

ROAD SAFETY TRAINING THROUGH A MASTER COURSE IN BELARUS

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Introduction

The implementation of certain road safety measures does not give any real benefit in terms of crash reduction if the proposed action is not based on thorough road safety engineering experience and practice. Tools do not create the road safety future; trained professionals do.

A robust educational curriculum is the key factor to communicate the necessary insights within the constantly **evolving** environment of **road safety**.

An example of such an initiative is the "**Belarusian Road Safety Network**" project (**Be-Safe**) of the **Tempus Programme of the European Commission**.

Be-Safe is a joint effort between three EU universities:

- "Sapienza" University of Rome
- Loughborough University
- National Technical University of Athens

and four Belarusian Universities:

- Belarusian National Technical University
- Brest State Technical University
- Belarusian State University of Transport
- Belarusian State University of Economics.



The key objective of the Be-Safe project is to develop and test in Belarus **two Masters' Curricula** in road safety according to the Bologna process standards; one for the **Technical Universities** and one for the **Economics University**.

Road safety situation in Belarus

A road safety performance comparison between Belarus and EU States, based on basic road fatality figures, revealed that during the period **2000-2010**, **although road fatalities in Belarus decreased about 25%**, the overall road safety performance was reported rather weak compared to the majority of EU States (-43%). In the period from **2011 to 2013**, **Belarus achieved a noticeable decrease by another 25% reduction in road fatalities**, a performance figuring among the best in EU.

The comparison of **road fatalities per million of inhabitants** in EU States and Belarus in 2010 and 2013 is presented in Figure 1, where it can be seen that despite the significant reduction in the number of road fatalities per million of inhabitants, the country performed worse than all EU States both in 2010 and in 2013.

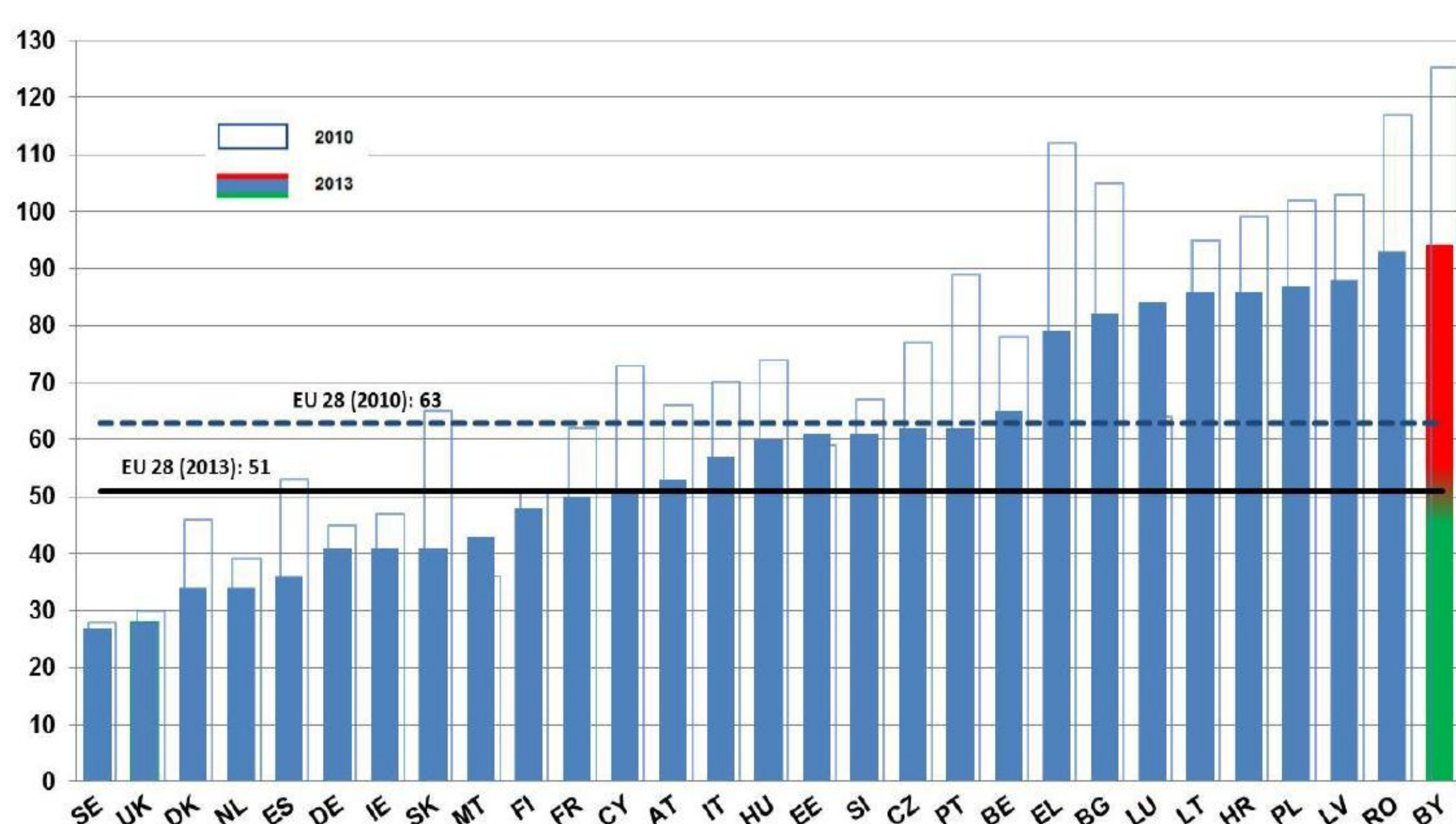


Figure 1. Road fatalities per million of inhabitants in EU and Belarus (2010-2013).

In 2006, the Council of Ministers of the Republic of Belarus approved the **Concept of Road Safety** in the Republic of Belarus aiming at **reducing road accident fatalities by 25% in 2015** compared to 2005 figures. However, according to Local Academics, this effort is hindered by certain **barriers** such as:

- Road safety is not managed on an evidence base
- No funding is available for the implementation of the Plan on the Concept of road safety
- There is not a clear administration in charge

Identification of User Needs and Requirements

During the initial steps of the Be-Safe project, certain issues were thoroughly examined in cooperation with Belarusian Universities and stakeholders. At the outset, there was a necessity to review and analyse the most relevant and recent experiences and tools in the field of road safety; available at international level. The most important aspect was to clearly understand local conditions and needs in terms of both research and teaching at the field of road safety.

The local University educational system revealed an adequate level of designing, managing and analysing road safety. Local Technical Universities often support local administrations on road safety related projects and are also involved in projects in the former Soviet Union Republics. However, regarding road safety research activities in Belarus, there seems to be a problem of isolation from the international research world, which leads to a necessity of updating contents and methods of courses for students, followed by a need to update research topics in the field of road safety. Another highlighted issue was the low level of technical equipment in the current laboratories.



Belarus is experiencing a rapid motorization, and therefore strong emphasis was given to capacities such as the **ability to make a Road Safety Plan** and to support the development of **programmes** in the area of education, enforcement and engineering.

The Masters curricula were based on the requirements of the Bologna process as to ensure transparency and recognition of the courses.

Master Programme

Two master curricula were structured; one for **Engineering Faculties** and one for the **Economics Faculty**, where the key components of both are as follows:

State component: modules common to all the Belarusian Masters belonging to a specific category approved by the Ministry of Education.

University component: theoretical background of the core competences on the road safety related topics.

Research activities & small thesis: on a given topic defined by the academics.

Practical activities: on-site, laboratory and practical activities.

Engineering Faculties Curriculum Components	Hours	ECTS
State component	350	14
University component	750	30
T1 Basic concepts of road safety	125	5
T2 Road Safety Management	100	4
T3 Collection and Analysis of crash data	100	4
T4 Contributing crash factors, countermeasure selection and evaluation	125	5
T5 Road safety policies and plans	150	6
T6 Road Infrastructure Safety Management	150	6
T7 Research activities& small thesis	300	12
T8 Practical activities	100	4
Total	1500	60

Economics Faculty Curriculum Components	Hours	ECTS
State component	350	14
University component	750	30
E1 Basic concepts of road safety	125	5
E2 Road Safety Management	100	4
E3 Road safety policies and plans	150	6
E4 Econometric models for policy impacts evaluation and forecasting	125	5
E5 Economic evaluation and efficiency assessment tools	175	7
E6 Commuters and professional drivers road safety	75	3
E7 Research activities& small thesis	300	12
E8 Practical activities	100	4
Total	1500	60

The objectives of the Be-Safe project concern transferring to Belarus the most recent knowledge and good practices developed in the European Union in the field of road safety and local Universities are the key actors to start this process.

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