

Abstract

The project “Save our Lives – A Comprehensive Road Safety Strategy for Central Europe,” (SOL) is supporting twelve pilot communities in eight countries in the region to strengthen their approaches to road safety and sustainable mobility in order to prevent death and injury caused by road crashes. Road safety and sustainable transport are community issues. Authors have participated in the project as researcher and describe the results of the project.

Keywords

road safety · situation analysis · cross country analysis

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1 Introduction

In 2009, road crashes resulted in almost 35,000 fatalities in the EU alone. The countries of Central Europe have a higher number of road fatalities per million inhabitants than Western Europe. In 2009 there were 120 fatalities per million inhabitants in Poland, 86 in the Czech Republic, 82 in Hungary in comparison with 39 fatalities per million inhabitants in the Netherlands and Sweden and 38 in the UK in the same year (source: CARE Database). Forty percent of fatalities in the EU are in built-up areas. More than 30% of these deaths are pedestrians. The threat of road crashes presents a significant public health and economic problem to communities and influences people’s travel choices. According to a report by WHO Europe “Preventing road traffic injury: a public health perspective for Europe” (2004) [1] real and perceived safety concerns are an important barrier preventing many people from choosing walking and cycling as means of transport. Communities that manage their transport systems with road safety, environmental and public health objectives in mind are more liveable, attractive and offer their citizens higher living standards [2, 3, 8–10] SOL’s main objective is to reduce road crashes and trauma in the context of sustainable transport by:

- empowering the participating communities in Central Europe with knowledge, skills and networks derived from global good practice experience
- strengthening road safety management and coordination in the participating communities by improving the capacity of multi-sector/disciplinary teams to plan and coordinate action to develop more sustainable, safer and healthier transport systems for their communities;
- assisting pilot communities to understand the scope of their road safety problem and identify professional training needs. Developing training programmes which runs according to a train-the-trainer methodology;
- implementing behaviour change programs to reduce risky or risk taking behaviours;
- optimising public education programs to increase knowledge and to motivate behaviour change;

- increasing political commitment for road crash and road trauma prevention within the context of sustainable and healthy mobility;

The Institute for Transport Sciences (KTI) and GRSP Hungary Association are working in close cooperation as consortium partners on the implementation of the project in Hungary. KTI is a scientific background institute for the Ministry of National Development, thus it is involved in the preparation of decision making processes and regulatory jobs of the ministry, having a professional research team. GRSP Hungary is doing interventions for the reduction of the fatalities and the number of crashes on the roads. Its members represent very prominent stakeholders from the governmental, business and civil society. The Hungarian pilot region is the city of Győr. The Hungarian project partners work closely with the National Accident Prevention Committee and cooperate with the Győr Accident Prevention Committee that - as part of the police - are responsible for the prevention of road accidents. The SOL project is well-known to the members of GRSP Hungary and regular updates are provided for them. The main elements of the project were also introduced during a national conference and workshop in 2010 where the main stakeholders, both national and local level, participated and exchanged ideas about community road safety problems and possible interventions taken. As making local road safety strategies and local road safety planning is not very much of a practice in Hungary, the meeting helped to highlight and draw attention to the special road safety problems of communities. The main stakeholders were identified and engaged at the national level without much difficulty while some problems were faced at the local level presumably because road safety work is not very well coordinated. Apart from the defined role and responsibility of the police, other sectors might not share as much responsibility as they could or do not identify their role in a coordinated road safety work. The focus of some stakeholders is limited on the fulfillment of their main tasks in which road safety is not or only limitedly considered (e.g.: due to lack of funds, workforce, lack of motivation, knowledge, etc.). Despite the difficulties faced, a small local stakeholder group has been established and this community team is still forming and developing. The aim of the Hungarian partners is to get the communities on board as active partners, to acknowledge the importance of the coordinated road safety activity that suits the need of their region, to develop ownership and to deliver long term targeted programs focusing on local risk factors and high risk groups that fit with the national road safety objectives.

2 Objectives of the SOL situational assessment

Within this context, the objective of the SOL situational assessment is to compile and present the data needed to assess and present the road safety situation in the pilot communities including road accident and injury data, institutional capacity, public opinion and knowledge, stakeholder map and main conclusions

from the analysis. The assessment will lead to the identification of priority issues for action and serve as a baseline for monitoring and evaluating the impact of the SOL project and the SOL interventions in the communities.

3 Methodology and process

The SOL road safety data collection has been carried out with the use of the web application, which can be found under the following address: www.its.waw.pl/sol. The toolkit placed on the website includes 4 separate “tools” developed in order to collect information on the range of different issues which are necessary to help each community understand the full picture of its road safety situation:

- 1 road safety assessment tool
- 2 institutional capacity assessment tool
- 3 stakeholder analysis tool
- 4 public knowledge and opinion survey tool

3.1 Road safety assessment tool

The road safety assessment tool addressed the question “*what is the road crash and road crash injury situation in the community?*”. Data were collected from diverse sources (mainly police, health sector) and include the typical road safety indicators presenting 5 years trends: number of crashes, injuries, fatalities, population size, vehicle registration, transport related data and possibly other information.

In order to collect the required data the responsible partners were using internet forms placed on the SOL web application.

3.2 Institutional capacity assessment tool

The institutional capacity assessment aimed at finding out:

- whether sectors and disciplines already collaborate on road safety improvement;
- whether the community has a government approved road safety programme and if so
- how effective it is
- whether it follows a safe systems approach
- what are the possible gaps;
- whether there is already a management and planning link between traffic and mobility planning and road safety;
- whether the community has a dedicated department/organisation coordinating road safety or if road safety is managed through other departments such as traffic and transport management, roads or urban planning;
- what is the level of knowledge and skills of local professionals in road safety field and what are the gaps in their knowledge and skills; how is road safety currently funded in the community.
- In order to collect the data the responsible partners were using internet forms placed on the SOL web application.

3.3 Stakeholder analysis tool

The Stakeholder analysis addressed the question “*who can contribute to road crash injury prevention in the community and as part of SOL?*”. The stakeholder analysis indicated the social and political environment in which SOL will be developed and implemented in each community. Its primary function is to identify all possible partners who might have an interest in addressing road safety and sustainable mobility, including those who might initially oppose the project.

The key objectives of the SOL stakeholder analysis were thus:

- to identify key stakeholders, define their characteristics and examine how they might be affected by SOL (e.g. their specific interests, likely expectations in terms of benefits, changes and outcomes);
- to assess their potential influence on the development, and implementation of SOL;
- to understand the relationship between stakeholders and possible conflicts of interest that may arise;
- to assess the capacity of different stakeholders to participate and the likelihood of their contributing to the process;
- to decide how they should be involved in the process to ensure the best possible quality and viability of the programme, in particular:
- the nature of their participation (e.g. as advisors or consultants, or as collaborating partners);
- the form of their participation (e.g. as a member of the working group, or as an advisor, or sponsor);
- the mode of their participation (e.g. as an individual participant or as a representative of a group).

In order to collect the data the responsible partners were using internet forms placed on the SOL web application.

3.4 Public knowledge and opinion survey tool

The public knowledge and opinion survey tool assessed public knowledge and opinion on a range of road safety and transport topics, including use of transport modes, perception of safety and convenience of more active forms of transport such as walking and cycling. The survey was conducted by the professional agency – Psyche Agency in June 2011 with a use of quantitative method and by means of an on-line questionnaire. The questionnaire was prepared in cooperation with Motor Transport Institute in Warsaw and with all the SOL partners and public opinion agency. After developing the questionnaire it was translated into the languages of the SOL Project Partners, and afterwards it was placed on a special platform used for on-line surveys powered by mysurveylab.com.

A link to the survey was distributed by different channels, among others:

- 1 emails sent to local entities (universities, local authorities, companies, private persons),
- 2 emails sent to local mass media representatives (request for placing a link on their pages),
- 3 social media, e.g. Facebook,
- 4 message sent to all relevant users of the Euro26 card,
- 5 direct, local activities of SOL partners.

4 Main findings

4.1 Road safety assessment

Tab. 1. Basic facts about accidents in Győr

Year	Number of personal injury accidents	Road Death	Injuries
2005	179	1	207
2006	228	7	268
2007	231	6	282
2008	224	4	268
2009	223	8	284
2010	227	4	270

source: KTI Institute for Transport Sciences and GRSP Hungary Association (2011)
 HUNGARY – GYŐR SOL Community Situational Assessment
 - Baseline report

Data about the number of “collisions” (property damage only crashes) is not available, because if no personal injury occurs during a road accident it is not obligatory to call the police, so the police do not have relevant data. Even insurance companies do not hold relevant data for several reasons. It is obligatory for all motor vehicles to have a liability insurance, but in reality many cars do not have it. The liability insurance works on a bonus-malus system, the more damage caused the more needed to be paid for the insurance per year. The liability insurance does not pay for the car being responsible for the damage, only to the other party. Many people only have this type of insurance on their cars and when they cause an accident they quite often negotiate with the other driver and they pay the damages without involving the insurance company. The reasons can be that the damage is little and they do not want to have their insurance fee raised in the future or they do not want to involve the police and have penalty, etc. In addition, insurance companies registrate damages on a system that puts many damage under one case number, so it is hard to see the number of cases and they do not indicate if it was an accident with or without personal injury, so it is almost impossible to evaluate the number of collisions without personal injury based on their database. Not to mention the fact that insurance companies in Hungary are not really motivated to be effective in the field of accident prevention. They do not registrate the exact location of the accident for example which is of key importance. Safety belt wearing rate is only registered by the police in case of accidents; no other statistics are available from the past years. Observational measures –

so called roadside surveys - were carried out on passengers of 525 cars for the purpose of the SOL project. The numbers put in the table above represent the results. During the past years speed was only measured with speed cameras for the purpose of enforcement, registering only the cars exceeding the speed limit and it did not involve counting all the cars passing by. Győr Police made an assessment for the purpose of the SOL project with hidden cameras (not applying penalty).

The number of people killed is very low from statistical point of view. (However, in the reality it can never be low enough.) Therefore it is impossible to draw any meaningful conclusion for the measures only reflecting the number of fatalities and the effect of random fluctuation is also very high. The number of personal injury road traffic accidents and the number of injured are high enough to identify trends and to make further – more detailed – analysis. The number of personal injury road traffic accidents is practically stable in the recent years. For example the number of accidents was 228 in 2006 and 227 in 2010. Another example can be the number of people injured (seriously and slightly) was 268 in 2006 and 270 in 2010. This stability means that the main aim of the local road safety strategy should be to significantly decrease the number of personal injury road traffic accidents and the number of injured. To identify the main target areas, the number of accidents and people injured has to be analyzed according to the most significant circumstances (mode of traffic, age group, cause of accident, time of the day, location of accident, etc.).

The number of people seriously injured in road accidents involving drivers impaired by alcohol shows an increasing trend. It was 9 in 2005 and 14 in 2010. It seems that driving under the influence of alcohol is really an increasing problem in Győr – probably the more and more popular university of Győr play an important role in the phenomena.

Between 2005 and 2010 the highest number of seriously injured road users was car occupants (127) and pedestrians (112). The number of seriously injured cyclists was also high (101) in this period. All this means that the more effective protection of

- car occupants
- pedestrians (especially the elderly),
- cyclists

is necessary for the future.

Since observation had been made in the city of Győr, it is obvious that most of the seriously injured people (421 out of 465) suffered their injuries inside built-up areas. Since we are observing the city of Győr, it is obvious that most of the seriously injured people (421 out of 465) suffered their injuries inside built-up areas. Unfortunately we do not have exposure data – number of vehicle kilometres - for daytime and nighttime periods. Therefore the simple distribution of people injured according to the time of the day does not provide us any useful

information. Taking into account that the traffic volume is probably very low during the night (to be more precise: in darkness), the number of seriously injured people in nighttime seems to be relatively high. Some of the age group intervals that are used in the statistics are too big compared to others. For example the age group 25-64 is too big compared to the 15-17, or the 10-14. It means that the statistical weight of this age group will be much higher than those of others that can be misleading. In spite of it, it is still very visible that the age group 65- should be the target group among pedestrians. In other words, most of the seriously injured pedestrians are 65 years old or older. In other groups of road users (car occupants, motorcyclists, cyclists) most seriously injured people belong to the age group 25-64, which is not surprising at all. This is the so-called “active” age group. On the other hand this is the biggest age interval. For further analysis we have to apply other, more detailed age groups.

4.2 Institutional capacity

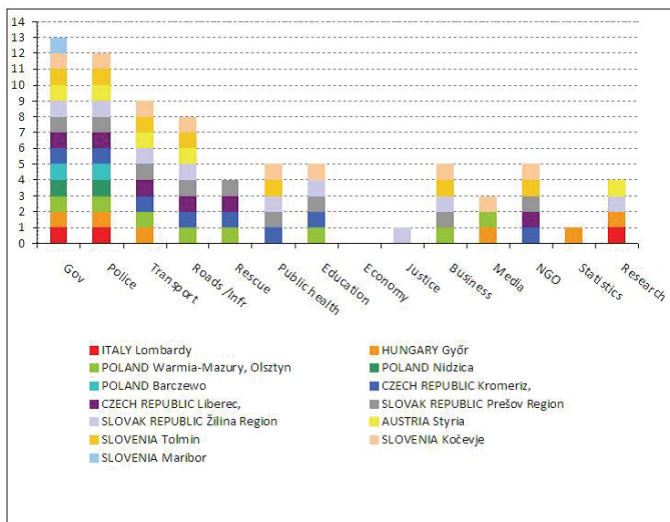
- There is a national road safety strategy and certain local actions are delivered, but road safety is not coordinated centrally at local level.
- The main responsibility for road safety is held by the police working under the Ministry of the Interior. The police break down the national strategies to local actions based on local road safety data and priority issues of the city.
- The local Accident Prevention Committee (part of the police) does certain road safety interventions, mainly preventive and awareness raising campaigns and much involved in the education of children.
- The municipality has allocated funds for road safety, the distribution of the funds depends on the road safety issues of the city, but most of these funds goes for infrastructural interventions.
- No horizontal coordination exists across the different governmental agencies dealing with certain sections of road safety.
- The training and up-skilling of road safety professionals are not satisfactory.

4.3 Stakeholder analysis

At the municipal level diverse stakeholders are involved in road safety. In all communities government is involved. Non-traditional actors such as NGOs, the media and economics are not generally involved in road safety (see figure below).

In, Győr stakeholder mapping, identifying the goals, motivations and interests were as follows:

- There are several NGOs and governmental bodies interested in child and youth road safety issues, but the efforts are not coordinated centrally.
- The local police are very open and would like to create ownership in other sectors for road safety issues.



source: Motor Transport Institute (2011) SOL Situation Assessment Report
CEUS Region Baseline Report

Fig. 1. Stakeholders at municipal level

- The health sector doesn't have a formal role, it is very hard to get them involved into the road safety work.
- It is very challenging to approach the private sector and the fleet operators.
- The ownership and role of the local government has not formed yet, example has not been set for them from the country.
- There aren't any schools as stakeholders identified, the way to contact them as a group has not been identified yet. A good way to approach them is through the local accident prevention committee and the civil guard.

Authors have provided 2 focus group questions and present the answers and suggestions given to highlight the most important issues with community road safety management. The professional background providing support and professional forums as follows:

- Although there are professional organizations (e.g.: KTE - Hungarian Scientific Association for Transport, GRSP Hungary Association, OBB - Accident Prevention Committee, Chamber of Engineers, Universities, etc.), coordinated professional forums engaged actively in practical road safety questions are missing on community level, while the existing ones are often one sided.
- The citizens are either do not have opportunity to make remarks or notices, or their opinion is not suitably advocated, not taken under consideration or made known (existing forums: baleset-megelozes.eu /accident-prevention.eu/, police homepages, etc.)

Aim:

- Different organizations, professional forums should be formed horizontally to collect the different viewpoints; it is

necessary to harmonize the cooperation among the different actors in road safety and to strengthen the communication among them!

- Road safety should also appear in the daily discussions of the public, it is important to hold public forums in certain questions.

The possible advantages a community could gain if road safety got improved:

More livable town:

- More satisfied inhabitants: Being safe is a good message for the citizens
- „A children friendly town”
- Problems could come up and get solved that in every day circumstances would not.
- It would even enhance the settlement of new companies, generate economic development.
- The community could be subject to adequate publicity: following the Highway Code and being cooperative and polite on the roads could be “trendy” and local people will be proud of their safe community.

Popularity:

- Increasing of popularity of the city both in the country and abroad
- Campaign: „Safe town and school...” symbol
- Attractive for tourism

Social cohesion:

- Elaboration of a common objective
- Promotion of a social dialogue between the local government and the citizens

4.4 Public opinion survey

- In the Hungarian Győr Region the most commonly used transport to work/school is by car, a little less responds reflect the use of buses. One fifth ride a bicycle is even less popular and the least frequent mean of transport is walking.
- The inhabitants of this region have the longest distance to work/school, and the shortest one to the nearest local shops (over 2 km). Public offices can be reached within 6 km, and other important destinations within 4 kilometers.
- All of the scores provided for evaluation of the public transport are above average. The best score relates to accessibility, the worst one to comfortable working hours.
- The safety of roads in this region was evaluated above the average.

Tab. 2. Characteristics of the respondents

Q20. Age (mean)	37,91				
	primary	secondary	high school	vocational school	univ/college
Q22. Education (%)	4.7	5.8	32.1	16.9	37.9
Q23. How many children do you have? (mean)	1.05				
	Yes	No			
Q24. Driving license (%)	79.2	18.1			
Q25. Experience as a driver (years):	15.68				
Q26. Number of km driven a year (mean):	22.111				

- The respondents believe that the factor that contributes the most to safety on roads is usage of child restraint system, and the factors that have the smallest influence are speed cameras and existing speed limit. However, all of the factors included in the questionnaire were perceived as significant (above the average).
- The majority of respondents claim that it is necessary to intensify publicity and advertising regarding road safety issues. When it comes to penalties for breaking road safety laws the opinions are divided – some people claim that they should stay at the same level, a little more people believe that they should be increased.
- According to the respondents, road safety mainly depends on the behaviour and culture of road users, and on design and standard of roads. Nevertheless, other factors also seem to be important for them (mean: over 5).
- Questions concerning the perception of road situation showed that the respondents have average sense of control on that what is happening on the road, and it often depends on luck, or its lack.
- Among negative behaviours included in the questionnaire the respondents mainly indicate exceeding speed limit and transporting children without child restraint system, and they rarely drive under the influence of alcohol.
- The respondents evaluated the infrastructure, in their region, for pedestrians and bikers as average (all scores between 2.26 and 4.63). The best score relates to sidewalks, the worst to bicycle racks/parking.
- The survey participants are stopped for a traffic control on average once a year (1.03). They also estimate chances of being stopped for such a control as quite low – 2.44.
- The respondents will be more willing to walk if the drivers were more careful. Other factors were perceived as of average importance.
- The respondents will be more willing to cycle if the number of bike lines was higher. Nevertheless, other factors were also perceived as important.

5 Next steps

This paper is focusing on the baseline for monitoring and understanding progress during the implementation phase of the SOL project. Further request would be the assessment of the impacts of SOL particularly in road safety management approaches in the participating communities. The objective is to check the main findings and generate consensus about the conclusions of the assessment and priority for action. These conclusions and priorities will serve as the core material for the strategy development workshop to follow.

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