Focus: Benefit of timely and effective advisory warnings

- Emerging potential conflict can be predicted cooperatively
- Conflict can be reliably predicted cooperatively
- Conflict can be perceived by onboard sensors/driver

**Effect cooperative perception:** Information about conflict "advisory warnings"
- **Goal:** Attention direction, Preparation for possible reaction
- Timely information without annoyance and lowering of acceptance

**Effect cooperative perception:** Optimisation of warning "imminent crash warning"
- **Goal:** Immediate reaction (braking, steering)
- Optimal time frame for warning

**Warning signal:** to late for collision avoidance

Time to impact

Overview: Conducted experimental studies

### Determination of the drivers' need for assistance and impact of visual obstructions
- Unassisted 'normal behavior' in impending conflict situations

### Experimental studies on the design of the human machine interface
- **Study I:** Effectiveness of prototypical driving assistance
- **Study II:** Minimal time frame for effective advisory warnings
- **Study III:** Specificity of effective advisory warnings
- **Study IV:** Modality of effective advisory warnings

### Experimental studies on system limits
- **Study V:** Behavioral effects of false/unnecessary advisory warnings
- **Study VI:** Behavioral effects of false direction indications
- **Study X1:** Benefit of augmented reality warnings
- **Study X2:** Components of augmented reality warnings

### Study X3: Interaction Effects of HMI design and unnecessary/false warnings

### Study X4: Effects of Specificity and Display Area in realistic system familiarization