

FACT SHEET NO.: 5 / 1

PERFORMED BY: NEA

A GENERAL INFORMATION		
A 1	Category	Efficiency standards & Flanking Measures
A 2	Subcategory	Standards - Transport Safety
A 3	Transport policy measure (TPM)	European Road Safety Action Programme RSAP (2001-2010)
A 4	Description of TPM	Of all modes of transport, transport by road is the most dangerous and the most costly in terms of human lives. For this reason, the Road Safety Action Programme (2003-2010) proposes a series of measures such as stepping up checks on road traffic, deploying new road safety technologies, improving road infrastructure and measures to improve users' behaviour. The RSAP includes 60 measures which are quite diverse, but together cover all aspects of road safety. The measures are aimed at the three well-known areas of road safety: • Road users: RSAP aims to encourage road users to improve their behaviour, in particular through better compliance with existing legislation, through basic and continuous training and by combating dangerous practices. • Vehicle technology: RSAP aims for technical harmonisation and support for technological progress should help to make vehicles safer. With respect to vehicle technology a distinction can be made between actions aimed at improving active safety of vehicles and those at passive safety of vehicle. • Road infrastructure: by defining and disseminating best practices and elimination of black spots, the road infrastructure can be made safer.
A 5	Implementation examples	Netherlands [2]
A 6	Objectives of TPM	The RSAP has a clear focus on the reduction of road deaths. The RSAP describes concrete actions and proposals for actions by the Commission aimed at realising the target for improving road safety as set in the White Paper (European Transport Policy for 2010: time to decide, 2001), namely halving the number of road deaths by 2010 (compared to 2001 levels). In order to reach this reduction in fatalities, the actions broadly aim at two aspects: • To reduce the number of accidents; • To reduce the severity of the accidents in terms of fatalities. [1, p.31]
A 7	Key changes concerning:	
A 7.1	- Choice of transport mode / Multimodality:	No change regarding the choice of transport mode (road transport), but regarding the type of road vehicle: the measure encourages the choice of safer vehicles. Modal shift policy as an additional strategy can be effective in freight traffic, to stimulate the use of safer and more environmentally friendly modes of transport.
A 7.2	- Origin and/or destination of trip:	No change.
A 7.3	- Trip frequency:	No change.
A 7.4	- Choice of route:	No change.
A 7.5	- Timing (day, hour):	No change.
A 7.6	- Occupancy rate / Loading factor:	No change.
A 7.7	- Energy efficiency / Energy usage:	In general the RSAP actions affect the flow speed of the traffic to increase the safety on the road. A slower speed leads to less energy usage.
A 8	Main source	Increased road safety reduces the number of interruptions through accidents and therefore has a positive impact on the risk of congestion; on the other hand the decreased travel speed leads to an increase of the average travel or transport time; COWI (2010) Technical Assistance in support of the Preparation of the European Road Safety Action Programme 2011-2020. Final Report. Lyngby: COWI

B IMPACTS																																																				
B 1	OVERVIEW ON IMPACTS	<table border="1"> <thead> <tr> <th colspan="14">AFFECTED SEGMENTS</th> <th colspan="2">Geographical level</th> <th colspan="2">Source</th> </tr> <tr> <th colspan="5">Passengers</th> <th colspan="7">Transport operators</th> <th rowspan="2">Employees in transport</th> <th rowspan="2">Residents</th> <th rowspan="2">Economy</th> <th rowspan="2">Public bodies</th> <th rowspan="2">Society</th> <th rowspan="2">1st level</th> <th rowspan="2">2nd level</th> <th rowspan="2">Source of assessment</th> <th rowspan="2">Spatial level of source</th> </tr> <tr> <th>Road</th> <th>Rail</th> <th>Air</th> <th>Public transport</th> <th>Slow modes</th> <th>Road</th> <th>Rail</th> <th>IVVV</th> <th>Air</th> <th>Maritime</th> <th>Public transport</th> </tr> </thead> </table>	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	IVVV	Air	Maritime	Public transport
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Road	Rail	Air	Public transport	Slow modes	Road	Rail	IVVV	Air	Maritime	Public transport																																										
B 1.1	Overall tendency																																																			
B 1.2	Overall tendency: Income groups	No significant impact																																																		
B 1.3	Overall tendency: Age groups	The TPM has a particular impact on vulnerable road users, like young and elderly pedestrians and cyclists.[1, p.19]																																																		
B 1.4	Overall tendency: Disabled people	No significant impact																																																		
B 1.5	Overall tendency: Gender groups	No significant impact																																																		
B 1.6	Overall tendency: Ethnic groups	No significant impact																																																		

B 2 TRAFFIC IMPACTS		
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 traffic impacts	Increased road safety reduces the number of interruptions through accidents and therefore has a positive impact on the risk of congestion; on the other hand the decreased travel speed leads to an increase of the average travel or transport time; COWI (2010) Technical Assistance in support of the Preparation of the European Road Safety Action Programme 2011-2020. Final Report. Lyngby: COWI. Bosetti, et al (2010) Ex-Post Evaluation of the RSAP. The preparation of the European Road Safety Action Program 2011-2020. Final Report. Leuven: TML.
B 2.V	Quantification of impacts	

B 3	ECONOMIC 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 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 economic impacts	<p>Health service costs; the reduction of accidents reduces the amount of health service costs.</p> <p>Innovation/sectoral competitiveness; The focus on developing safer vehicles directly stimulates innovation by car manufacturers and thereby economic growth.</p> <p>Impacts distinguished by the affected segments:</p> <p>Households; Households experience a mixed impact from increased safety: Savings of lives and injuries result in lower economic damage (income, expenditures) and psychological damage. A decrease in accidents in general will lead to a decrease in congestion costs. At the other hand, however, the various safety regulations can result in an increase in expenditures (e.g. safer but more expensive cars, compulsory use of helmets, etc).</p> <p>Road transport companies: Operating costs can increase if the average travel time increases, e.g. due to speed restrictions or longer travel routes (direct impact). Road infrastructure measures aimed at increasing safety may have the effect of a lower travel speed. The adoption of specific routes for (dangerous) cargo vehicles might result in longer travel distances. Operating costs can also reduce due to reduced congestion on the roads (indirect impact).</p> <p>Government budgets; Increases in government expenditures are to be foreseen due to higher costs for road infrastructure (construction, maintenance). Also extra expenditures are to be expected due to implementation of regulation, enforcement of regulation and awareness campaigns.</p> <p>Source: [1, p. 59/60]</p>																				
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	↗					↗	↗														
B 4.3	Crime, terrorism and security																					
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	<p>Impact on elderly people: the risk of older road users to be killed in traffic is partly due to their higher accident involvement, but especially due to their physical vulnerability. Once an accident has happened, an elderly person is more likely to die or to be seriously injured than younger persons. Also elderly cyclists are at risk. Almost 40% of all cyclist fatalities are older than 65. [1, p.20];</p> <p>Another group of vulnerable road users are children. Children under the age of 15 represented some 3% of all fatalities in 2002. Especially as pedestrians and cyclists, children are at risk: they represent 7-8% of fatalities in these groups</p>																				
B 4.II	Implementation phase																					
B 4.III	Operation phase																					
B 4.IV	Summary / comments concerning the main social impacts	The RSAP was expected to have a positive social impact by decreasing the severity of road accidents and reducing the number of fatalities; however, the overall RSAP target (50% reduction) was not achieved.																				
B 4.V	Quantification of impacts	[1] compares forecasts of road fatalities with the target RSAP (50% reduction) and calculates the gap: EU 15: 23% (i.e. only 27% reduction was expected to be achieved according to the modelling forecasts), for the 10 New Member States: a gap of 14%, EU 25: a gap of 31%; this means that the model, used in [1] predicted a gap of some 13,500 fatalities in 2010 [1, p.39/40].																				

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 traffic impacts	In general the RSAP actions affect the flow speed of the traffic to increase the safety on the road. A reduction of accidents further influence positively the congestion level. A reduction in congestion and a lower speed of the traffic have a positive impact on the environment (lower level of emissions, less noise and energy consumption). The actions from the RSAP can also influence the environment through the use of land for the infrastructure or the demand for transport if RSAP actions result in a higher or lower use of land for road infrastructure.																				
B 5.V	Quantification of impacts																					

C REFERENCES		
C 1	Other TPMs of this subcategory	Air transport: Establishment of European Aviation Safety Authority. Maritime transport: Tightening up safety rules and cooperation with International Maritime Organisation and International Labour Organisation. Rail transport: Safety Directive, setting standards for interoperability and establishing a European structure for railway safety. Road transport: Comprehensive approach through different policy options.
C 2	References	<p>International</p> <p>[1] Ecorys and SWATH (2005). Impact Assessment Road Safety Action Programme. Assessment for mid-term review. DG Energy and transport COWI (2010) Technical Assistance in support of the Preparation of the European Road Safety Action Programme 2011-2020. Final Report. Lyngby: COWI. Bosetti, et al (2010) Ex-Post Evaluation of the RSAP. The preparation of the European Road Safety Action Program 2011-2020. Final Report. Leuven: TML.</p> <p>National</p> <p>[2] CROW (2009). Handboek verkeersveiligheid' (Road safety manual)</p>