



# The Interaction of Safety and Intelligent Transport Systems in Road Transport

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# Possibilities to decrease of traffic accident rates

- Information and communication technologies,
- The White Paper on Transport- *Roadmap to a single European transport area- towards a competitive and resource-efficient transport system*



Number of traffic accidents in the Slovak Republic

# Questionnaire survey

- ▶ Minimum sample size

**Determine Sample Size**

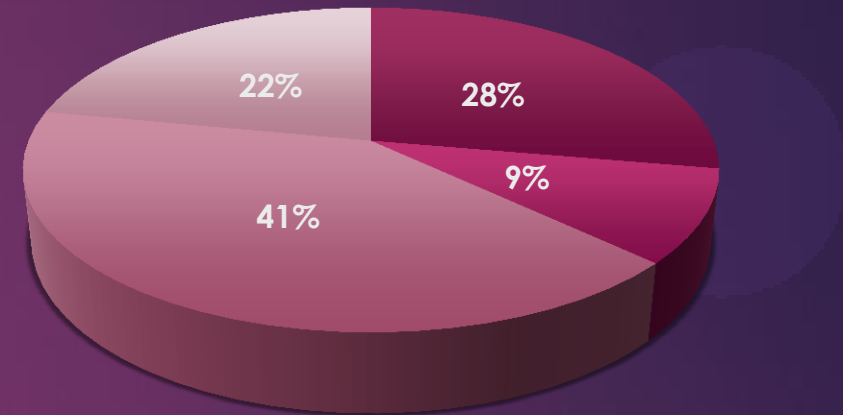
Confidence Level:  95%  99%

Confidence Interval:

Population:

Sample size needed:

- ▶ Age and gender analysis of drivers



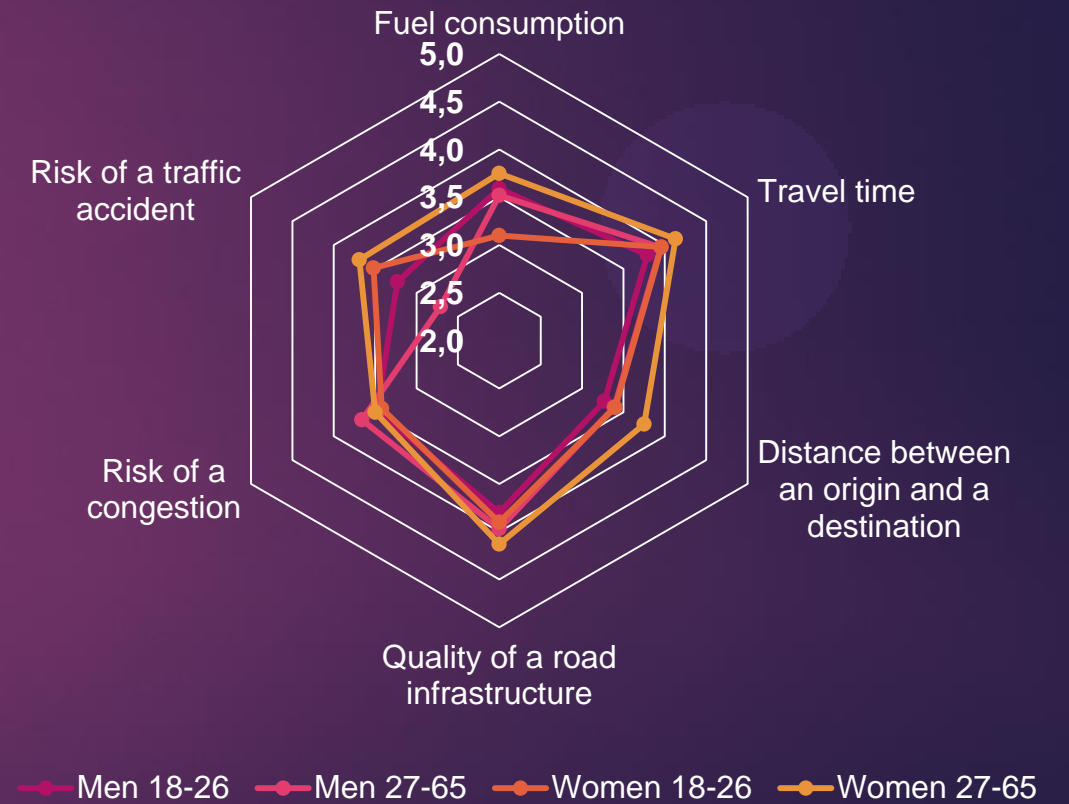
■ Women 18-26 ■ Women 27-65 ■ Men 18-26 ■ Men 27-65

# Questionnaire survey

- ▶ Selecting respondents according to trip purpose

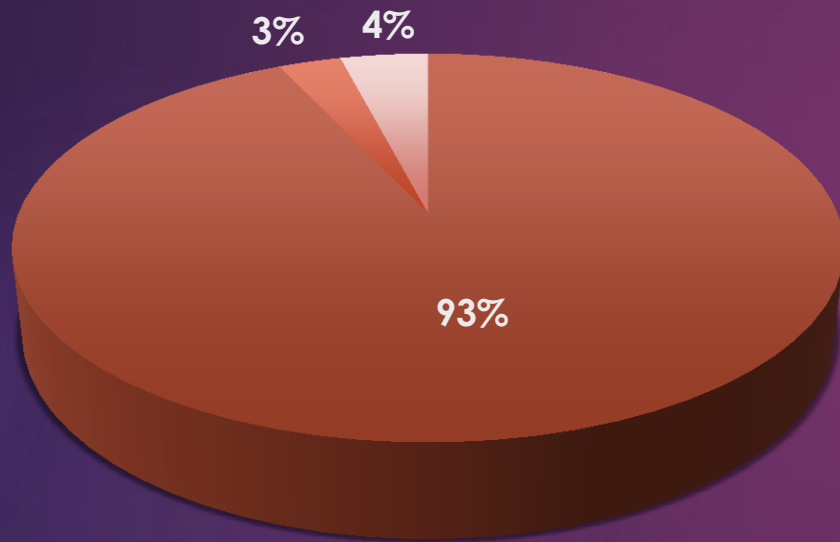


- ▶ Criteria evaluation for route choice



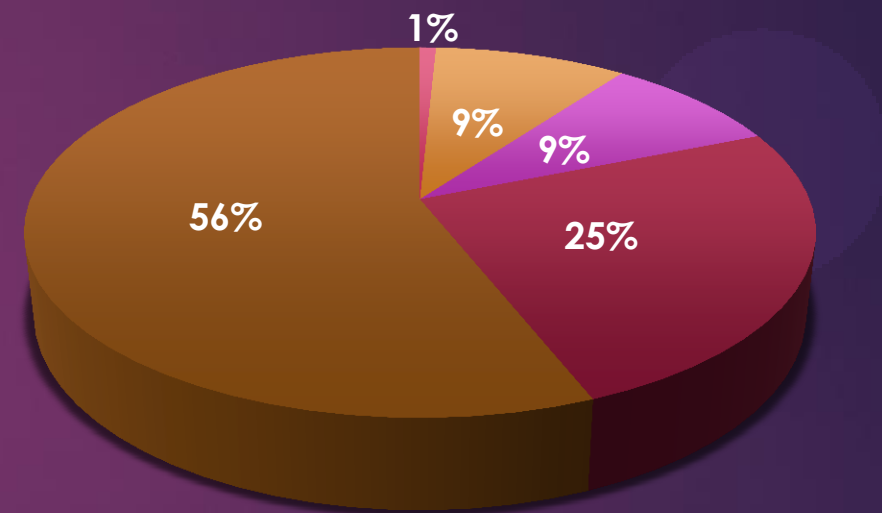
# Questionnaire survey

- ▶ Use of an alternative way offered by information system



■ Yes ■ No ■ I do not know

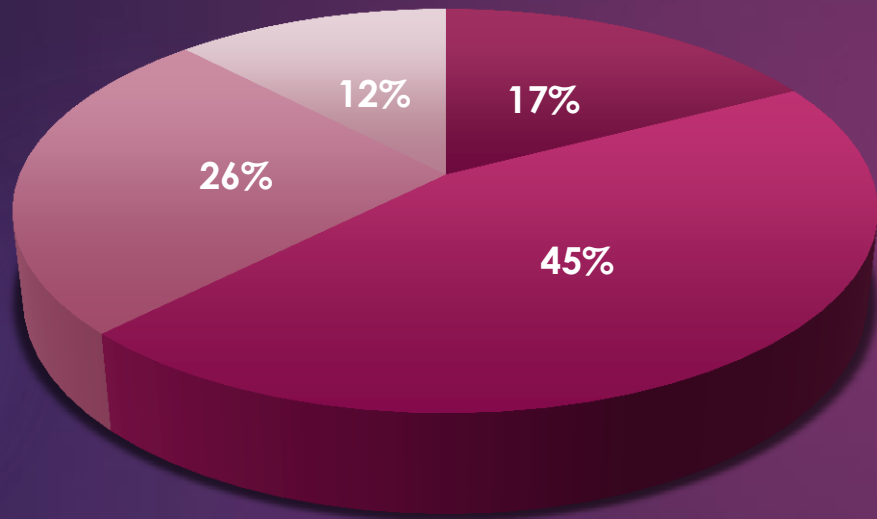
- ▶ Use of alternative route according to length of detour



■ to 0,5 km ■ 0,51-1 km ■ 1,1-1,5 km ■ 1,51-2 km ■ 2km and more

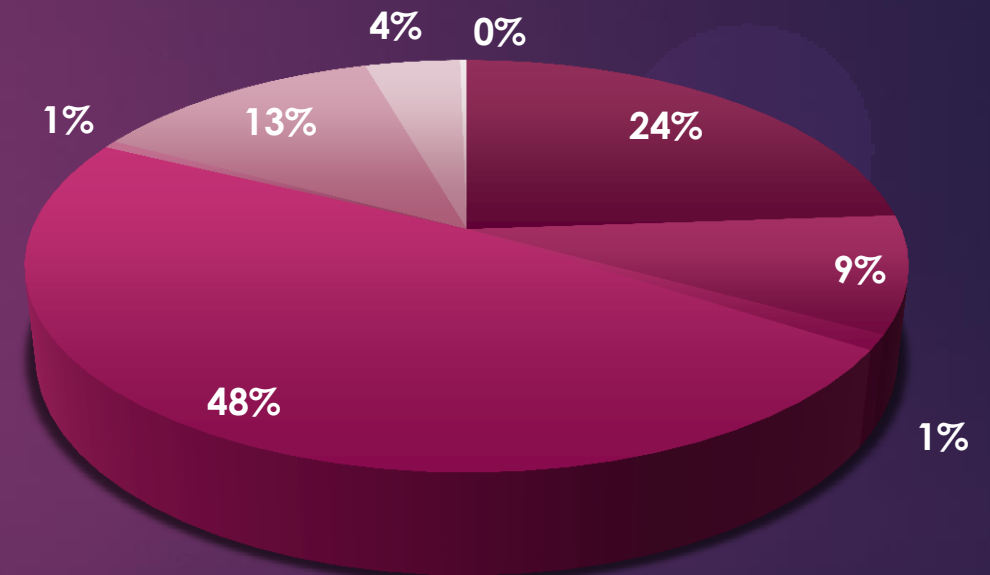
# Questionnaire survey

► Use of an alternative route according to travel time



■ to 5 min ■ 6-10 min ■ 11-15 min ■ 16 min and more

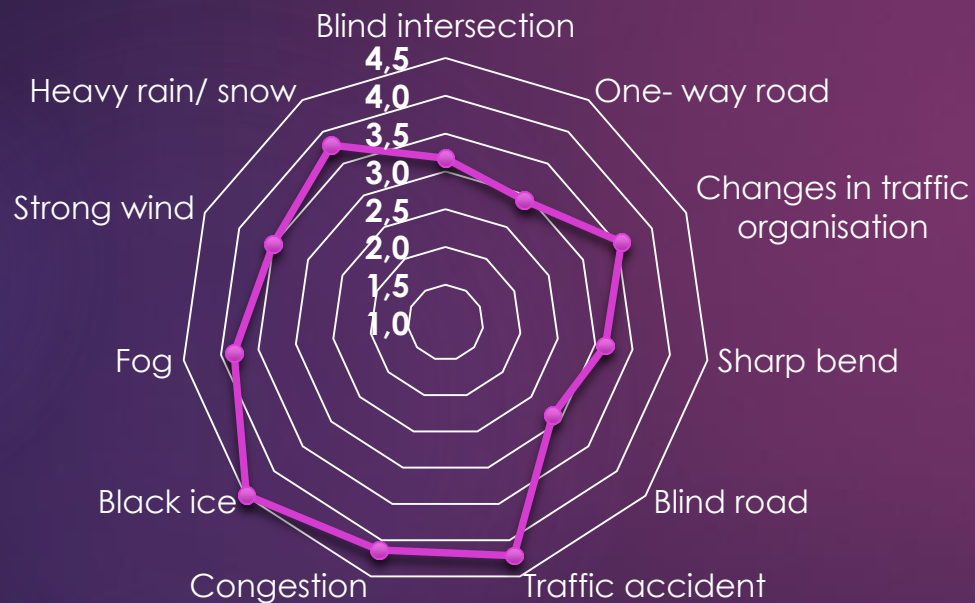
► Ways of obtaining traffic information



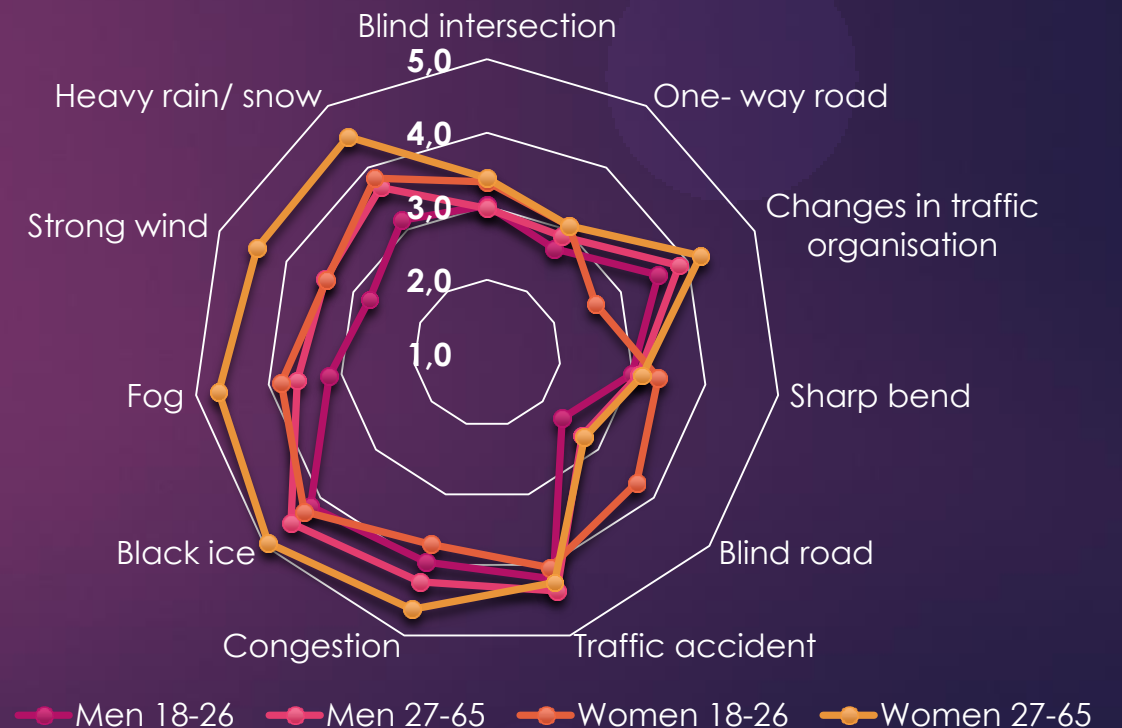
■ Internet ■ Radio- green wave ■ RDS-TMC ■ GPS ■ Facebook ■ Waze ■ VMS ■ No way

# Questionnaire survey

- ▶ The evaluation of warnings' importance of dangerous traffic situations



- ▶ The evaluation of warnings' importance of dangerous traffic situations according to gender and age of respondents



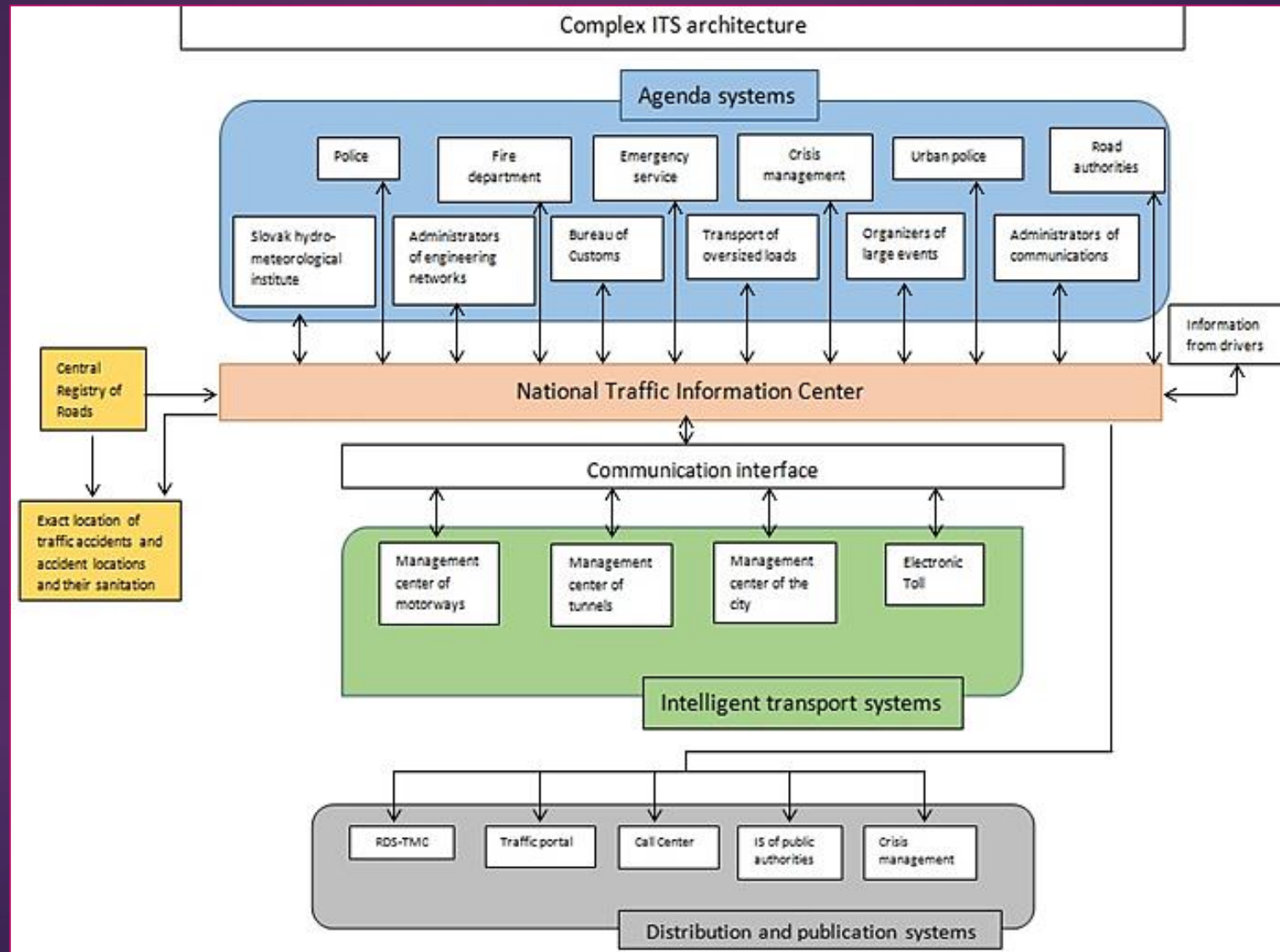
# Questionnaire survey

- ▶ The overall analysis of the questionnaire shows that drivers are open to the new possibilities provided by the use of ITS, especially to increase their own safety during travel.

# Development and implementation of ITS in the Slovak republic

- ▶ National Plan of the Slovak republic for road safety in the period 2011 -2020
- ▶ Program for a support to ITS and National Transport Information System (NTIS) development.
  - ▶ The goal is to integrate the maximum of data and information from telematics systems independently of specific owner or operator of ITS.
  - ▶ it is necessary to provide data from systems to the widest spectrum of organisations and institutions of public authorities in the form of sharing in NTIS
  - ▶ provide traffic information and traffic data to the public authorities and also other customers via data interfaces.

# Model design of ITS architecture for Slovakia



# Conclusions

- ▶ The main goal of Slovakia's transport policy is to decrease the number of traffic accidents and to increase road safety levels.
- ▶ The National Plan of the Slovak republic for road safety in period 2011 – 2020 should help to achieve this goal.
- ▶ The Plan also includes the application of Intelligent Transport Systems in road transport.
- ▶ The Slovak republic is still at the beginning in the field of ITS use, compared to other countries.



Thank you for your attention.



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