eCall ROAD MAP IMPLEMENTATION STUDY

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1. Introduction

eCall is an emergency call either generated manually by vehicle occupants or automatically via activation of in-vehicle sensors when an accident occurs. When activated, the in-vehicle eCall system establishes a 112-voice connection directly with the relevant PSAP (Public Safety Answering Point), which is a public authority or a private eCall centre that operates under the regulation and/or authorisation of a public body.

The Driving Group on eCall is one of the Working Groups established by the European Commission under the eSafety Forum. eSafety is a joint industry/public initiative for improving road safety by using new Information and Communications Technologies. The overall objective is to join forces and build up a European strategy to accelerate the research and development, as well as deployment and use of Intelligent Integrated Safety Systems including Advanced Driver Assistance Systems (ADAS) for increasing road safety in Europe.

The eCall Driving Group released a Memorandum of Understanding (MoU) in August 2004 that calls for stakeholders to actively investigate feasible and sustainable eCall solutions and potential business cases. The MoU lists the necessary arrangements for implementation of the eCall action plan and sets out the measures to be taken by the European Commission, Member States, automotive industry, telecoms and insurance industries.

2. Stage 1 – The elaboration of the study on single number emergency systems using eCall technology

The Romanian consortium composed of ITS Romania, Romanian-American University and Electronic Solutions is in course of laying out the National eCall Deployment Strategy. In the first stage of the project, which took place between October 2008 and November 2008, there have been fulfilled two activities:

A. **Study on European and world wide emergency systems**

B. **Study on current eCall technologies**

Besides these studies, the project web-site was also launched in the first stage.

A. In the **Study on European and world wide emergency systems** the following subjects were analyzed:

- **Road safety policies:** the measures that should be taken to achieve the overall target of 50% fewer deaths on the roads in 2010

- **Road safety support activities**

- **Single number emergency systems**: the current state of the single emergency number (112) implementation in Europe, as well as the utility of 112.

- **Citizen awareness**

B. The **Study on current eCall technologies** contains the following chapters:

- **eCall requirements**
- **eCall responsibilities:** the responsibilities of every actor involved were highlighted
- **Performance Criteria:** the performance criteria for every component in the eCall system
- **State of research of eCall systems in Romania**

In Romania, the "Politehnica" University of Bucharest, Road Transport Vehicles Destagement, has carried out contract research 126 / 2004, INFOSOC program with the title "DATA SYSTEM FOR MONITORING ROAD TRAFFIC ACCIDENTS to prevent and reduce TIME OF INTERVENTION -- e-RS ", successfully completed in 2006.

Through this contract, research was conducted, a practical model of equipment was designed and built and software was designed to automatically transmit to a single emergency system the occurrence of road impacts, roll-overs, fire and explosions, together

The study's web-site

Project website www.e-safety.ro contains information about eSafety and eCall systems and has a page dedicated to the eCall Road Map Implementation Study.

Pages dedicated to the study are as it follows: Project details, Stageners, 1st and 2nd stage and Results, which will be developed as the study activities are carried out.

3. **Stage 2 - Design study on the potential for infrastructure development at national level for implementation of eCall technology**

The studies being conducted are as it follows:

A. **Study on in-vehicle infrastructure and communications system for the eCall system**

B. **Study on the infrastructure of receiving eCall emergency messages**

C. **Dissemination**

4. **European eCall Implementation Platform**

A. European eCall Implementation Platform Kick-Off Meeting

On 12 February 2009 a meeting was held in Brussels to launch the European Platform Implementation eCall service. On behalf of Romania Mr. Dorin Dumitrescu attended the meeting.

The European eCall Implementation Platform aimed to pull together all stakeholders in the implementation of eCall and to harmonize their activities, which could accelerate the implementation at national and European level.

The platform is a continuation of activities and meetings held to date, for example eCall Management Group (eCall Driving Group), PSAP Experts Group (PSPA Expert Group), the activities on Standardization Working Group and the providers of services (Service Providers Working Group).

Among participants in the meeting were representatives of the European Commission, the Member States (MS), the automotive industry and other stakeholders. The main objectives and structure of the platform, with the appointment of the President and his term of office were discussed at this meeting.

During the meeting the Terms of Reference were discussed and approved. Also the membership list was reviewed and updated.

The platform addressed the nomination of a chair and the duration of this mandate. After a series of discussions it was decided that Mr. Meyer, ERTICO would be invited to take this role for a period of 2 years, and that he would be supported by a vicechair, which should be a representative of a Member State, rotating every year.

In the end it was decided that each Member State has the task of building a national platform for implementing eCall as a stage of the European platform.

B. 2nd Platform Meeting

The second eCall Implementation Platform meeting took place on 24/03/2009 in Brussels.

During the meeting the current status of the standardization was presented: the approval by 3GPP and ETSI of the core technical specifications for the data transmission.

The different possibilities of funding infrastructure projects were presented. It was noted that the only possibility for proposal of eCall implementation projects in the current TEN/T call being within the Economic Recovery Plan (ERP).

The following preliminary tasks were discussed:

- Task 1 – Production of guidelines for implementation
- Task 2 – Design of Pilots
- Task 3 – Transmission information PSAPs-Road Operators
- Task 4 – Maintenance of the database for VIN decoder
- Task 5 – Exchange of best practices/sharing evidences
- Task 6 – Awareness and education campaigns
- Task 7 – Cross-boundaries handling of eCall
- Task 8 – Procedures to handle eCall through intermediate platforms: ways to implement the eCall discriminator
- Task 9 – Possibility of using incentives
- Task 10 – Open use of the eCall Platform for different services
- Task 11 – SIM and Network Management
- Task 12 – Control of eCall system in Periodical Technical Inspections
- Task 13 – Clustering (geographical and functional)
- Task 14 – Accuracy of localization

The next EeIP meeting will take place in October 2009.

5. Future Objectives

The preparation of Romania's point of view at the European eCall Implementation Platform Kick Off Meeting together with the eCall National Action Group were accomplished by organizing meetings of the Romanian eSafety Forum.

The eCall National Action Group is being prepared in the Interministerial Council for Road Safety (CISR – Consiliul Interministerial de Securitate Rutieră).

The eCall Road Map Implementation Study has two more stages: one between May 2009 and September 2009 and another one between September 2009 and February 2010.

Stage 3:

- Development of the architecture of the single number emergency system, including eCall technology
- Opportunities and barriers (technological and organizational) in the implementation of eCall technology - E 112

Stage 4:

- Development of the methodology for implementation of the eCall service in Romania.
- Development of the methodology for assessing the performance of eCall