Canadian Association of Road Safety Professionals (CARSP)/La Prévention Routière Internationale (PRI) 2021 Joint Virtual Conference

Traffic Safety Screening (TSS) and EDDA+ - From Vision to Vision Zero

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BACKGROUND

- Road Safety is still a major issue
- Aim of Vision Zero in the EU is to halve the number of road accidents by 2050
- Most safety management systems are reactive and rely on collision data
- Data for analyzing collision is in most cases available, but sometimes difficult to find
- Within the project “Traffic Safety Screening (TSS)” different data sets were combined to make life a bit easier for the Road Safety Committee in Baden-Wuerttemberg
- Within the Project “Early Detection of Dangerous Areas in Road Traffic using Smart Data (EDDA+)” a proactive approach is developed
- This approach take into account road user reports as well as kinematic data
- The TSS has already won several competitions and is well established, EDDA+ shows a great potential.

DISCUSSION/CONCLUSIONS

- TSS:
  - Modular system available
  - possibility to integrate and visualize different data
  - Further extensions are possible
  - Further additions and improvements are planned.
- EDDA+:
  - Running project with a very promising outcome
  - Increase of road safety before collisions happen
  - Already looking for partners in Europe

TRAFFIC SAFETY SCREENING TSS

- Development started in 2007 in Baden-Wuerttemberg, continuous development
- Nearly 1.000 registered users
- Background and aim:
  - New counting method, new data sets (speed)
  - Combing all data necessary for collision analysis
- Databases:
  - Traffic volumes and speeds
  - Collison data
  - Road Geometry
  - Road Condition Data
  - Road section photos
- Numerous modules for analysis (see Fig 1)
- Use cases:
  - Overlaying collision and road condition data
  - Planning of speed control measures
  - Data use within research projects an master thesis

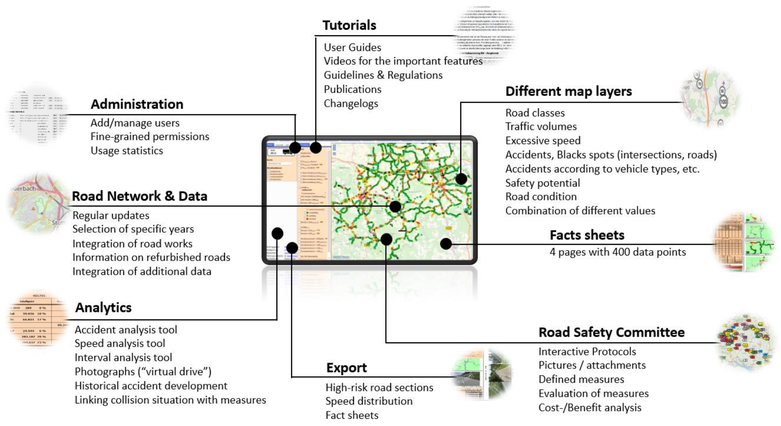

Fig 1: Overview of the different modules

EARLY DETECTION OF DANGEROUS AREAS EDDA+

- Project funded by the German Department of Transportation (BMVI)
- Project partners
  - Initiative für Sichere Strassen (Consortium leader)
  - PTV Group, Institut für Straßenwesen, RWTH Aachen, Deutsche Hochschule der Polizei
- Project duration: 07/2019-09/2022
- Background and aim:
  - Successful feasibility study (Bonn / Aachen)
  - 3.500 hazard alerts for 1.500 different danger spots within 6 months
- Road users report danger spots (see Fig2)
  - Road damages
  - Obstructed views/sightlines
  - Confusing traffic flows
  - Collisions which are not reported to the police
- Use cases:
  - Suspend distracting (smartphone-) notifications in dangerous areas with higher risk levels
  - Investigating safer routes for e.g. cyclists, pedestrians / safest way to school

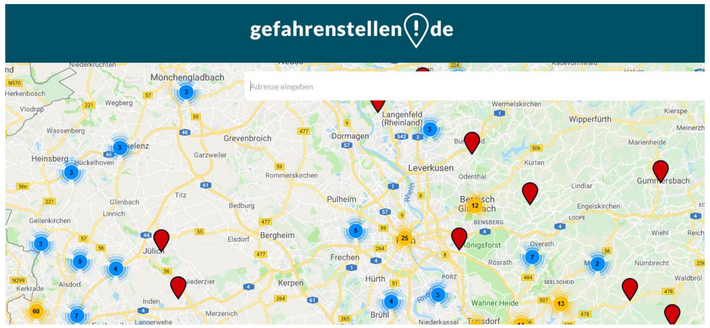

Fig 2: Map of high risk locations

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