



MAIN ROAD SAFETY CHALLENGES FOR EUROPEAN ROAD DIRECTORS THE NEXT 5-10 YEARS – TOWARDS THE VISION ZERO



INTRODUCTION

In setting their Third Strategic Plan¹ (SP3), the National Road Directors of Europe collectively recognized road safety as one of their main challenges and committed to investing in road safety in order to set the objective to reduce the number of people killed and victims in road crashes.

European roads have developed significantly over the last 40 years in many countries, due to, investments in road infrastructure within the European Union. European roads are the safest in the world, but in Europe there is still an almost three-fold difference in road fatalities per 100.000 inhabitants between the best and worst performing countries. This proves that there are challenges to meet, both to maintain an already high level of safety and to perform much better. The European Union has set out a target that by 2020 road deaths should be reduced by 50% (compared to 2010)

¹ CEDR, 2013 http://www.cedr.eu/download/Publications/2013/Strategic_Plan_2013-2017.pdf

and by 2050 the number of road deaths should be close to zero. It is likely that the European Union will also set a target for the number of severely injured, but so far the exact figure has not been decided. Regardless of which figure will be decided at a European level, new areas of action will be in focus, and the National Road Administrations have a central role in realizing these new targets.

This paper has been written by the Conference of European Directors of Roads (CEDR's) Road Safety Task Group, and endorsed by CEDR's Governing Board where the European Road Directors preside. The objective of this paper is to highlight some key challenges for the National Road Administrations and to emphasise the need to maintain an ongoing open and creative discussion across the National Road Administrations; to demonstrate the need to work together to advance Road Safety.

In most European countries the CEDR members – being National Road Administrations – are only directly responsible for part of the entire road network. In many countries these roads are mainly located outside the urban areas, they carry high traffic volumes, and often they are the safest roads in the country (e.g. motorways). However, the National Road Administrations have a role to play in improving the safety for the entire road network as decisions made by the National Road Administration may affect the safety of road users on adjacent roads. Furthermore, National Road Administrations also have a leading role in defining national guidelines and standards, setting targets and inspiring the local or regional road authorities. It is necessary to cooperate closely with other stakeholders and authorities e.g. those responsible for driver education, traffic enforcement and vehicle standards.

CEDR has the opportunity to generate and promote road safety research that will play a key role in tackling these emerging challenges in the short and medium term; research that promotes shared aims and creates cohesion across Europe where appropriate. These challenges will appear sooner in some countries and later in others. It is of great value to identify challenges early and address countermeasures.

THE CHALLENGES

1. IMPROVE SAFETY OF THE **EXISTING ROAD** INFRASTRUCTURE

CEDR recognizes that the road authorities have to focus on improving safety on existing roads and new solutions will have to be used. As new motorways are getting even safer, many of the rural roads remain as they are legacy roads, built decades ago to outdated or non-existent road design standards. Road infrastructure will come to a new phase and the road network is to a large extent already developed. However, there is a great safety potential in increasing the safety performance of existing roads. Hereby the importance of forgiving roads and roadsides should be underlined. National Road Administrations will need to explore new ways to achieve a safe network system and thus continue a downward trend in road deaths. They will need to be more innovative to target their investments and find cost effective ways to modernize their networks. National Road Administrations need to continue to work together to measure and monitor work regarding improvements in road safety to share good practice and experiences to strive for better performance on existing roads.

2. **SPEEDS IN HARMONY WITH ROAD INFRASTRUCTURE**

CEDR recognizes that speed is the self-evident factor both for the likelihood of accidents to happen as well as the outcome of an accident regarding the severity. In some circumstances, the speed limit was not set in line with current standards for the layout or safety facilities. In other situations the roads appear much safer from the car driver's point of view than they actually are, thus the speed limit is violated by the driver. It will be an important but difficult decision to decide which roads or connections should be upgraded to higher speeds, and thus higher level of safety equipment, and which roads should get a lower speed limit. "A harmonized approach to speed selection according to road design – involving a concept of self-explaining roads – might be of great value. CEDR agrees that selecting speed limits based on the human capability and tolerance against external violence could be very useful with respect to road safety."

3. **IMPROVE SAFETY OF VULNERABLE ROAD USERS**

CEDR recognizes that for many years National Road Administrations have primarily focused on car occupants, but in the future more focus will be on the safety of cyclists, pedestrians and other vulnerable road users. It is important for National Road Administrations to ensure that the needs of vulnerable road users are incorporated in the entire road system.

Furthermore National Road Administrations must adapt their planning to provide for new categories of vulnerable road users such as electric assisted bicycles and new types of vehicles. It is a well-known fact that in many countries injuries of cyclists and other vulnerable road users are heavily underreported. To monitor the target on severe injuries, it is therefore important that relevant sources of information (e.g. hospital data) are used. CEDR members will work together to develop new practices and share experiences.

4. **EVALUATION AND DEPLOYMENT OF INTELLIGENT TRANSPORT SYSTEMS**

New technologies in cars that assist or even replace the driver, e.g. in all kind of un-safe moments and situations, are emerging. All this new technology need an infrastructure to function. Existing road signs and road markings are designed for recognition by humans and that will remain the main purpose. New vehicle technologies might have other requirements both on signs and road markings.

Basically, new technologies must be able to cope with roads built for traditional drivers because roads will be used jointly by equipped and non-equipped vehicles. Nevertheless, roads might be adapted in the course of maintenance and construction of roads to support vehicles and infrastructure communication. A huge potential of intelligent transportation systems for safety, lies in the common exchange of data, information and driving experience, and furthermore the learning – possibly automated – based on these data. Therefore, accurate and regularly updated information of the road system, the traffic flow and the vehicle use are needed, collected both by road operators and vehicles. The accessibility, reliability and validity of the road system information provided have to be addressed. The issue of ownership and openness of data is therefore important to address.

National Road Administrations need to work together and engage with industry and other key partners to understand the potential implications for infrastructure of forthcoming innovations. CEDR wants to encourage closer dialogue with the industry to identify and support the associated changes that will be needed to National, European and International road traffic system. CEDR and the National Road Administrations will work together with the relevant bodies to ensure benefits of the technology to be gained.

CEDR – the Directors of the National Road Administrations – and their Task Group Road Safety as well as associated Task Groups on ITS, congestion, research, standardization etc. acknowledge the need to work together as responsible member countries to address the four challenges to improve road safety.

This paper is dedicated to Forbes Vigors of Transport Infrastructure Ireland. His untimely passing robs the road safety community and CEDR of his expertise and friendship. His contributions to this paper and other works are a fitting legacy and will continue to improve road safety for many years.

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The Conference of European Road Directors consists of the leaders of national road authorities across Europe. This document expresses the current position of CEDR. It does not necessarily represent the views of individual Member Countries and should not be considered the official position of Member Countries.