Road Users' Safety Attitudes towards Speeding

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Abstract

Speeding has been recognised as the number one road safety problem. The objective of this paper is to present the key findings on road users' attitudes towards speeding as identified within the ESRA project and the relevant recommendations formulated based on these findings. The ESRA project is a joint initiative of research organisations and road safety institutes in 17 European countries aiming at collecting comparable (inter)national data on road users' opinions, attitudes and behaviour with respect to road traffic risks. The survey covered a range of subjects, including the attitudes towards unsafe traffic behaviour, self-declared (unsafe) behaviour in traffic and support for road safety policy measures. Data from more than 17,000 road users were collected. Attitudes and opinions of road users in European countries on speeding are described and compared amongst countries as well as with regard to demographic characteristics. The speeding aspects analysed concern the acceptability of unsafe traffic behaviour related to speeding, the self-declared behaviour in traffic, attitudes towards unsafe traffic behaviour, support for road safety policy measures and the reported police checks and perceived likelihood of getting caught for speeding. All the reported attitudes related to speeding depend on the gender with more males than females declaring that they have driven faster than the speed limit. Age increase is generally associated with a decrease in the tendency to violate the speed limit. The majority of people who accept driving over the speed limit do not believe that the speed limits are set at acceptable levels. Based on the findings of the ESRA survey, key recommendations on the subject of speeding were formulated at three different levels namely policy recommendations at European level, specific policy recommendations at national/regional level and specific recommendations to particular stakeholders such as non-governmental organizations, private concessionaire companies, research organisations and vehicle manufacturers.

Keywords

Road safety; Speeding; Attitudes; Europe; ESRA

1. Introduction

Speed is generally considered a central issue in road safety, and one of the basic risk factors in traffic (ETSC, 2010; OECD/ECMT, 2006; Wegman & Aarts, 2006). In 2010, the European Transport Safety Council (ETSC), in its PIN Flash publication, included speed among the three main risk factors on the roads, the others being alcohol and non-use of seat belts. Excessive and inappropriate speed was recognised as the number one road safety problem. Speeding was found to be a primary factor in about one third of fatal accidents and an aggravating factor in all accidents (ETSC, 2010).

In a large number of OECD/ECMT countries (OECD/ECMT, 2006), speeding is the number one road safety problem. This is also reflected in the current Road Safety Programme 2011-2020 of the European Commission, within which speed related issues are included in four out of the seven strategic objectives of the Programme (i.e. improved safety measures for vehicles, boost smart technology, better enforcement, a new focus on motorcyclists) (European Commission, 2010; Laiou et al., 2015).

The relation between speed and road safety rests on two pillars (SWOV, 2012). The first pillar is the relation between speed and the risk of a crash, and the second pillar is the relation between collision speed and the severity of a crash.

The exact relation between speed and the risk of a crash depends on many factors; however, in a general sense, if the driven speeds on a road become higher, the crash rate will also increase. The crash rate is also higher for an individual vehicle that drives at higher speed than the other traffic on that road. The reasons for this

accident increase rest on both human factors and vehicle dynamics: on one hand, high speeds reduce the available time for drivers to process information, to decide whether or not to react and to execute a reaction; on the other hand, braking distance is increased at high speeds (proportionally to the square of speed), and it is more common to lose control of a vehicle (e.g. in a sharp curve) at higher speeds (SWOV, 2012; European Commission, 2015).

Several studies have attempted to quantify the relationship between speed and accident risk (Elvik, 2009; Elvik et al., 2004; Nilsson, 1982; 2004) and have generally suggested that it is a power function; on a particular road with increasing speed, the accident risk increases more (i.e. the rate of increase becomes steeper) as the absolute speed gets higher.

The second pillar relating speed and road safety (SWOV, 2012) is the impact of speed in the severity of a crash. The higher the collision speed, the more serious the consequences in terms of injury and material damage. This relates to the quantity of kinetic energy that during the collision is converted into e.g. heat and matter distortion. In addition, the human body is physically very vulnerable in comparison with the enormous forces released in a collision. In addition to collision speed, the mass difference between vehicles and the vulnerability of the vehicles/road users who are involved are also important factors for injury severity; thus, the effect of speed on the severity of accidents involving pedestrians, cyclists and powered two-wheelers is even more pronounced.

Within the above context, road authorities post speed limits in order to instruct drivers about the safe speed to travel in average conditions. However, speed limit violations are very common. Typically 40% to 60% of the drivers exceed the limit, and around 10 to 20% exceed the speed limit by more than 10 km/h (OECD/ECMT, 2006). Given the strong relationship between speed and accident risk and severity, a large number of fatalities and injuries could be prevented if all drivers would only obey the posted speed limits.

This paper aims at describing the attitudes and opinions on speeding of road users in 17 European countries, and comparing it amongst countries as well as with regards to demographic characteristics The analysis is based on the first ESRA survey (E-Survey on Road Users' Attitudes) conducted in 2015 (Torfs, et al., 2016). Some of the ESRA questions have already been used in the SARTRE4 survey (Cestac & Delhomme, 2012), allowing for an assessment of the development in the perspective of previous years. Some others are slightly different or new and can be considered as a first benchmark for future comparison and monitoring across Europe.

2. Methodology

The ESRA project is a joint initiative of research organisations and road safety institutes in 17 European countries aiming at collecting comparable (inter)national data on road users' opinions, attitudes and behaviour with respect to road traffic risks. The project was funded by the partners' own resources.

The first ESRA survey was conducted online using representative samples (at least N=1,000) of the national adult populations in 17 European countries (Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Poland, Portugal, Slovenia, Spain, Sweden, Switzerland, the Netherlands, United Kingdom). A common questionnaire was developed and translated into 20 different country-language versions. The questions covered a range of subjects, including the attitudes towards unsafe traffic behaviour, self-declared (unsafe) behaviour in traffic, and support for road safety policy measures – overall more than 222 variables. The ESRA questionnaire was inspired by the previous European project, SARTRE, and also includes some questions of the AAAFTS-survey (USA) 'Traffic Safety Culture Index', which enables tentative comparisons with these projects. Data collection took place simultaneously in all countries in June/July 2015. A Belgian polling agency coordinated the field work to guarantee a uniform sampling procedure and methodology. In total, data from more than 17,000 road users (of which 11,000 frequent car drivers) were collected. Hence, the ESRA survey produced a very rich dataset.

Seven institutes – BRSI (BE), KFV (AT), NTUA (EL), CTL (IT), ITS (PL), PRP (PT), BFU (CH) – combined their expertise to analyse the common data and to disseminate the results. The results of the 2015 survey are published in a Main report and six thematic reports:

- Speeding
- Driving under the influence of alcohol and drugs
- Distraction and fatigue
- Seat belt and child restraint systems
- Subjective safety and risk perception
- Enforcement and support for road safety policy measures

There are also 17 country fact sheets in which the main results per country are compared with a European average. An overview of the project and the results are available at www.esranet.eu and in the main report (Torfs et al., 2016).

The speeding aspects analysed concern:

a. Acceptability of unsafe traffic behaviour related to speeding

This section examines the rate of acceptability of speeding related behaviours, comprising the following questions in the analysis:

Question: Where you live, how acceptable would most other people say it is for a driver to …?

- drive 20 km per hour (km/h) over the speed limit on a freeway / motorway
- drive 20 km/h over the speed limit on a residential street
- drive 20 km/h over the speed limit in an urban area
- drive 20 km/h over the speed limit in a school zone
- drive up to 10 km/h above the legal speed limit

Question: How acceptable do you, personally, feel it is for a driver to …?

- drive 20 km/hover the speed limit on a freeway / motorway
- drive 20 km/h over the speed limit on a residential street
- drive 20 km/h over the speed limit in an urban area
- drive 20 km/h over the speed limit in a school zone
- drive up to 10 km/h above the legal speed limit

In both of the above questions, the respondents were asked to rate the acceptability levels using a 5-point scale, from 1 (unacceptable) to 5 (acceptable). The results from both questions are presented side by side in order to compare the personal acceptability with the perceived social acceptability (i.e. acceptability by 'other people').

b. Self-declared (unsafe) behaviour in traffic

In this section, the self-declared behaviour of road users with regards to speeding is investigated by presenting the answers to the following question:

Question: In the past 12 months, as a road user, how often did you…?

- drive faster than the speed limit inside built-up areas
- drive faster than the speed limit outside built-up areas (except motorways/freeways)
- drive faster than the speed limit on motorways/ freeways

The respondents were asked to give an answer in a 5-point (Likert) scale, from 1 (never) to 5 (almost always).

c. Attitudes towards unsafe traffic behaviour

In this section, the road users' opinions on the influence of speeding on accident risk and road safety in general are investigated, through examination of the following question:

Question: To what extent do you agree with each of the following statements?

- Driving fast is risking your own life, and the lives of others
- I have to drive fast, otherwise I have the impression of losing time
- Driving faster than the speed limit makes it harder to react appropriately in a dangerous situation
- Most of my acquaintances / friends feel one should respect the speed limits
- Speed limits are usually set at acceptable levels
- By increasing speed by 10 km/h, you get a much higher chance of being involved in an accident

The respondents were asked to give an answer in a 5-point (Likert) scale, from 1 (disagree) to 5 (agree).

d. Support for road safety policy measures

In this section, the road users' opinions on speeding related enforcement, traffic rules and penalties is investigated. The following questions of the survey are examined:

Question: What do you think about the current traffic rules and penalties in your country for each of the following themes?

- The traffic rules (on speeding) should be stricter
- The traffic rules (on speeding) are not being checked sufficiently
- The penalties (for speeding) are too severe

The respondents were asked to provide a 'yes' or 'no' response, with an additional option of 'don't know / no response'.

e. Reported police checks and perceived likelihood of getting caught for traffic offences

In this section, police checks reported by road users and perceived likelihood of getting caught for traffic offences are investigated. The following questions of the survey are examined:

Question: On a typical journey, how likely is it that you (as a driver) will be checked by the police for respecting the speed limits (including checks by police car with a camera and/or flash cameras)?

The respondents were asked to give an answer in a 5-point (Likert) scale, from 1 (very small chance) to 5 (very big chance).

Question: In the past 12 months, how many times have you…?

- had to pay a fine for... violating the speed limit?
- been convicted at court for... violating the speed limit?

Each of these aspect was firstly examined separately and then a cross examination was conducted. Specifically, the following combinations of speeding aspects were examined:

- Acceptability of unsafe traffic behaviour related to speeding and Support for road safety policy measures
- Acceptability of unsafe traffic behaviour related to speeding and Self-declared (unsafe) behaviour in traffic
- Acceptability of unsafe traffic behaviour related to speeding and Attitudes towards unsafe traffic behaviour
- A combination of two questions on the support for road safety policy measures
- Self-declared (unsafe) behaviour in traffic and Support for road safety policy measures

The significance tests used were T-test/ANOVA when comparing averages or a Chi-square test for the dichotomized variables. Due to the large sample size, it can be expected that most differences are significant. Therefore, by convention, a significance level of 99% ($\alpha = .01$) was used.

3. Analysis and Results

Despite the known consequences of speed on safety, speed limit violations are very common. Typically 40% to 60% of the drivers exceed the limit, and around 10 to 20% exceed the speed limit by more than 10 km/h (OECD/ECMT, 2006).

Based on the findings of the ESRA survey, the respondents consider that perceived social acceptability is higher than the personal acceptability, indicating a self-declared safer personal attitude towards speeding. A particularly high (more than 10%) difference between the perceived social acceptability and of personal acceptability is mostly reported in Italy and in Greece. Similar results were found in the previous SARTRE surveys. The two countries that consistently - in all examined speeding related behaviours - show higher acceptability rates of behaviours related to speeding than the European average, both regarding social perceived acceptability and personal acceptability, are Italy and Poland.

Acceptability of behaviours related to speeding can be divided into two groups: there is minor acceptability of driving 20 km/h over the speed limit in urban areas, on residential streets and in school zones. On the other hand, acceptability of driving 20 km/h over the speed limit on a freeway / motorway and acceptability of driving up to 10 km/h over the speed limit, regardless of the road environment, is much higher (Figure 1). These findings imply an increased sensitivity towards the violation of speed limits in areas with increased pedestrian traffic and may be attributed to the recognition of the increased risk for pedestrians due to speed. However, it must also be taken into account that driving 20 km/h over the speed limit on motorways may happen even unintentionally or without realising it due to the high speeds developed on this type of roads. Similarly, driving up to 10 km/h over the speed limit can accidentally happen on all types of roads and areas.

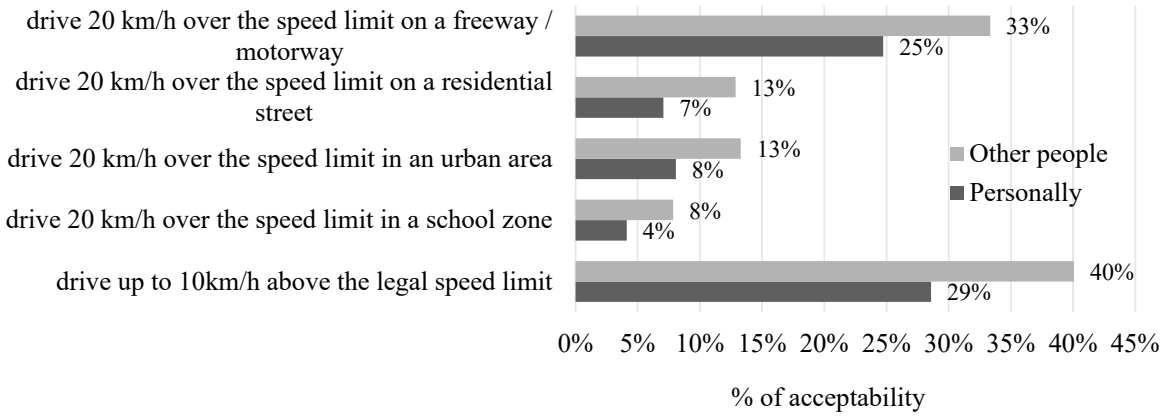

Figure 1: Acceptability of unsafe traffic behaviour related to speeding, in Europe (% of acceptability: scores 4 and 5 on a 5-point scale from 1 'unacceptable' to 5 'acceptable').

The analysis of reported acceptability of speeding behaviours by gender reveals that acceptability rates are lower amongst females comparing to males, for all five examined speeding related behaviours, both regarding perceived social acceptability and personal acceptability.

Acceptability rates also vary according to the age of the respondents. Age increase is associated with a decrease in acceptability rates for all five examined speeding related behaviours (driving 20 km/h over the speed limit on freeways, on residential streets, in urban areas, in school zones and driving up to 10 km/h above the legal speed limit). Furthermore, this decrease in acceptability rates is observed both at the personal level and the 'other people' level.

Concerning self-declared behaviours, more than two-thirds of the respondents reported having driven faster than the speed limit at least once in the past 12 months, for all the examined cases. The analysis by gender shows that all the reported behaviours related to speeding depend on the gender with more males than females declaring that they have driven faster than the speed limit. Speeding also depends on age. Age increase is generally associated with a decrease in the tendency to violate the speed limit; an exception is observed in the case of motorways / freeways, where the greatest percentage of having driven faster than the speed limit at least once in the past 12 months is reported by those in the 35-54 years old group.

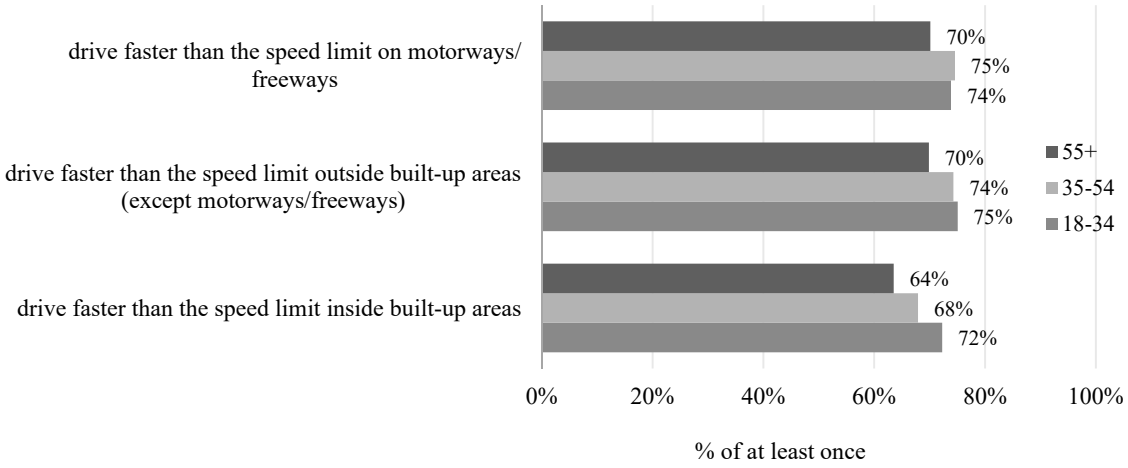

Figure 2: Self-declared speeding in the past 12 months, by age group (% of people that did it at least once in the past 12 months).

Regarding the influence of speeding on road safety, the majority of the respondents agree that 'driving fast is risking your own life, and the lives of others' and that 'driving faster than the speed limit makes it harder to react appropriately in a dangerous situation' which shows that the consequences of speeding are quite clear to them. However, only half of them agree that speed limits are usually set on acceptable levels indicating a low trust to the enforcement rules.

The analysis by gender shows that females are generally more aware of the influence of speeding on road safety. Similarly, respondents of 55 years old and older are more aware of the influence of speeding on road safety than responders in the 35-54 year old age group, who in turn are more aware than the 18-34 year old age group.

Regarding traffic rules and penalties related to speeding, approximately half of the respondents agree that in their country traffic rules should be stricter and that traffic rules are not being checked sufficiently. However, more than one third believe that penalties for speeding in their country are too severe.

The comparison by country shows that there are significant differences among European countries. This could be explained based on the different cultural and social background of the respondents from various countries as well as the different legislation and enforcement systems (Table 1).

Table 1: Support for road safety policy measures related to speeding, by country (% of agreement: scores 4 and 5 on a 5-point scale from 1 'disagree' to 5 'agree').

	the traffic rules (for speeding) should be stricter	the traffic rules (for speeding) are not being checked sufficiently	the penalties (for speeding) are too severe
AT	33%	42%	44%
BE	45%	51%	33%
CH	34%	35%	43%
DE	42%	49%	28%
DK	27%	57%	27%
EL	83%	80%	35%
ES	52%	52%	51%
FI	49%	56%	30%
FR	43%	45%	53%
IE	62%	62%	30%
IT	59%	58%	29%
NL	37%	37%	54%
PL	72%	66%	29%
PT	52%	55%	51%
SE	44%	60%	28%
SI	47%	53%	58%
UK	60%	62%	28%
EU	52%	54%	37%

Note: The highest percentages are highlighted in light grey and the lowest in dark grey

The analysis by gender shows that females are generally more supportive of strict traffic rules, efficient enforcement and severe penalties for speeding. The same applies for people of older age.

At an overall European level, a 36% of respondents consider it likely to be checked by the police for respecting the speed limits (including checks by police car with a camera and/or flash cameras) on a typical journey. This percentage differs between the countries (Figure 3).

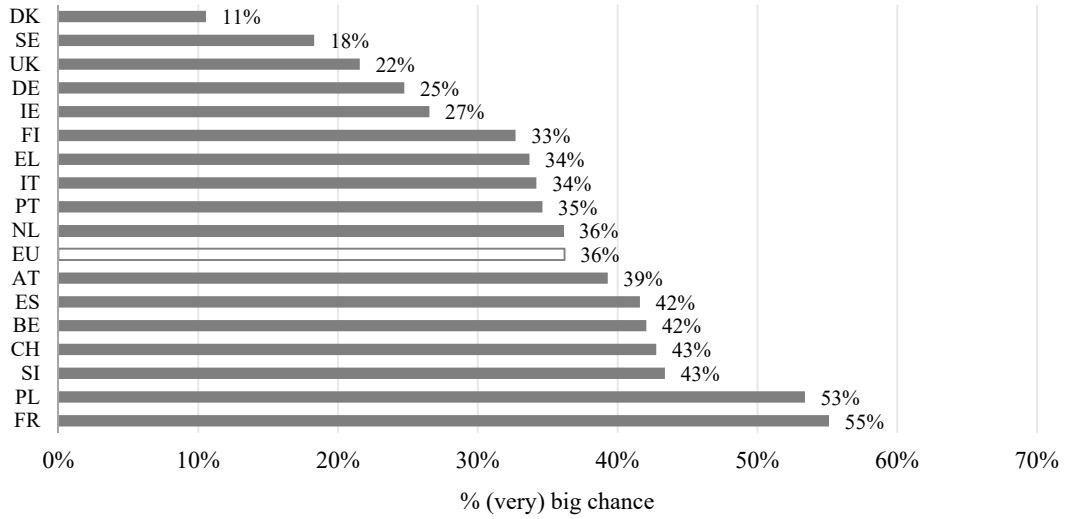

Figure 3: Perceived likelihood of being checked by the police for respecting the speed limits, by country (% of (very) big chance; scores 4 and 5 on a 5-point scale from 1 'very small chance' to 5 'very big chance').

The cross analysis of the acceptability of unsafe traffic behaviours related to speeding and the support for relevant traffic rules and penalties shows a general coherence in the answers to the two questions.

The percentage of respondents who find driving over the speed limit acceptable and also think that the traffic rules for speeding should be stricter reaches only 27% and 29% respectively in the case of freeways/motorways and for an increase of 10 km/h over the speed limit. However, this percentage is increased to 39% and 38%

respectively in the case of residential streets and urban areas and 50% in the case of school zones (Figure 4). The same trend is observed regarding the sufficient enforcement of traffic rules for speeding. These findings indicate that even people who accept driving over the speed limit, are in favour of enforcement measures to increase road safety in urban areas and especially in school zones.

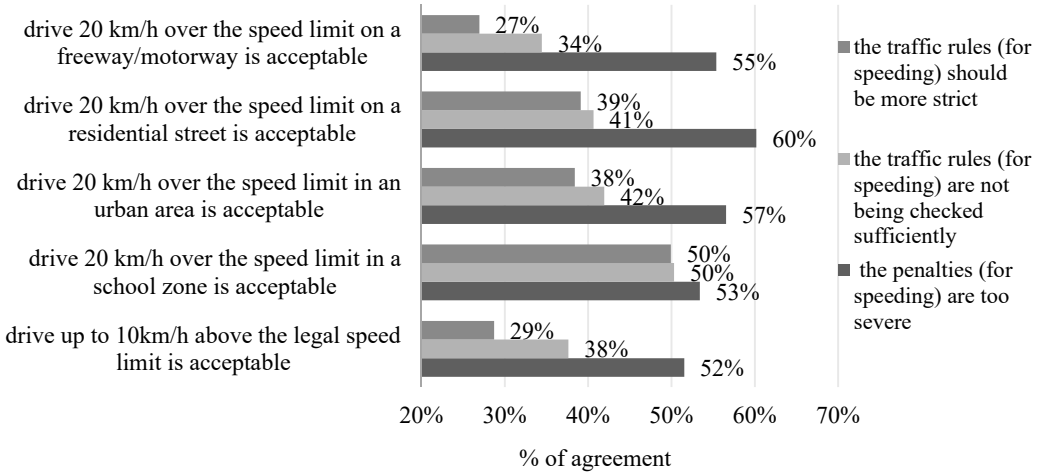

Figure 4: Responses combining acceptability of unsafe traffic behaviour related to speeding (1) and support for road safety policy measures related to speeding (2), in Europe

(Scores 4 and 5 on a 5-point scale from 1 'unacceptable' to 5 'acceptable',

% of agreement: scores 4 and 5 on a 5-point scale from 1 'disagree' to 5 'agree').

As far as the penalties for speeding are concerned, in all examined cases, they are considered too severe by more than 50% of those who find driving over the speed limit acceptable.

The examination of the self-declared behaviour and acceptability of unsafe traffic behaviour related to speeding revealed a significant inconsistence between practice (self-declared behaviour) and theory (acceptability of unsafe behaviour). Specifically, those who consider driving over the speed limit unacceptable, admitted having done so at least once during the last 12 months in a percentage that ranges from 60% to 72% (Table 2).

Table 2: Responses combining acceptability of unsafe traffic behaviour related to speeding (1) and adopted attitudes as a road user in the past 12 months, related to speeding, in Europe

(Grouped scores 1 to 3 '(rather) unacceptable / neutral' and 4 to 5 '(rather) acceptable)' on a 5-point scale from 1 'unacceptable' to 5 'acceptable'. Responses combining non-acceptability of driving over the speed limit and admitting having adopted the specific behaviour at least once in the past 12 months are indicated in grey).

			How acceptable do you, personally, feel it is for a driver to:									
			drive 20 km/h over the speed limit on a freeway / motorway?		drive 20 km/h over the speed limit on a residential street?		drive 20 km/h over the speed limit in an urban area?		drive 20 km/h over the speed limit in a school zone?		drive up to 10 km/h above the legal speed limit?	
			(rather) unacceptable / neutral	(rather) acceptable	(rather) unacceptable / neutral	(rather) acceptable	(rather) unacceptable / neutral	(rather) acceptable	(rather) unacceptable / neutral	(rather) acceptable	(rather) unacceptable / neutral	(rather) acceptable
In the past 12 months, as a road user, how often did you drive faster than the speed limit	inside built-up areas?	never	38%	16%	34%	15%	34%	14%	33%	15%	40%	15%
		at least once	62%	84%	66%	85%	66%	86%	67%	85%	60%	85%
	outside built-up areas (except motorways/ freeways)?	never	33%	10%	28%	13%	28%	13%	28%	13%	35%	11%
		at least once	67%	90%	72%	87%	72%	87%	72%	87%	65%	89%
	on motorways/ freeways?	never	33%	10%	28%	15%	28%	15%	28%	17%	34%	12%
		at least once	67%	90%	72%	85%	72%	85%	72%	83%	66%	88%

One fourth to one third of the people who consider driving over the speed limit on motorways, residential street and in urban areas acceptable, also accept that this increases the risk of being involved in an accident. The specific percentage reaches 42% when driving in school zones is considered. This indicates that these people are willing to take this increased risk. However, they also realise the increased hazards in a school zone.

Similar findings are observed when the difficulty to react appropriately in dangerous situations caused by driving over the speed limit is examined and when the risk for life is examined.

An expected finding is that the majority of people who accept driving over the speed limit do not believe that the speed limits are set at acceptable levels.

Only one third of the respondents who find that traffic rules should be stricter and that they are not being checked sufficiently, also agree that there is a (very) big chance to be checked by the police for respecting the speed limits on a typical journey. These findings are logical and indicate a coherence between the answers to the two questions.

On the other hand, a bit less than half of those considering penalties for speeding too severe, also agree that there is a (very) big chance to be checked by the police for respecting the speed limits on a typical journey. This might indicate a general belief of an existing strict speed enforcement system (Figure 5).

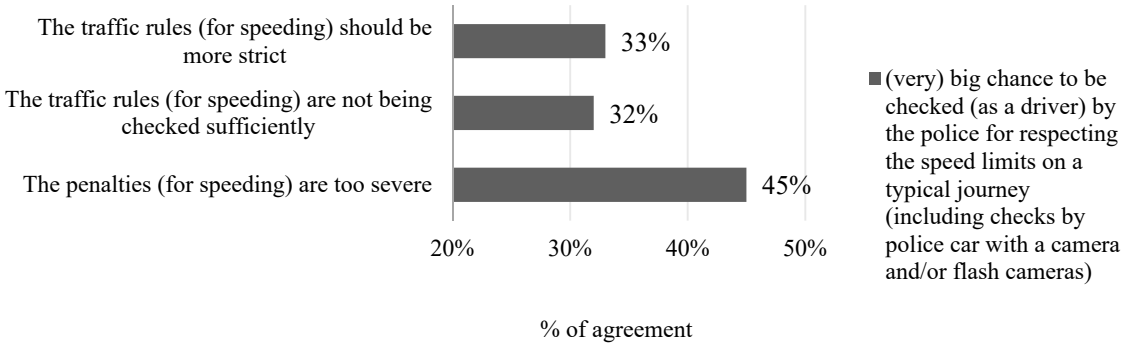

Figure 5: Responses combining positive support for road safety policy measures related to speeding and an increased likelihood of being checked by the police for respecting the speed limits, in Europe (% of agreement: scores 4 and 5 on a 5-point scale from 1 ‘disagree‘ to 5 ‘agree‘).

4. Discussion

Speed is a key road safety issue as it has been found to be a major contributory factor in around 10% of all accidents and in around 30% of the fatal accidents. Both excess speed (exceeding the posted speed limit) and inappropriate speed (faster than the prevailing conditions allow) are important accident causation factors. Many drivers drive faster than the posted speed limit. This is the case for all road types as it becomes clear from both objective observations and self-reported speed behaviour. The reasons for speeding are diverse and may relate to temporary motives (e.g. being in a hurry), to more permanent personality characteristics (e.g. risk taking), to human perceptual skills and limitations, as well as to characteristics of the road, the road environment and the vehicle (European Commission, 2015).

In order to solve the problem of speeding an integrated set of countermeasures is necessary. This approach increases the effectiveness of each individual measure (OECD/ECMT, 2006). The most appropriate combination of measures will differ with circumstances. In principle, effective speed management requires an integrated, systematic and stepwise approach. Within the current system of largely fixed speed limits, the following steps are important: setting speed limits, providing information about the speed limit in force, implementing road engineering measures, enforcing speed limit and ensuring driver education and publicity.

Currently, speed limits vary across Member States and depend on the type of road (e.g. motorways, rural roads, residential areas), on the type of vehicle (e.g. Heavy Goods Vehicles, buses/coaches) on the weather (e.g. rain, snow, fog), and on traffic conditions (to avoid congestion). In addition, several different types of speed enforcement methods are implemented in the various countries. These facts imply that there may be significant differences in speed management among the Member States that should be addressed at a European level through the implementation of relevant EU Directives and other legislative procedures.

At the moment, speed related issues are included in four out of the seven strategic objectives of the current Road Safety Programme 2011-2020 of the European Union (i.e. improved safety measures for vehicles, boost

smart technology, better enforcement, new focus on motorcyclists). Speed management strategies in different countries may follow common principles but it is necessary that they are adapted to the actual conditions and driver characteristics in the area where they will be implemented.

Speeding aspects for which significant differences among countries were recorded include the acceptability of unsafe traffic behaviours, opinions concerning traffic rules and penalties and probability to be checked. Strategies to address these issues should be defined according to the local conditions.

In the framework of an integrated speed management strategy, there are several stakeholders with specific roles and responsibilities. Apart from public authorities at national, regional and local level (i.e. Ministry of Infrastructure, Ministry of Transport, Prefecture Authorities, National and Municipal Public Work Authorities, Traffic Police etc.) other stakeholders such as non-governmental organisations, private road network operators, research organisations, vehicle manufacturers may have significant role in speed management.

5. Conclusions

Based on the above and on the findings of the ESRA survey, recommendations in relation to speeding were formulated at three different levels of authority namely policy recommendations at European level, specific policy recommendations at national and regional level and specific recommendations to particular stakeholders such as non-governmental organizations, private concessionaire companies, research organisations and vehicle manufacturers.

Policy recommendations at European level:

- Develop common principles and goals for speed management strategies in the Member States as part of European Union directives and other legislative procedures.
- Define speed related indicators and set targets at European Union level, such as the number of speed checks, the number of speeders and the number of traffic casualties attributable to speed.
- Make ISA systems compulsory for all new cars in the European Union.
- Facilitate and support the exchange of best practice in terms of speed management across Member States.
- Support more research on how speed management can be improved through developments in vehicle, road and ICT technology.

Specific policy recommendations at national and regional level

- Establish a speed management strategy that is based on integrated set of countermeasures, such as setting speed limits, providing information about the speed limit in force, implementing road engineering measures, enforcing speed limits, ensuring appropriate driver education and informing the public of the negative impact of speeding.
- Select the most appropriate combination of speeding measures based on an assessment of the local circumstances.
- Implement a road infrastructure that supports and encourages road users to drive at safe speeds develop and implement public education campaigns to provide information and influence road users to modify their behaviour.
- Develop an efficient speed enforcement system that includes a careful selection of location and duration of control activities, user awareness of speed enforcement activities, systematic recording of speed controls and infringements and public communication of the results of speed enforcement activities.
- Raise awareness of the impact of speeding on road safety and the need of speed enforcement.
- Ensure that there is sufficient political support and persistence during the implementation of a speed management strategy.

Specific recommendations to particular stakeholders

- [To Non-Governmental Organizations (NGOs)] Contribute to education and awareness raising campaigns and events against speeding.
- [To Private Concessionaire Companies (if applicable)] Improve road infrastructure, undertake campaigns and provide information about high risk sites and traffic conditions.
- [To research organisations] Contribute to the development, monitoring and evaluation of the implementation of speed management strategies.

- [To vehicle manufacturers] Develop low cost solutions to be incorporated in vehicles that will avoid speeding (e.g. ISA) or will reduce the impact of speeding (e.g. Automatic Breaking Systems).

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