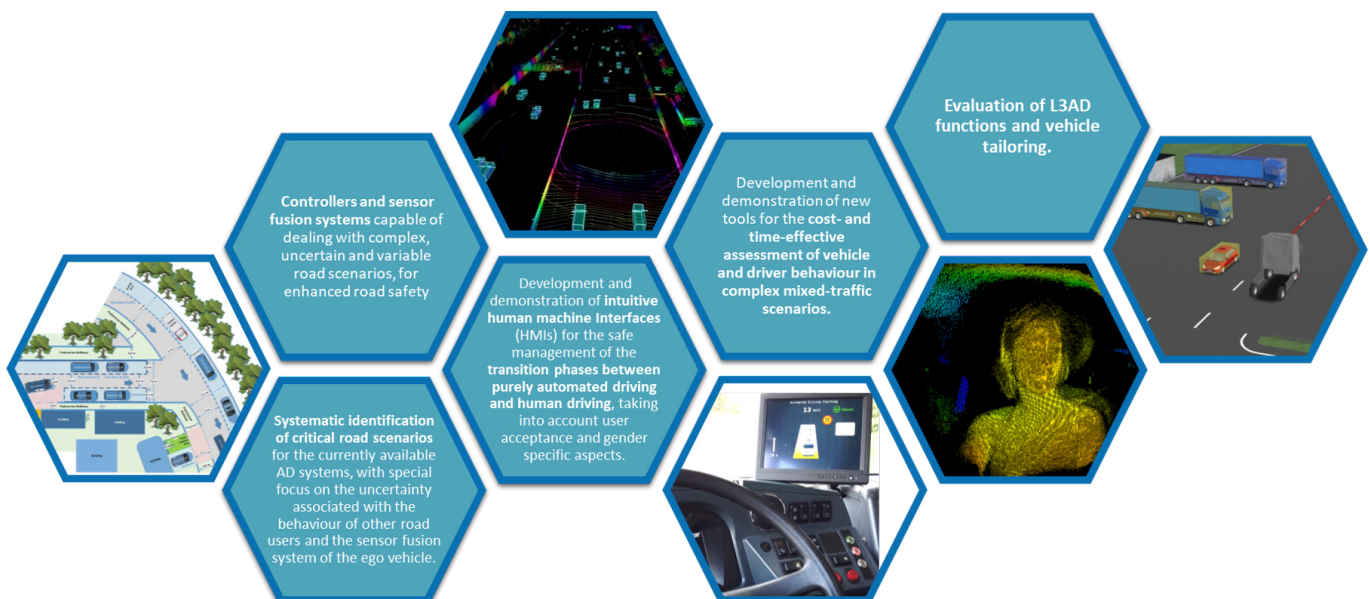


TrustVehicle Project completed - What did we achieve?

After 41 months, the consortium has achieved remarkable results built around four vehicle classes to represent a large variety of use cases and scenarios relevant for trustworthy level 3+ automated driving.

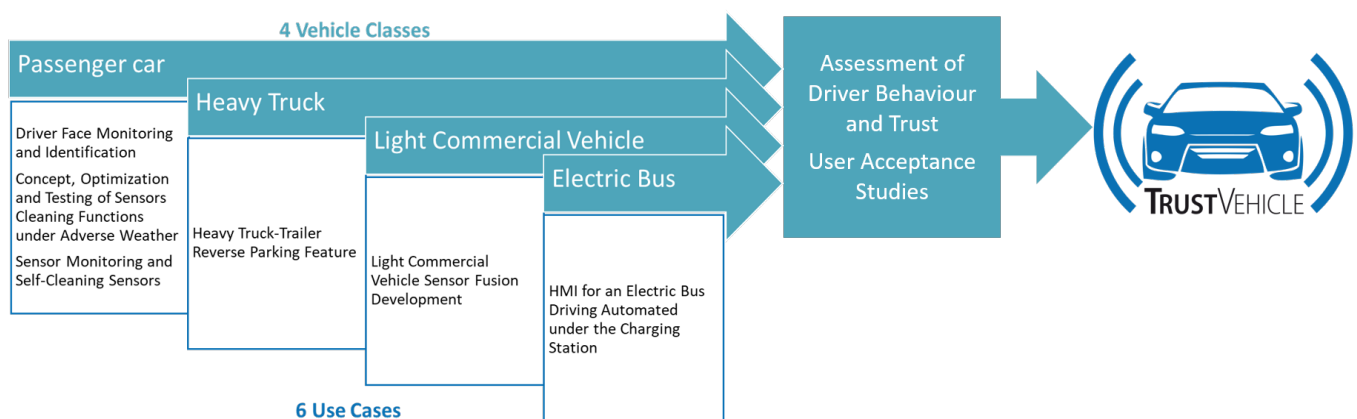
The vision of TrustVehicle is to advance level 3 and level 4 automated driving functions in

normal operation and especially in critical situations in mixed traffic scenarios and even under harsh weather conditions. TrustVehicle followed a user centric approach to provide solutions that significantly increase reliability and trustworthiness of automated vehicles, covering the following objectives:



The objectives were fulfilled by using 4 vehicle classes and 6 use cases, resulting in 6 different demonstrations rounded off by the assessment of driver behavior and trust, on the one hand assessed in a driving simulator on the other hand by user acceptance studies. Due to the

COVID-19 pandemic, the project consortium decided to conduct the user acceptance studies online instead of physically on the demonstrator. Nevertheless, throughout the development process within TrustVehicle, end-user acceptance was a key priority.





Key Results in a Nutshell

Implementation of new time-of-flight camera based sensor functionalities for driver monitoring and support

Driver Face Monitoring and Identification



Design of an AD system supervision for level 3 and 4 functions allowing to recover or maintain the sensors functionality.

Concept, Optimization and Testing of Sensors Cleaning Functions under Adverse Weather



Feature for completely autonomous smooth reverse parking manoeuvres demonstrated on an urban construction site and a truck docking station including driver HMI

Heavy Truck-Trailer Reverse Parking Feature



Sensor fusion algorithms implemented for LIDAR, Camera and ultrasonic sensors for autonomous narrow street manoeuvring and reverse parking.

Flexible HW platform suitable for sensor fusion to ensure the correct functioning of HW peripherals and interfaces.

Light Commercial Vehicle Sensor Fusion Development



3 developed methods for quantifying the availability of sensors during cleaning and in critical scenarios

Sensor Monitoring and Self-Cleaning Sensors for a Passenger Vehicle



Specially developed Bus Driver HMI to monitor when the electric bus is driven in automated driving mode safely and accurately under the charging station.

HMI for an Electric Bus Driving Automated under the Charging Station



Interested in seeing our demo vehicles in action? Check out the demonstration videos

Watch here!



Final Virtual Event

After more than 3 years of intense project work, the TrustVehicle consortium is proud to present all project results and achievements on our road to "Improved trustworthiness and weather-independence of conditionally automated vehicles in mixed traffic scenarios" in a final virtual event.

The event took place on October 27th, 2020 from 09-12 CET and was a side event of the ECA2020 Conference organized by the ECSEL Mobility.E Lighthouse Initiative. Participants from all over Europe, but also from the US, South Korea and Japan joined the event.

After a project introduction and the TrustVehicle book presentation, the main part of the event was dedicated to the TrustVehicle demonstrations and key results. This was rounded-off by presentations from our ART-04-2016 sister projects interACT and BRAVE.

We say thank you to all presenters for their interesting presentations and to all attendees for their participation!

Did you miss it? No problem, check the agenda and...

...watch the whole event here!



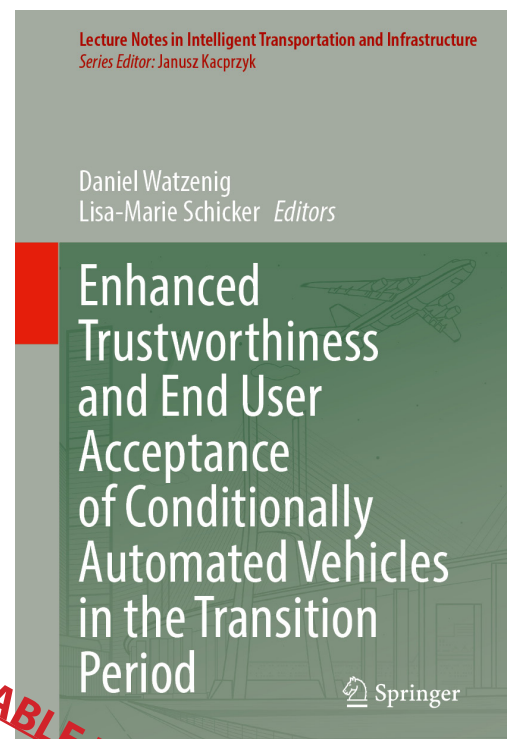
TrustVehicle Book

Enhanced Trustworthiness and End User Acceptance of Conditionally Automated Vehicles in the Transition Period

The TrustVehicle partners proudly present their book "[Enhanced Trustworthiness and End-User Acceptance of Conditionally Automated Vehicles in the Transition Period](#)" published by Springer in the Lecture Notes in Intelligent Transportation and Infrastructure series.

The book reflects the whole TrustVehicle process starting with the definition of requirements for trust and end user acceptance. This is followed by the development of interaction concepts and driver monitoring as well as reliable sense-plan-act approaches based on the defined requirements. The final steps are dedicated to determining verification procedures and assessment concepts for these developments on three levels, namely in simulation, on the driving simulator and on test tracks including user acceptance testing.

To draw a comprehensive picture, the book is rounded off by contributions coming from our sister projects interACT and BRAVE.



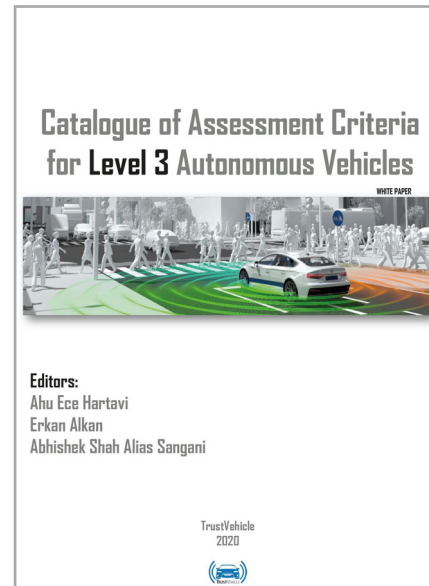
AVAILABLE NOW!

2 White Papers

Catalogue of Critical Scenarios



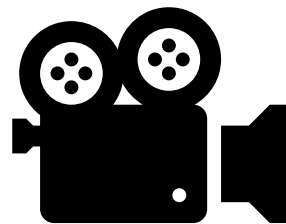
Catalogue of Assessment Criteria for Level 3 Autonomous Vehicles



Available for download here!

To Summarize

41 months of TrustVehicle in less than 4 minutes:



Thank you note!

As the TrustVehicle project has come to an end, it is time to say thank you. Thank you to a dedicated and engaged project consortium. The last 41 months were a great and challenging journey finishing with valuable research achievements in the field of automated road transport.

www.trustvehicle.eu

