MAVEN Partners



Contact

Robbin Blokpoel

Project Coordinator Dynniq B.V. Basicweg 16, 3821 BR Amersfoort The Netherlands E-mail: robbin.blokpoel@dynnig.com

Follow MAVEN on:



www.linkedin.com/groups/8571587

More information? www.maven-its.eu



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MAUED





Managing Automated Vehicles Enhances Network



Introduction

In the future, automated road transport in urban areas will be dependent on connectivity and information exchange between automated vehicles and the road infrastructure. Maven is preparing for this future by researching solutions that will provide:

- Management regimes for automated driving in urban areas.
- Monitoring, support and orchestration of movements of road users to guide vehicles at signalized intersections.
- Further enhancement for ADAS and C-ITS applications.

Use cases

Platoon management UC1: Platoon initialisation UC2: Joining a platoon UC3: Travelling in a platoon UC4: Leaving a platoon UC5: Platoon break-up UC6: Platoon termination	Longitudinal and lateral management UC7: Speed change advisory (GLOSA) UC8: Lane change advisory UC9: Emergency situations
Signal optimisation UC10: Priority management UC11: Queue length estimation UC12: Local level routing UC13: Network coordination – green wave UC14: Signal optimisation	Intersection and other road user management UC15: Intersection negotiation UC16: Detect non- cooperative road users

Key results

More information and full reports of these results are open and available on the website:

- Extended message sets to enable platooning and enhanced V2I interactions.
- The MAVEN *transition roadmap* considers political, institutional and organisational aspects. Moreover it identifies steps to be taken by policy makers and road authorities to prepare the infrastructure for increasing penetration of automated vehicles.
- Increased traffic efficiency with the enhanced control algorithms AGLOSA and extended adaptive control. They exploit new opportunities of automated vehicle presence.
- Distributed platoon forming and progression algorithms.
- GLOSA negotiation scheme optimising the approach towards the intersection as demonstrated below:

