



Recommendations for the introduction of the pan-European eCall



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DG eCall meeting
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DG eCall focus areas

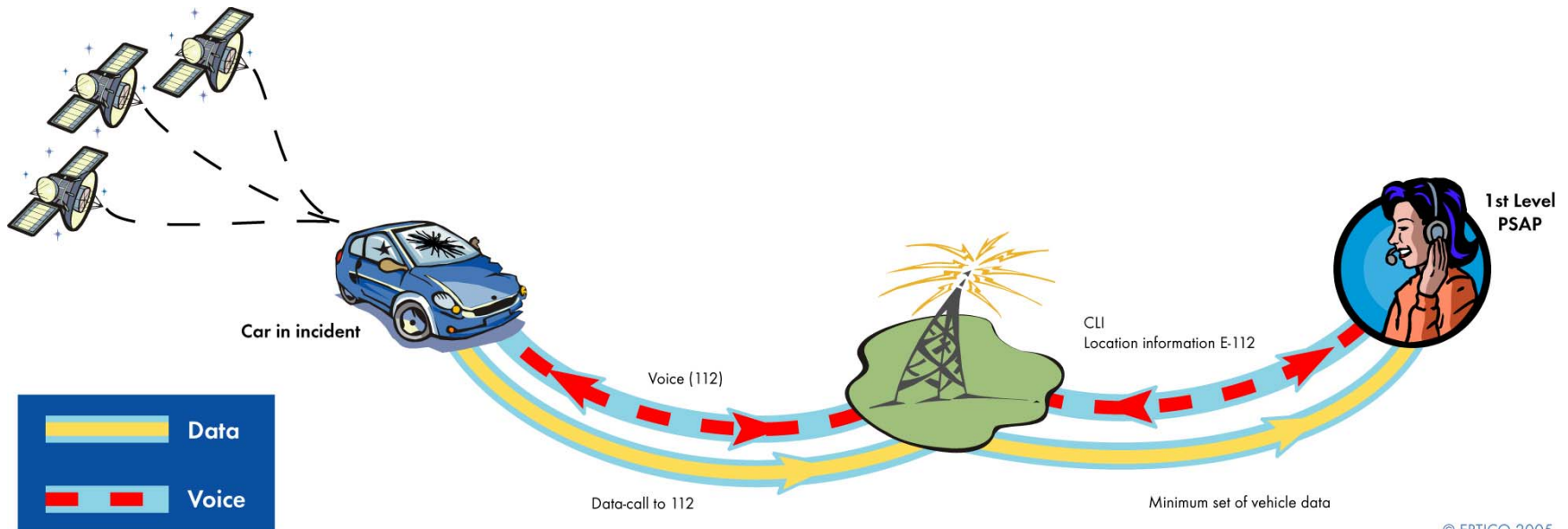


- o Pan-European solution available to all vehicle users
 - o Define minimum of information needed to deploy emergency assistance – MSD
 - o Define an agreed European interface for the audio and for sending the MSD from vehicle to emergency call centre
 - o Define performance criteria in eCall service chain
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eCall architecture



- o eCall architecture is based on a quasi simultaneous voice-data link from an in-vehicle terminal to the 1st level PSAP using the E112 emergency number



Comments received



- o Sensor being triggered and thereby starting the actions should have been included, as that is a crucial link in the chain (KoKom)
- o Belonging to GSM Standards (ETSI,3GPP) that must be available for long enough to support vehicle life cycle (ACEA)
- o Remove the CLI from both figure and text (ACEA)
- o Further, **the recommended process shall be reviewed** to take into account the accumulated experience of the current service providers of eCall services (ARC/ADAC)
- o Various **interpretations of the described process** must be possible at national level providing that the solution answers the main objective amongst which interoperability across Europe (ARC/ADAC)
- o using GPS and GSM as technical basis is reasonable (ARC/ADAC)

Comments received



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- o Make clear that a large **flexibility and interpretation** exist for the national authorities in terms of the structures and organisation to support the pan-European eCall service e.g agreements with private contractors, public/private partnerships (ARC/ADAC)
 - o The recommendations document should be revised according to the following principles (T-mobile):
 - Introduce a clear split of required technical function blocks from possible responsibilities mappings.
 - Separate all function blocks from each other that may have different responsibilities
 - o In case of USSD it is not possible for *the telecom operator to deliver the 112-voice together with the CLI, mobile location and the eCall MSD to the appropriate PSAP via the **fixed line network*** because **USSD is not supported by fixed line network** (MOT Czech Republic)
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end2end Performance criteria



Suggested reliability for full eCall service chain

- o 90% in 2010
- o 95% in 2015
- o 98% in 2020

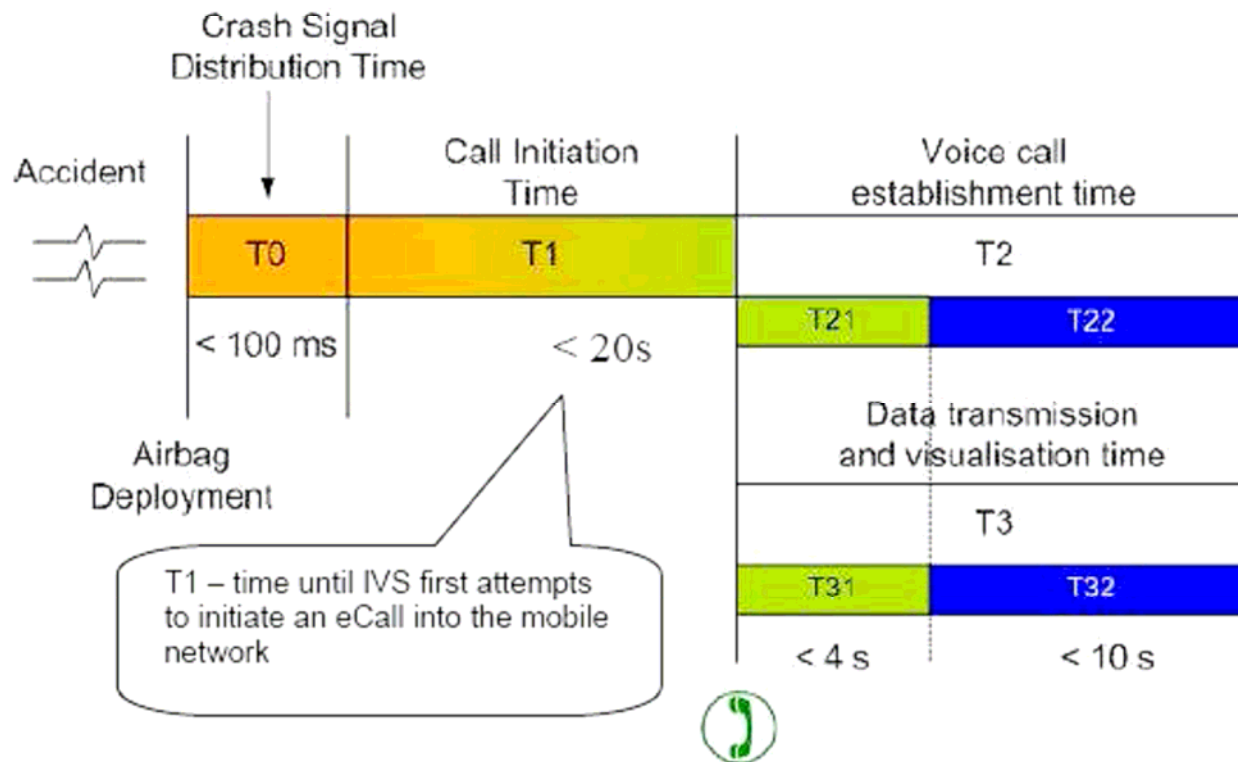
Suggested Location accuracy

- o Satellite based positioning performance – currently as a minimum:
 - ≤ 50 meters (in 50% of all cases)
 - ≤ 100 meters (in 95% of all cases)
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end2end Performance criteria



Suggested performance criteria for timing in the eCall service chain – overall < 34 Seconds



Comments received



- o The overall performance criteria for eCall should be in line with the performance criteria for 112 emergency calls. The requirements for the 112 emergency calls are more stringent than requirements defined by the DG eCall (MOTC FIN)
- o These are interesting, but in my view too limiting. As they stand, they put the main focus on the PSAPs, possibly some on the telecoms industry, but the automobile industry is completely left out. If the calls are not activated, they will not count in the statistics (KoKom)
- o Map accuracy to be included in the recommendations under the performance criteria (Navteq)

Comments received



- o The DG eCall proposes that the target for the location data accuracy should be set according to the best performance that the satellite based location systems provide. We agree with that. (MOTC FIN)
- o Positioning should be more accurate, i.e. up to +/- 5 meters according to the state-of-the-art technology, for example with Galileo (ARC/ADAC)
- o The T1 = 20 seconds might need extension in case data protection or network capacity issues require putting the system in a “sleeping” mode (ACEA)

Automatic eCall triggering



- o Protection (airbag) deployment should not be a stand-alone eCall trigger. Instead dedicated eCall trigger criteria and defined thresholds is recommended to be used;
- o A threshold on Delta Velocity is recommended to be used as this gives a better estimate of the crash severity (MAIS).
- o Robust detection of planar events is possible by using X/Y accelerometers available in airbag control units; and
- o Rollover sensor equipment rate is low, the feasibility of detecting rollovers using X/Y accelerometers should be assessed.

Comments received



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- o Signal from a deceleration sensor to trigger an eCall, not airbag inflation (inflation is not triggered in all accidents) (ARC/ADAC)
 - o Automatic triggering generated by a “crash signal” created in the airbag control module and/or a combination of other sensors (e.g gyro, radar, axle load, speed) The crash signal can be (ACEA):
 - Airbag deployment
 - Other crash information status (a server accident has happened e.g created in the airbag control module without deployment of an airbag (e.g. rear crash))
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Manual eCall triggering



- o It is recommended that the designers for the IVS individually design the IVS in such a way that unintended activation is minimized; and
 - o Different scenarios have been discussed such as; holding the eCall button down for three seconds or push the button twice within 5 seconds;
 - o It is recommended that if possible the IVS besides the manual eCall button also have a roadside assistance button the irrelevant calls might be lower, but it is also recognized that this will not be possible for low cost eCall solutions.
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Comments received



- o A “roadside assistance button” (in addition to the emergency button) for general queries is expressly recommended to reduce the amount of false alarms for the rescue services (ARC/ADAC)
 - o Delete last bullet (mentioning the roadside assistant button (ACEA))
 - o Add a bullet-point here, to indicate that the manual trigger does, regardless of how it is created, provide a source for false calls (KoKom)
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In-Vehicle System



- o Nomadic device or embedded system as the eCall activator
- o IVS to support both SIM and SIMless solution
- o Crash proofness of the IVS so that performance criteria are met
- o Including a manual activation strategy,
- o Automatic activation strategy,
- o Work in the vehicle environment

It is recommended from the DG eCall that the In-Vehicle system (IVS) be designed in a way so that it fulfills the overall performance criteria.

Comments received



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- o Replace recommendation with: “All stakeholders to contribute to the achievement of the overall performance criteria according to their individual responsibilities” (ACEA)
 - o This chapter does not give a lot of information on how the IVS would look like, more detailed information should be provided (KoKom)
 - o the use of conventional mobile phones does not seem viable since they are usually not fixed inside the car and might be damaged during an accident; it would be better to implement the “embedded configuration” (ARC/ADAC)
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eCall Minimum Set of Data



- o MSD as defined in the MoU
 - Time of incident
 - Exact location, including direction of travel
 - Vehicle identification
 - eCall qualifier (minimum automatic/manual)
 - Identification of service provider
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Comments received



- o To be replaced with new consensus solution
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Transport protocol



- o Today, no solution on what will be the technology selected for the transport protocol but two different solutions are currently on the table:
 - In-band modem; and
 - USSD – Unstructured Supplementary Services Data
 - o The final decision is expected to be presented to the European Commission and DG eCall at the next open ETSI_MSG meeting 15-16 May 2006.
 - o It is strongly recommended by the DG eCall that the European Commission closely follow the standardization work and that they encourage ETSI to provide a standard as early as possible.
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Comments received



- o PSAP should acknowledge received MSD by sending a USSD response to IVS (MOT Czech Republic)
- o SIMless variant is a typical feature of emergency call to 112, but not supported in current USSD solution (MOT Czech Republic)
- o Is there any idea of using a pan-European USSD Service Code dedicated for eCall? (MOT Czech Republic)
- o Our view is that a digital solution for transmitting MSD would be preferable towards an analogue solution. This is to ensure a quick and reliable transmission and is due to experiences from “SOS-Alarm” (PSAP) in Sweden. A digital solution is estimated to be 4-7 sec faster and also more reliable. (SRA)
- o Before the standards can be written the functional requirements and performance criteria for eCall shall be defined and the study on technical solutions available completed. (MOTC FIN)

eCall certification



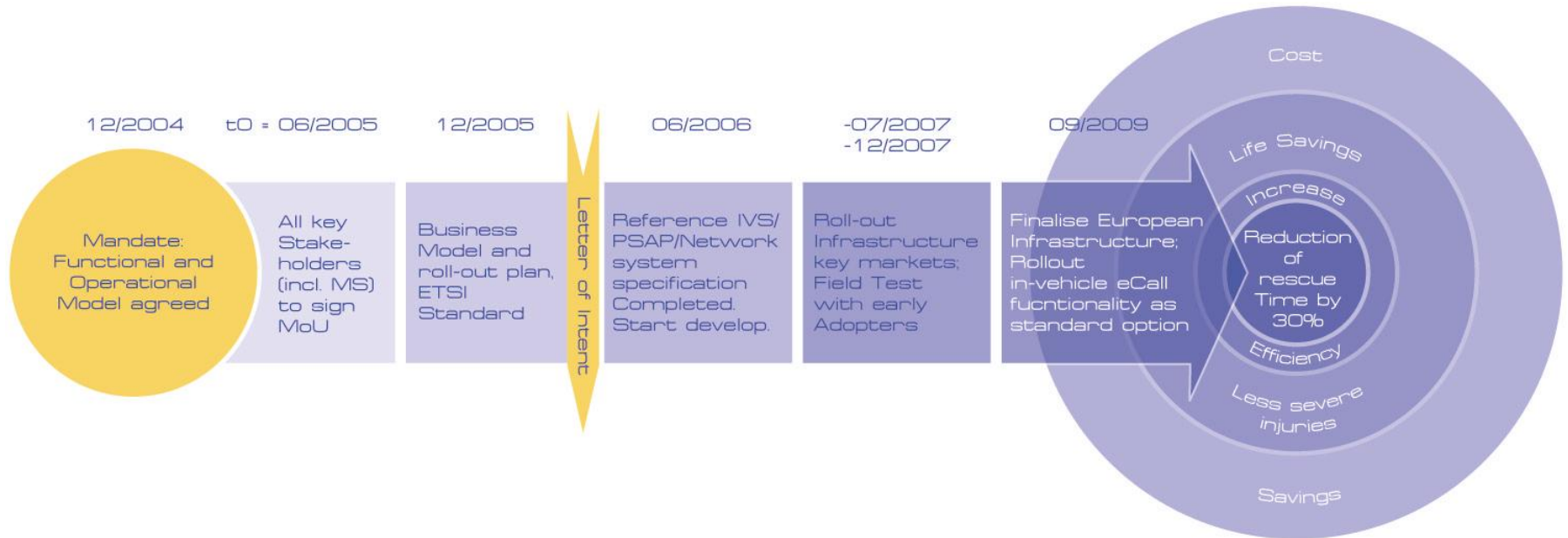
- o To ensure that the end users expectation of the eCall service is fulfilled and that eCall meet the recommended performance criteria DG eCall recommends that a general certification organizational structure is established
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Comments received



- o It is not clear to whether it is expected that PSAPs/control-rooms are subject to certification. For them to be interested there has to be some kind of incentive in place. (KoKom)
- o Change paragraph to: The interoperability between a mobile phone and the in-vehicle system is based on a standardized (Bluetooth) interface. The proof of functionality of an embedded system follows established procedures in the industry so that an additional certification is not required. (ACEA)
- o Particular focus should be on the reliable detection of all accident types (ARC/ADAC)
- o The certification procedures for components and systems of eCall should be developed to ensure that the eCall performance criteria are achieved (MOTC FIN)

eCall deployment plan

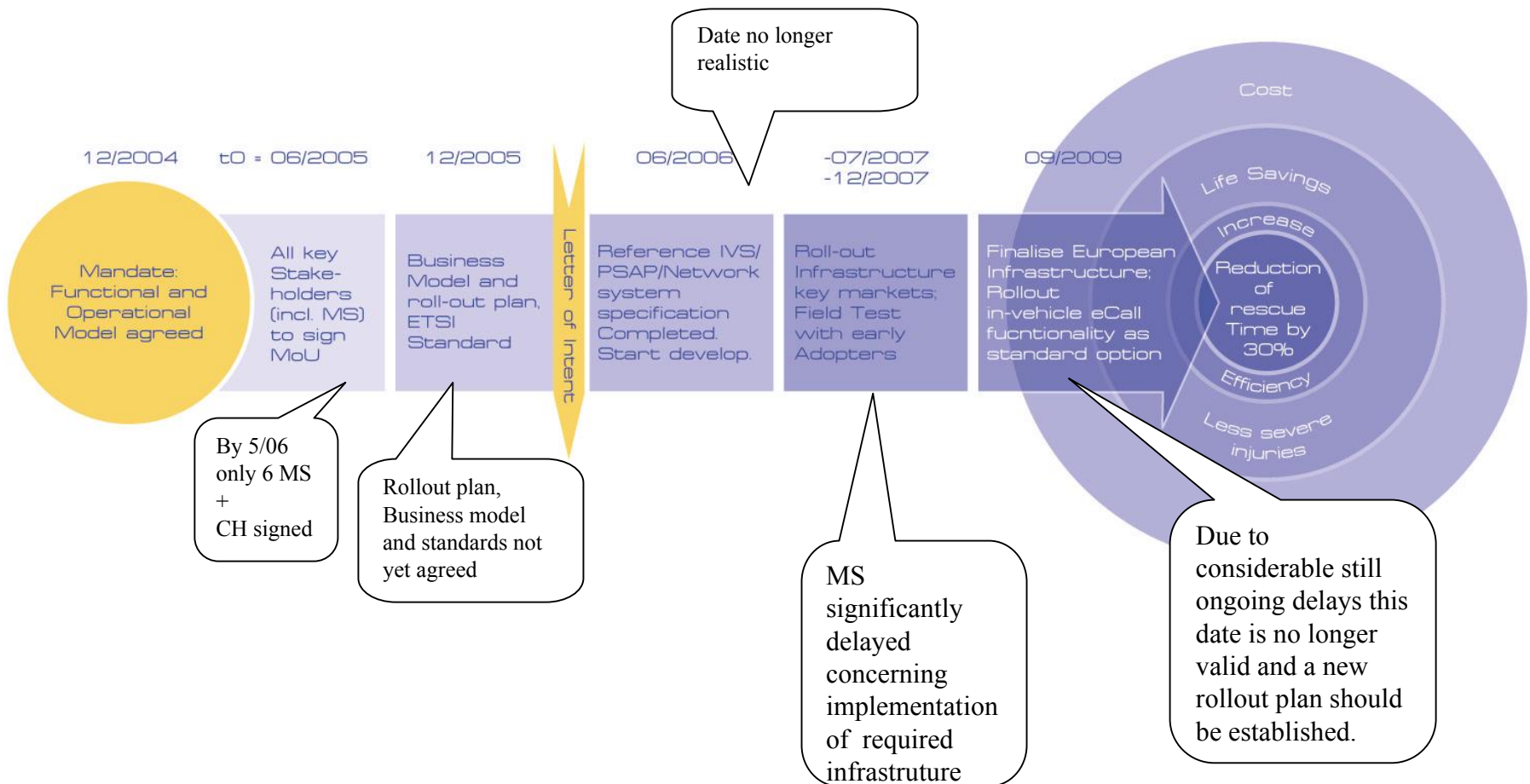


It is recommended by DG eCall that in order to keep the agreed planning the emergency services in the EU Member States take actions to equip or upgrade their PSAPs to process eCall at the latest by the end of 2007. Any delays of this will have a direct impact on the deployment time-point at all other stakeholder groups.

Comments received



Introduction of eCall as standard option in all new vehicles type-approved from *1 September 2009* onwards. (ACEA)



Comments received



- o The validity of the suggestions in terms of timing should be revisited (KoKom)
- o The standards and business models related to eCall haven't been completed during the year 2005. eCall deployment plan should be updated according to the present status of the different subtasks. (MOTC FIN)
- o The potential needs for amending the legislation to enable the implementation of eCall should be considered. (MOTC FIN)
- o The FSD is important if we want to ensure the roadplan for the introduction of eCall but test are needed (SRA)
- o Therefore we hope that the FSD and the "standardised interface between PSAP and Service Provider" are given higher priority in the timeplan of the introduction of eCall (SRA)

eCall business case



- o Golden Hour concept: survival rate and long term consequences of injuries are reduced for each minute gained to reach the scene.
- o Automatic alert and precise location will reduce by an average 10 minutes the rescue time in rural area (50% gain over existing alert), and by 3 to 4 minutes in urban accidents (40% gain).
- o 3 to 15 % of fatalities reduced to server injuries
- o up to 15% of serious injuries can be changed to slight injuries.

Comments received



- o is not yet clear **how** the different parts of the eCall service **will be funded**. It is suggested that the “Recommendations” document includes the step forward to solve this important issue (ARC/ADAC)
- o When car airbags were introduced, the customers’ requirements played a decisive role to the effect that the customer was well informed about the airbag’s functioning and assets prompting the wish to possess one – approach could be used for eCall (ARC/ADAC)
- o **Freedom of choice of service provider** must be ensured for the driver/user for all services which will be potentially developed around the E-Call platform, included eCall service itself if it is relevant. (ARC/ADAC)

Comments received



- o FSD (Full Set of Data) might have significant importance in relation to possible business cases (SRA)
- o The inclination of this is that we think it is important to include the definition of the standardised interface between PSAP and Service Provider in the final recommendation (SRA)
- o This discussion is far from completed. The overall business case may not be relevant to all the actors, and this is probably one of the areas where we will still have interesting discussions (KoKom)
- o According to GSME, insurance companies and ACEA the following key findings should be highlighted (ACEA):
 1. **Embedded base eCall** will only be feasible when supported by **Member States**
 2. **Mobile phone based solution** needs major drive from **Telecoms** and mobile phone manufacturers and acceptance and support by Member States
- o Based on current experience and reactions from the relevant stakeholders the two scenarios have no probability to be realized from a business point of view (ACEA)

Final recommendations



- o Calls for Member States to take all necessary decisions and action for deploying eCall. The DG eCall members favour the voluntary approach currently taken.
- o Calls for the European Commission to continue its effort to pursue the deployment of eCall through all available mechanisms including closely follow the standardization work and that they encourage ETSI to provide a standard as early as possible.
- o Calls for Vehicle Makers, Telecom Industry and Equipment Manufactures and other related Industries to prepare for the deployment according to in this report given roadmap
- o Calls for eSafety Support to continue providing the necessary support on helping Member States and other stakeholder groups in the decision process and the deployment-enabling phase for eCall.

Final recommendations



- o Calls for the establishment of a large scale field operational test and assessment of eCall to be carried out as soon as possible to provide additional data for the costs and benefits of eCall to be used e.g. for deciding potential incentive schemes that could speed up the deployment.
 - o Calls for the establishment of a study that can ensure the establishment of a certification structure of eCall.
 - o Calls for the establishment of a permanent group of emergency authorities and other relevant stakeholders that each year should review the deployment status amongst the various stakeholders. This group should be functional at least until 2015.
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Comments received



- o The DG eCall members call for the following actions to be resolved before eCall can be deployed across Europe:
 - Calls for all remaining stakeholders (including Member States, Telecoms and insurance companies) to sign the MoU and actively contribute to the development of a feasible and sustainable solution
 - Calls for a solution of the business case issue
- o Only afterwards the DG eCall members call for further actions and encourage the eSafety Forum to ensure that these are carried out:
 - Calls for MS to take all necessary decisions and action for deploying eCall and DG eCall members to support accordingly.
 - Calls or all relevant stakeholders to define and agree on a new realistic rollout plan and prepare for the deployment accordingly
 - Calls for the ongoing review of existing and planned eCall projects/studies and continue reviewing societal benefits of eCall

Issues to be discussed day 2



Technical issues:

- o MSD Content
- o Transport protocol
- o SIM / No SIM
- o ...

Deployment related issues:

- o Update of Road Map
 - o Business case
 - o Workload PSAPs
 - o Definition of responsibilities in deployment phase
 - Difference for embedded contra bluetooth solution?
 - o ...
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Discussion tomorrow

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Dinner at 1900 !

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