#### COMMISSION OF THE EUROPEAN COMMUNITIES



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# COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS

Bringing eCall back on track - Action Plan (3rd eSafety Communication)

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## COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS

### Bringing eCall back on track - Action Plan (3rd eSafety Communication)

#### 1. Introduction

Road fatalities in the EU-25 have declined by more than 17% since 2001, when the Commission published its White Paper on European Transport Policy<sup>1</sup>. The European Road Safety Action Programme<sup>2</sup> and **the eSafety Initiative**<sup>3</sup> have had a significant impact on this positive development, and are expected to continue in the medium term to produce further benefits towards the goal of halving the fatalities by 2010.

However, with around 41.600 deaths and more than 1.7 million injured in 2005, roads remain unsafe, and further efforts are needed. **The pan-European in-vehicle emergency call, eCall,** is estimated to have the potential to save up to 2.500 fatalities annually in EU-25 when fully deployed, and furthermore to reduce the severity of injuries, to bring significant savings to the society in healthcare and other costs and to reduce human suffering<sup>4</sup>.

In the framework of the Intelligent Car Initiative<sup>5</sup>, the industry and the public sector have worked together on a deployment plan that aims at full deployment of eCall from 2009 onwards. This plan is, however, not on track.

#### 2. Bringing ECall Back on Track

The benefits of eCall are recognized by all: the citizens consider it as one of the most wanted eSafety systems in the car, and over 70% of the respondents say that they would like to have it in their next car, according to a recent Eurobarometer study<sup>6</sup>. eCall deployment is supported by the industry, European Parliament, European Commission, user organisations and by some Member States.

Due to the long lead times in product development, and due to the associated costs, the automotive industry need certainty on the implementation of the necessary infrastructure in the Member States before entering the production phase of the eCall equipment in the vehicles<sup>7</sup>. Similarly, the Member States' commitment is needed by other players, most notably

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COM(2001) 370 of 12.9.2001: European transport policy for 2010: time to decide

<sup>&</sup>lt;sup>2</sup> COM(2003) 311 of 2.6.2003: European Road Safety Action Programme: Halving the number of road victims in the European Union by 2010: A Shared responsibility

COM(2003) 542 of 15.9.2003: Information and Communications Technologies for Safe and Intelligent Vehicles

<sup>4</sup> COM(2005) 431 of 14.9.2005: Bringing eCall to Citizens

<sup>5</sup> COM(2006) 59 of 12.2.2006: On the Intelligent Car Initiative: Raising Awareness of ICT for Smarter, Safer and Cleaner Vehicles

Eurobarometer study on the citizen's perception of road safety and intelligent vehicle safety systems

ACEA has expressed in a letter to the Commission that it will not take any further steps until a clear commitment from the Member States will be provided

the telecommunications industry (Mobile Network Operators). Nevertheless, the slow progress shown by some Member States -especially the large ones- who are crucial for keeping industry committed has endangered the realisation of the already agreed deployment plan.

The purpose of this Communication is **to present**, **on the basis of the achieved progress**, **the measures that are necessary for solving the current deadlock and for bringing eCall back on track**. Two parallel lines of actions are proposed: Commitment of the Member States by mid-2007, and a negotiated agreement with the industry by the end of 2007. In addition the Commission will carry out a set of actions to facilitate the eCall deployment.

#### 3. PROGRESS OF ECALL IMPLEMENTATION IN EUROPE

#### 3.1 Progress at European level

Significant progress in the producing of the specifications, demonstrating the technology and planning of the deployment phase has been achieved since 2005 by **the eCall Driving Group**. This Group, consisting of 138 members representing all stakeholders, produced and published **its Final Recommendations** in April 2006<sup>8</sup>. These recommendations cover eCall architecture, performance requirements and the definition of Minimum Set of Data<sup>9</sup>, and it addresses also certification and privacy issues. The recommendations were adopted by the eSafety Forum Plenary in its meeting on 3 May, 2006. Due to the delays on reaching a commitment from all the Member States, the **deployment plan is shifted forward by one year**, and is now the following:

- All key stakeholders should sign the MoU to ensure progress by end of 2006
- Full specification of the eCall system and start of development by mid-2007
- Full-scale field tests should be performed from the beginning of 2008
- Member States should be ready with the upgrade of the PSAPs by September 2009
- Introduction of eCall as standard option in all vehicles type-approved from 1<sup>st</sup> September 2010 onward

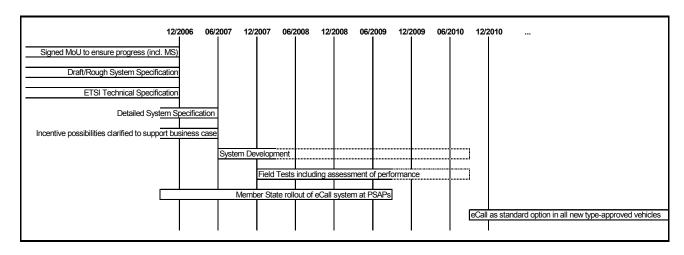


Figure 1: eSafety Forum updated eCall Deployment Plan

http://europa.eu.int/information\_society/activities/esafety/forum/ecall/index\_en.htm

Data about the accident sent by the in-vehicle equipment to the emergency call response centres (PSAP), including accurate location information

Another major milestone was the adoption by the European Parliament of a resolution on eCall<sup>10</sup>, adopted with large majority on 27 April 2006, as the response to the Commission's Communication "Bringing eCall to Citizens". The resolution supports the implementation of the pan-European eCall, gives full support to Commission's actions and calls for all stakeholders, in particular the Member States to pursue the necessary actions for eCall immediate roll-out.

In addition, at the request of the European Commission, ETSI, with the support of telecommunication and automotive industry, has progressed towards the definition of a standard protocol for the transmission of the eCall Minimum Set of Data, which is expected to be completed by April 2007.

**The Commission has taken several actions** that support the work of other stakeholders and promote eCall, following the two Communications on eCall and the Intelligent Car:

#### **Commission Actions supporting eCall Action Plan**

- Organising two High-Level meetings with Member States promoting 112 and eCall in October 2005, plus several expert meetings and bilateral meetings
- Expert Group on Emergency Access<sup>11</sup> established in February 2006; launch of a survey on the organisation of emergency services in the Member States (including 112, E112)
- Infringement procedures opened against Member States on the concerns of the non-availability of caller location information (12 cases against Belgium, Greece, Ireland, Italy, Cyprus, Latvia, Lithuania, Luxembourg, Hungary, the Netherlands, Portugal and Slovakia)
- Informal PSAP Expert Group<sup>12</sup> established in July 2006, addressing issues specific to emergency rescue services (112, E112 and eCall) and spreading best practices
- eImpact, in-depth study on the socio-economic benefits of intelligent vehicle safety systems (including eCall) launched in January 2006<sup>13</sup>
- Toolbox, containing all relevant information related to the eCall initiative launched in November 2005, maintained by eSafetySupport<sup>14</sup>
- Eurobarometer study on the citizen's perception of road safety and intelligent vehicle safety systems launched in January 2006
- Provision of the ICT 2006 standardisation work programme and Request to ETSI (ETSI MSG, Mobile Services Group) to produce the necessary standards for eCall as a priority item
- Working with the Member States towards a solution on the data protection and privacy issues (Art. 29 Working Party, established by Directive 95/46/EC)<sup>15</sup>
- Successful demonstration of the full eCall service chain by GST Rescue<sup>16</sup>

Own-initiative report of the European Parliament, ref. A6-0072/2006, rapporteur Gary Titley, www.europarl.europa.eu/registre/seance pleniere/textes deposes/rapports/2006/0072/P6 A(2006)0072 EN.doc

Expert Group (composed by telecommunication and civil protection experts) created under the Communications Committee to deal with 112 and its associated forward-looking issues

Informal Expert Group (composed by PSAP experts) to discuss and exchange best practices about 112 related issues, with specific focus on eCall.

Study funded under FP6, 24 months: www.eimpact.info

Specific support action to support the work of the eSafety Forum, funded under FP6: www.esafetysupport.org

#### 3.2 Progress in the Member States

In the Communication "Bringing eCall to Citizens" the Commission invites the Member States to promote 112 and the handling of location information for mobile calls, E112, as pre-requisite for eCall. As a follow-up, a questionnaire was sent to Member States in early 2006. Its results show that the technical and organisational set-up of emergency rescue services is very different across the Member States, in many countries there are still problems in proper operational handling of 112 calls, and handling of location information for mobile calls is operational in only 7 Member States (see table 1). This indicates clearly that further actions are required, and this is why the infringement procedures against some Member States have been started.

Regarding eCall, seven Member States and two Associated States have signed the eCall Memorandum of Understanding (MoU), while the procedure for the signature has been started in other thirteen (see Table 1), with different status of advancement. In some Member States like The Netherlands, Portugal and the United Kingdom the procedure is advanced; furthermore Germany has confirmed that its signing of the MoU is imminent. In France, an interministerial group has been created to study eCall deployment in co-operation with the industry, but the existing emergency infrastructure is inadequate. Institutional, competencies and organisational issues are reasons quoted by other Member States for lack of progress. Six Member States (Belgium, Estonia, Latvia, Luxembourg, Poland and Slovakia) have not reported on progress. Three Member States are planning studies. Ten Member States are either running trials or planning to do so, including large-scale pilots. The Netherlands, Finland and Sweden will be the first countries with operational eCall.

Member State	eCall MoU signature	Implementation status	
		E112 <sup>17</sup>	eCall
Belgium	No progress reported	Not available	No progress
Czech Republic	Procedure started	Operational (push) <sup>18</sup>	Trials planned
Denmark	Procedure started	Operational (push)	Trials planned
Germany	Procedure advanced	Introduced (pull)	Trials planned
Estonia	No progress reported	Introduced (pull)	No progress
Greece	Signed	Planned 2006	No progress
Spain	Procedure started	Operational <sup>19</sup> (push)	Different in the regions

Working Party on the protection of individuals with regard the processing of personal data, set up by Directive 95/46/EC

Push mechanism operational only in some regions

Subproject of the Integrated Project "Global System for Telematics", funded under FP6. www.gstproject.org

For mobile calls

There are two mechanisms to transfer the caller location to the PSAP:

Push: the caller location is sent by the Mobile Network Operator to the PSAP with the voice call

Pull: the PSAP has to request the Mobile Network Operator to send the caller location data

The push mechanism, recommended in the Commission Recommendation C(2003) 2657 of 25.7.2003

on the processing of caller location information in electronic communication networks for the purpose
of location-enhanced emergency call services, is needed for the eCall deployment

France	Procedure started	Introduced (push)	Starting a study
Ireland	Procedure started	Introduced (pull)	Starting a study
Italy	Signed	Not available	Trials planned
Cyprus	Signed	Operational (push)	No progress
Latvia	No progress reported	Planned 2007	No progress
Lithuania	Signed	Not available	No progress
Luxembourg	No progress reported	Introduced (pull)	No progress
Hungary	Procedure started	Planned 2006	Trials planned
Malta	Procedure started	Introduced (pull)	Starting a study
The	Procedure advanced	Planned 2007	Trials planned
Netherlands			Implementation planned
Austria	Procedure started	Introduced (pull)	Trials planned
Poland	No progress reported	Not available	No progress
Portugal	Procedure advanced	Not available	No progress
Slovenia	Signed	Introduced (pull)	No progress
Slovakia	No progress reported	Planned 2006	No progress
Finland	Signed	Operational (push)	Testbed operational, Trials planned Implementation planned
Sweden	Signed	Operational(push)	Trials planned Implementation planned
United Kingdom	Procedure advanced	Operational(push)	Trials planned
Norway	Signed		
Switzerland	Signed		mu.
Iceland	Procedure advanced		

Table 1: E112 and eCall Status in the Member States and Associated States, October 2006

#### 4. OBJECTIVES AND ACTION PLAN

#### 4.1 What is needed to get eCall back on track?

The benefits of eCall have been clearly demonstrated by a number of recent studies<sup>20</sup>, it is one of the most effective safety systems that can be realised on short-term, and it enjoys the support of road users. eCall will improve the whole emergency rescue chain: it will provide accurate location of the accident, reduce the communication delay by immediately sending the necessary information (the so called Minimum Set of Data) to the closest PSAP, and by allowing the PSAP operator to immediately dispatch the emergency services to the correct location. The required accuracy of the location information and the needed coverage implicate

See for example the Finnish AINO Study, www.aino.info/

the use of Global Navigation Satellite Service (GNSS), using GPS and in the near future the European Satellite Navigation Systems Galileo<sup>21</sup> which will offer even greater accuracy and availability. It is also expected that the eCall device with its location and communications capabilities and its open system architecture will serve as a platform for additional public sector and commercial services.

However, due to lack of progress, its deployment plan has already been shifted forward by one year. Some Member States are not on track with implementing the necessary infrastructure for their emergency rescue services for handling the location information in E112 calls, or the in-vehicle emergency call, eCalls. The industry should resume its activities towards the deployment of eCall, and the European Standardisation Organisations (ESOs) should finalise the necessary standards.

It is vital that the Member States and the industry, with the support of the Commission take the necessary further actions for getting eCall back on track for 2010 deployment. The Commission proposes the following two lines of action:

- (1) Actions to engage the Member States.
- (2) Actions to engage the industry

The Commission will support these two lines of action with a number of other measures to facilitate the deployment of a pan-European harmonised eCall service, some of which are already under way.

#### 4.2 Engaging the Member States

- (1) The Member States should commit to the implementation of the pan-European eCall, as specified in the Final Report of the eCall Driving Group, and in particular to its deployment plan which *inter alia* calls for immediate signature of the eCall MoU, for roll-out of the necessary PSAP infrastructure by mid-2009 and conducting field tests including assessment of performance in the time frame 2007-2009.
- (2) The Member States should immediately take the necessary actions to solve together with the Commission the remaining legal, technical and socio-economic issues hindering the signature of the eCall MoU, and should commit to the following timetable:
  - eCall MoU signed by 15 Member States including Germany, France and UK by mid 2007
  - eCall MoU signed by more that 20 Member States by the end of 2007
- (3) The Member States should continue efforts to implement fully operational 112 and E112 services within their countries, by ensuring that location information is automatically made available to the PSAPs by the Mobile Network Operators (MNOs), that 112 calls are properly routed and handled, and that the PSAPs are upgraded to handle the location information of E112 and eCalls.

http://ec.europa.eu/dgs/energy\_transport/galileo/index\_en.htm

- (a) To this effect, the Member States should support the work of the Expert Group on Emergency Access in defining common European requirements for emergency call routing and handling, handling of emergency calls originating from mobile terminals without SIM, providing adequate language support, and on longer term, handling of VoIP emergency calls and handling emergency calls for people with disabilities.
- (b) The Member States should draw up detailed rules to the Mobile Network Operators to implement the above-mentioned solutions on the call routing, transmission of location information and handling of the calls originating from terminals without SIM.
- (c) The Member States should, in the framework of the Expert Group on Emergency Access, cooperate with European Standards Organisations in developing a set of standards that will enable a uniform handling of the emergency communications, including location.
- (d) The Member States should support the Commission's proposal to establish an informal PSAP Expert Group and by providing experts and contributing to its work in identifying appropriate procedures to obtain the necessary accident related information (i.e., defining a common access mechanism for the VIN<sup>22</sup> databases), in solving the issues of handling of inappropriate calls, optimisation of PSAPs workload and exchanging best practices
- (4) The Member States should support the work of the Article 29 Working Party in its efforts to find a solution for eCall data handling, which at the same time ensures individual's safety and security and protects his/her privacy and personal data.

#### 4.3 Engaging the industry

- (1) The industry should commit to the implementation of the pan-European eCall, as specified in the Final Report of the eCall Driving Group, and in particular to its deployment plan which *inter alia* calls for start of the development by mid-2007, conducting field tests including assessment of performance in the time frame 2007-2009, and introduction of eCall as standard option in all vehicles from 2010 onwards.
- (2) The Commission will start, in the beginning of 2007, negotiations with ACEA, JAMA and KAMA on a voluntary agreement of introducing an eCall in-vehicle device<sup>23</sup> on all vehicles type-approved from 1<sup>st</sup> September 2010 onwards.
  - (a) The automotive industry should work together with the Commission in defining the terms of the voluntary agreement, in view of completing the negotiations by the end of 2007.

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Vehicle Identification Number. Access is required for extracting vehicle type information, which is necessary for the rescue operations.

A device capable of manual or automatic triggering of eCall, determining precise location and sending the minimum set of data with agreed protocol together with voice communication link to PSAP

- (b) The Commission will report to the Council and the European Parliament in the end of 2007 on the outcome of the negotiations, and on the basis of this outcome either conclude the voluntary agreement, with a monitoring mechanism, or propose further measures.
- (3) The industry should commit to follow the recommendations proposed by the art. 29 Working Party<sup>24</sup> to ensure adequate protection of the citizens' privacy and personal data.
- (4) The automotive and telecommunication industries should continue supporting the work done by the European Standardisation Organisations in finalising the necessary standards for the pan-European eCall service.

#### 4.4 Facilitating deployment

- (1) The Commission will support the work of the Expert Group on Emergency Access, the PSAP Expert Group and the Article 29 Working Party in their efforts in finding the necessary solutions that enable eCall deployment.
- (2) The Commission will consider, as part of the ongoing review of the regulatory framework for electronic communications<sup>25</sup> an update to the provisions of the Universal Service Directive to ensure that caller location is made available to emergency services, with provisions on the charging for the location information.
- (3) The Commission will support, through mandates when necessary, the development of standards by the European Standardisation Organisations (ETSI, CEN) for the Minimum Set of Data (MSD) transmission in the telecommunications networks, MSD protocol and contents, certification procedures and telecommunications networks PSAP interface.
- (4) In the framework of the Intelligent Car Initiative, the Commission will continue supporting the eCall deployment plan:
  - (a) The Commission will support public awareness actions, media campaigns and education of users on the benefits of eCall. In particular, the Commission will support campaigns of the eSafety Aware Platform<sup>26</sup>.
  - (b) The Commission will support, through the research and technological development funding of the ICT priority in the 7<sup>th</sup> Framework Programme and in the Competitiveness and Innovation Programme (CIP), Field Operational Tests of the eCall service, aiming at large scale tests with impact assessment of the benefits and user acceptance

Working document on data protection and privacy implications in eCall initiative: http://ec.europa.eu/justice\_home/fsj/privacy/docs/wpdocs/2006/wp125\_en.pdf

COM(2006) 334 of 29.6.2006: Review of the EU Regulatory Framework for electronic communications networks and services

A platform aiming at user awareness of intelligent vehicle safety systems, which is being established on the basis of the work of the eSafety Forum.

(5) The Commission will support automotive, telecommunications and insurance industries, the Member States and other stakeholders in developing a positive business case for eCall, including assessment of the use of incentives.

#### 5. CONCLUSIONS

While the number of tragic road accidents remains high, all road safety stakeholders have to be ready to work together to deploy, as soon as possible, safety systems that can mitigate the consequences of injuries these accidents cause. Studies indicate that eCall is one of the most efficient, affordable in-vehicle safety systems that can be deployed on short term. A large majority of the users understand its value and want eCall with their next vehicle. The industry has worked with other stakeholders in the eCall Driving Group, developing the necessary specifications. The European Parliament has given its full support. The time has now come, for the Member States to take the commitment and implement the necessary infrastructure in their emergency services. This will enable eCall to return to right track, and the industry to deploy it in all vehicles from 2010 onwards. We cannot wait to save 2500 lives per year.

### ANNEX 1: GLOSSARY OF TERMS

112	Single European Emergency Call Number, introduced by Council Decision				
ACEA	91/396/EEC Association des Constructeurs Européens d'Automobiles (European				
	Automobile Manufacturers Association)				
CEN	Comité Européen de Standardisation (European Committee for				
	Standardisation)				
E112	Location enhanced emergency call. The Universal Service Directive requires				
	all mobile and fixed telephone operators to make available location				
	information for every emergency call. E112 for mobile calls is particularly				
	relevant for eCall.				
eCall	Pan-European in-vehicle emergency call. The emergency call is generated either manually by the vehicle occupants or automatically via activation of in-vehicle sensors when an accident occurs. When activated, the in-vehicle				
	eCall device will establish a 112 call carrying both voice and data about the				
	incident directly to the nearest PSAP				
EGEA	Expert Group on Emergency Access				
ETSI	European Telecommunication Standard Institute				
EU	European Union				
Eurobarometer	Surveys done by the European Commission to analyse the Public Opinion of				
	the European citizens. The one enquiring about eCall was based on 13,500				
	interviews from all Member States				
FP6	6 <sup>th</sup> European Union Framework Programme for Research and Technological				
	Development				
ICT	Information and Communication Technologies				
JAMA	Japan Automobile Manufacturers Association				
KAMA	Korea Automobile Manufacturers Association				
MNO	Mobile Network Operator				
MoU	Memorandum of Understanding				
MSD	Minimum Set of Data				
PSAP	Public Safety Answering Point, in charge of responding emergency calls. A				
	PSAP could be a Public Authority or a private service provider operating				
	under the control of a Public Authority				
SIM	Subscriber Identification Module				
VoIP	Voice over Internet Protocol				