

# eCall

## Industry Position

August 2009

Automobile Manufactures ACEA, JAMA, KAMA

### **General Support to eSafety and eCall**

- The automobile manufacturers support the European Commission in achieving the objectives of halving the number of fatalities on European roads by 2010.
- ACEA in particular supports the results of the ECDG (eCall Driving Group) report
- ACEA has signed the Memorandum of Understanding (MoU on eCall) on behalf of all its members as one of the first signatories but had to notify the Commission that commitments also depends on the contributions by other stakeholders and a positive business case. Resulting delays are not in the responsibility of the automotive industry.
- As pointed out in the MoU, ACEA supports discussing and finding potential solutions for a standardized pan-European public emergency call service built on a European emergency number (free of charge) and available to all automotive customers. JAMA and KAMA also share this position.
- JAMA or KAMA members have not yet signed the eCall MoU but have entered negotiations with the Commission on the same basis as ACEA and fully share this position paper.

### **Key Points**

- The industry believes that a range of eCall solutions should be possible and that only a minimum set of requirements based on the CEN standards is necessary.
- A public eCall service should be pan-European and available to all customers.
- It should be allowed to run private eCall services in parallel to the public service in every member state.
- A positive business case for eCall is an important prerequisite for the deployment of eCall. Currently no positive business case exists for the industry.
- In the view of the industry a large-scale roll out of eCall can be achieved via an optional approach, where eCall functionality can be chosen by the customer from a list of options and only for "new vehicle types according to 2007/46/EC"

- eCall could either be a stand-alone option, an interface, part of a safety package or offered in combination with other safety features but clearly visible for the customer.
- Industry needs sufficient lead-time for development and testing
- **Current commitments from other key stakeholders** like Member States, Public Authorities, Telecommunication companies and Insurances are **still insufficient** and needs appropriate actions

### **Liability & Legal Issues**

- Emergency Services in general are under full public responsibility of the Member States fulfilling the constitutional right of a citizen to receive professional help in case of an emergency. Response to road crash emergency calls by rescue services also fall under public responsibility.
- Vehicle manufacturer's liability shall be restricted to technical product functionality. It shall not extend to **exceptional** circumstances, e.g. vehicle under water, no sensor being triggered off due to very unique accident situations or circumstances that are beyond vehicle manufacturers' control, e.g. eCall switched off by driver, inadequate coverage of mobile phone network or Bluetooth connection not correctly activated, just to give a few examples.
- Official documents stipulating all specifications and conditions that eCall onboard devices and functions must satisfy shall be made available and published.
- Any legal document must not be design restrictive nor add cost burden to the automobile industry.

### **Scope**

- For the Automotive Industry the eCall concept is valid for passenger cars and light commercial vehicles up to 3.5 t (N1, M1)
- The integration of an eCall system makes sense primarily if such system can be automatically triggered in the event of an accident. Based on the state of the art, this is relevant when based on airbag deployment detection. Consequently, the eCall concept is applicable on cars, which can technically be fitted with airbags. In this context eCall is not valid for so-called "flat-nose" light commercial vehicles.

### **Timing**

- The current **roll out plan from the Commission foresaw eCall coming to market after 1. September 2010** as an option for all new vehicle types after 1 September 2010. This needs to be revised due to the actual situation.
- The introduction of eCall requires a **three-year lead-time** after all **necessary specifications** have been defined and bindingly approved by

the relevant decision-making authorities in the EU. **Additionally a one-year test phase** is necessary when the whole rescue chain is in place to check final functionality.

- To allow sufficient testing for certain components appropriate **infrastructure must be made available at minimum 2 years prior to introduction of eCall** in the following countries: U.K., France, Germany, Spain, Poland, BENELUX and Italy.
- However, various corner stones of this roll out plan have not been met yet. By April 2008 only 13 Member States (15 MS by January 2009) have signed the MoU, the specifications are not yet agreed and the currently planned field operational tests with EC support are not covering the whole rescue chain under real life conditions, thus further delaying **the earliest possible roll out date**. Delays from other stakeholders will lead to more delays in the roll out plan.

### **The eCall Concept**

- In the event of an accident the eCall system must automatically determine whether or not to trigger an eCall.
- An eCall must be able to be triggered manually.
- Upon triggering an eCall the eCall system must try to send a Minimum Set of Data (MSD) as defined in the standards to a given mobile network operator (MNO), which then sends it to the European pre-assigned destination.
- The eCall system must also try to establish a voice connection between the vehicle and the pre-assigned destination (e.g. a public safety answering point (PSAP) or an accredited service provider).
- The in-vehicle system unit can for example either be an embedded unit with an integrated network access device (NAD, e.g. a GSM module) or a phone-based solution, consisting of a standardized interface and a cellular phone. The interface could be wireless or a standardized cable connection.
- For in-vehicle eCall systems the industry supports flexible solutions. It shall be up to each OEM which solution to offer.
- While a public eCall service needs to be common and standardized across Europe, private solutions with different but compatible service standards and performances (using professional private service providers as partners for the PSAPs) should also be accepted to complement a public system.

### **The MSD (Minimum Set of Data)**

- The MSD has been defined in the Annex of the MoU. The TF-IVF has detailed the MSD by keeping the agreed content of the MoU.
- The ACEA MSD proposal became the base for further discussion and approval under CEN. It is now referred to as CEN TS 15722.
- The industry is actively involved in defining the operating requirements for a public but also a private eCall support service.

### **Communication Technology**

- Concerning any data transmission technology:
  - The industry supports the decision of the Commission to charge ETSI as the responsible standardization unit to come forward with a sustainable solution taking into account all different interests of the stakeholders
  - Telecommunication companies have the expertise to make a suggestion on how to transfer data from A to B (from vehicle to PSAP)
  - Stakeholder concerns should be considered in a constructive way
- It is not up to the industry to recommend a special technical solution (e.g. SMS, priority SMS based solution, in-band-modem solution, CTM, USSD or any other solution) but requests that any acceptable solution must be:
  - Feasible and sustainable,
  - Compliant with future technological developments
  - Wireless communication network selected by ETSI should remain unchanged/compliant at least for a life-time of a vehicle (15 years) (*E.g. if GSM 900/1800 is selected, this frequency should not be switched off*)
  - Cost-efficient, commercially viable,
  - Should not lead to competitive disadvantage or any unfair burden for the industry,
  - Accepted by the customer
  - Chosen after comparative tests between different telecommunication technologies (Communication & transport protocols) to prove its reliability
  - Decision should also be based on a set of requirements shared by the Members States and the EC because technology and PSAPs organization work together
- The industry has recognized that the in-band modem solution proposed by ETSI for a public eCall end of 2008 might present a feasible solution and is waiting for its final evaluation and standardization including High Level Application Protocols, operating requirements and quality performance standards.

### **Service Infrastructure**

- The European infrastructure for emergency services varies between EU Member States, has grown organically and can only be changed over a longer period, if wished so.
- It is obvious that an in-vehicle eCall can only produce all its benefits when the corresponding infrastructure is in place and emergency calls are answered in a professional way.
- A staggered approach where Member States introduce the final infrastructure at different dates and partly with years in between is a non-feasible scenario for the industry, as the industry cannot build different vehicles for single groups of Member States.
- The publication of standards and requirements are a prerequisite to define and develop technical solutions for our vehicles. Of particular importance are the
  - Results of the eCall PSAP Expert Group to develop specifications for PSAPs
  - Results of the CEN TC278 WG15 concerning eCall MSD, eCall high level application protocol, quality of service and operating requirements
  - Results of ETSI MSG & 3 GPP concerning eCall flag and eCall data transfer

### **Conclusion**

- As a consequence of the many still open and pending points the Automotive Industry is not yet in a position to commit to any concrete roll out plan and timing, not to speak about the unsolved commercial issues.
- As private emergency services have been accepted as a complementary service to public eCall the industry will continue to introduce such services based on customer demand and market needs.