MAVEN (Managing Automated Vehicles Enhances Network)

Another dimension of automated driving

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SCSP 2017, Prague

MAVEN is funded by the EC Horizon 2020 Research and Innovation Framework Programme, under Grant Agreement No. 690727

Automated driving

- **San Diego ‘98**
- Google
- Tesla
- CityMobil
- Truck Platoon

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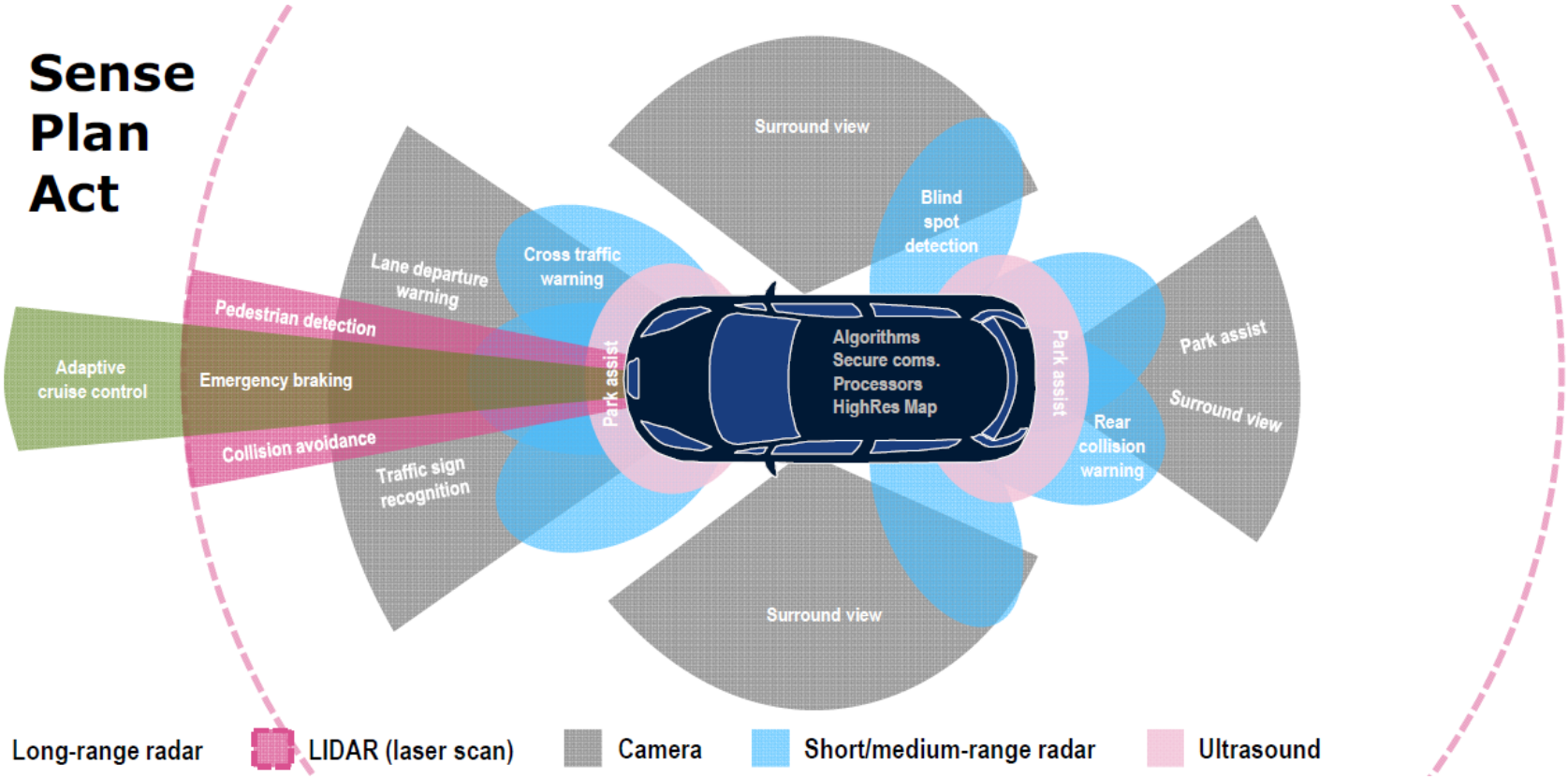
Automated vehicle technology
Cars can do a lot…



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… but are the cities ready for automated driving?

What hapens with an automated vehicle in the city?

Is the infrastructure ready?

Can we really use the potential of automated and connected vehicles?

Need for projects like MAVEN

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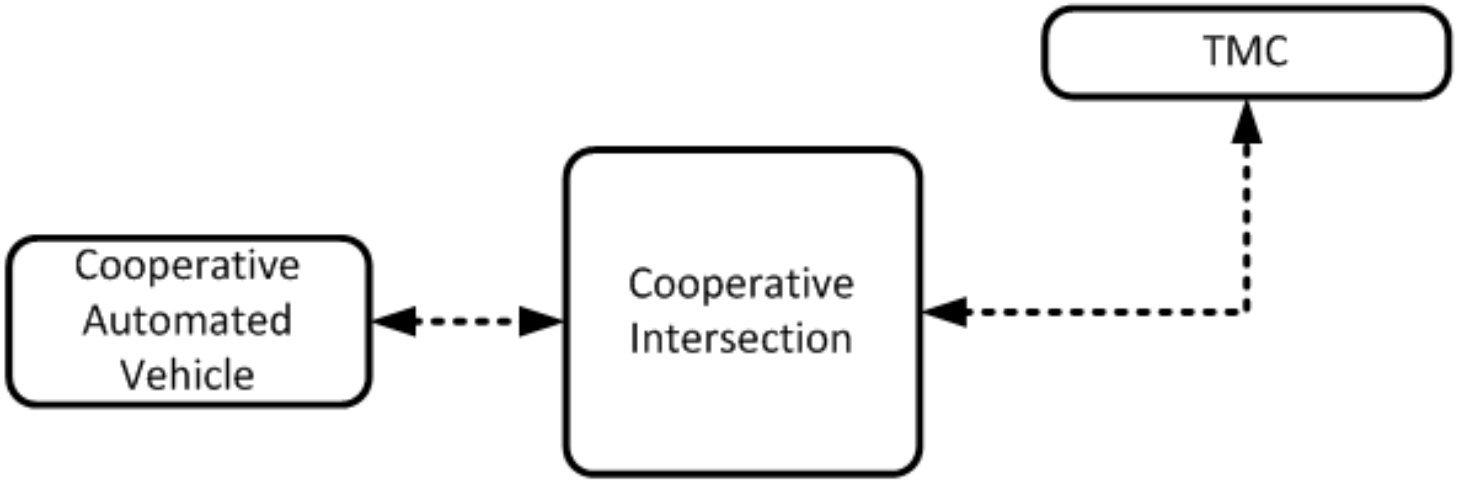
MAVEN scope



Objectives:
- Trajectory and maneuver planning
- Platoon organization

Objectives:
- Adaptive traffic light optimization
- Vehicle advisory

Objectives:
- Network load optimization
- Strategic policy targets

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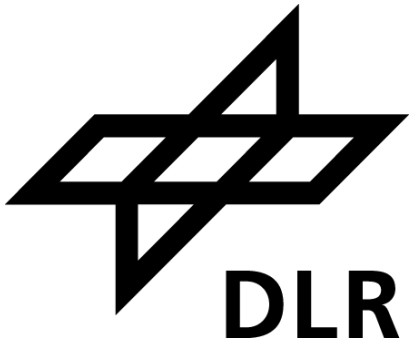
Consortium Partners



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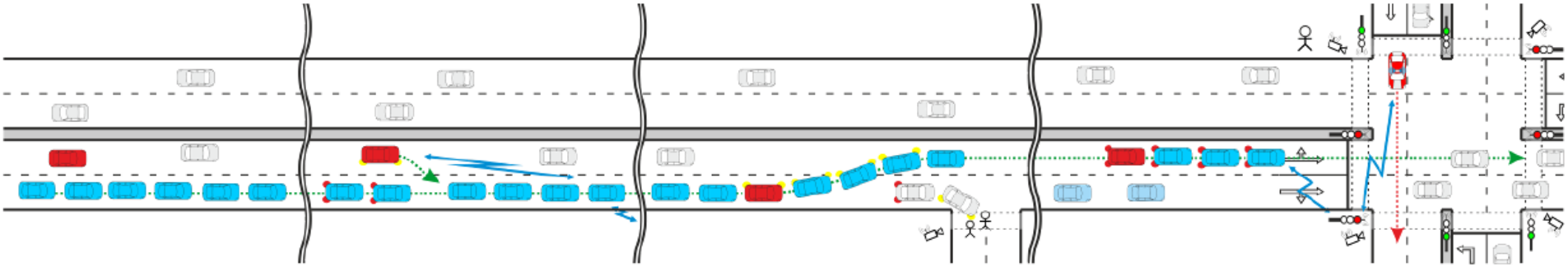
Project summary

- MAVEN will develop management regimes for highly automated driving in urban areas.
- Road infrastructure will be able to monitor, support and orchestrate vehicle and VRU movements to guide vehicles at signalized intersections and corridors in urban areas.
- With the new possibilities of automated vehicles the project will go beyond the state-of-the-art of Advanced Driver Assistance Systems (ADAS) and C-ITS applications such as Green Light Optimal Speed Advisory (GLOSA), by adding cooperative platoon organization and signal plan negotiation to adaptive traffic light control algorithms.



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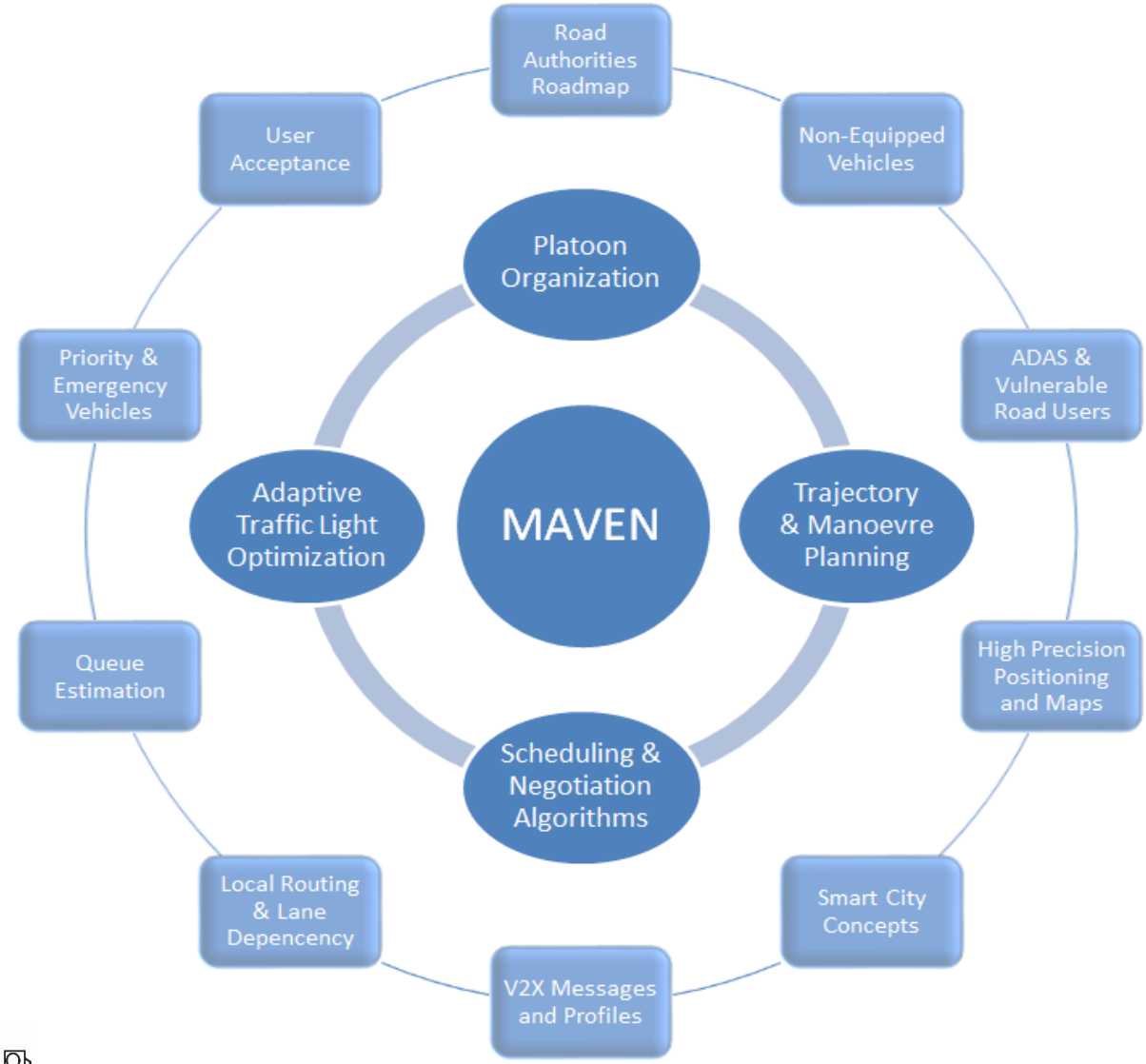
Summary scope and concept



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Expected impacts

- **Improved efficiency, safety and reduction of emissions**
  - ✓ Reduce fuel consumption and emission
  - ✓ More effective traffic lights and more efficient intersections
  - ✓ Vulnerable road user safety
- **Robustness and performance of sensor and data analysis systems**
  - ✓ Less occlusion, more robust, more reliable
  - ✓ From warnings to directives
- **Development costs, competitiveness**
  - ✓ Standards development (adoption, replication and scalability)
  - ✓ Effective local authority investment decisions
  - ✓ Affordable on-board sensors & cooperative sensing
  - ✓ Effects at low penetration rates

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Thank you!

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