

Managing accident black spots on state roads in Hungary

Tibor Mocsári Phd, Head of Road Safety Unit - Hungarian Public Roads



1. Road safety in the European Union

The latest medium-term goal of the European Union (to halve the number of road deaths between 2010 and 2020) has not been achieved. In the period between 2010 and 2014, the number of road fatalities was in line with the set goal. In contrast, the number of road fatalities stabilized in the following five years. The Council and the EU transport ministers set the goal of halving the number of deaths and serious injuries in the EU by 2030, compared to the 2020 base year (Fig. 1.)

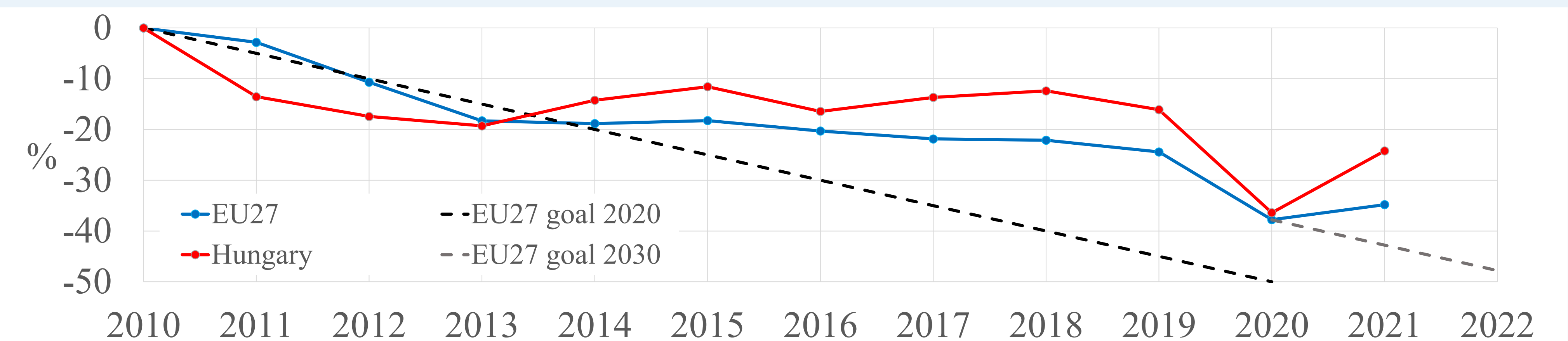


Fig. 1. Change in the number of people killed in road accidents in Hungary and the EU

2. Updating the Hungarian legislation

In order to save lives and to reduce the severity of accidents, interventions are necessary. The European Union Directive 2008/96/EC on the safety management of road infrastructure defines road safety investigations and measures. The European Parliament and the Council amended this new Directive in 2019, which the Member States are required to transpose into national law. The new Hungarian Government Decree (entered into force on April 7, 2022) regulates the conditions of four road safety investigations: Road Safety Impact Assessment (RSIA), Road Safety Audit (RSA), Network-wide Road Safety Assessment (NRSA), Road Safety Inspection (RSI).

4. Result of black spot management

Based on the black spot analysis, the following results were obtained based on the personal injury accident data of the previous 3 years:

Year of black spot analysis	Number of black spots	Number of accidents at black spots				Intervention costs at black spots (EUR)
		Fatal	Serious injury	Slight injury	Sum	
2020	169	46	336	842	1 224	375 000
2021	163	37	316	798	1 151	536 000

The majority (70%) of accident black spots are located on main roads, with the majority (41%) on sections of main roads outside built-up areas.

3. Hungarian Public Roads – management of accident black spots on state roads

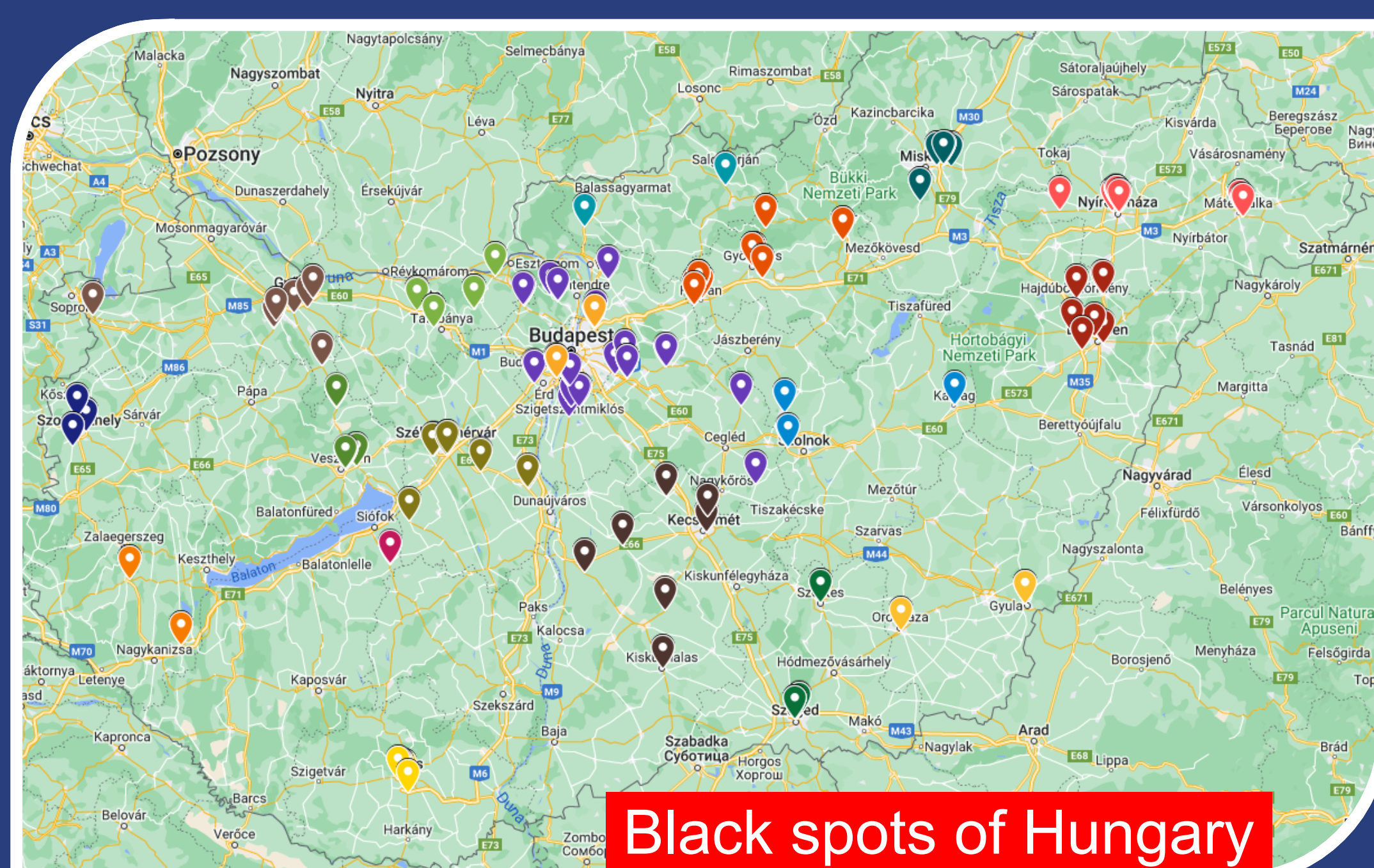
The Hungarian Public Roads continuously identifies the high-accident road sections of the national road network, explores the causes of the situation, and develops risk reduction proposals and interventions. The procedure consists of the following three main steps:

1. Identification and ranking of potential accident black spots
2. On-site inspections at accident black spots, preparation of a final list
3. Definition, ranking and implementation of interventions (project variants).

5. The possibilities of black spot management

From the following table (accident at black spots / total accident ratio) we can conclude that 4.7% of all personal injury accidents on national public roads could have been prevented if we had intervened at all locations, and then no accidents would have occurred at these locations as a result of the interventions:

	Accident at black spots / total accident ratio			
	Fatal	Serious injury	Slight injury	Sum
Motorway, motor road	2,3%	2,7%	1,7%	2,1%
Main rural road	5,2%	6,7%	8,8%	7,9%
Main road inside built-up areas	4,9%	6,6%	8,4%	7,8%
Minor rural road	2,0%	3,3%	3,3%	3,2%
Minor road inside built-up areas	0,0%	1,6%	1,8%	1,7%
Sum:	3,1%	4,3%	5,1%	4,7%



Black spots of Hungary



The NUMBER ONE of the black spot list



Special road signs at the black spot

6. More information

black spot map/ 2019,2020,2021 JAVÍTOTT – Google Saját térképek

e-mail: Mocsari.Tibor@kozut.hu