





## IMPROVING ROAD SAFETY IN DANUBE AREA FOR ALL ROAD USERS:

Challenges and Opportunities in the Second Decade of Action for Road Safety (2021-2030)

Ferry Smith mentioned a survey during his speech. Some years ago, there was work on "cycling motorists" to quantify who would substitute car journeys with the bicycle. In these Covid times, do we know how many will substitute public transport trips for personal modalities and the characteristics of these travelers, the modality options, and their journey purposes?

A research in the Netherlands carried out by Roland Berger was done. The reality is no one has a crystal ball, so what we figured out was an estimate of the post corona effects. The findings of the research "How COVID-19 is impacting the mobility sector: Discussion document with Case example from the Netherlands" concentrate on the broader post corona effects in mobility. So, not just aimed at cycling. It is likely that the modal shift in other countries is different. We are now trying to find some financial support from the FIA to get a more global overview.



#### How to increase reliability in data collection for rural road safety?

Data is the most important part of every model or every management system. If you have wrong data in the input, you will have wrong conclusions in the output. So, data is crucial. Countries have different approaches in how to collect the data. Therefore, the international cooperation, the sharing of know-how and best/good practices is important.

Within SABRINA, we will link different inputs from different methodologies and their ways of collecting the data. In this way we will come to the recommendations for the future on how to define the data sources in a way they could potentially be extracted from other means of data bases. For example, we know that the road management companies, and road operators hold the asset management data which is extremely important if they want to assess the road infrastructure. Then we have the police that holds accident data and these two should be linked together in a consistent way.



School zones: Only two peak time periods i.e. morning and afternoon are of concern. Physical countermeasures like humps, are hindrance for through-traffic (non-school) moving during non-peak hours. Are not speed activated signs and variable message signs some of the most relevant countermeasures in school-zones?

It has been proven from experience that speed activated signs, variable message signs and other similar countermeasures (i.e. signs) in school-zones are not efficient. It is up to the drivers to respect them if police enforcement is absent. Since we are dealing with kids, we need to be stricter on the through traffic, no matter if it is during school hours or not. Therefore, speed humps, traffic lights activated by pedestrians, road width narrowing, and other physical countermeasures are the most appropriate. Of course, always considering the road category.

Every case is different, that is why at the presentation it was pointed out that the distance from the school (i.e. pedestrian volumes) and the education level/school grade (i.e. pupils' age), along with the road characteristics are very important in order to facilitate the best countermeasures and achieve the anticipated safety levels.







### Any plans to extend these projects to Macedonia as it was mentioned that regional perspective is important?

The geographic coverage of both RADAR and SABRINA projects is defined by the eligibility criteria of the Danube Transnational Programme. Countries outside of the eligibility area can benefit from the outputs of the project that are fully available on projects websites after their final delivery and quality check.



### Regarding the benefit-cost ratio calculation: On what basis did you decide how many DSIs were avoided by each measure?

The VIDA model calculates the estimation of fatal or serious injuries that could be prevented if specific countermeasure is implemented. Calculation is based also on additional data on local measures costs, statistical value of life cost and FSI real number in specific country & road class.



In underdeveloped countries there is a problem of road safety funding. These countries are also not taking into consideration the concerns regarding road safety. What are alternatives for them? They mainly depend on donor countries but how can they overcome road safety issues?

Developing countries must invest heavily in education, this is the cheapest and yet most cost-effective way of improving road safety in developing countries. Other important aspect is prioritization, if you have limited funds it is crucial to implement a good methodology on how to select where this limited money is going in terms of infrastructure investment. It should be targeted at locations that have the highest safety impact and the low-cost high impact countermeasures typical for low income countries should be prioritized, such as road widening and off-road MC and pedestrian paths.



# Is there any Danube research showing how the characteristics of those crashes that are reported compare with those that are not - casualty type, age, crash cause, urban/rural etc.? Road authority data versus hospital data?

Unfortunately, we did not manage to find researches on this subject specifically for Danube area countries. However, there are several researches and articles available which consider the vulnerable road user accidents underreporting issues which were performed in the European Union countries.

#### Some articles available online:

- Underreporting of cyclist and car injuries in Denmark (2018)
- Under-Reporting bicycle Accidents to Police in the COST TU1101 International Survey: Cross-Country Comparisons and Associated Factors (2018)

— Under-Reporting of vulnerable road users in official EU road accident statistics – Implication for road safety and added value of EU IDB hospital data (2018)

— Understanding traffic crash under-reporting: Linking police and medical records to individual and crash characteristics (2016)

— IRTAD Special Report: Underreporting of road traffic casualties (2007)
— Investigation of bias after data linkage of hospital admissions data to police road traffic crash reports (2001)

— OECD Directorate for Science, Technology and Industry: Safety of vulnerable road users (1998)