

FACT SHEET NO.: 3/6

PERFORMED BY: FÖMTERV

A GENERAL INFORMATION		
A 1	Category	Efficiency standards & Flanking Measures
A 2	Subcategory	Standards - Transport safety
A 3	Transport policy measure (TPM)	Safety of road transport by means of ITS (Intelligent car initiative (e-Safety initiative))
A 4	Description of TPM	The Intelligent Car Initiative is a policy framework set up by the European Commission to tie up all activities relating to 'intelligent' automobiles. The term covers all vehicles that are equipped with modern information and communication technologies (ICT) to increase road safety and/or the flow of traffic, or to reduce the environmental impact of road transport. For the benefit of road users and society in general, eSafety is working for a quicker development and increased use of smart road safety and eco-driving technologies.
A 5	Implementation examples	- e-Call - ADAS (Advanced Driver Assistance Systems, or ADAS, are systems to help the driver in the driving process. When designed with a safe Human-Machine Interface it should increase car safety and more generally road safety. Examples of such a system are: In-vehicle navigation system with typically GPS and TMC for providing up-to-date traffic information. Adaptive cruise control (ACC) Lane departure warning system Lane change assistance Collision avoidance system (Pre-crash system) Intelligent speed adaptation or intelligent speed advice (ISA) Night Vision Adaptive light control Pedestrian protection system Automatic parking Traffic sign recognition Blind spot detection Driver drowsiness detection Vehicular communication systems Hill descent control Electric vehicle warning sounds used in hybrids and plug-in electric vehicles the list could be very long, and longer from day to day
A 6	Objectives of TPM	- Improve road safety - Avoid accidents, especially cut back the fatalities on road - Reduce environmental problems, (especially reduce fuel consumption and CO2 emission) - Reduce congestion
A 7	Key changes concerning:	
A 7.1	- Choice of transport mode / Multimodality:	No impact
A 7.2	- Origin and/or destination of trip:	No impact
A 7.3	- Trip frequency:	No impact
A 7.4	- Choice of route:	No impact
A 7.5	- Timing (day, hour):	No impact
A 7.6	- Occupancy rate / Loading factor:	No impact
A 7.7	- Energy efficiency / Energy usage:	The TPM can result in more energy efficient use of vehicles
A 8	Main source	[3] EU road-safety action programme (2004/2162(INI))

B IMPACTS																			
B 1 OVERVIEW ON IMPACTS	AFFECTED SEGMENTS													Geographical level		Source			
	Passengers					Transport operators						Employees in transport	Residents	Economy	Public bodies	Society	1st level	2nd level	Source of assessment
Road	Rail	Air	Public transport	Slow modes	Road	Rail	IWW	Air	Maritime	Public transport									
B 1.1	Summary	Traffic impacts refers to road transport only. Risk of congestion and number of accidents decreases significantly thanks to the ITS applications.													N	I	S	I	
B 1.2	Summary: Income groups	No impact																	
B 1.3	Summary: Age groups	No impact																	
B 1.4	Summary: Disabled people	No impact																	
B 1.5	Summary: Gender groups	No impact																	
B 1.6	Summary: Ethnic groups	No impact																	

B 2 TRAFFIC IMPACTS																			
B 2	AFFECTED SEGMENTS													Geographical level		Source			
	Passengers					Transport operators						Employees in transport	Residents	Economy	Public bodies	Society	1st level	2nd level	Source of assessment
Road	Rail	Air	Public transport	Slow modes	Road	Rail	IWW	Air	Maritime	Public transport									
B 2.1	Travel or transport time	→				→													
B 2.2	Risk of congestion	↓				↓													
B 2.3	Vehicle mileage																		
B 2.4	Service and comfort	↑				↑													
B 2.I	Overall impacts on social groups																		
B 2.II	Implementation phase																		
B 2.III	Operation phase																		
B 2.IV	Summary / comments concerning the main impacts	The e-Safety measures, as set along the objectives significantly reduces the number of accidents and the risk of congestion. [2,3]																	
B 2.V	Quantification of impacts																		

B 3 ECONOMIC IMPACTS																			
B 3	AFFECTED SEGMENTS													Geographical level		Source			
	Passengers					Transport operators						Employees in transport	Residents	Economy	Public bodies	Society	1st level	2nd level	Source of assessment
Road	Rail	Air	Public transport	Slow modes	Road	Rail	IWW	Air	Maritime	Public transport									
B 3.1	Transport costs	→				→													
B 3.2	Private income / commercial turn over																		
B 3.3	Revenues in the transport sector																		
B 3.4	Sectoral competitiveness	↑				↑													
B 3.5	Spatial competitiveness																		
B 3.6	Housing expenditures																		
B 3.7	Insurance costs	↓				↓													
B 3.8	Health service costs																		
B 3.9	Public authorities & adm. burdens on businesses																		
B 3.10	Public income (e.g.: taxes, charges)																		
B 3.11	Third countries and international relations																		
B 3.I	Overall impacts on social groups																		
B 3.II	Implementation phase																		
B 3.III	Operation phase																		
B 3.IV	Summary / comments concerning the main impacts	The measure has very limited economic impacts, however a set of measures may reduce transport costs for freight companies (with large fleet), and definitely reduces accident related costs (health and insurance, because of reduction of accidents) and makes road transport much more																	
B 3.V	Quantification of impacts																		

B 4	SOCIAL IMPACTS	AFFECTED SEGMENTS														Geographical level		Source				
		Passengers					Transport operators						Employees in transport	Residents	Economy	Public bodies	Society	1st level	2nd level	Source of assessment	Spatial level of source	
		Road	Rail	Air	Public transport	Slow modes	Road	Rail	IWW	Air	Maritime	Public transport										
B 4.1	Health (incl. well-being)																					
B 4.2	Safety	↑					↑												N	i	S	I
B 4.3	Crime, terrorism and security	↗																	N	i	S	I
B 4.4	Accessibility of transport systems																					
B 4.5	Social inclusion, equality & opportunities																					
B 4.6	Standards and rights (related to job quality)																					
B 4.7	Employment and labour markets																					
B 4.8	Cultural heritage / culture																					
B 4.I	Overall impacts on social groups																					
B 4.II	Implementation phase																					
B 4.III	Operation phase																					
B 4.IV	Summary / comments concerning the main impacts	The social impact of the measure is mainly related to the transport users on the road. For them, safety is the most significant positive impact. Others are negligible. [1,2,3]																				
B 4.V	Quantification of impacts																					

B 5	ENVIRONMENTAL IMPACTS	AFFECTED SEGMENTS														Geographical level		Source				
		Passengers					Transport operators						Employees in transport	Residents	Economy	Public bodies	Society	1st level	2nd level	Source of assessment	Spatial level of source	
		Road	Rail	Air	Public transport	Slow modes	Road	Rail	IWW	Air	Maritime	Public transport										
B 5.1	Air pollutants																					
B 5.2	Noise emissions																					
B 5.3	Visual quality of the landscape																					
B 5.4	Land use																					
B 5.5	Climate																					
B 5.6	Renewable or non-renewable resources																					
B 5.I	Overall impacts on social groups																					
B 5.II	Implementation phase																					
B 5.III	Operation phase																					
B 5.IV	Summary / comments concerning the main impacts	Efficient use of vehicles results in environmental benefits as well, namely reduction of pollutant emission and noise. [3]																				
B 5.V	Quantification of impacts																					

C REFERENCES		
C 1	Other TPMs of this subcategory	Development of an aviation safety management system at EU level with the support of the European Aviation Safety Agency (EASA) SEC(2009)477 Safety rules and standards for passenger ships (Council Dir 98/18/EC; Dir 2004/25/EC)
C 2	References	International [1] Road Safety - Impact of new technologies, OECD 2003 [2] Impact Assessment and the Intelligent Car Initiative, Kerry M. Malone, TNO 2006 [3] EU road-safety action programme (2004/2162(INI)) National [4] Safer Roads Thanks to ITS, Public Roads May/June 2002 Vol. 65- No. 6 [5] Intelligent Car Initiative, André Vits, DG-INFSO