

## ETSC Position:

### Communication Action Plan for the Deployment of Intelligent Transport Systems in Europe (COM 2008 886)

### Proposed Directive laying down the framework for the deployment of Intelligent Transport Systems in the Field of Road Transport and for interfaces with other transport modes (COM 2008 887)

#### ETSC's comments on the Jensen Report

ETSC fully supports Mrs. Jensen MEP's Report and the adopted amendments from the Plenary of the 23<sup>rd</sup> of April specifically:

Amendments 10, 11, 50, 59 (Vulnerable Road Users), 17, 22, 38, 43, 49 (strengthen the Directive's implementation), 39, 45, 46, 47 (ITS Advisory Group), 55, 56 (strengthen safety elements of Annex II of Directive), 20 (eCall).

These will strengthen the ITS package's safety potential.

#### ETSC's Comments on the Council Conclusions<sup>1</sup> of 30 March 2009

ETSC supports in the preamble under the overall aims for ITS to:

- *Make continuous efforts to the enhancement of road safety*
- *contribute to the development of efficient, safe and environmentally friendly transport services.*

Supports following specific priorities identified by the Council:

- *Encourage the Commission to facilitate a Europe-wide regulatory framework for ITS*
- *The need to develop ITS in and across modes*
- *Invites the Commission and Member States to accelerate work on enhancing road safety and security*
- *Action related to safety and quality of travel of vulnerable road users and persons with reduced mobility or orientation*
- *Definition of necessary requirements for digital maps*
- *Definition of necessary measures to improve safety of road users with respect to their on-board HMI, promote deployment of advanced driver assistance systems that bring about the greatest injury reduction and life saving potential*
- *Finalise open interfaces for communication within the vehicle, between vehicles and between vehicles and roadside infrastructure and develop further cooperative systems.*

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<sup>1</sup> [http://www.consilium.europa.eu/uedocs/cms\\_data/docs/pressdata/en/trans/106964.pdf](http://www.consilium.europa.eu/uedocs/cms_data/docs/pressdata/en/trans/106964.pdf)

## ETSC's Comments on the Statement from the Informal Council of 30 April 2009<sup>2</sup>

ETSC supports the: *specified significance of ITS for increasing road safety and for lowering the volume of fatal accidents.*

In particular of the potential ETSC would highlight these:

- d) providing accurate information on the location and nature of accidents,*
- e) providing exact instructions to emergency staff and shortening their response time,*
- f) informing traffic participants about current speed limits and warning people against exceeding them*

## Part 1: General Comments on Proposal

### 1. Introduction

The European Transport Safety Council (ETSC)<sup>3</sup> welcomes the proposals for an Action Plan and accompanying Directive for the deployment of Intelligent Transport Systems (ITS)<sup>4</sup>. Intelligent Transport Systems are based on intelligence placed at the roadside and in the vehicle. By means of communication between these systems and road users road safety can also be advanced<sup>5</sup>. We can divide ITS into primarily vehicle based technologies (ESC, Alcohol Interlocks, Seat Belt Reminders, ISA) and primarily infrastructure based technologies (eCall, Dynamic Traffic Management). Other new ITS applications may also be on the way in the future that we do not yet know about. So it is vital that the ITS action plan is flexible enough to quickly implement other new lifesaving technologies. The introduction of technologies and structures included in these proposals will contribute to reducing the 43,000 annual deaths on Europe's roads.

The European vehicle industry faces a time of crisis. Beating off the international competition will be a challenge but developing its safety credentials and profiling itself as the producers of the world's safest vehicles can play a crucial role. This is also why ETSC supports progress on ITS which will enable technologies tackling safety risks to be developed. Such initiatives will help us to build on the EU's reputation as the home of safe vehicle innovation now and in the future.

### 2. Lifesaving Potential

ITS can contribute to road safety both in reducing crash risk and alleviating the severity of crash consequences. Yet there are no systemic estimates of casualty reductions for ITS. About 43,000 people were killed in road traffic collisions in the European Union in

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<sup>2</sup> <http://www.eu2009.cz/en/news-and-documents/press-releases/eu-transport-ministers-meet-in-litomerice-19436/>

<sup>3</sup>The European Transport Safety Council (ETSC), founded in 1993 is a Brussels-based independent non-profit making organisation dedicated to the reduction of the number and severity of transport crashes in Europe. The ETSC seeks to identify and promote research-based measures with a high safety potential. It brings together 41 national and international organisations concerned with road safety from across Europe.

<sup>4</sup> [http://ec.europa.eu/transport/its/road/action\\_plan\\_en.htm](http://ec.europa.eu/transport/its/road/action_plan_en.htm)

<sup>5</sup> Intelligent Transportation Systems and Road Safety Brussels ETSC 1999

2007 (ETSC 2008). If recent trends continue, the European Union will reach its target only in 2017. Looking forward into the future ETSC proposes a new ambitious target of a 40% reduction of deaths from 2010 to 2020 (ETSC 2008). To achieve this target the EU would have to go above and beyond current reduction trends by implementing new measures including those in the field of ITS.

ITS applications should focus on the main risk factors in road transport: speeding, drink driving and the non use of seat belts. It should also apply other technologies that can react to other sorts of impaired driving such as fatigue and drug driving or causes for distraction.

### **Speed**

There is a well documented relationship between speed and collisions resulting in death and injury with lasting effect. Excessive speed can be illegal (driving above speed limits) or inappropriate (driving too fast for the prevailing conditions) and is the single biggest contributory factor in fatal road collisions. Recent work has shown that ISA, introduced in the UK which has a comparatively good performance in terms of speed compliance, could save 30% of fatal crashes over a sixty-year period, provided that fitment to new vehicles becomes compulsory.<sup>6</sup> In addition, ISA can make a significant contribution to cutting the CO<sub>2</sub> impact of road traffic.

### **Drink and Drug Driving**

Driving whilst under the influence of alcohol contributes annually to at least 10,000 deaths on EU roads. In the EU as a whole, around 1% of journeys are associated with an illegal Blood Alcohol Limit (BAC) (ERSO 2006). National data show that in average 15% of fatalities are due to alcohol impairment of a driver. If the number of alcohol impaired drivers dropped to zero, some 6,800 lives could be saved, representing 16% of road deaths in 2007.

The use of illegal or psychoactive substances and medicinal drugs whilst driving is a cause for concern. The effect of drugs on road safety is more complex than that of alcohol, because impairment can be caused by a huge range of prescription drugs, illegal or 'recreational' drugs, solvents, or stimulants used to counter fatigue, many of whose effects are amplified when accompanied by alcohol. At present there is no reliable data to show the impact of drug driving in the EU.

### **Non Use of Seat Belts**

Seat belts are a highly effective way of reducing deaths and injuries with lasting effects to car occupants. Yet, despite the legal obligation to wear a seat belt, wearing rates still vary greatly across Europe especially between front and rear seats and between urban and rural areas. The seat belts saved some 14,200 car occupants from dying in road crash in EU-27 in 2007, while an additional 4,700 lives could be saved if all car occupants in crashes were belted, what represents a 11% reduction of road deaths in the EU-27.

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<sup>6</sup> Carsten et al., (2008). Speed Limit Adherence and its Effect on Road Safety and Climate Change. Commission for Integrated Transport and the Motorists' Forum, London.

## Fatigue

Research shows that driver fatigue is a significant factor in approximately 20% of commercial road transport crashes (ETSC, 2001). Fatigue is a recognized problem amongst professional drivers. Amongst other drivers, driving under fatigue is very often combined with driving under the influence of alcohol in the evenings and at night, and particularly among young drivers and the cumulative impact of the two risk factors together is greater than the sum of both alone. Amongst professional drivers there is also a risk of the “morning after” effect of alcohol in combination with fatigue.

### ETSC Recommendation

ETSC strongly supports the clear road safety goals set in the Action Plan and accompanying framework Directive under Articles 3 and 4, but stresses that although road safety and security are a priority area for action the technologies and systems that bring about the greatest life saving potential should be fast-tracked for deployment. ETSC supports the effort to outline a list of measures and actions and to put target dates set for the different actions.

ETSC supports the Council conclusions of March 30<sup>th</sup>: *promote deployment of advanced driver assistance systems that bring about the greatest injury reduction and life saving potential*. ETSC supports adopted amendment 55.

### 3. Choice of Legal Instrument: Action Plan + Directive (support Option B)

ETSC supports the European Commission’s proposal for the adoption of both an Action Plan and an accompanying Directive (Option B+). We feel that the objectives (including the ones that would advance road safety), would be reached more swiftly within such a formalised structure proposed by the Directive with the creation of a European ITS Committee and an ITS Advisory Group (Articles 8 and 9). There has been little progress over the past decade and although there has been an EC Recommendation adopted to advance the ITS agenda an overarching Action Plan supported by a Directive is now needed. Moreover this legislative package would ensure an equal participation of all EU Member States and that progress on ITS would not be limited to a few countries taking a special interest in this issue. The implementation of Option B with the creation of only a High Level Group would not be sufficient to ensure this sustained action.

The legislative framework is needed so that the EU will be able to deliver efficient and timely decisions to allow for the deployment of ITS systems. Specifically the Committee and ITS Advisory Group will be able to input on technical advances that will deliver continuity and interoperability for ITS in the next decade and beyond.

ETSC supports the Council conclusions of March 30<sup>th</sup> that *encourage the Commission to facilitate a Europe-wide regulatory framework for ITS*.

## Part 2: Specific Comments on the Proposals on Safety

#### 4. Driver Assistance Systems Action Plan (4.3)

The Action Plan identifies " *that research and initial deployment have shown the great potential for improving road safety of Driver Assistance Systems such as Electronic Stability Control (ESC), Adaptive Cruise Control (ACC), Lateral Support (lane departure warning and lane change assistant), Collision Warning and Emergency Braking Systems and other applications such as eCall (emergency call), driver hypo-vigilance systems, "speed alert"*<sup>7</sup> and "alcohol-lock".

These driver assistance systems can also be classified in three ways. The first type of driver assistance can give information (e.g. sound of a seat belt reminder – you are not wearing a seat belt), the second can support the driver by correcting a mistake (steering back in case of a lane departure) and the final phase could include intervening in case of no reaction from the driver at all and thus ensure for a "safe shut down system" (this could be an auto brake system which stops the car to prevent a collision with an oncoming obstacle such as a pedestrian).

ETSC fully supports the introduction of Driver Assistance Systems. However it stresses the need to focus on the technologies and systems which bring about the greatest life saving potential. These include setting up structures that will promote speed management systems (ISA) and enabling the wider use of alcohol interlocks and seat belts through seat belt reminder systems.

The Action Plan should also be flexible to take up new technologies. It should also involve the European New Car Assessment Programme (EuroNCAP) which at present tests the collision worthiness of new cars with respect to front and side impacts, pedestrian and child safety. It will soon also be including in its star ranking the presence of in car vehicle technologies such as seat belt reminders and speed limiters. EuroNCAP should also play a role in informing society and consumers about new ITS safety devices as they come on the market.

#### **ETSC Recommendation**

The European Commission and Member States should make progress in deploying safety technologies that are linked more strongly to the risk factors. They should work together with EuroNCAP to inform consumers on these. Priority should be given to the development of ITS which address identified road safety problems, rather than to promote technologies for their own sake. Specific measures in the Action Plan and Directive could facilitate this.

The Annex II of the Directive should be adapted to reflect the action 3.1 of the Action Plan to promote the deployment of advanced driver assistance systems and safety and

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<sup>7</sup> "The system alerts the driver with audio, visual and/or haptic feedback when the speed exceeds the local legal speed limit. The speed limit information is either received from transponders in speed limit signs or from a digital road map, requiring reliable positioning information."  
[http://ec.europa.eu/information\\_society/activities/intelligentcar/technologies/tech\\_18/index\\_en.htm](http://ec.europa.eu/information_society/activities/intelligentcar/technologies/tech_18/index_en.htm)

security related ITS systems. Specific reference should be made to the three most important ones: ISA, Alcohol Interlocks and Seat Belt Reminders on all seats.

The Action Plan (Action Area 3) and Directive (Annex II) should also foresee the development of other new technologies and enable EuroNCAP to inform consumers about these new lifesaving technologies.

### **The Three Technologies which should be included as a matter of priority**

ETSC regrets that priority is not given to ISA and alcohol interlocks and proposes the inclusion of another important technology: Seat Belt Reminders on all seats.

## **5. Intelligent Speed Adaptation**

### **Action Plan 3.1**

The adaptation of driving speed to the prevailing conditions and speed limits is a primary way of controlling the crash risk of the driver. Different systems exist, ranging from informative to intervening systems. *Intelligent Speed Adaptation (ISA)* is an Intelligent Transport System (ITS) which warns the driver about speeding, discourages the driver from speeding or prevents the driver from exceeding the speed limit (Regan et al, 2002 A).<sup>8</sup> Information regarding the speed limit for a given location is usually identified from an onboard digital map in the vehicle. The newest technologies enable speed sign reading and recognition either already built into the vehicle or as an aftermarket navigator.

In terms of intervention level there are two major types of system – informative and supportive. An informative system gives the driver feedback in the form of a visual or an audio signal. A supportive system works in the form of increasing the upward pressure on the pedal or cancelling a driver's throttle demand if it demands more throttle than is required to drive at the speed limit.

A Swedish large-scale study of the effect of informative and supportive ISA, involving nearly 4,500 vehicles, shows that if everyone had informative ISA fitted, injury accidents could be reduced by 20% in urban areas (Biding 2002). A mandatory system also has very large potential to reduce fatal and serious accidents (Carsten et al 2008). Estimates by Carsten show that a mandatory ISA scheme could lead to a reduction of 36% in road traffic (injury) accidents and 59% in fatal accidents. There would also be benefits in terms of lower fuel consumption (up to 8%) and more effective road traffic enforcement.

### **ETSC Recommendation**

The ITS Action Plan and Directive should accelerate this process of implementation. The Annex II of the Directive should be adapted to reflect the action 3.1 of the Action Plan to promote the deployment of advanced driver assistance systems and safety and security related ITS systems. Specific reference should be made to ISA. A link should also be made to the provision of a digital database of speed limits under Action Plan 1.3, Article 3 of the Directive and Annex II.

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<sup>8</sup> Note that his definition is very similar to the one given for "speed alert" the term used in the Action Plan and provided under Footnote 5.

## 6. Alcohol Interlocks

### Action Plan 3.1

Driving whilst under the influence of alcohol contributes annually to at least 10,000 deaths on EU roads. In the EU as a whole around 1% of journeys are associated with an illegal Blood Alcohol Limit (BAC) (ERSO 2006). If the number of alcohol impaired drivers dropped to zero, some 6800 lives would be saved, representing 16% of road deaths in 2007. Alcohol interlocks (also termed 'alcolocks') are devices that require the driver to take a breath test before starting the car. If the driver fails the test, the device locks the ignition of the car. Their introduction could put an end to the high toll of drink driving casualties every year in the EU.

### **ETSC Recommendation**

The EU should take a step by step to introducing alcolocks to its vehicles. The Annex II of the Directive should be adapted to reflect the action 3.1 of the Action Plan to promote the deployment of advanced driver assistance systems and safety and security related ITS systems. Specific reference should be made to Alcohol Interlocks.

## 7. Other Driver Assistance Systems Technologies also included in the ITS Action Plan that should be prioritised

### Action Plan 3.1

### **Forward Collision Warning – Following Distance Warning**

The distance warning system warns both visually and with a sound that the driver is too close to a vehicle. The warning depends on how long the distance is between the vehicle and the vehicle ahead (Regan et al, 2002 B). The level of warning will switch from "safe" to "critical" as distance decreases. Systems with auditory warnings have been proven to be effective warning mechanisms. Driver inattention, or failure to pay adequate attention to the driving task, is the single most common cause of front-to-rear end collision crashes. The following distance warning system was installed in trucks in the US and has the potential to reduce the rear impact by 57%.

### **Emergency Braking**

Emergency Braking will be introduced into the markets after 2010 but deserves prioritization due to its extremely efficient safety benefits. The aim of Emergency Braking is to avoid fully automatic or mitigates longitudinal crashes (braking only). The system reacts if a vehicle approaches another leading vehicle. The system reacts in three steps:

- 1) Optical and acoustical warning, if the approaching could lead to an accident.
- 2) Autonomous partial braking, if the distance is reduced further.
- 3) Autonomous full braking, if an accident appears inevitable. Input is the distance and the relative speed to a leading vehicle.



The system reduces impact speed in case of immediate danger, which increases passive safety and reduces accident consequences.

- Reduced risk of injuries / collision mitigation through decreased impact velocity
- Reduction of braking distance through immediate braking action and adapted, improved brake assist function
- Support for collision avoidance and collision mitigation

This has an estimated fatality reduction of 7% on the EU25 scale with full penetration, and one of the highest benefit-cost ratios there is for driver support systems<sup>9</sup>. The eSafety Forum included it as one of the priority systems in 2008.

### **Lane Keeping Device**

The lane-keeping device is an electronic warning system that is activated if the vehicle is about to veer off the lane or the road. This device can be effective at tackling fatigued drivers. Lane changing represents 4 to 10% of all crashes. Studies made in the US show that the Lane Keeping Device could reduce the number of impact by 37% (Olsson, 2002). Times to collision during dangerous lane changes are normally much less than one second (ETSC 2005). A new feature called "Lane Departure Assist" is also coming on the market which not gives the warning but also steers the vehicle back.

### **ETSC Recommendation**

Collision Warning, Emergency Braking and Lane Keeping Devices also have clear safety benefits and should be promoted with the ITS Action Plan and within Annex II of the proposed Directive.

## **8. Other Driver Assistance Systems Technologies should also included in the ITS Action Plan 3.1**

### **The extension of Seat Belt Reminders to all seats**

Seat belt reminders are a further ITS that should also be included in this section. Seat belt reminders detect occupants and their seat belt use in all seating positions, and then create a series of alarms to alert the car occupant if he or she is not belted. There are different types of seat belt reminders – some issue only visual warnings while others issue both visual and auditory warnings. The potential to save lives increases with seat belt reminders that disable ignition in case of non-use are the most effective. But even audible seat belt reminders have a large life saving potential. The new regulation on the "Type Approval requirements for the general safety of motor vehicles" foresees the compliance with the provision of visual and audible seat belt reminders for the driver's seat by the 1<sup>st</sup> of November 2012.

ETSC has undertaken a cost-benefit analysis for the mandatory introduction of audible seat belt reminders for front seats in 2004 (ETSC 2004). It was based on the assumption that roughly 50% of fatally injured front seat car occupants killed in the EU did not wear seat belts and that audible seat belt reminders for the front seat could increase seat belt wearing among front seat occupants to 97%. After twelve years of introduction, the costs would amount to about 11 million Euro while the benefit would

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<sup>9</sup> eIMPACT Project Results [http://www.eimpact.eu/download/eIMPACT\\_D6\\_V2.0.pdf](http://www.eimpact.eu/download/eIMPACT_D6_V2.0.pdf)



be 66 million Euros. The cost-benefit ratio would be 1:6. The CARS 21 High Level Group had included EU regulation on seat belt reminders in its 10 year road map for the automotive industry in Europe.

### **Drowsiness Detector**

As well detecting fatigue using lane departure warnings, research has also been undertaken to track the drowsiness of drivers and advise them to take a break if alertness starts to fade.

### **ETSC Recommendation**

Seat belt reminders on all seats and drowsiness detectors are further important ITS instruments which should also be included in Action Plan 3.1 and in Annex II of the Directive.

## **9. Driver Assistance Road Data and Digital Mapping to implement ISA** **Action Plan 1.3**

ETSC particularly welcomes proposed actions under Area 1 of the Action Plan (and Article 4 and Annex I and II in the Directive) on the optimal use of road, traffic and travel data. This includes the definition of procedures for the provision of EU-wide real-time traffic and travel information services (1.1) and optimisation of collection and provision of road data and traffic circulation plans, traffic regulations and recommended routes (1.2)

ETSC especially welcomes progress to be made on the Digital Maps (1.3)

*“Definition of procedures for ensuring the ability of accurate public data for digital maps and their timely updating through co-operation between the relevant public bodies and digital map providers taking into account the results and recommendations of the eSafety Digital Maps Working Group.”*

This provision of such a digital database of all speed limits on the network is an important prerequisite for the implementation of ISA. Due care should also be given to how to update the speed limit data. One well recognised method is using a video camera in the vehicle capable of pattern recognition i.e. speed limit sign interpretation, which can ensure correct speed limit information, it thus also essential to invest in high quality traffic signs in the right place for this to work. We also support Action 1.4 that a minimum level of traffic information should be free for all citizens to access.

## **10. eCall**

The Action Plan (3.2) and Directive (Annex II) will support the implementation platform for the harmonised introduction of pan-European eCall. The response to emergency calls must be efficient ensuring a fast arrival of the right emergency services at the collision spot. eCall is a combination of technical solutions to reduce the time between the emergency call and the rescue activity. As well as delivering medical care for

critically and severely injured people the death rate will be lowered. A Memorandum of Understanding was launched in the EU, but so far only 17 Member States have signed. The target date is September 2011. eCall will be most efficient in regions where there are long response times of emergency services such as remote rural areas.

### **ETSC recommendation**

The EU should include eCall in vehicle type approval and consider extending eCall to other vehicle types such as PTWs. ETSC supports adopted amendment 20.

## **11. Human Machine Interface**

The European Commission proposed (Action 3.3) the development of a regulatory framework on a safe on-board HMI and the integration of nomadic devices, building on the European Statement of Principle on safe and efficient in-vehicle information and communication systems. ETSC supports adopted amendment 56.

### **ETSC Recommendation**

The development of consumer information on nomadic devices would also be welcomed. In particular setting up a scoring system based on safety performance such as EuroNCAP. The HASTE project was close to developing such a scoring system<sup>10</sup>. ETSC supports adopted amendment 56.

## **12. Multimodal Door-to-Door Journey Planners Action Plan (1.5)**

Action Area 1 also includes Multimodal Door-to-Door Journey Planners taking due account of public transport alternatives and their interconnection across Europe (1.5). Travel behaviour can be affected by ITS applications that mainly provide the traveller with a better basis for decisions in terms of traffic and travel information. In particular, better information about public transport is an important prerequisite to get drivers to change from car to bus or train (CEC, 1993). In the field of ITS, travel planners have been developed on-line. The typical solution is based on the Internet giving the answer of how to get from A to B taking various requirements into account. This may be time of arrival, time of departure, travel time, travel cost etc. This could also have important influence mode and route choice and could in turn have a positive road safety benefit.

### **ETSC Recommendation**

ETSC supports the promotion, of the extension, quality and use of public transport which would benefit from such journey planning possibilities.

## **13. ITS and Vulnerable Road Users Action Plan (3.4)**

The proposal includes the development of best practice guidelines concerning the impact of ITS applications and services on the safety and comfort of Vulnerable Road

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<sup>10</sup> HASTE Project Deliverables <http://www.its.leeds.ac.uk/projects/haste/deliverable.htm>

Users (VRUs). VRUs comprise pedestrians, cyclists and motorised two wheelers. In 2007 17,000 vulnerable road users (pedestrians, cyclists and users of motorised two wheelers) were killed in EU countries as a consequence of road crashes, contributing 40% of all road deaths. The highest death rate by far in road transport is for the two-wheeled motor vehicle users. Motorcycle or moped travel death risk per kilometre travelled is 20 times higher than for car travel. The risk of being killed in traffic per kilometre travelled is more than 9 times higher for pedestrians than for car occupants and more than 7 times higher for cyclists than for car occupants (ETSC, 2003). The severity of injuries suffered by vulnerable road users is also higher than for car occupants.

Few ITS applications have been designed for vulnerable road users. Some have been mentioned earlier such as forward and rear collision warning systems and auto brake systems which detect vulnerable road users up ahead and inform the driver or intervene in case of no reaction.

Another example of an ITS that could benefit children comes from Sweden in 2008. During 1994-2001 361 children were killed or injured going to and from school by school transportation. Of those 64 percent were injured or killed as unprotected road users, mostly while crossing behind or in front of the bus in the afternoon. There the safe smart school bus pilot project aims to better secure pedestrian crossing behind or in front of school buses by supporting the school bus driver. In order to communicate with the system children wear a tag that transmits the information to the bus unit, making it possible for the driver to know if the child is within 100 meters of the bus. The tag is also connected to a bus stop unit warning other passing drivers.

The most positive ITS applications with regard to the safety of vulnerable road users are speed adaptation systems, discussed previously (ETSC 1999).

### **ETSC Recommendation**

ETSC applauds the EC's commitment to prioritise actions improving VRUs safety in this Action Plan and Directive. ETSC supports adopted amendment 10, 11, 50 and 59.

### **ETSC recommends specifically to**

- ensure that motorcycles can also benefit from eCall, which is going to be introduced as a standard for passenger cars in many EU countries.
- provide information to enable shorter and safer routes for pedestrians and cyclists by ensuring that routes are direct and that the quickest routes are also the safest. In order to promote safer route choice, travel time should be increased on unsafe routes and decreased on safe routes.
- "Safe routes to school" schemes should be developed in order to increase the safety of children.
- stimulate development of safer vehicles for older people (encourage elderly-friendly design as well as evaluate the impact of new technologies on older drivers). (OECD/ECMT 2001, ETSC, 2008a)

## **14. Secure Parking Places Action Plan(3.5)**

Action Area 3 also includes developing best practice guidelines on Secure Parking Places (3.5) and inclusion in Annex II of the Directive. ETSC recognises the potential benefits that this could have especially for HGV drivers who would be able to plan their routes and find a rest area without jeopardising their maximum driving time. Research shows that driver fatigue is a significant factor in approximately 20% of commercial road transport crashes (ETSC, 2001). Better availability of parking and information as well as data exchange on this subject will help drivers plan and take their breaks more efficiently.

## **15. Integration of the vehicle into the transport infrastructure – Vulnerable Road Users**

### **Infrastructure to Infrastructure, Vehicle-to- Infrastructure and Vehicle to Vehicle communication in co-operative systems Action Plan (4.3)**

Cooperative systems, which are using communications between vehicles or vehicles and the infrastructure, may increase the safety and efficiency of road traffic considerably when all road users are equipped with the communication required. The current plans and projects place the main emphasis on equipping cars, and the issues related to PTWs and VRUs are largely overlooked. It is highly likely that road users equipped with cooperative systems will pay less attention to the road users that are not equipped, and have a degraded interaction with them resulting in increased crash risks, although the situation and safety of the equipped road users will improve. This entails that road safety may be reduced for PTWs, VRUs and drivers of unequipped vehicles - a problem that must be overcome in the long transition phase up to full fleet penetration. Solutions could be that during the transition phase either in-vehicle and roadside detectors are used to inform drivers about all road users present or approaching. An alternative would be to equip all road users with inexpensive e.g. nomadic devices so that they would be part of the "co-operative systems picture".

#### **ETSC Recommendation**

To enable better vehicle to infrastructure communication through the use of ITS systems such as lane departure warning and informative ISA it is also essential to invest in high quality road markings and traffic signs in the right place.

The problem of the differentiated use of cooperative systems during the transition phase leading up to full market introduction as described above needs to be given due attention before the deployment of these systems.

ETSC supports adopted amendment 55.

## **16. Liability Action Plan (5.4):**

ETSC welcomes the proposal to address the liability issues pertaining to the use of ITS applications and notably in-vehicle safety systems. ISA has been the focus of many discussions about liability in the past years. ISA technologies intervene in the driving task to a varying degree. With most types, the intervention is no more than what drivers currently encounter from devices such as ABS, ESP, lane keeping support, cruise control. With all these devices, the driver still remains in control of the driving task. It is assumed

that clarification for ISA product liability will certainly be no more problematic than for those technologies that are currently promoted in the market place (ETSC 2005).

#### 17. European ITS cooperation and coordination Action Plan (6)

ETSC welcomes the actions under Area 6 which sets out the different structures which will see the implementation of better ITS cooperation and coordination in Europe. Already in its 1999 Review on ITS ETSC recommended that the EU establish a long term strategy on ITS with a view to road safety. A decision-support toolkit (6.2) will be very helpful. ETSC also supports the integration of ITS applications in TEN-T and Structural Fund applications (6.3) this will lead to better, smarter and safer infrastructure and extend the use and understanding of ITS in the EU.

### Part 3 Summary of Key Recommendations:

ETSC strongly supports the **clear road safety goals** set in the Action Plan and accompanying framework Directive under Articles 3 and 4, but stresses that although road safety and security are a priority area for action the technologies and systems that bring about the greatest life saving potential should be fast-tracked for deployment.

ETSC supports the European Commission's proposal for the adoption of both an Action Plan and an accompanying Directive (**Option B+**). A **long term ITS strategy** for the EU is sorely needed. ETSC also supports efforts to strengthen the Directive including making the annexes binding, reducing the time for transposition from 24 to 12 months and efforts to set up a tighter work programme with a stricter timetable for implementation.

The Annex II of the Directive should be adapted to reflect the action 3.1 of the Action Plan to promote the deployment of **advanced driver assistance systems** and safety and security related ITS systems. Specific reference should be made to **ISA and alcolocks**. Other technologies such as seat belt reminders (on all seats), auto braking systems and drowsiness detectors should be included. A link should also be made to the provision of a digital database of speed limits under Action Plan 1.3, Article 3 of the Directive and Annex II. The EU should include **eCall in vehicle type approval** and consider extending eCall to other vehicle types such as **PTWs**. ETSC applauds the EC's commitment to prioritise actions improving **Vulnerable Road Users** safety in this Action Plan and Directive.

#### **For more information:**

Intelligent Transportation Systems and Road Safety ETSC 1999

In Car Technologies Today ETSC 2005

Intelligent Speed Assistance – Myths and Reality ETSC 2005

The Safety of Vulnerable Road Users ETSC 2005

Seat Belt Reminders: Implementing advanced safety technology in Europe's Cars, ETSC, 2007

Managing Speed Towards Safe and Sustainable Road Transport ETSC 2008

Countdown to 2010 Only Two More Years to Act Road Safety PIN Annual Report ETSC 2008

A Blueprint for the EU's 4<sup>th</sup> Road Safety Action Programme 2010-2020 ETSC 2008

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