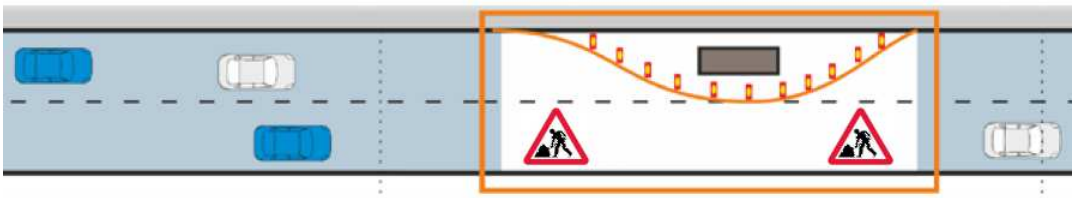


TransAID

Transition Areas for Infrastructure-Assisted Driving

Newsletter nr. 8 | April 2021

Welcome to the eighth newsletter of the European 'TransAID' Horizon 2020 project!

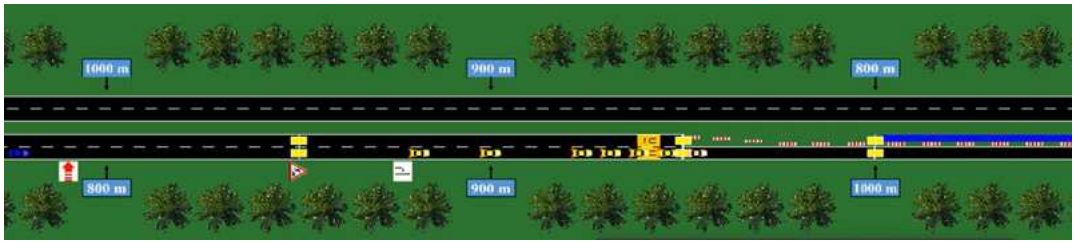
We experienced such an interesting journey throughout this project! Going from theoretical excercises, over detailed (and very long-winded) computer simulations of automated vehicle behaviour, V2X communication, and traffic management, to real-life demonstrations, all the while keeping in touch with our stakeholders.

We won't keep you waiting much longer, just dive straight in, read our final results, enjoy all our new videos, and download our code for yourself!

Julian Schindler

Final results are available

TransAID stands for 'Transition Areas for Infrastructure-Assisted Driving'. Our project developed and demonstrated 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 was backed by a consortium of 7 partners from 6 European countries, and ran from September 2017 until February 2021.



Assessment of Traffic Management Procedures in Transition Areas

Our Deliverable 6.2 presents and evaluates the simulation results obtained for the scenarios considered during the project's first and second iterations. To this end, driver and CAV models designed in WP3, traffic management procedures developed in WP4, and V2X communication protocols and models from WP5 were implemented within the iTETRIS simulation framework. The realistic simulation of V2X communication has shown a discernible impact on some of them, which makes it an indispensable modelling aspect for a realistic performance evaluation of V2X traffic scenarios.
Read all about it in **D6.2 at our website**!

System Prototype Demonstration

Deliverable D7.2 shows the system architecture implementation for the different components of the infrastructure part, as well as for the vehicle part. We show how both parts communicate in the real world. This required us to set up the communication software for all implementations, to assemble all use cases in several scenarios on the test track located in Peine-Eddesse in northern Germany, to implement a C-ITS-based highway merging system on public roads on the highway A13 in The Netherlands, and finally to look at ToC/MRM distributions in urban areas on a test track located in Griesheim, Germany.
The results are quite impressive; read them for your self in **D7.2 at our website**!

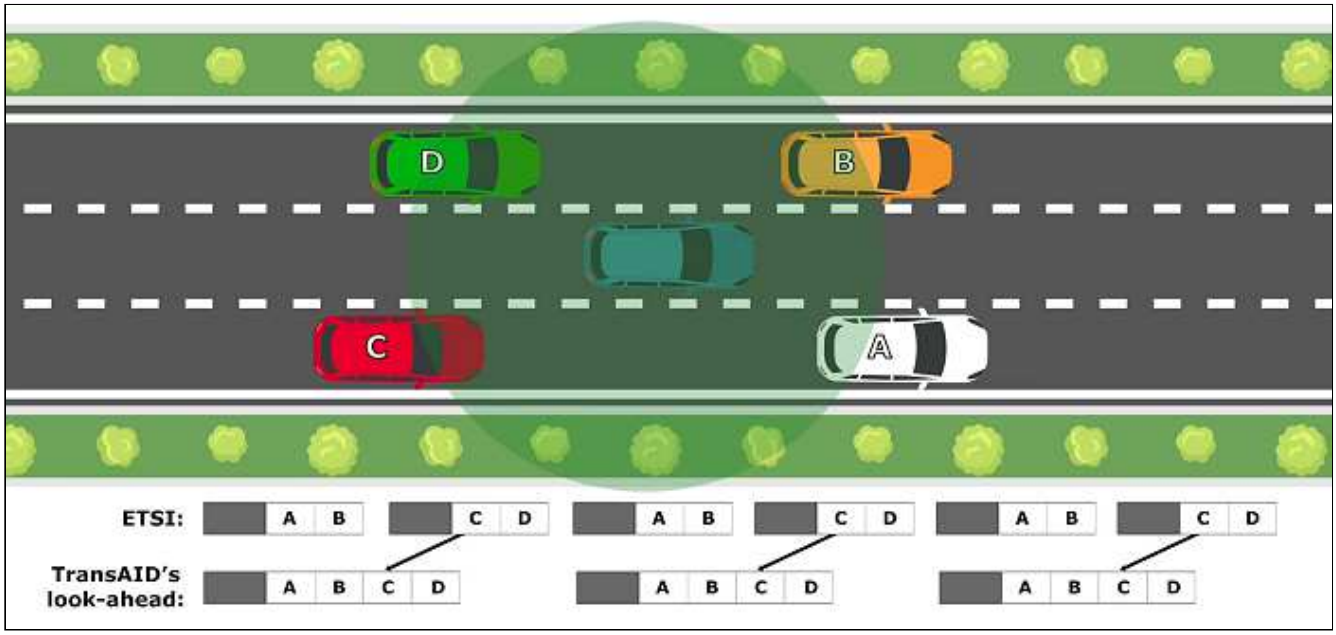
Guideline and roadmap

The TransAID project defines, develops, and evaluates traffic management measures based on C-ITS-equipped road infrastructure to eliminate or mitigate the negative effects of Transition of Control (ToC) along Transition Areas (TAs) in future mixed-traffic scenarios where automated, cooperative, and conventional vehicles will coexist. Now, at the end of the project, all the results are known and stakeholder consultations finished. We have bundled them into a guideline and a roadmap. What makes our work unique is that it provides a concrete list of actions and recommendations, affecting the core business of road authorities and other stakeholders.
Consult our guideline and roadmap in **D8.3 at our website**!

Check out our demonstrations videos

TransAID in real life! Not just equations on paper, or simulations on a computer screen... no! We have created real-life setups that visually illustrate how connected and automated driving works in transition areas. Our project gives you a small taste of what the future holds for all of us!

Interestingly, we have also created explanatory videos regarding collective perception and maneuver coordination for connected automated driving in light of V2X communications. Definitely take a look at them at the **WP5 videos section of our website**.



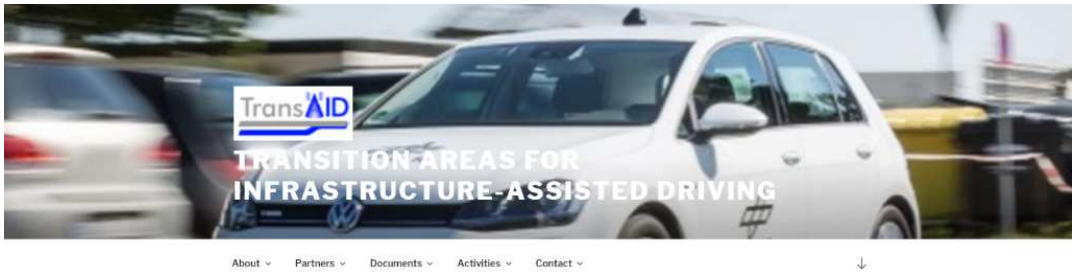
Download our software

All of TransAID's baseline (WP3) and traffic management (WP4) scenarios were simulated with the modified microscopic traffic simulator **SUMO**. In addition, our traffic management scenarios included real-world communication aspects (WP5), which was all simulated in combination with the network simulator **ns-3**. These integrated simulations (WP6) were done within an upgrade of the iTETRIS framework. The software for TransAID is made available in the **iCS** (iTETRIS Control System) on GitHub. All our software is released under the GNU General Public License; it is conveniently bundled at our website.

TransAID in a nutshell

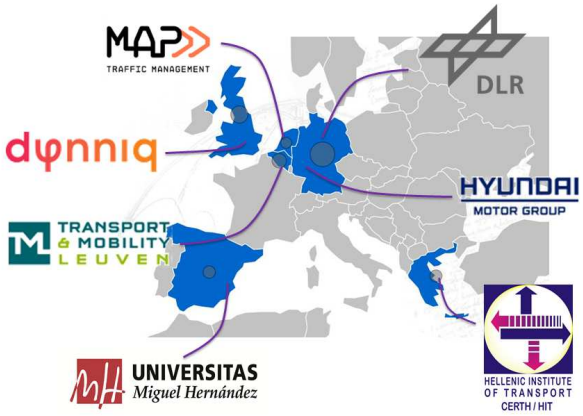
Deliverables as reports, programmed computer software and simulations, real-life videos, ... TransAID has it all! And to top it off, we have created especially for you a selection of concise posters that highlight some of our achievements. You can find them in the posters section of our website.

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.

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