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AN EXPLORATION OF ROAD SAFETY PARAMETERS IN BELARUS AND THE EUROPEAN UNION

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BACKGROUND



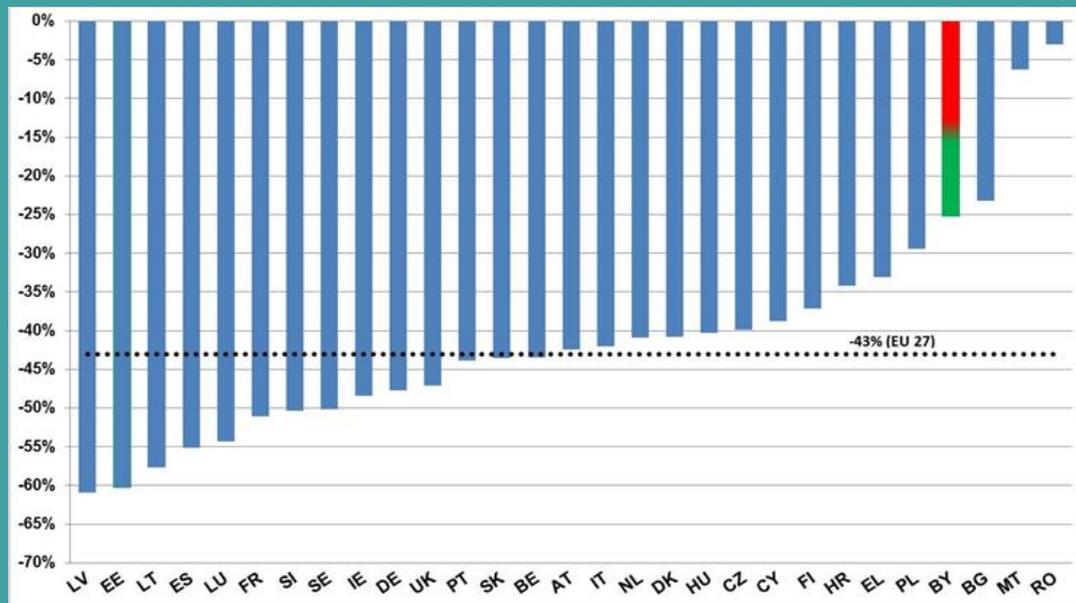
- Worldwide, the road safety level varies significantly among countries.
- In Europe, South-Eastern (SE) countries are among the worst performers in road safety.
- Despite some decrease in recent years, the numbers of road accidents, fatalities and injuries, in SE Europe remain higher than the EU average.
- Belarus, though not an EU member, has common characteristics with the Eastern EU countries.



ROAD SAFETY IN BELARUS



- Since 2006, there is a continuous effort at State level aiming at reducing the number of road fatalities.
- "The Concept of Road Safety of the Republic of Belarus for the period 2006-2015" was released in 2006.
- One primary goal was to reduce the number of fatalities in road accidents in 2015 by at least 500 people compared to 2005 (1,673 fatalities).

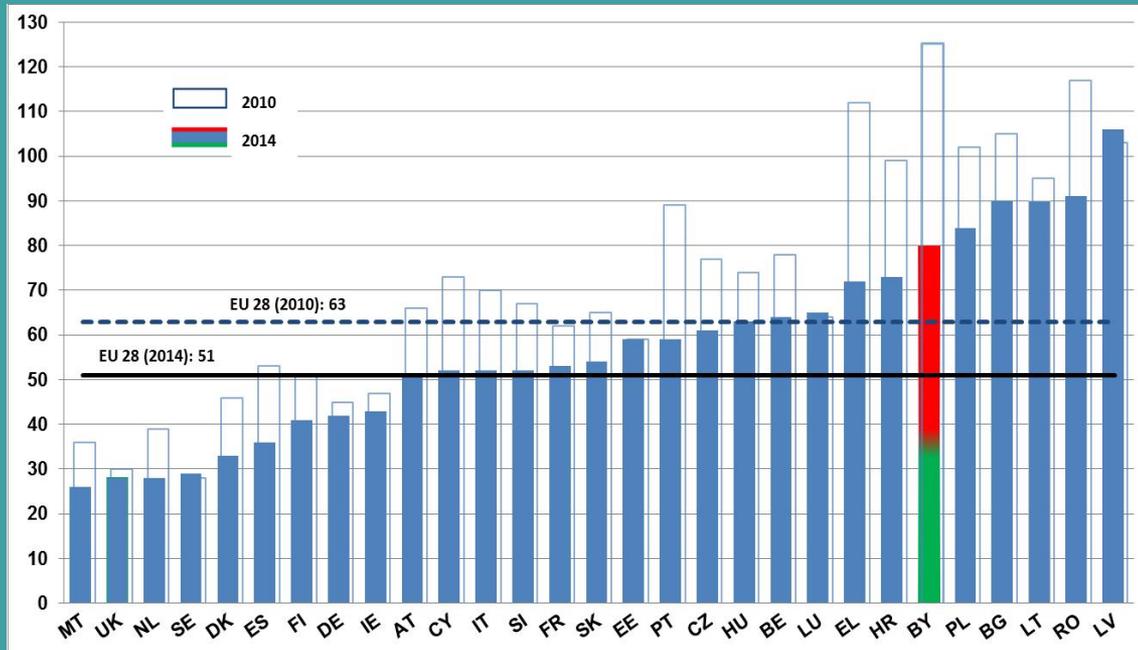


Change in Road Fatalities in EU and Belarus between 2001 and 2010

ROAD FATALITIES PER MILLION INHABITANTS IN EU AND BELARUS IN 2010 AND 2014



- In 2010, Belarus performed worse than all EU members in road safety.
- In 2014, Belarus is among the best performing Eastern EU members with a more than 36% decrease in road fatalities per million inhabitants.



EXPLORATION OF ROAD SAFETY PARAMETERS

- Comparison of the road safety level (road fatalities/population) in Belarus and in EU countries grouped based on general socio-economic characteristics and on the overall road safety level (North-West, South, East EU countries)
- Parameters examined
 - GDP per capita
 - total number of registered vehicles
- Data sources
 - CARE, Eurostat, national sources
- Examined period
 - 2005-2014 (2005-2013 for South EU)



EXPLORATION OF ROAD SAFETY PARAMETERS



- Lognormal regression
- One model for each country/group of countries
- Calculation of elasticity of each independent variable

	Belarus			North-West EU			South EU			East EU		
	coeff.	t-value	elasticity									
constant	-3.483	-57.612	-	-3.077	-8.044	-	-2.773	-2.132	-	-3.429	-21.00	-
GDP per capita	$-9.204 * 10^{-5}$	-6.831	0.102	$-3.696 * 10^{-5}$	-3.170	0.282	$9.616 * 10^{-5}$	1.986	0.521	$-5.894 * 10^{-5}$	-3.36	0.137
total fleet	-	-	-	-	-	-	$-3.666 * 10^{-8}$	-4.757	0.848	-	-	-
R ²	0.854			0.557			0.815			0.585		

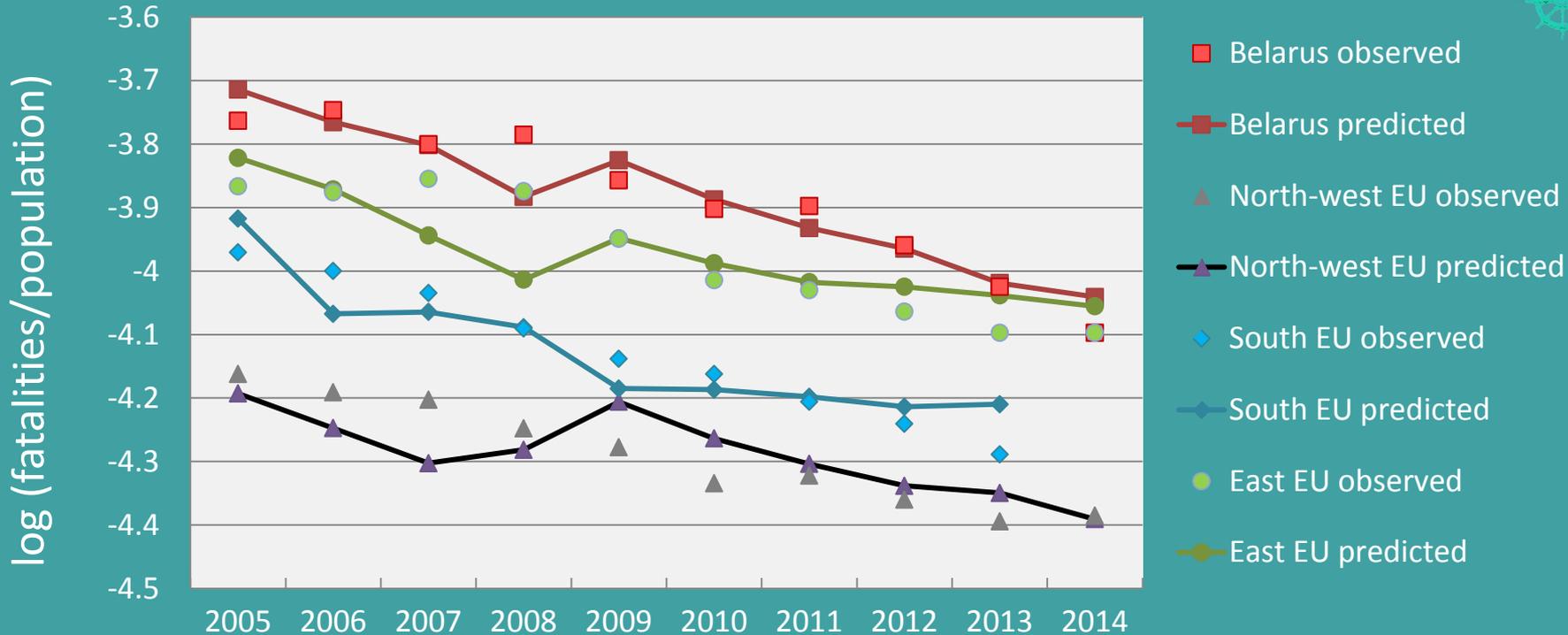
EXPLORATION OF ROAD SAFETY PARAMETERS



- In Belarus, North-West EU and East EU models only GDP per capita was found statistically significant.
- In the South EU model, both GDP per capita and the total fleet were found statistically significant.
- GDP per capita is negatively associated to fatalities per population in Belarus, North-West and East EU countries.
- On the other hand, when total fleet is also taken into account (South EU), the GDP per capita has a positive impact on fatalities per population while the total fleet has a negative one.



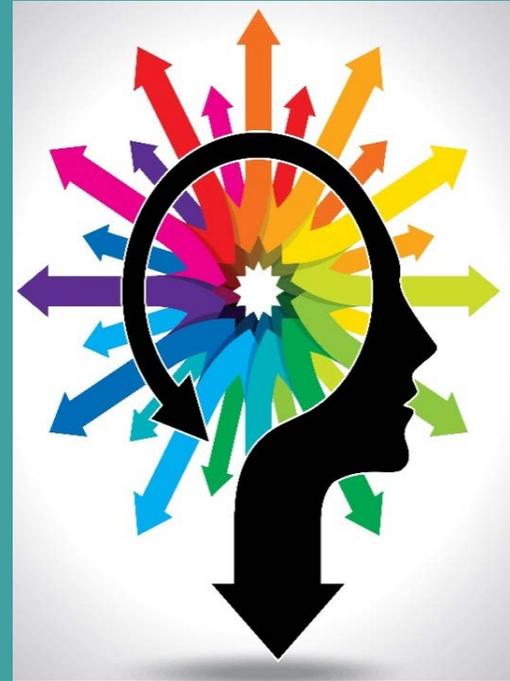
EXPLORATION OF ROAD SAFETY PARAMETERS



CONCLUSIONS



- There is still room for significant improvement of road safety in Belarus.
- Results for Belarus are very similar to those concerning East EU countries.
- In South EU countries, the total fleet has an impact on the number of road fatalities per population.
- In Belarus, North-West and East EU countries the increase of GDP per capita results in a decrease in road fatalities / population partially because GDP increase may come along with improved infrastructure as well as newer and better maintained vehicle fleet.



THE BE-SAFE PROJECT – BELORUSSIAN ROAD SAFETY NETWORK



- The main objective of the Be-Safe project is to strengthen the role of research in managing road safety policy on an evidence-base in Belarus.
- The Be-Safe project aims at transferring to Belarus the most recent knowledge and good practices developed in Europe in the field of road safety and Local Universities are the key actors to start this process.



<http://www.be-safe-project.eu>

