University College London (UCL), PIAP Warsaw
- Project management
 - Algoé



Some words about the S-Band

- Eutelsat W2A designed to include first European Sband payload
 - Iaunched on April 2009
 - ramp up for commercial services
 - broadcast and unicast (bi-directional) services
- 2 x 30MHz
 - ▶ Uplink: 1.98 2.01 GHz
 - Downlink: 2.17 2.2 GHz



- Exclusive use for Mobile Satellite Services (MSS)
- Pan European authorization granted on May 14th 2009
- 2 way data communication system available from 2011/2012
- Ability to use small omni-directional antennas on the mobile unit



System architecture



SafeTRIP objectives

- To develop and demonstrate an integrated system based on a 2way satellite communication
- To demonstrate the concept using a set of safety related applications involving 2 terminal manufacturers and 2 transportation modes
 - Passenger cars
 - Bus / coaches
- To evaluate the impact of the SafeTRIP system and services on safety, security and environment



New Services around the Vehicle

1. MEDIA & ENTERTAINMENT

2. NAVIGATION & INFORMATION

- Satellite radio/TV
- Entertainment services
- 7. PUBLIC SECTOR Map updates • eCall Location-based services eCall with Video Road safety alerts Intelligent Transport Systems (ITS) Collaborative Road Alerts Driver alertness service 6. TRANSPORTATION **3. CAR MANUFACTURERS** • Toll collect/ Road charging • Software updates • Traffic management Remote vehicle diagnostics Patrol with eyes 4. FLEET MANAGEMENT **5. INSURANCE** Car / truck / trailer / goods • Pay-as-you-drive tracking Stolen vehicle tracking Passenger tracking

Implemented during the project



Strengths of SafeTRIP project

- Global coverage
 - Fundamental for safety applications all over Europe
 - Independent of terrestrial network (in case of disaster)
- Quick and easy deployment
 - ► Ensure full coverage as soon as the system is launched
 - Avoid economical problem concerning low populated areas
- Ecologic oriented
 - Ability to mix business oriented applications with institutional research
 - Satellite communication is more ecologic than terrestrial repeater
- Industrial support of broadcast applications (e.g. Satellite Digital Radio)
 - Increase the popularity of the system
 - Increase the manufacturer's interest



Distribution of user needs depending on the SafeTRIP platform benefit



SafeTRIP value proposition is at least highly important in 75% of the user needs collected in WP2.1

Safe*trip.*...

User needs assessment – public report

User needs segmentation

- Partner needs (coaches operator, assistance/insurance company, road operators)
- Individual needs (vehicle drivers + passengers)
- Stakeholder needs (individuals, organisations)
- Needs of organisation and businesses
 - transport companies, MS border crossings
- User needs classification
 - Must have (core)
 - Should have
 - Desirable
- Competing technology and services
 - Review of 19 technologies and services
- Influences
 - Political and macro economic
 - State of the art transport technologies
 - Main EU projects

More information

- Visit our website
 - http://www.safetrip.eu
- Project coordinator
 - Guy Frémont
 - guy.fremont@sanef.com



