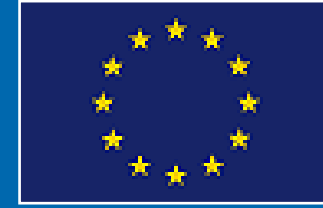




Republic of Slovenia  
Ministry of Infrastructure  
Infrastructure Directorate – Roads Division  
Langusova 4  
1000 Ljubljana



# Road Safety Management in the Republic of Slovenia

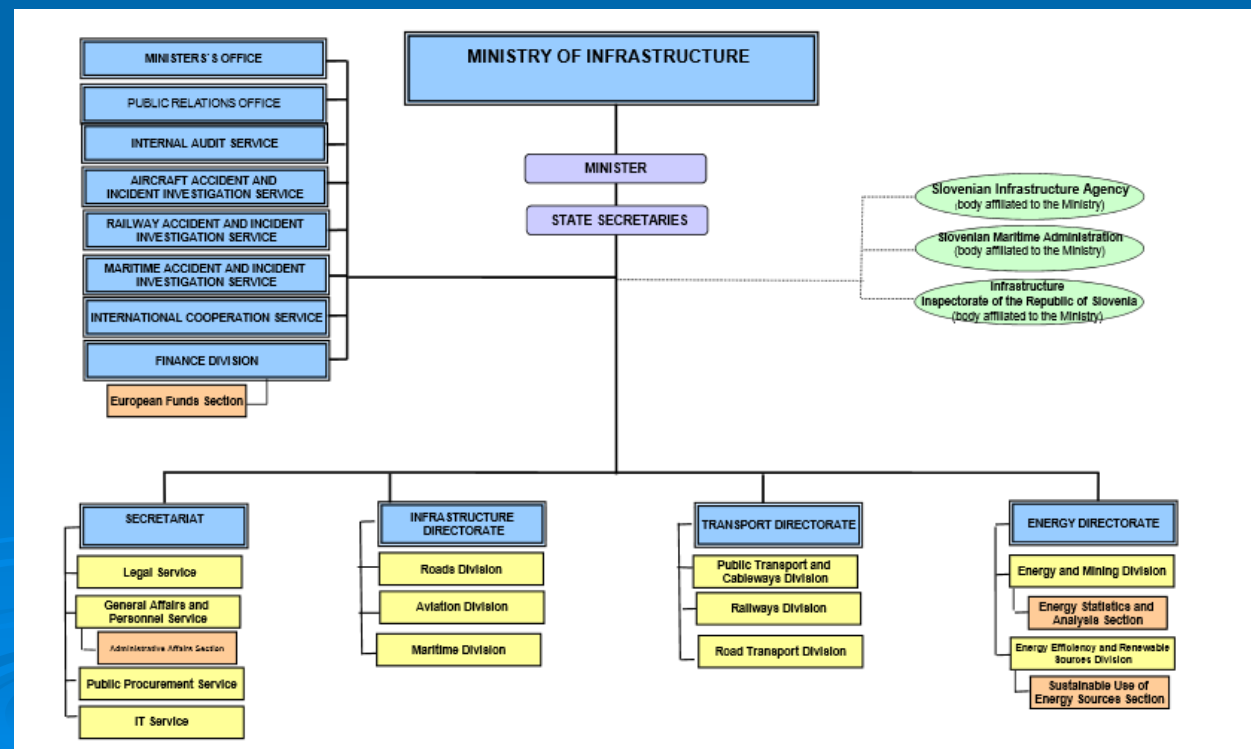


# General overview

## ➤ Responsible authorities:

- Ministry of Infrastructure
- DARS (Motorways operator)
- DRSI (Slovenian Infrastructure Agency)
- AVP (Slovenian Traffic Safety Agency)

National Road Safety Program 2013-2022



# About Traffic Safety

- Traffic safety is one of the fundamental qualities of the traffic system
- Every traffic participant or road user wants to have a system which fulfils his needs and expectations
- Safe road traffic is a responsibility of the state. Quality of life of all citizens depends on the level of the traffic safety
- Ensuring road infrastructure (what may and should realize planers, producers and performers, maintenance workers and suitable surveillance services)
- Road safety depends on collective efforts of all stakeholders



# National Road Safety Program 2013-2022

- National Road Safety Program is a strategic document which deals with important issues concerning the road safety in Slovenia for the period 2013-2022
- Provides a vision and goal, it determines the measures which need to be carried out in order to have an efficient road safety
- The primary goal is to reduce the worst consequences in road traffic accidents (fatalities and severely injured)  
„Zero vision“ is a positive and responsible answer of creators and participants of road traffic system who are, with their actions and management, obliged to prevent the worst consequences of traffic accidents and to ensure a safe long-term goal: zero fatalities and zero severely injured due to traffic accidents
- Also includes activities related to RSI / RSA

# Directive 2008/96/EC goals

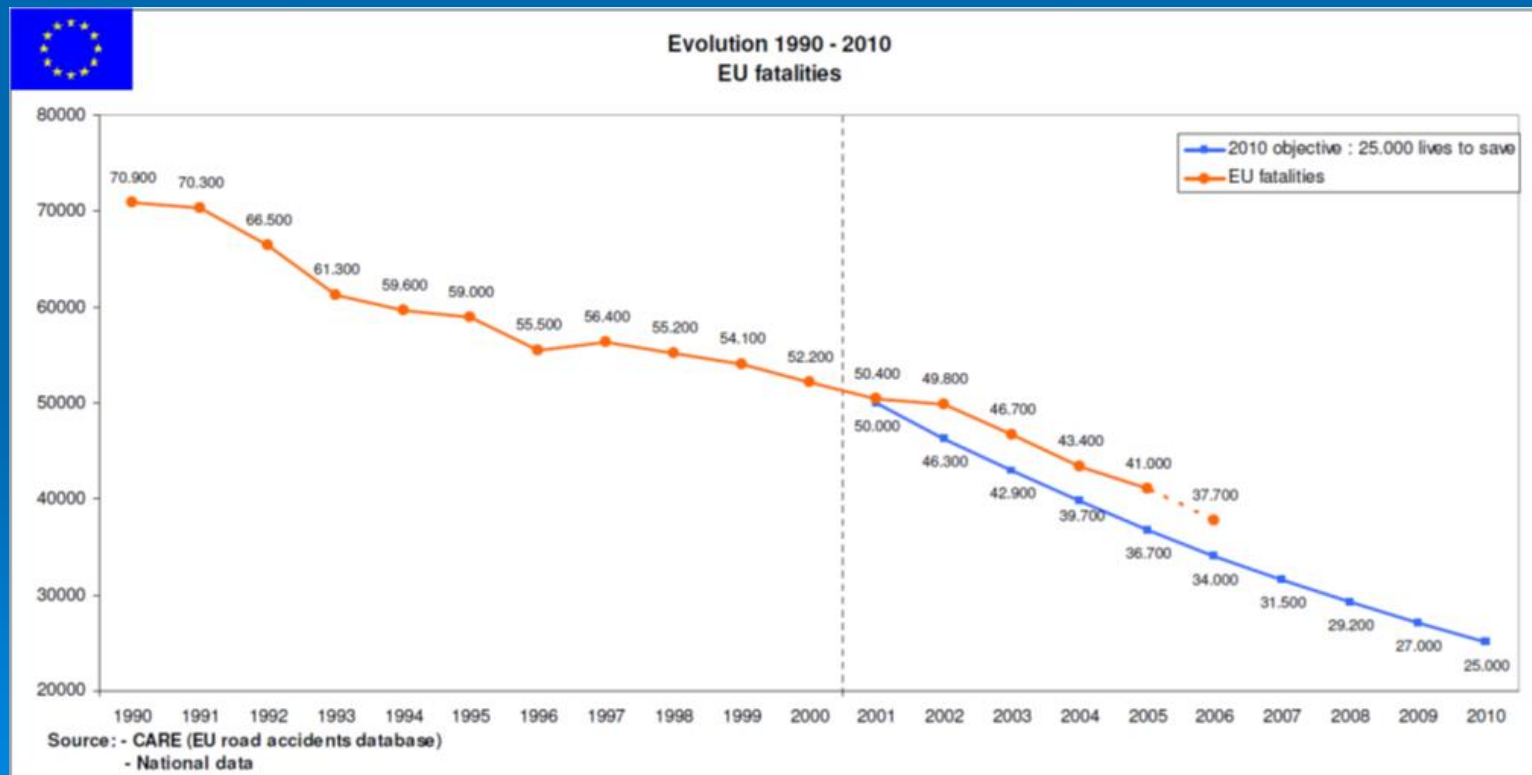
## ➤ Main goals:

- Common approach to improve road safety level in EU
- Include road safety aspect in all phases of infrastructure projects implementation
- Establishment and implementation of procedures relating to road safety impact assessments, road safety audits, the management of road network safety and safety inspections by the Member States



# EU traffic safety

- Reducing number of fatalities caused by traffic accidents
- Improving road infrastructure



# Directive 2008/96/EC

## Main areas:

- Road safety Impact Assessment - RSIA
- Road Safety Audit - RSA
- Safety Ranking and Network Safety Management - NSM
- Road Safety Inspection - RSI

# Road Safety Audit - RSA

## ➤ Road Safety Audit - RSA

- Independent, formal, standardised and technical control of project characteristics related to road safety
- For all infrastructure road projects (4 phases):
  - Conceptual project
  - Main project
  - Before implementing the project
  - Starting phase – after implementing the project
- Goal: Preventive safety audits in order to prevent the emergence of accidents and reducing the possible consequences



# Road Safety Audit - RSA

- An audit of safety in the design phase and construction (Road Safety Audit - RSA)
  - RSA performs the audit team of independent auditors that are not directly associated with the project
  - After the audit the audit team submitted report to the competent authority
  - The auditor is required to indicate the critical design elements in terms of safety
  - The competent authority defines the relevant remarks which should be realized in the deployment process

# Safety Ranking and Network Safety Management - NSM

- Safety Ranking and Network Safety Management - NSM
  - Parts of the road network with a large number of accidents have to be identified, analysed and classified
  - Classification can be based on the results of the Black-spots analysis
  - Based on the classification users are required to inform themselves about the existence of parts of the network with high concentrations of accidents
  - Implementation of measures to improve only possible if the user safety is guaranteed

# Safety Ranking and Network Safety Management - NSM

- Safety Ranking and Network Safety Management - NSM
  - For each traffic accident (fatal and greater material damage) must be made professional record
  - The social costs of accidents must be updated at least every 5 years
  - Based on the classification must be established economically effective measures
  - Objective: By applying corrective measures based on the classification of parts of the road network with a large number of accidents decrease the causes of accidents and reduce costs

# Implementation of Directive 2008/96/EC on road infrastructure safety management

- Directive 2008/96/EC on road infrastructure safety management implemented in Public Roads Act and other decrees and regulations
- Rules on checking the safety of road infrastructure and the training of road safety auditors
- Manual for road safety auditors

29.11.2008

EN

Official Journal of the European Union

L 319/59

## DIRECTIVES

DIRECTIVE 2008/96/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

of 19 November 2008

on road infrastructure safety management

# Implementation of Directive in Public Roads Act

- Slovenian Traffic Safety Agency gets big responsibility:
  - Organizing training courses for auditors
  - Contracts with professors / instructors with proper references
  - Selection of projects – Professional College of Auditors
  - Appointment of Auditors

Na podlagi drugega odstavka 88. člena, sedmega odstavka 89. člena in petega odstavka 92. člena Zakona o cestah (Uradni list RS, št. 109/10) izdaja minister, pristojen za promet,

**PRAVILNIK**  
**o preverjanju varnosti cestne infrastrukture**  
**in usposabljanju presojevalcev varnosti cest**

**I. SPLOŠNE DOLOČBE**

**1. člen**  
**(vsebina pravilnika)**

(1) Ta pravilnik določa in ureja:

- način presojanja varnosti cestne infrastrukture na javnih cestah, merila za razvrščanje cestnih odsekov glede na število nesreč, način, vsebino, potek in trajanje strokovnega usposabljanja presojevalcev in presojevalk varnosti cest (v nadaljnjem besedilu: presojevalec) in način preverjanja usposobljenosti presojevalcev za pridobitev statusa presojevalca.
- pogoje, na podlagi katerih Javna agencija Republike Slovenije za varnost prometa (v nadaljnjem besedilu: agencija) izvaja strokovna usposabljanja presojevalcev, način opravljanja preizkusa znanja, program usposabljanja in način obdobjnega izpopolnjevanja za ohranjanje statusa presojevalca, plačilo stroškov strokovnega usposabljanja in

- Rules on checking the safety of road infrastructure and the training of road safety auditors (access to the course, the process of education, checking each student of the course, the allocation of licenses and other things related to the education and their competence...)

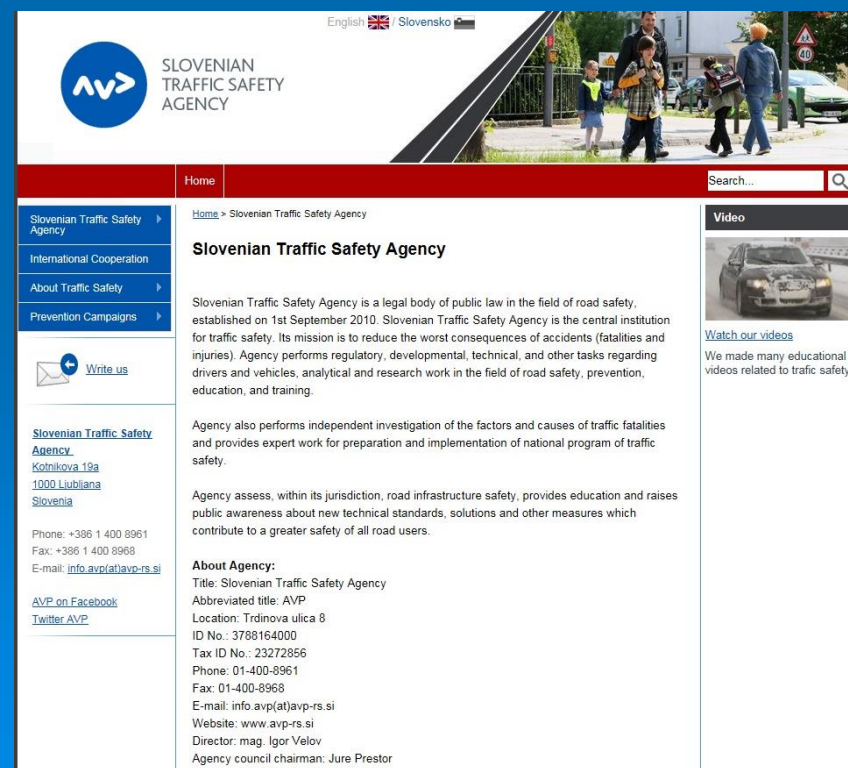






- Manual for road safety auditors
- Detailed instructions / specifications related to RSA/RSI

# Slovenian Traffic Safety Agency

- Slovenian Traffic Safety Agency is a legal body of public law in the field of road safety, established on September 2010. Slovenian Traffic Safety Agency is the central institution for traffic safety. Its mission is to reduce the worst consequences of accidents (fatalities and injuries). Agency performs regulatory, developmental, technical, and other tasks regarding drivers and vehicles, analytical and research work in the field of road safety, prevention, education and training
- Agency also performs independent investigation of the factors and causes of traffic fatalities and provides expert work for preparation and implementation of national program of traffic safety
- Agency assess, within its jurisdiction, road infrastructure safety, provides education and raises public awareness about new technical standards, solutions and other measures which contribute to a greater safety of all road users



The screenshot shows the official website of the Slovenian Traffic Safety Agency (AVP). The header features the agency's logo and name in both Slovenian and English, along with language selection options for English and Slovenian. A navigation menu on the left includes links for Home, International Cooperation, About Traffic Safety, and Prevention Campaigns. The main content area provides a detailed overview of the agency's mission, established on September 1st, 2010, and lists its core tasks: regulatory, developmental, technical, and research work. It also highlights the agency's role in independent investigations, expert work, and public awareness campaigns. A sidebar on the right features a video player with the title 'Watch our videos' and a search bar. Contact information, including phone, fax, and email addresses, as well as social media links for Facebook and Twitter, is provided at the bottom of the page.

English  Slovensko 

**AVP** SLOVENIAN TRAFFIC SAFETY AGENCY


Home

Slovenian Traffic Safety Agency

International Cooperation

About Traffic Safety

Prevention Campaigns

 [Write us](#)

[Slovenian Traffic Safety Agency](#)  
Kotnikova 19a  
1000 Ljubljana  
Slovenia

Phone: +386 1 400 8961  
Fax: +386 1 400 8968  
E-mail: [info.avp\(at\)avp-rs.si](mailto:info.avp(at)avp-rs.si)

[AVP on Facebook](#)  
[Twitter AVP](#)

Home > Slovenian Traffic Safety Agency

## Slovenian Traffic Safety Agency


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Agency assess, within its jurisdiction, road infrastructure safety, provides education and raises public awareness about new technical standards, solutions and other measures which contribute to a greater safety of all road users.

**About Agency:**  
Title: Slovenian Traffic Safety Agency  
Abbreviated title: AVP  
Location: Trdinova ulica 8  
ID No.: 3768164000  
Tax ID No.: 23272856  
Phone: 01-400-8961  
Fax: 01-400-8968  
E-mail: [info.avp\(at\)avp-rs.si](mailto:info.avp(at)avp-rs.si)  
Website: [www.avp-rs.si](http://www.avp-rs.si)  
Director: mag. Igor Velov  
Agency council chairman: Jure Prestor

**Video**



[Watch our videos](#)

We made many educational videos related to traffic safety.



# Chronology

## 2008:

- Faculty of Civil Engineering (University of Maribor) prepared a preliminary study which lists all the steps needed to be done before the implementation of the directive in Slovenia (legislation, education and reorganization of relevant authorities in Slovenia)

## 2009:

- Monitoring and checking the activities of other member states to make the proper concept of implementing the directive in Slovenia

## 2010:

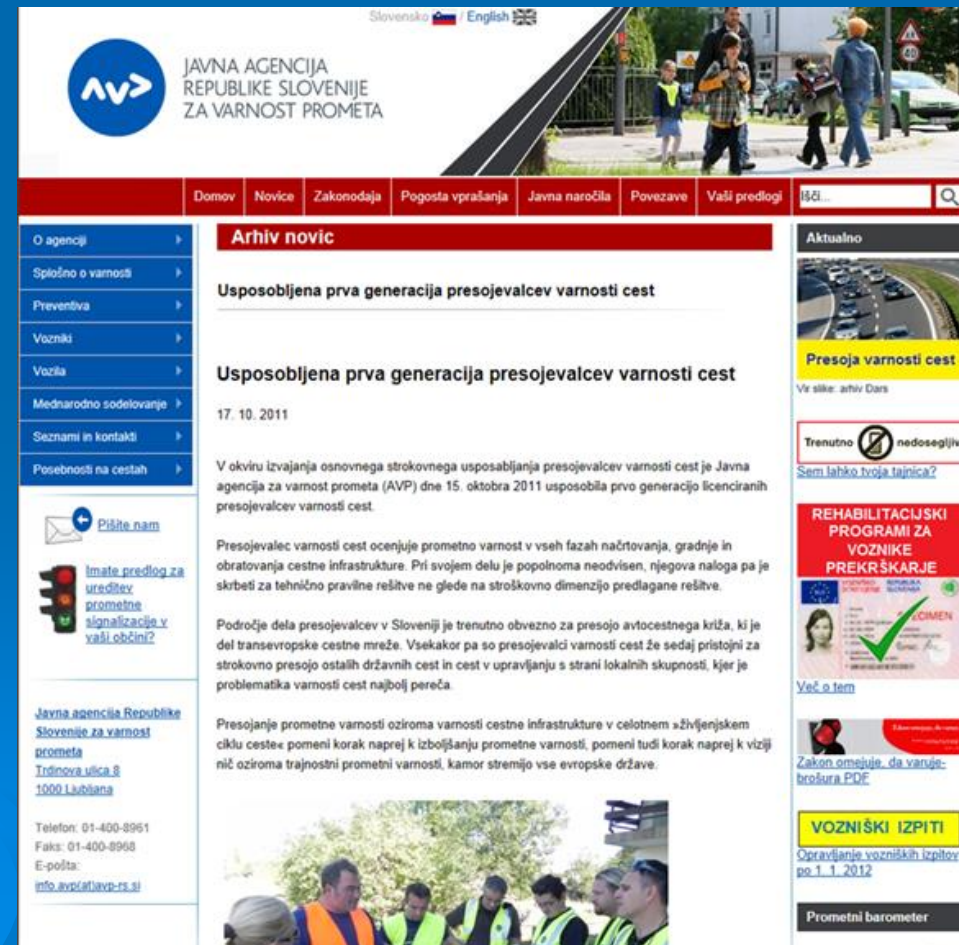
- Directive implemented in Public Roads Act

## 2011:

- Designing of programs for education, developing guidelines and Regulations on checking the safety of road infrastructure and traffic safety, preparation of materials for the education

# Guidelines, 1<sup>st</sup> education

- Guidelines on checking the safety of road infrastructure and the training of road safety auditors
- 1<sup>st</sup> education in September 2011



Slovensko English

**AVP** JAVNA AGENCIJA REPUBLIKE SLOVENIJE ZA VARNOST PROMETA

Domov Novice Zakonodaja Pogosta vprašanja Javna naročila Povezave Vaši predlogi Išči...

O agenciji  
Splošno o varnosti  
Preventiva  
Vozniki  
Vozila  
Mednarodno sodelovanje  
Seznami in kontakti  
Posebnosti na cestah

**Arhiv novic**

**Usposobljena prva generacija presojevalcev varnosti cest**

**Usposobljena prva generacija presojevalcev varnosti cest**

17. 10. 2011

V okviru izvajanja osnovnega strokovnega usposabljanja presojevalcev varnosti cest je Javna agencija za varnost prometa (AVP) dne 15. oktobra 2011 usposobila prvo generacijo licenciranih presojevalcev varnosti cest.

Presojevalec varnosti cest ocenjuje prometno varnost v vseh fazah načrtovanja, gradnje in obratovanja cestne infrastrukture. Pri svojem delu je popolnoma neodvisen, njegova naloga pa je skrbeti za tehnično pravilne rešitve ne glede na stroškovno dimenzijo predlagane rešitve.

Področje dela presojevalcev v Sloveniji je trenutno obvezno za presojo avtocestnega križa, ki je del transevropske cestne mreže. Vsekakor pa so presojevalci varnosti cest že sedaj pristojni za strokovno presojo ostalih državnih cest in cest v upravljanju s strani lokalnih skupnosti, kjer je problematika varnosti cest najbolj pereča.

Presojanje prometne varnosti oziroma varnosti cestne infrastrukture v celotnem »življenjskem ciklu ceste« pomeni korak naprej k izboljšanju prometne varnosti, pomeni tudi korak naprej k viziji nič oziroma trajnostni prometni varnosti, kamor stremijo vse evropske države.

**Aktualno**

**Presoja varnosti cest**

Vr slike: arhiv Dars

Trenutno nedosegljivo. Sam lahko tvoja tajnica?

**REHABILITACIJSKI PROGRAMI ZA VOZNIKE PREKRŠKARJE**

Vač o tem

**VOZNIŠKI IZPITI**

Opravljanje voznških izpitov po 1. 1. 2012

Prometni barometer

Javna agencija Republike Slovenije za varnost prometa  
Trdinova ulica 8  
1000 Ljubljana

Telefon: 01-400-8961  
Faks: 01-400-8968  
E-pošta: info.avp@javp-rs.si

# RSA auditors conditions

- At least a university degree program in the field of road infrastructure, traffic engineering and traffic safety
- At least 10 years of experiences in the designing of roads, auditing or reviewing of road projects or making traffic/safety analysis or analysis of traffic accidents
- RSA / RSI exam

# Training course

- 7 days, 36 hours
- 7 different modules
- Ongoing examination
- Final exam
- RSA / RSI
- Refreshment training course every 3 years (foreign experts are invited to exchange experiences and best practises)

# Modules

1. Introductory module
2. Human factors and sustainable development of transport safe road design
3. Judgment effect on road safety
4. Road safety audit (RSA)
5. Road safety audit (RSA) - practical examples
6. Road safety inspection (RSI)
7. RSI + RSA (stage 3 and 4) - practical examples

# 1<sup>st</sup> Slovenian RSI/RSA cases

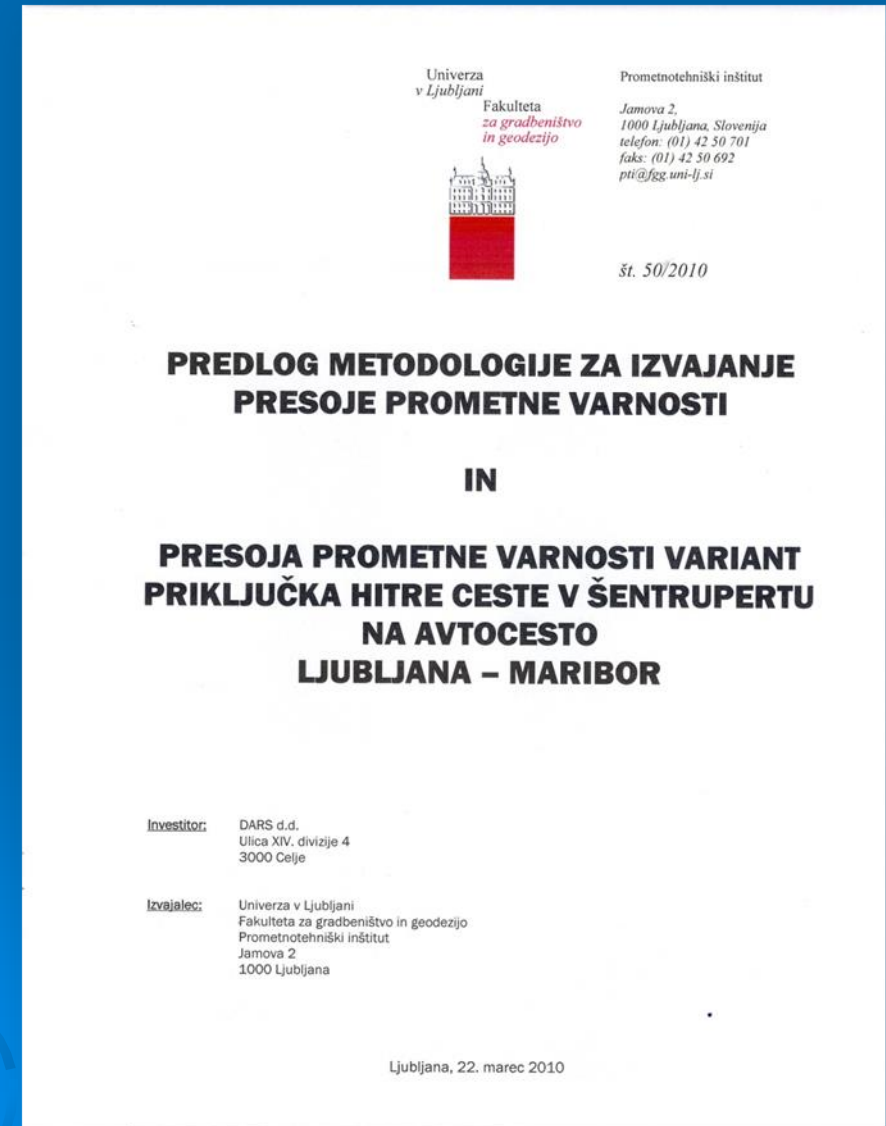
- In parallel with the implementation of the directive, in Slovenia performed the first pilot projects in the field of impact assessment on road safety (RSIA, RSA and RSI)
- Guidelines are therefore written according to the first findings derived from the pilot project
- Consistency between „what we stipulate that it must be" and „what's even possible to do“ (checking adequacy in real terms)

# 1<sup>st</sup> Slovenian RSI/RSA cases

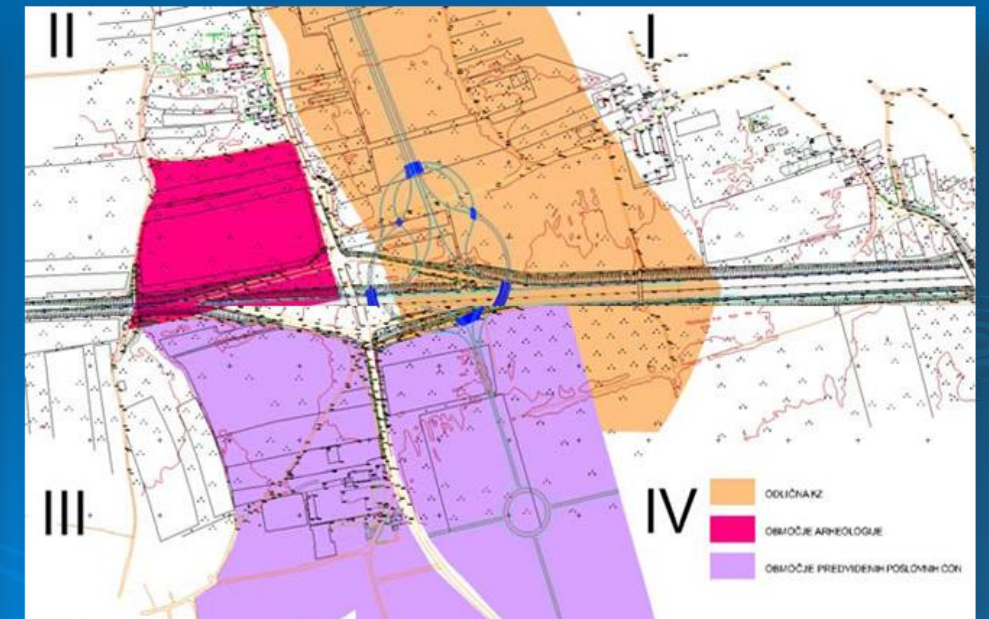
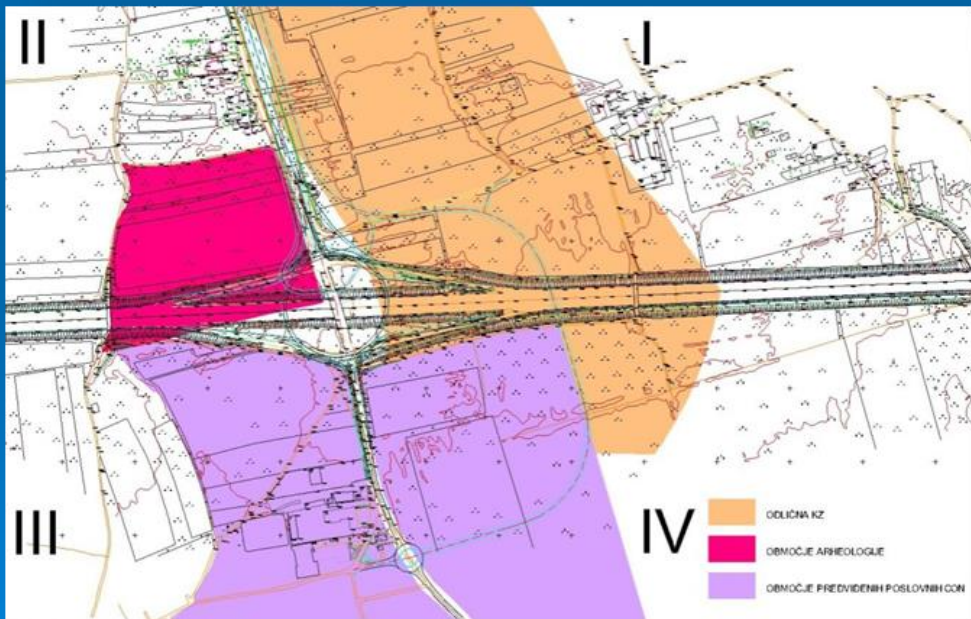
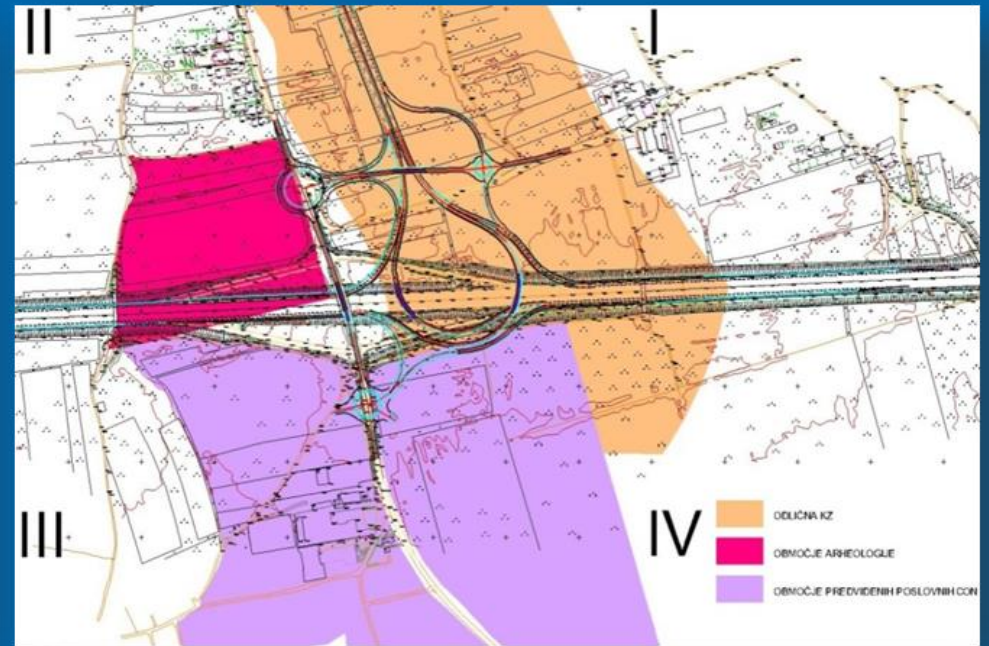
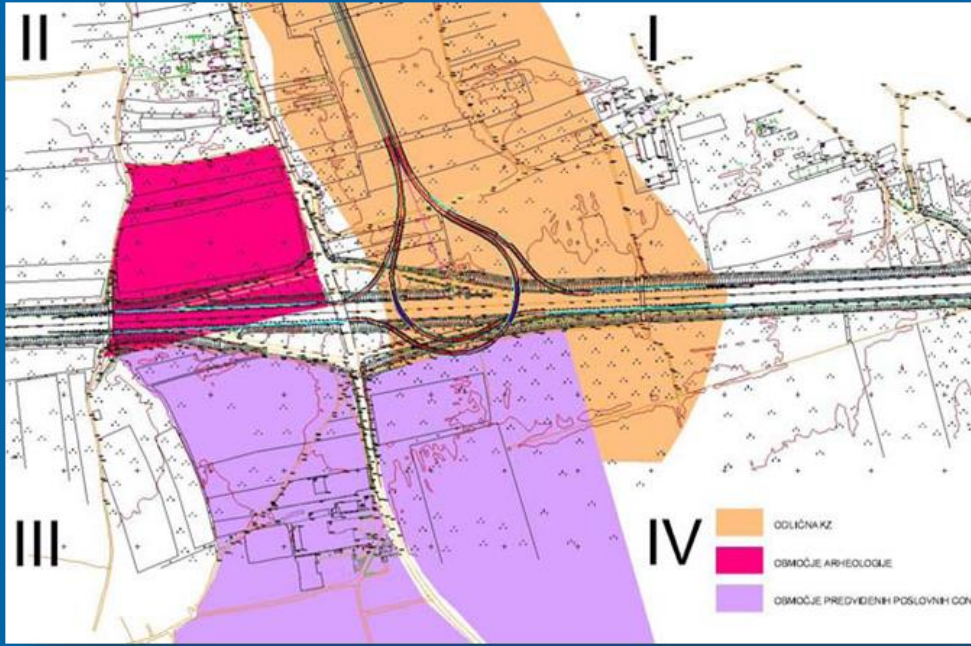
- Evaluation of the impact of safety infrastructure project:
  - is carried out for all infrastructure road projects during preparing feasibility study
  - contains the information necessary for a cost-benefit analysis of various alternatives
- Goal: strategic assessment of the effects of different alternatives to the safety of infrastructure network

# RSIA – 1<sup>st</sup> case

- Conceptual design of variants: connection of expressway Šentrupert - Velenje on the highway Maribor - Ljubljana and Šentrupert
- Prepared 14 variants of connections
- Traffic study also was made
- 4 variants were selected for further processing





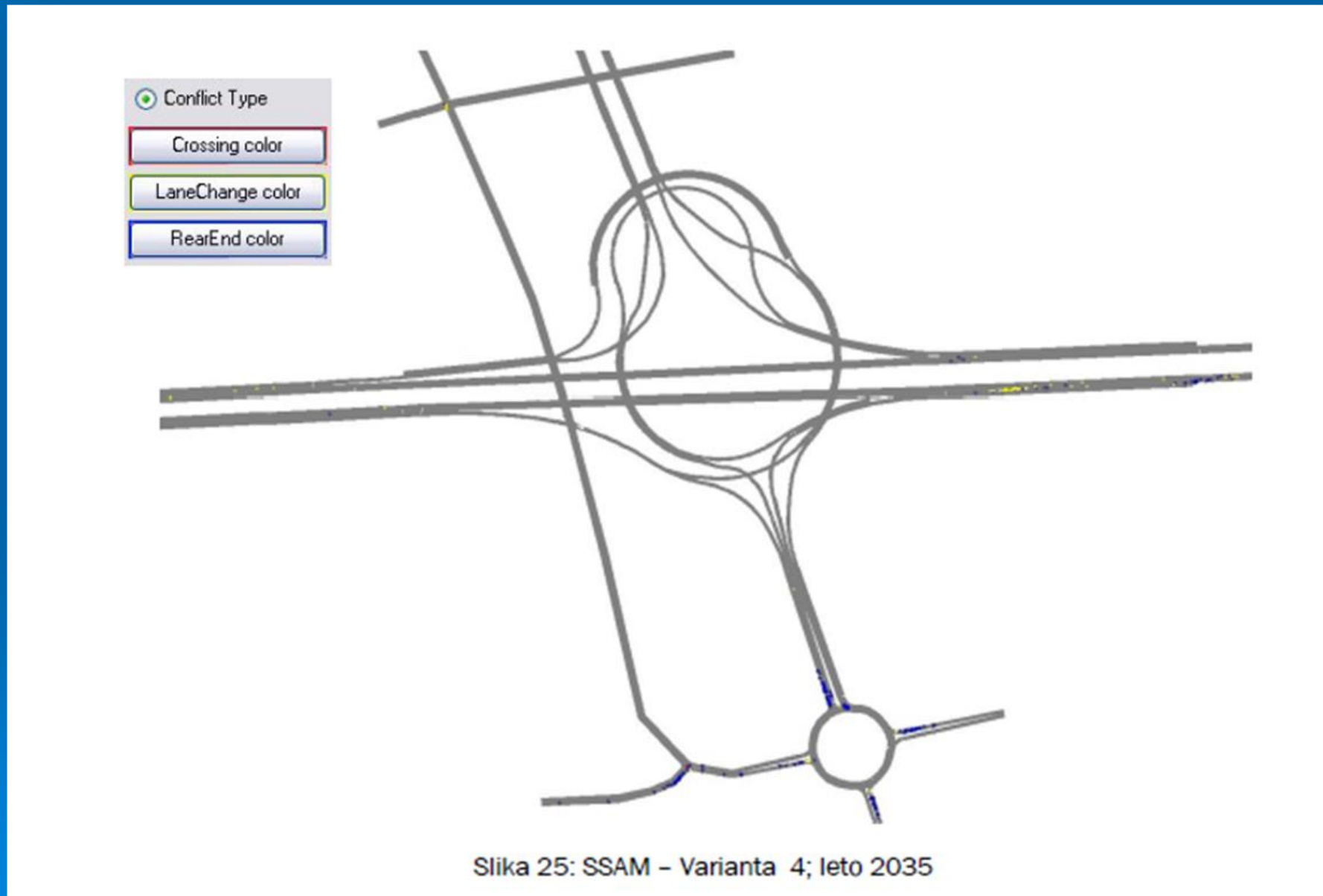




- Macroscopic and microscopic modelling was made (2015 and 2035)
- PTV VISUM and VISSIM software tools were used
- More criterias were used to compare different variants



- Analysis of possible conflict situations were made
- SSAM software program was used

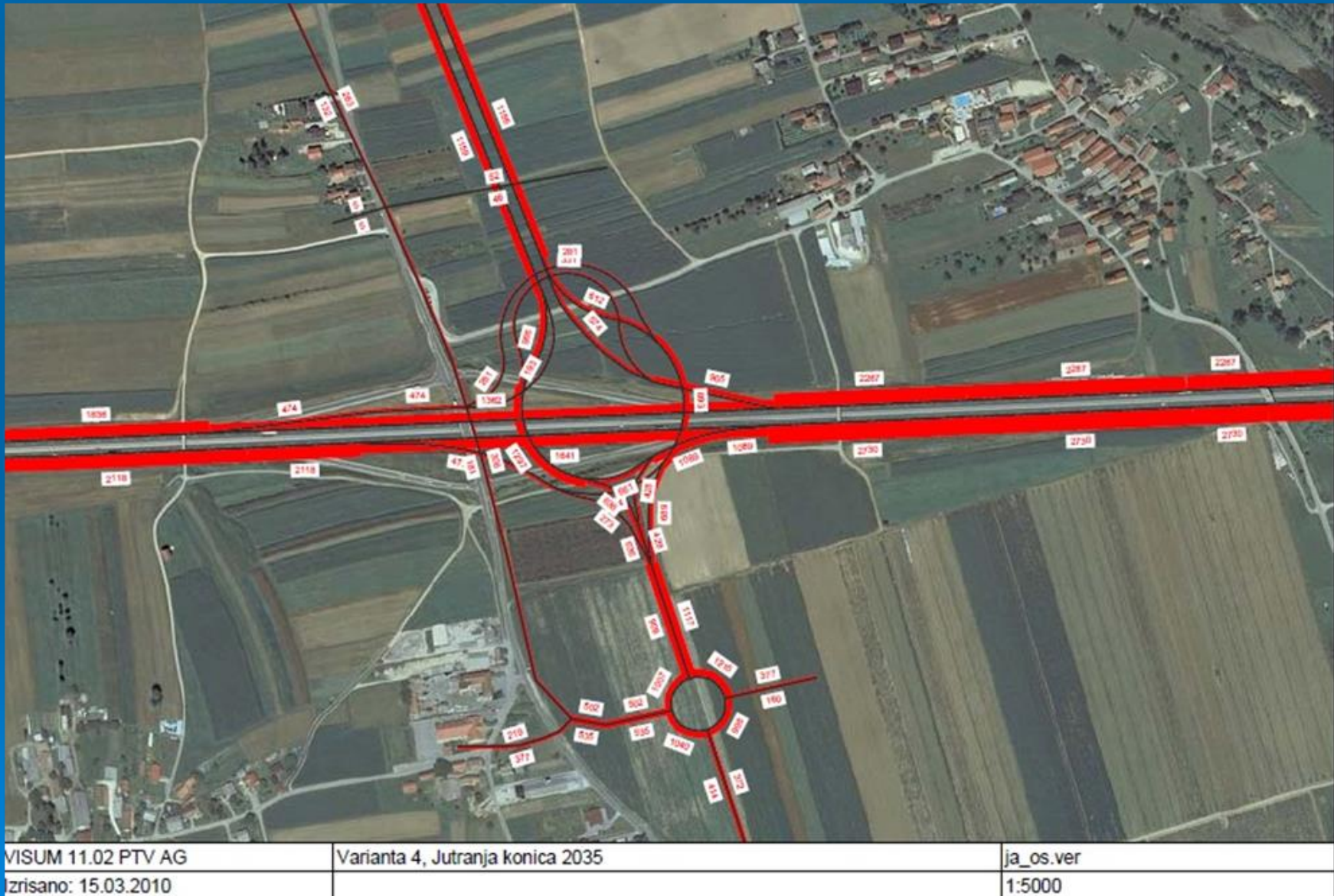


# Surrogate Safety Assessment Model (SSAM)

- Software which is used to perform surrogate safety analysis of a traffic facility, such as a signalized intersections
- Processing vehicle trajectory data from a given microscopic traffic simulation to identify the frequency of conflicts - where two vehicles are on a collision course and one vehicle must make an evasive manoeuvre to avoid a collision
- This technique may be of use to researchers, transport engineers, construction and design companies and safety engineers



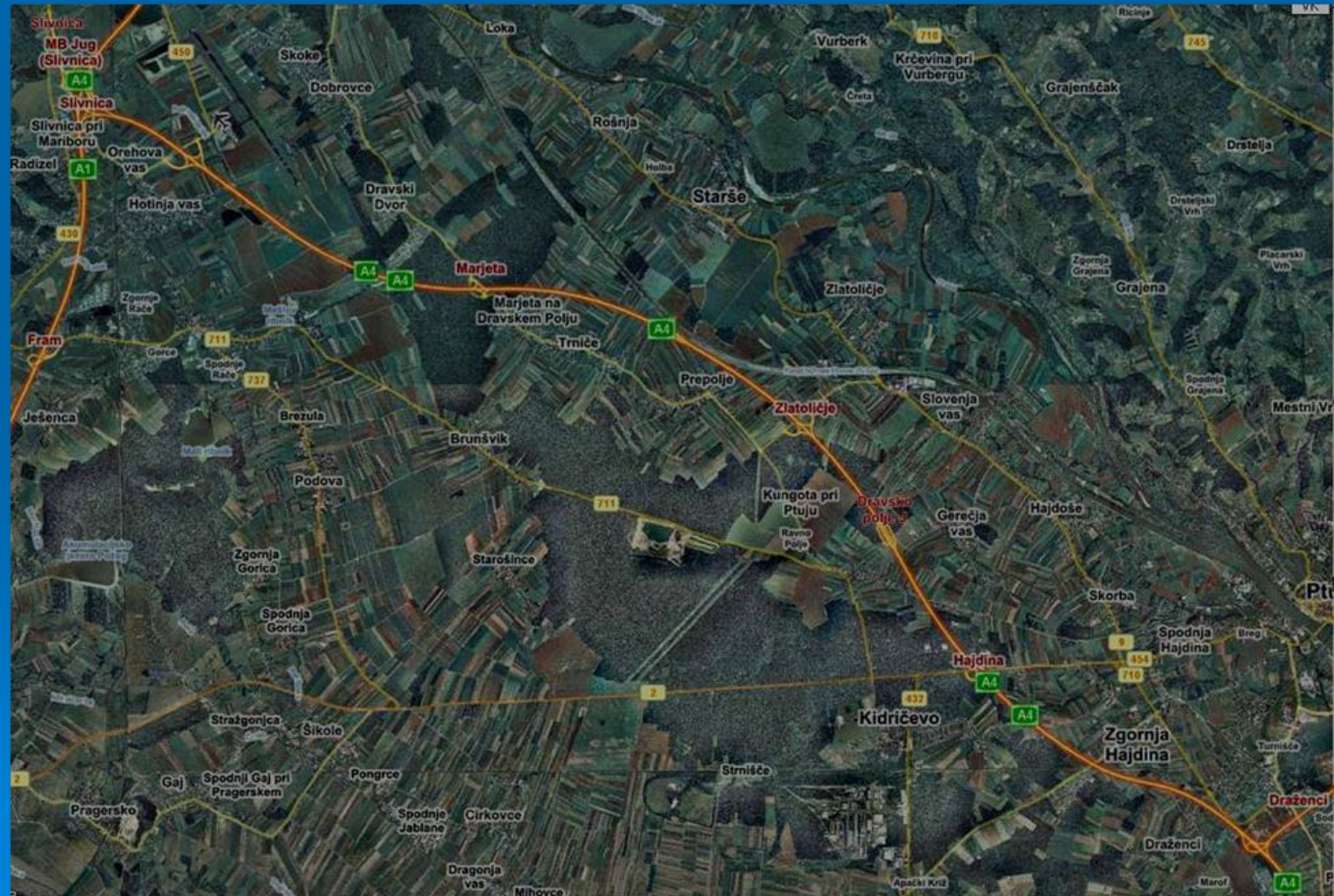
- Economic evaluation was followed (cost of investment, maintenance costs, user costs, the cost of time spent, the cost of fuel, the cost of exhaust emissions, costs of road accidents ...)
- One variant was selected - it goes into the construction



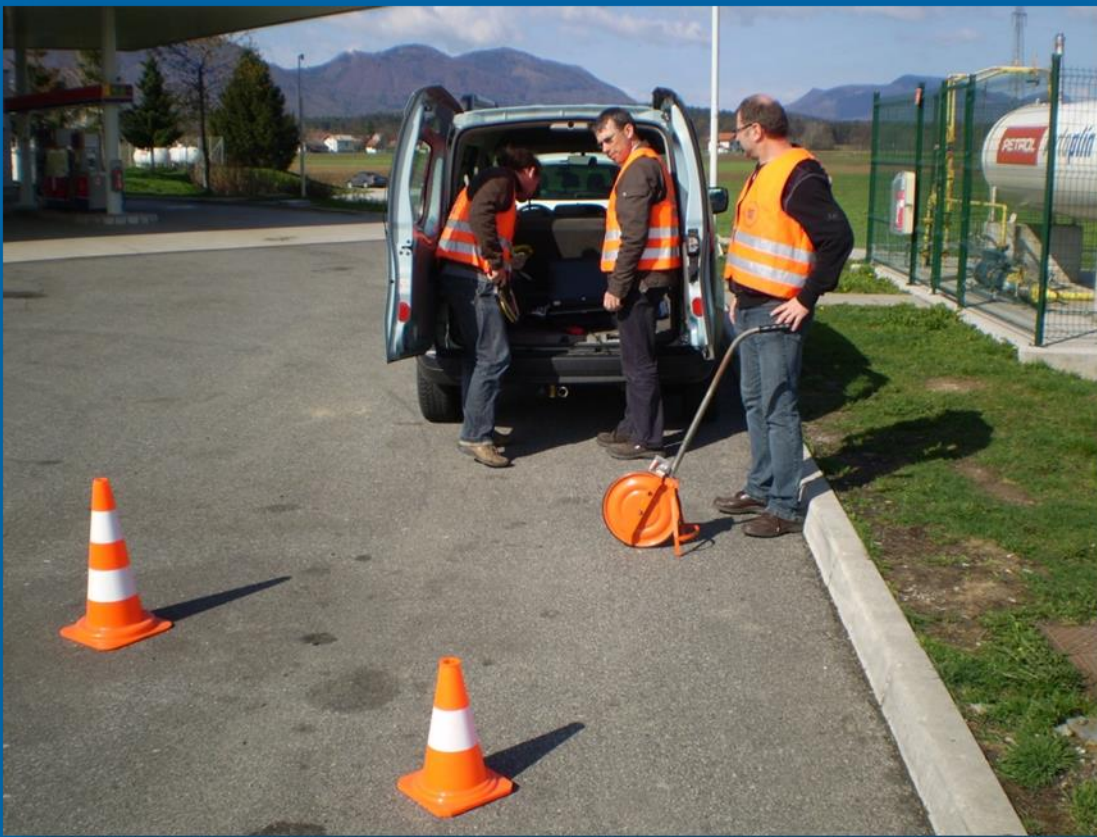


# 1st case of RSI

- Motorway section Maribor-Ptuj (19,8 km, construction period 2007 – 2009)
- 4 motorways connections
- 1 tolling station
- 1 rest area
- 4 bridges
- 16 overpasses
- 8 underpasses
- 1 viaduct
- 2 viaducts over railway track








- Phase 1 – preparatory works
- Phase 2 – terrain survey
- Phase 3 – check list completion
- Phase 4 – preparing report
- Phase 5 – conclusion facts








OBRAVNAVA KONKRETNEGA PRIMERA RSI

<b>6.Lokacija</b>	Avtocesta št.: A4      Odsek: 0092 Stacionaža: 0,0 km
<b>Vzrok</b>	<i>Ugotovljena pomanjkljivost</i>
<b>Uvoz Hajdina</b>	Voznik, ki vozi po avtocesti ne vidi vozila, ki prihajajo na uvoz Hajdina, saj je ta speljan v vkopu (enak primer, kot uvoz Marjeta). Takoj za gozdičkom je problem bočnega vetra.
	
Lokacija A4-0092-0,0 km	

<b>7.Lokacija</b>	Avtocesta št.: A4      Odsek: 0092 Stacionaža: 2,0 km
<b>Vzrok</b>	<i>Ugotovljena pomanjkljivost</i>
<b>Odvodnjavanje</b>	Na viaduktu Hajdina se ob večjem dežju, predvsem pa ob taljenju snega, voda steka na vozišče. Odvodnjavanje ni izvedeno tako, da voda ne bi odtekala na vozna pasova.
	
Slika Error! No text of specified style in document..1: Lokacija A4-0092-2,0 km	



- DARS has to repeat RSI activities in accordance with the provision of ZCes every 5 years
- Auditors have to review approximately 120 km of motorways and express roads annually

# Plans for the future

- According to the Directive 2008/96/EC only TEN-T road network is included at the moment
- Intention to include also other national roads (DRSI network – cca 6.000 km) where positive effects on traffic safety would be more efficient
- Economic reasons...



# Thank you for your attention!

More information at:  
[simon.novak@gov.si](mailto:simon.novak@gov.si)

