Hungarian road safety experience

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1. The short history of the Hungarian road safety

Fig 1: Changes in the number of motor vehicles, personal injury crashes and road crash fatalities between 1976 and 2013
1. The short history of the Hungarian road safety

The characteristic phases were as follows:

- 1987 – 1990: deteriorating
- 1990 – 2000: improving
- 2000 – 2006: deteriorating
- 2006 – 2012: improving
- 2013-?: ?
The improving period from 2006 can be regarded as a so-called "success story". Hungary won the PIN Award 2012 for its outstanding road safety performance in 2011. It is worth getting an overview of the most important factors of this improving period.

The number of automatic speed cameras is continuously increasing in Hungary. The most important legal prerequisite of their application has been the introduction of the owner’s (so-called "objective") liability. It means that the owner of the vehicle is responsible for the offences "committed" with the vehicle. This rule was introduced as of 1 January 2008, but it entered into force as of May 2008.
As of 20 January 2008, the so-called "zero tolerance" against drinking and driving entered into force. It means that the driving license (in the terminology of the UN ECE: driving permit) shall be withdrawn on the spot of the control if someone drives under the influence of alcohol (even in case of a small amount). This measure was the reapplication of an earlier successful but abandoned practice.

The point demerit system has been developed further. As of 1 January 2008, the system became stricter, which means that the number of demerit points increased in a differentiated way. So, the relationship between the severity of offences and the sanctions became closer.
2. Factors of the „success story”

From 1 August 2009 some sanctions became stricter. Penalties have been significantly increased in case of non-wearing of the safety belts, the non-usage of the child safety restraints, and the usage of the hand-held mobile phone while driving.

Between the years 2001 and 2010 the number of fatalities resulting from road crashes in Hungary and in all EU member states decreased by 40% and 44%, respectively.

This breakthrough (2008) was mainly the result of consistent and effective measures taken ("objective” liability, "zero tolerance”, stricter demerit point system, automated speed cameras, etc.), admitting that economic recession also contributed to this improvement, especially in 2009, but in the following years, too, nevertheless to a lesser extent.
3. Analysis of the Hungarian road safety situation

3.1 Crash and exposure data

Fig 2: Road crash fatality risks on the whole Hungarian road network between 2001 and 2013
3. Analysis of the Hungarian road safety situation

3.1 Crash and exposure data

Fig 3: Development of the road crash fatality risk on the state road network between 2001 and 2012

0 10 20 30 40
killed/10^9 veh.km

2001 2003 2005 2007 2009 2011

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3. Analysis of the Hungarian road safety situation

3.1 Crash and exposure data

Fig 4: Distribution (%) of the people killed as a consequence of a road crash according to the road user groups
3. Analysis of the Hungarian road safety situation

3.1 Crash and exposure data

Final data for the first six months of 2014

- Injury accidents: +7.5%
- People killed: +16.8%
- People seriously injured: +7.0%
- People slightly injured: +4.5%
- Injury accidents caused under the influence of alcohol: +9.8%
3. Analysis of the Hungarian road safety situation

3.2 Some road safety performance indicators

Fig 5: Safety belt wearing rates in Hungary in the front and back seats of passenger cars between 1992 and 2013.
3. Analysis of the Hungarian road safety situation

3.2 Some road safety performance indicators

Fig 6: Child restraint usage rates in Hungary
4. International comparison

Fig 7: Relationship between fatality rate and the level of motorization in 2012. (Source of data: IRTAD).
4. International comparison

Fig 8: Mortality rate (fatalities/100,000 population) in some OECD member countries in 2012. (Source of data: IRTAD)
Fig 9: Fatality rate (fatalities/10,000 motor-vehicles) in some OECD member countries in 2012.
(Source of data: IRTAD)
4. International comparison

Fig 10: Relationship between the personal and the road safety (theoretical model) (Source: Trinca et al 1988).
4. International comparison

Fig 11: Current figure (mainly 2012) of the Trinca model
(Source of data: IRTAD)
The further increase of the Hungarian road safety needs new measures and efforts.

As priorities should be regarded:

- stronger police enforcement (increased probability of being caught in the act.)
- elaboration of a safety-centered driver education system,
- road safety inspection on the existing road network,
- as a result of the latter: extensive realization of low-cost traffic engineering measures along the network.
Thank you for your attention!

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