



Transition Areas for Infrastructure-Assisted Driving

Newsletter nr. 3 | September 2018



Welcome to the third newsletter of the European 'TransAID' Horizon 2020 project! As all our vacations have ended, we are proud to present the fruits of our latest research activities.

At first we finished two deliverables, one outlining the modelling of vehicle automation and driver behaviour, and how this ties into the different TransAID use cases, and the other one detailing the V2X message sets that are needed to support the TransAID traffic management measures.

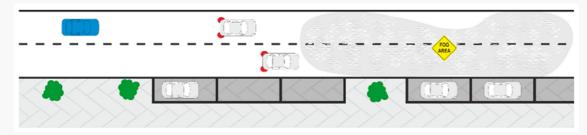
In addition, our ongoing work took a closer look at how traffic management can cope with changing conditions at transition areas, and how it is modelled in one integrated simulation platform.

Lastly, you have plenty of opportunities to meet various members of the TransAID consortium at the upcoming ITS World Congress in September in Copenhagen.

Enjoy your read, and we will back soon with more news!

Julian Schindler

TransAID stands for *Transition Areas for Infrastructure-Assisted Driving*. It is our aim to develop and demonstrate traffic management procedures to enable smooth coexistence of automated, connected, and conventional vehicles. This is especially applicable at locations and situations where automated vehicles have to change their level of automation due to missing sensor inputs, complex situations, ... TransAID is backed by a consortium of 7 partners from 6 European countries, and runs from September 2017 until August 2020.



Modelling vehicle automations and related driving behaviour

TransAID's deliverable D3.1 develops driver models that emulate vehicle automations for (cooperative) automated vehicles ((C)AVs). These models dictate (C)AV longitudinal motion, lateral motion, and driving behaviour during Transitions of Control (ToCs) and Minimum Risk Manoeuvres (MRMs). An adaptive cruise control (ACC) model was adopted from a previous study and modified to ensure collision-free car-following for (C)AVs in the SUMO (Simulation of Urban Mobility) microscopic traffic flow simulator. SUMO's default lane change model (LC2013) was parametrised to reflect the actual (OEM-specific) (C)AV lane change behaviour by means of a sensitivity analysis. Finally, a ToC/MRM model was developed based on literature findings to mimic ToC/MRM at Transition Areas (TAs).

The results so far have been published on our website as Deliverable D3.1 in the form of a <u>quick summary</u> and the <u>full deliverable</u>.

Definition of V2X message sets

The work related to Deliverable D5.1 provided a first definition of the V2X message sets that are needed to support the TransAID traffic management measures in the scenarios selected during the first project iteration. In first instance, these messages cover requirements that are common to all scenarios, e.g., helping the traffic control centre to improve the detection and classification of vehicles with different types of automation and communication capabilities. Additionally, the messages serve purposes that are specific to a given service, such as distributing transitions of control in time and space before the affected vehicles enter a transition area.

Please visit our website to acces the full text of <u>Deliverable D5.1</u>.

Join us at the ITS World Congress 2018 in Copenhagen, Denmark





Join us at the conference!

Wed 19, 10h30 (at EC stand) Thu 20, 11h00 (in TS49)

www.transaid.eu



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in https://www.linkedin.com/groups/13562830/

https://www.facebook.com/transaidh2020/

#ITSWC2018

Have you seen us?

- 11-12/06/2018 | Italy | 2nd Symposium on Management of Future motorway and urban Traffic Systems (MFTS)
- 19/06/2018 | Car 2 Car Communication Consortium (C2C-CC) WG Roadmap Meeting

Join us at:

- 11-12/09/2018 | Germany | 22nd International Forum on Advanced Microsystems for Automotive Applications (AMAA)
- 17-21/09/2018 | Denmark | 25th ITS World Congress
- 15-17/10/2018 | Portugal | 16th International Conference on ITS Communications (ITST)
- 24/10/2018 | UK | MAVEN-TransAID joint workshop on connected & automated vehicles & urban traffic management
- 04-07/11/2018 | Hawaii | IEEE Intelligent Transportation Systems Conference (ITSC)
- 03-06/06/2019 | The Netherlands | European ITS Congress
- 09-12/06/2019 | France | IEEE Intelligent Vehicles (IV)

You can access all available information via our website!



Contact information

If you want to get in touch with the TransAID project, please send us an email message at info@transaid.eu, or contact our Project Coordinator Mr. Julian Schindler, or our Dissemination Leaders Mrs. Meng_Lu and Mr. Sven Maerivoet.



The TransAID
Consortium consists of 7
partners from 6
European countries:
DLR, CERTH, Dynniq,
Hyundai Motor Group
European Technical
Center, MAP Traffic
Management, Transport
& Mobility Leuven, and
Universitad Miguel
Hernandez de Elche
(UMH).

In addition, there are also 12 associated partners: Attikes Diadromes, Car2Car-Communication Consortium, DGT, ECTRI, EURECOM, Huawei, IKUSI, ITS Niedersachen, Region of Central Macedonia, Rijkswaterstaat, TRL, and University of Twente.



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 723390.

This newsletter is published by the TransAID consortium in English and informs about the achievements of the project. The sole responsibility for the content of this newsletter lies with the authors. It does not necessarily reflect the opinion of the European Commission. The European Commission is not responsible for any use that may be made of the information contained therein.









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