

Automated Vehicles and Urban Traffic Management

Introduction of MAVEN and the workshop

Meng Lu
Email: meng.lu@dynniq.com



Suzanne Hoadley
Email: shoadley@polisnetwork.eu



MAVEN stakeholder consultation workshop organised in cooperation with CoEXist and TransAID

24 October 2018 Greenwich (London)



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



General information of MAVEN

- ❑ MAVEN - Managing Automated Vehicles Enhances Network
www.maven-its.eu
- ❑ Main goal
enhancing intelligent urban road transport network and cooperative systems for highly automated vehicles
- ❑ Project period
36M (01-09-2016 to 31-08-2019)
- ❑ Funded by EC Horizon2020 Research & Innovation Programme
budget: EUR 3 mil.; nine partners from five countries: NL, DE, BE, UK, CZ



MAVEN



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



MAVEN 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 - Green Light Optimal Speed Advisory)

UC8: Lane change advisory

UC9: Emergency situations

Signal optimisation

UC10: Priority management

UC11: Queue length estimation

UC12: Local level routing

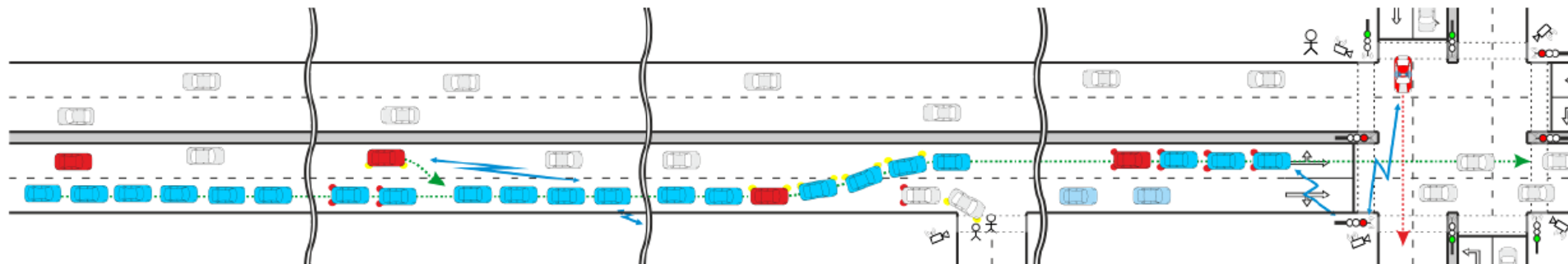
UC13: Network coordination – green wave

UC14: Signal optimisation

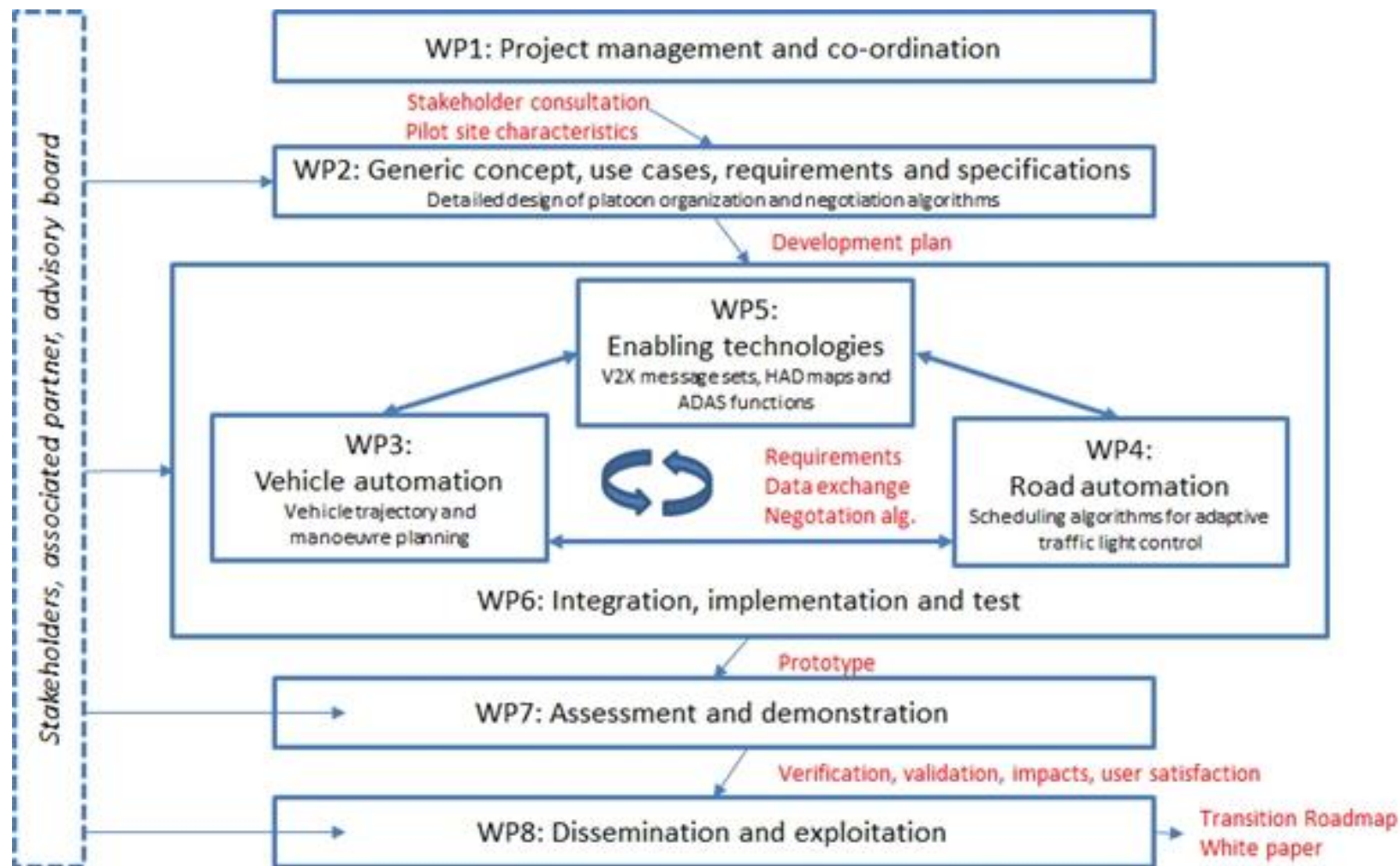
Intersection and other road user management

UC15: Intersection negotiation

UC16: Detect non-cooperative road users



MAVEN approach



MAVEN

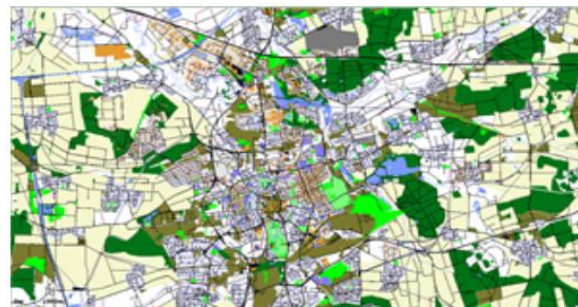


MAVEN is funded by the EC Horizon 2020 Research and Innovation Framework Programme, under Grant Agreement No. 690727



Facilities

- ❑ 2 DLR autonomous vehicles
- ❑ 2 Hyundai autonomous vehicles
- ❑ Braunschweig infrastructure pilot site
- ❑ Helmond infrastructure pilot site
- ❑ DLR Mobile RSU for controlled tests
- ❑ Prague simulation scenario
- ❑ Greenwich smart city perspectives
- ❑ SUMO simulation software
- ❑ Wireless simulation



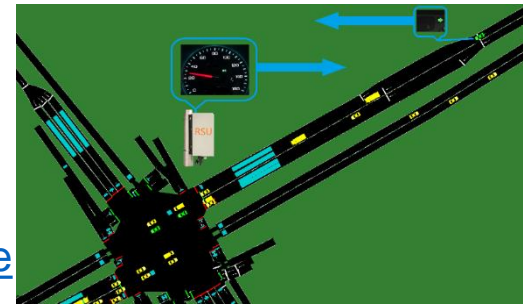
MAVEN achievements

□ Main results

- ✓ extended message sets to enable platooning and enhanced V2I interactions
- ✓ transition roadmap considers political, institutional and organisational aspects; identifies steps to be taken by policy makers and road authorities to prepare the infra for increasing penetration of automated vehicles
- ✓ increased traffic efficiency with enhanced control algorithms and adaptive control extensions exploiting new opportunities of AD vehicle presence
- ✓ distributed platoon forming and progression algorithms
- ✓ GLOSA negotiation scheme optimizing the approach towards intersection

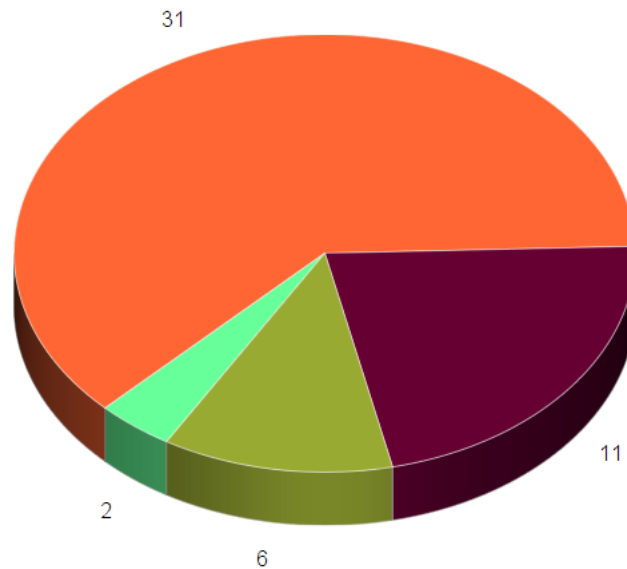
□ Follow us

- ✓ Newsletters
- ✓ Web site: www.maven-its.eu
- ✓ LinkedIn: <https://www.linkedin.com/groups/8571587/profile>
- ✓ Twitter: @MAVEN_its



Who is here today?

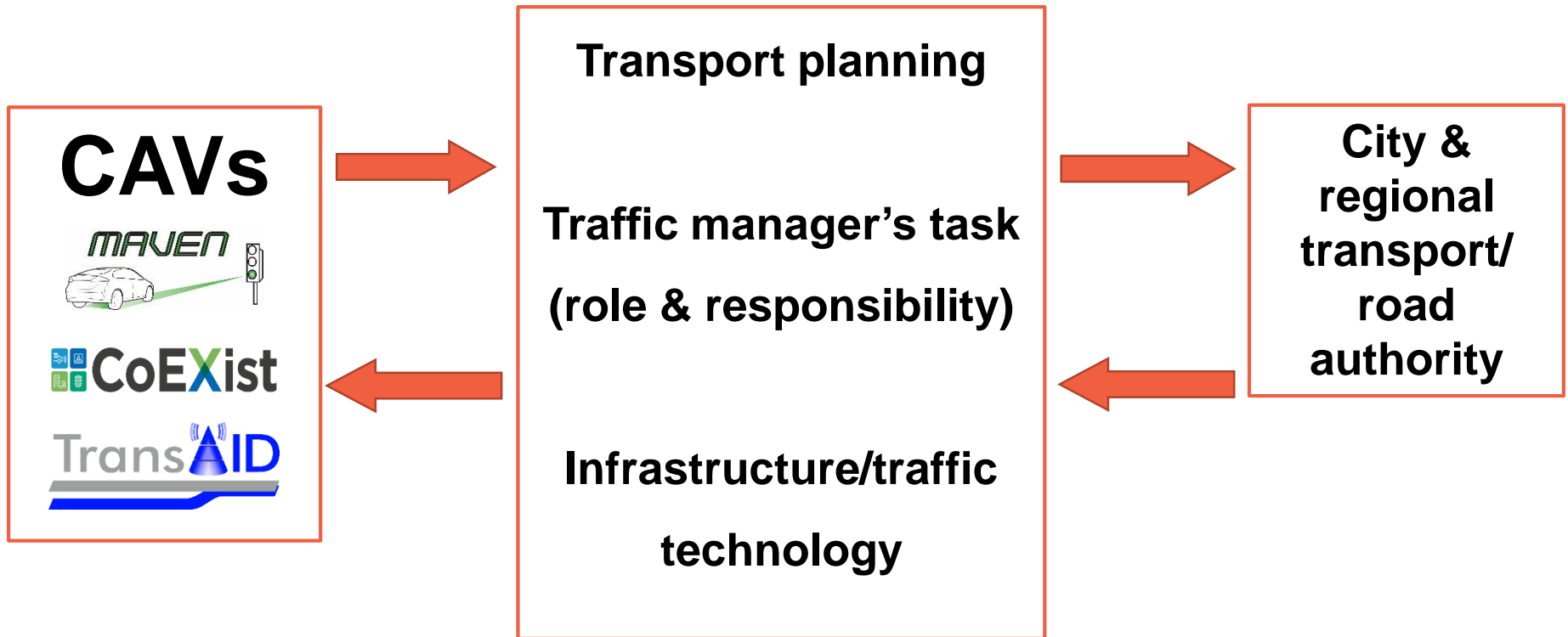
Public sector (local, regional & national) Research Industry & consultancy
Other



Albania	1
Belgium	6
Czech Republic	2
Germany	2
Greece	1
Hungary	1
Netherlands	6
Spain	3
Sweden	1
United Kingdom	26
United States	1



What do we want to achieve today?



Agenda

- 10.30: Welcome by host, *Kim Smith, Digital Greenwich*
- 10.40: Introduction to the MAVEN project and workshop, *Meng Lu, Dynniq and Suzanne Hoadley, Polis*
- 11.00: Greenwich in the spotlight: Living Lab and MOVE-UK project, *Trevor Dorling, Digital Greenwich*
- 11.30: Key insights from *Matthew Barth, University of California* and *Jaap Vreeswijk, MAPtm*:
- Traffic management through C-ITS and automation
 - Deploying new digital infrastructure – why, how and what if I don't?
 - How automation may change the shape & form of a city
- 12.30: Lunch
- 13.30: Preliminary results from the MAVEN user impacts survey, *Ondrej Pribyl, Czech Technical University, Prague*
- 14.00: Breakout sessions (2 x 45 mins)
- Strategic planning for automated and connected vehicles
 - The role of the traffic manager in an increasingly connected and automated transport system
 - Do cities and regions need a transport technology/ITS strategy?
- 15:45: Refreshments
- 16.15: Reporting back from breakout sessions
- 16.30: EC communication on automated mobility, *Christopher Farrugia, DG MOVE, European Commission*
- 17.00: Workshop close



Mentimeter – please join our live poll

Login to WiFi network

- Network: DE-GUEST
- Password: givemewifi

Go to www.menti.com

- Enter the code 85 33 77

