MAVEN

Managing Automated Vehicles Enhances Network

The 3-year EU-funded MAVEN project aims to develop solutions for managing level-4 HAVs at (urban) signalized intersections. It will develop algorithms for infrastructure-initiated guidance of HAVs using negotiation protocols between vehicles and the infrastructure. Iteratively, HAVs receive advice and/or commands from the road infrastructure to adjust their trajectory and maneuvering policies, while the infrastructure dynamically adapts the traffic light timing of single or multiple signalized intersections based on the anticipated vehicle arrival pattern. The MAVEN project will build a system prototype that will be used both for field tests and modelling.

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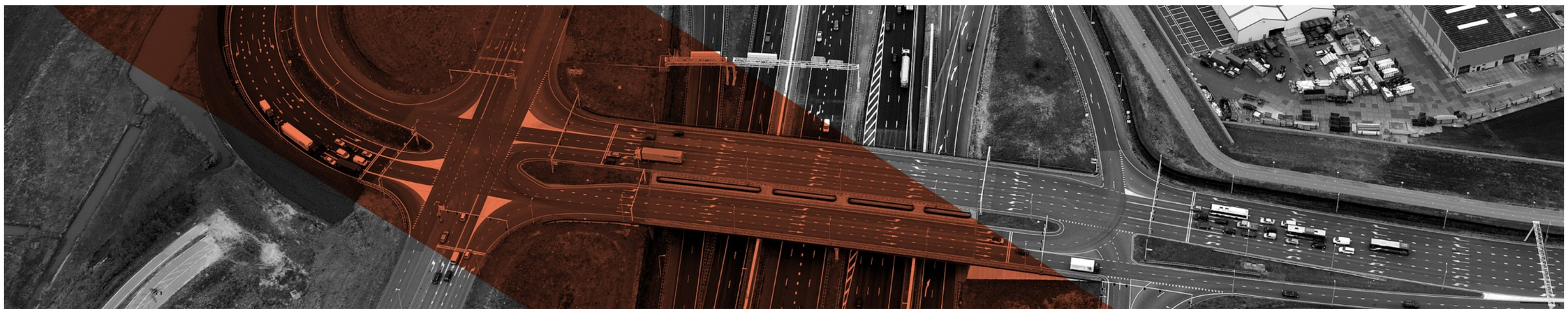
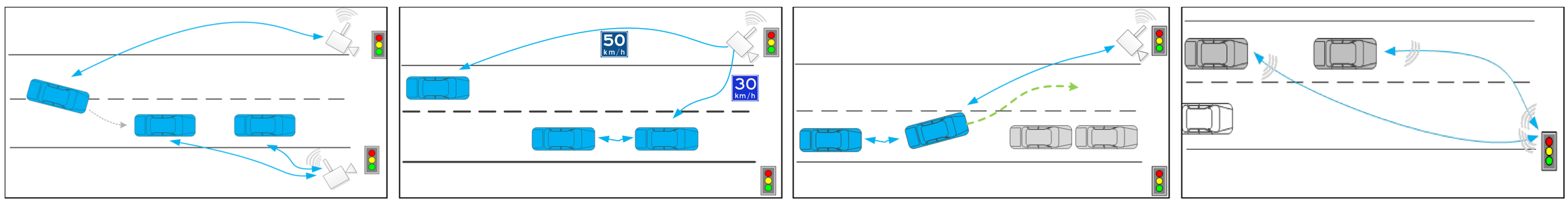
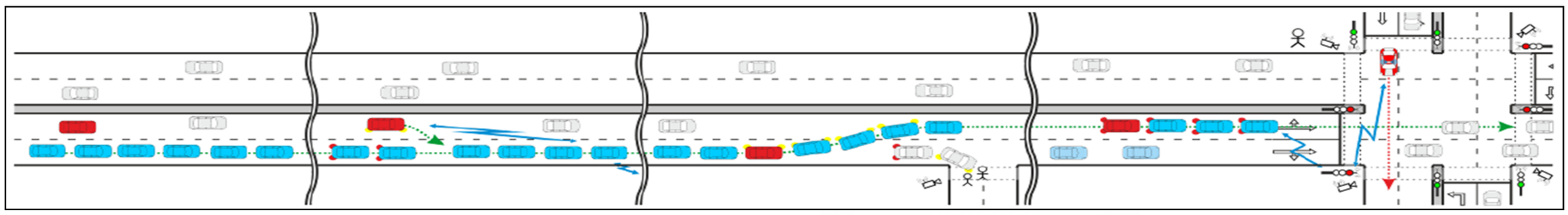


INFRA-ASSISTED AND INFRA-INITIATED USE CASES

- I2V interactions
  - Negotiation (signal timing vs. vehicle arrival pattern)
  - Speed change advisory
  - Lane change advisory
- Platoon management
  - Forming a platoon
  - Joining a platoon
  - Platoon progression
  - Leaving a platoon
  - Breaking a platoon
- Traffic control optimization
  - Signal optimization
  - Priority management
  - Queue estimation
  - Green wave
- Conventional traffic and VRUs
  - Detection of non-cooperative vehicles
  - Vulnerable road users
  - Emergency situations





PROJECT CONSORTIUM

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