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Important road transport factors, road safety, standards

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Abstract

This article deals with the topic of important road transport factors, which undoubtedly include a subject of utmost importance nowadays - safety. Increasing emphasis is being placed on improving the quality of road traffic. The article also mentions the road maintenance which is in Slovakia provided by the Slovak Road Administration.

Keywords: road transport, safety, standards, factors

Introduction

Transport is a key element of our economy and society. Mobility is very important for the internal market and for the standard of living, as it allows the citizens to travel freely. Transport promotes economic growth and job creation. In the light of new challenges, it must be sustainable. Transport has a global character, therefore the effectiveness of actions taken requires strong international cooperation.

Transport as a tool for saving time and costs

The transport of goods or products and the relocation of persons is possible in several ways, one of the most used being road transport. This term includes total traffic on roads, traffic areas or even in open terrain, carried out by independent means of transport, i.e. vehicles, but possibly also by dependent means of transport (depending on the contact trolley line. For the transport of persons, goods, in special cases or the supply of services means of transport (motor or towed vehicles) are used. One of the advantages of road transport is the unlimited place for loading and unloading, therefore its essential characteristics is transport directly from the manufacturer to the consumer. Other characteristics of this transport are its large dispersion, dense road network, possibility of interruption of the transportation process, saving of time and costs for shorter distances, ability to transport specific goods, adaptability of delivery time and many others. As every type of transport also road transport has its drawbacks, among which we include limited loading capacity, exclusion of certain types of dangerous goods from transport, low loading space capacity, dependence on road traffic, traffic accidents and others.

Road maintenance

Each transport network requires maintenance and regular administration. In the Slovak Republic this falls under the authority of the Slovak Road Administration (hereinafter referred to as "SSC") which is an independent non-profit organization established by the Ministry of Transport, Posts and Telecommunications of the Slovak Republic on the January 1st, 1996 (the legal successor is Ministry of Transport and Construction of the Slovak Republic). [1]

Role of the Slovak Road Administration

The SSC is a coordinator in the field of road infrastructure safety.

The tasks resulting from the national plan on the road traffic safety in the SSC are in particular:

- the evaluation of road accidents based on the road accident data from the Police databank, definition of critical locations and repeated critical locations, classification of critical locations by basic markers of casualties and economic consequences,
- suggesting measures to eliminate critical locations,
- analysing and proposing documents for decision making and statistical overview,
- control of traffic signalization and suggestions to eliminate detected defects,
- cooperation in legislation process, at technological norms and regulations in the department. [2]

A factor of utmost importance that is nowadays embedded in every strategic document is safety. In the Slovak Republic, safety is regulated by directive 2004/54/EC.

Road infrastructure safety

Directive 2004/54/EC of April 29, 2004 lays down minimal safety requirements for tunnels in the trans-European road network. The directive refers to compliance with safety provisions in all functional tunnels, tunnels under construction and also in tunnels in the exploration stage with a length of over 500 meters. In the event of accidents such as fires these provisions concern the organizational, structural, technical and operational elements of the tunnels. The core element of directive 2008/96/EC of November 19, 2008 on road infrastructure safety management is to ensure that road safety is present at all stages of the construction, use or substantial change of roads, in the form of impact assessments.

Intelligent transport systems as a tool for developing road safety and their impact

Intelligent Transport Systems and eSafety initiative

At present, more and more emphasis is being placed on improving the quality of road traffic. As the number of means of transport on the road is increasing, it was necessary to make road transport more effective. Since December 16, 2008, an action plan for the introduction of Intelligent Transport Systems in the field of road transport came into force at the initiative of the Commission. The plan concerns the automatic speed adjustment, the tracking system, the crash warning device or the automatic emergency call system in the event of an accident. The eSafety Forum (eSafety) was set up by the Commission in 2003 and has been renamed iMobility in 2011. The Forum contributes to better linking of all road traffic safety participants to support and control of compliance with eSafety recommendations and to support the deployment and use of automotive safety systems.

Frame objectives and strategic tools

The Ministry of Transport and Construction has developed “National plan for BECEP in Slovak Republic 2011 - 2020”. Strategic aim of this plan is to decrease the number of road accident casualties by 50%.

The core of every strategy is composed of concrete steps aimed at achieving the goal. Compared to the previous plan, the content structure has been changed. The current structure is composed of systematic and logical steps which should contribute to improving the situation in every aspect of the transport system which is directly or indirectly implicated in the occurrence and severity of road accidents. To meet the strategic aim nine frame objectives (also partial program goals) have been identified:

1. Reduction of accidents resulting from speeding offences and unsuitable speed for surrounding conditions
2. Reduction of accidents resulting from alcohol or drug use
3. Reduction of accidents of vulnerable road users
4. Strengthening security through providing effective traffic education at schools and proper training of applicants for a driving license at driving schools
5. Increasing the level of security through safer vehicles and implementing of intelligent transport systems
6. Increasing the level of security of road infrastructure
7. Increasing the level of security in cargo and bus transportation
8. Increasing the level of post-accident care
9. Management of road traffic safety

Above-mentioned frame objectives are divided in several domains markedly affecting their advancement, thus representing key tools for the improvement of current situation. [3]

The main result of implementation of the above-mentioned practices should be comprehensive reduction of negative impact of road accidents in road transport.

Statistics and drink-driving accident prevention

Road transport brings many risks potentially leading to road accidents, which led to Council Decision 93/704/EC creating the CARE database on road accidents resulting in death or injury. Its role is to compile data based on national statistics and to circulate them via the European Road Safety Observatory (ERSO). As part of the EU's policy on improving driving behavior the Commission suggests that Member States adopt random breath testing and have imposed levels for maximum permitted blood alcohol content. Random breathalyzer (ethylometer) tests are used to control suspected drink-driving. To improve road safety, the Commission has established a harmonized code governing alcohol ignition interlock device which has been adopted by a number of Member States.

Cross-border enforcement in respect of road traffic offences

The issue of cross-border exchange of information on road safety-related traffic offences is tackled by Directive (EU) 2015/413 of March 11, 2015 aiming at ending the anonymity for non-resident drivers and enabling prosecution for offences committed in a Member State other than that in which the vehicle is registered. In practical terms, Member States may access each other's national vehicle registration data using an information exchange procedure between national points of contact, which means it is up to the Member State where the offence was committed whether to proceed with a prosecution. The suspected offender can be informed by a letter containing necessary facts, i.e. details of the offence, the amount of the fine to be paid, payment options and appeal procedures. [4]

Role of the European Parliament

Parliament has emphasized the importance of road safety in numerous resolutions. After endorsing the Commission's third action program (2003-2010) in 2005, it was calling for a long-term plan for time period beyond 2010, which would set out measures intended to prevent all road deaths. In its resolution on European road safety 2011-2020, Parliament called again on the Commission to make the prevention of all road deaths a long-term objective, but it linked this to the systematic use of technology in road vehicles and the development of quality intelligent transport system networks. European parliament in its resolution on a sustainable future for transport asked the Commission to present a study on best practices in the Member States concerning the impact of speed limiters and expressed its concerns over the safety of workers in the transport sector. Parliament also promoted having a uniform definition of road safety terms to improve research on accidents by ensuring that findings are comparable. On March 19, 2013 the Commission published a working document on road injuries as a partial response to Parliament's call for broadening the scope of the strategy on road accidents. It sets out the objective of reducing at EU level the total number of people seriously injured (2015-2020), pointing out that a system to define serious injuries has been operational throughout the EU since 2012. The Committee on Transport and Tourism together with the Committee on the Internal Market and Consumer Protection put forward an initiative report on "Saving lives: boosting car safety in the EU", which was adopted as a resolution of Parliament on November 14, 2017, based on the Commission report. [5]

Constant improvement of road traffic is very important for the reason of increasing number of means of transport, distraction from driving, ruthless behavior of drivers, insufficient infrastructure etc., often leading to road accidents. Road accidents touch upon all road traffic participants including drivers, passengers, pedestrians, cyclists and also motorcyclists. Statistically, the number of road traffic deaths is more than 1.2 million annually, with the highest mortality rates in lower-income countries. Road accidents are the leading cause of death for people aged between 15 and 29. Gradual eradication of dangerous aspects of road transport as presented by UN's Decade of Action for Road Safety and Agenda for Sustainable Development should lead to halving road injuries and deaths by 2030. Road safety requires a comprehensive approach covering all causes of accidents and commercial road transport has a key role to play in this. [6]

Conclusion

Road safety is in the center of attention of all European states and international organizations tackling the issue of road accidents. Adhering to road traffic rules, proper road network planning and design allow us to minimize the risk of road accidents and the number of people killed and injured in these accidents. Protective elements of cars allow to save human lives and reduce the number of road deaths on both sides of the accident, i.e. inside and outside the vehicle. Emergency assistance of high-quality can significantly

reduce the number of injured people, as well as the long-term consequences of road accidents.

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