



Terms of Reference of the eSafety Forum Intelligent Infrastructure Working Group (IIWG) DRAFT – 23 October 2008

1. Context

Within the general road safety framework, **eSafety** is a joint industry-public sector initiative aiming to well established targets related to safety and efficient management by using Information and Communication Technologies (ICT). Advanced Information and Communication Technologies contribute significantly to road safety and efficiency by enabling the development of sophisticated intelligent vehicle and Infrastructure systems and also taking a more and more important role in energy efficiency and sustainability.

- The establishment of **the eSafety Forum** was one of the key recommendations of the EC to promote and develop deployment and use of **Intelligent e-Safety Systems** in Europe. It aims at removing the bottlenecks that prevent Intelligent Vehicles and Infrastructure Systems entering the market, through consensus building among stakeholders and recommendations to the Member States and the EU.

The eSafety Forum has over 150 members, and it has established so far **fourteen Working Groups** that work on priority topics. It has produced a consistent number of valuable reports that constitutes an important input for industrial initiatives and policy activities. The Forum has also ensured the links with parallel and complementary activities in the domain of intelligent transport systems like Cars21, the European Road Safety Action.

2. Constitution of the Intelligent Infrastructure Working Group

The e-Safety Forum confirmed in its 25th April Plenary Session in Ljubljana as main objectives of the ITS Action Plan:

- A. Green transport
 - a. Target 1: Optimized use of infrastructure: better European Road Traffic Management including the interaction with other transport modes
 - b. Target 2: Less congestion on European freight corridors and in cities by developing European solutions for demand management (tolling and road pricing, congestion management).
 - c. Target 3: Enhancing the use of more environmentally friendly and energy efficient transport solutions

B. Safety and security

- a. Target 4: Improve safety/security of commercial transport operations (including control/respect of regulations on the social side, dangerous goods, etc.)
- b. Target 5: Improve road safety with Driver Assistance Systems such as ESC, e-Call, ACC, Lateral Support, Driver hypo-vigilance systems, “speed alert” and “alcohol-lock”.

C. Mobility priority of people and goods

- a. Target 6: Providing more reliable real-time traffic and travel information in a safe way.
- b. Target 7: Improving the efficiency of logistics chains

These objectives led the e-Safety Forum Steering Group of 28 May 2008 to propose the constitution of an Intelligent Infrastructure Working Group, with co-chairs from CEDR and ASECAP, with the first tasks:

1. To work out the Terms of Reference and elaborate on the organisation and structuring the work
2. To invite representatives from Road Authorities, Road Users and Automotive and ICT Industry to support the working group

3. Objectives

1. Contribute to the general objectives of the e-Safety Forum;
2. Identify the expectations towards intelligent infrastructure;
3. Achieve a balance between the goals of the road operators, administrations and the industry;
4. Identify issues, which need to be solved at infrastructure level, in order to ensure the implementation of cooperative systems on the road infrastructure side with a focus on the trunk road network and the final objective to improve safety and contribute to clean and efficient mobility;
5. Reach consensus amongst its working group members on discussed issues, and to produce specific, detailed recommendations for the e-Safety Forum Steering Group as well as the Forum Plenary.
6. The IIWG aims at developing detailed recommendations. For this purpose, the IIWG will organise Workshops and Expert Meetings.

4. Focus

1. on the road infrastructure side of cooperative systems;
2. to all aspects related to "Infrastructure" which means V2I, I2V and I2I and in the near future also the link to nomadic devices (pedestrians and cyclists);
3. on both the ICT systems on the road side as well as the back-office systems (e.g. traffic management center, data warehouses, etc.).

Explanatory remarks:

1. Cooperative means in this context cooperation or communication among systems. This communication can be between vehicles (V2V), between vehicle(s) and Infrastructure (V2I), Infra to Vehicle (I2V) and infra-infra (I2I). The IIWG focus to all aspects related to "I" which means V2I, I2V and I2I.
2. Within the near future the U (User system/device) as nomadic devices brings communication devices also to pedestrians and cyclists (in addition to bringing the system into the vehicle with the driver), enabling them to communicate with vehicle or infrastructure embedded systems. This will significantly improve e.g. intersection safety systems.
3. This will safeguard the future building of a holistic approach of cooperative systems having as ingredients: the road infrastructure side, the vehicle side and the infrastructure-vehicle communication.
4. The recommendations coming from the eSafety Working Groups, especially the Implementation Road Maps WG will be considered. Such issues can be technical or related to other deployment aspects, such as regulation, taxes and incentives, standardisation and harmonisation, liability issues, privacy, security and business models.

5. Membership

The IIWG will be a European Group, open to all active participants. It will focus its membership on the Road Authorities/Road Operators, Road Users and Automotive and ICT Industry stakeholders interested in cooperative systems.

- Road Authorities: CEDR members;
- Road Operators: ASECAP members;
- Road Users: FIA, IRU, IRF/ERF;
- Automotive Industry: ACEA, Clepa and their members;
- ICT Industry: Oracle, Arsenal, Vialis, Cobra Automotive Technologies;
- Int'l Laboratories: VTT, INRETS, TNO;
- Universities;

- Cooperative Projects: EASYWAY, COOPERS, CVIS, SAFESPOT, COM E-SAFETY, European Architecture for Cooperative Systems, COM WG, SOA WG, ICT for Clean and Efficient Mobility WG;

The membership of the IIWG will be set up and coordinated by the selected co-chairs, who will ensure that the relevant expertise and all stakeholders will be present to in the group.

All members who join are expected to share the general objectives of the IIWG, and to actively contribute to its work.

6. Organisation and Structuring of the Work

The IIWG will be **co-chaired** by the representatives from ASECAP and CEDR.

The co-chairs (will be nominated by the eSafety Forum Steering Group following proposals from ASECAP and CEDR respectively.

The IIWG is expected to meet three to four times per year.

The IIWG will contribute to the setting up of **Workshops** related to specific topics on the infrastructure side of the cooperative systems. These workshops are organised in coordination with the ongoing R&D projects on cooperative systems and the other eSafety WGs.

The IIWG will also organise targeted **Expert Meetings**, as necessary.

The IIWG meetings will normally take place **in Brussels**; eSafetySupport will support the IIWG as the other WGs, as described in its Description of Work.

7. Draft Work programme 2008/2010

Topics to be addressed in 2008

- ❑ Definition of Intelligent Infrastructure;
- ❑ Identification of and elaboration on mutual goals and common interest with respect to the impacts of cooperative systems on the core activities of private road operators and public national road administrations
- ❑ Identification of the services related to traffic information, traffic management, maintenance, traffic safety, operations, etc. relevant for road operators.
- ❑ Identification of services which are based on Intelligent Infrastructure systems (infra to infra, vehicle to infrastructure and infrastructure to vehicle).

Interim reporting to the eSafety Forum Steering Group;

Topics to be addressed in 2009

- ❑ Identification on national and international characteristics of road operator services when evolving from a one moperator scenario to a national and/or a pan-European scenario.

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- ❑ Identification of priority services which are based on Intelligent Infrastructure systems with regard to the current and short-term expected maturity for deployment
- ❑ Identification of “key intelligent infrastructure side” related issues based on the results of the identification of priorities.
- ❑ Identification of relevant services and related systems for specific stakeholders (National Road administrations, motorway operators, regulators, car industry, etc.)
- ❑ Prioritisation/balancing of expectations and discussion about infrastructure intelligence;
- ❑ Make contact with car industry / automotive sector for a joint meeting which should result in a joint WG “white paper”. This takes place when the working group has finalised their inventory and understands what needs to be done.

Interim reporting to the eSafety Forum Steering Group and Plenary;

Topics to be addressed in 2010

- ❑ Identification of a minimum set of joint requirements for interoperable priority Intelligent infrastructure based services (as result of 2009 study) for relevant stakeholders.
- ❑ Provide recommendations on the deployment required for the Intelligent Infrastructure as being concluded by the working group.

Reporting the recommendations to the eSafety Forum Steering Group and Plenary;

The final work programme will be determined together with the whole working group and validated at the eSafety Forum Steering Group-.

8. Draft Calendar:

Tbd

9. Reporting

The IIWG will provide regular status reports on its progress to the Steering Group, and will present its results and recommendations at the eSafety Forum Plenary Meetings, when invited. All reports are considered to be public, if not explicitly stated otherwise by the Group chairs.

The IIWG Chairs and its members may be invited to present the Group’s progress, reports and recommendations in other public meetings, workshops and conferences.

The Commission may use the IIWG results in its internal reporting and the eventual reports to the Council and the Parliament.

10. Costs

IIWG chairs and members are responsible for their own costs including travel costs and meeting expenses.

Working Meetings of the group are normally organised in Brussels in the Commission premises. eSafetySupport and COMeSafety Specific Support Actions may provide support to organising the Workshops, as stipulated in the Work Programmes.