

## EDITORIAL

BRAVE partners are pleased to announce that VTI, the Swedish National Road and Transport Research Institute, has recently been appointed as the new coordinator of the project. Anders Lindström (Research Director at VTI) is now in charge.

Due to administrative issues, the project has slowed down the pace of its activities for a few months. We are now actively resuming the work and catching up with the tasks to be performed.

But still, there is major news to share in this third edition of the newsletter. It includes insights on BRAVE's participation in world-renowned events (such as ITS World Congress in Copenhagen, IHSED 2018, the EU CAD conference) and recently published results.

Get on board and enjoy the reading!

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## Second consortium meeting in Stuttgart

On the 23<sup>rd</sup> and 24<sup>th</sup> May 2018, BRAVE partners gathered in Stuttgart (Germany) for the second consortium meeting.

One year after launching the activities, this was the opportunity to summarize all the work done in each Work Package, and to further discuss the tasks ahead. Some specific focuses were especially provided on the recent test activities, as well as the outcomes of the focus groups (users panels).

Additionally, the project partners took part to a workshop, to define the main requirements of the next HMI (Human-Machine Interfaces) to be tested on



**Consortium meeting in Stuttgart**

Fraunhofer's virtual reality tools. The objective was to identify the information to be displayed, signals and driver's monitoring systems to be deployed to favor the driver/vehicle interaction, for level 3 automation, regarding various use cases. A fruitful and collaborative way to solve some of the project's pending issues.

This event was also a great occasion to discover Fraunhofer's lab, learn more about the activities going on in the facilities of Stuttgart, and to test some Virtual reality equipment.

## Multi-country tests of automated driving on open roads

Automated driving research involving drivers are often limited to drivers of one nation or assess the experience of driving in a driving simulator. In June and July 2018, BRAVE partners in



Sweden, France, Slovenia and Spain have conducted similar trials of automated driving on open roads. The underlying idea of the tests is to analyse the feelings of the participants towards automated driving features, before and after using the technology, and investigate the possible variations in each country.

The study is based on the Van der Laan scale, as well as the SHAPE Automation Trust Index (SATI), to assess the levels of acceptance and trust in the system. Those tests have already been replicated in Sweden, France, and Slovenia. During the coming months, similar test sessions will be organized in Spain and Germany as well. This 'multi-country' test will also allow the project to better understand how users interact with the system and analyze the possible cultural variations across the European Union.

### FRANCE

Tests in France were conducted together by UTAC CERAM and Mov'eo on June 12<sup>th</sup>, 2018. 13 participants had the opportunity to experience the Autopilot system aboard a Tesla X model. A 15 kilometers drive next to UTAC premises was defined, including highways. Journalists also took part in the tests. The analysis (in French) of Manon LAMOUREUX can be found on [Flottes Automobiles blog](#).



**Tesla X model used for the automated drive test session in France**

### SLOVENIA

BRAVE Slovenian partner AMZS organized a round of tests on June 14<sup>th</sup> in Ljubljana. Participants experienced the automated driving features of the Mercedes S model. Details and videos are available on [AMZS website](#) (in Slovenian).

### SPAIN

BRAVE Spanish partner ACASA organized a test on July 19<sup>th</sup> on the access roads to the city of Barcelona. Seven participants attended, coming from various entities such as the metropolitan public administration, automobile club users, traffic manager and road safety in Catalonia and private companies. They had the opportunity to test an Autopilot system, driving two Tesla (Model S and Model X) during 20 km.

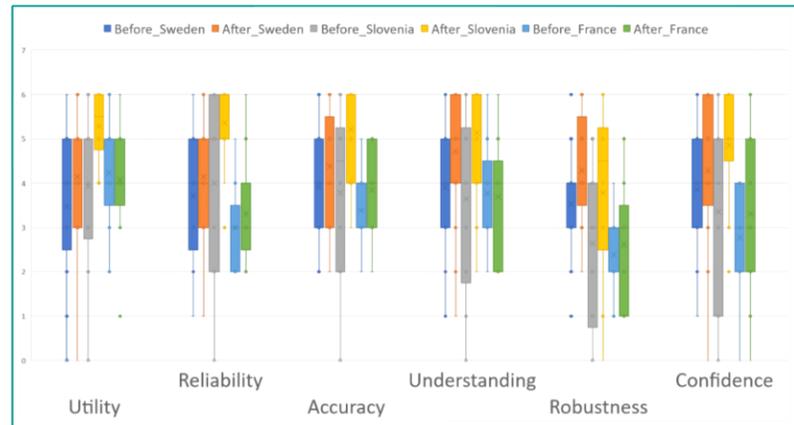
### SWEDEN

BRAVE partner VTI (Swedish National Road and Transport Research Institute) has conducted similar tests in Sweden, using a Volvo S90 vehicle. Just as the tests held in France, Spain and Slovenia, the test took place on a motorway, consisting of approximately 20 minutes of driving.

The first outcomes of those tests have been published in a poster released during IHSED 2018 conference in Reims (France). The poster pre-print is publicly available on ResearchGate under the title 'Trust and acceptance of contemporary vehicle automation: a multi-country, on road assessment' and upon request to the project partners.



Comparing the a-priori and posterior ratings of trust on the SATI sub-scales there is an increase in the understanding of the system for both the Swedish, and Slovenian test, albeit not for the French one. Additionally, perceived robustness and confidence increased substantially for the Swedish and Slovenian drivers, but the French drivers show a larger spread in most ratings of the tested system.



A-priori and posterior ratings of trust on the SATI sub-scales

## A Brief Report on Young Adults Views on Automated Driving

A second poster showcasing the work done within the BRAVE project was released by VTI partners during the IHSED 2018 conference. The authors are Dr. Niklas Strand and Dr. Alexander Eriksson, both working for the Driver and Vehicle Group of The Swedish National Road and Transport Research Institute, Gothenburg, Sweden

### MOTIVATION

An ongoing trend likely to continue is that automated driving systems are increasing and becoming an integral part of a modern road transport system. This will consequentially alter how the transport system is designed, as well as altering travel behaviors. Moreover, this trend will affect road users such as pedestrians, bicyclists, car drivers, passengers, and public transport users. Young persons are likely to be affected by the automatization of the transport system for a long time and live through a radical paradigm shift in transportation. Therefore, their views are important for the development of the future transport system.

### METHOD

In this study we sat down with five young adults in Sweden, of which three were men and two women, and discussed their views on automated driving. The group interview was organized as a relaxed discussion with loose moderating based on ten open ended questions. A key feature of the questions that were used was that they were designed to nudge the participants to take on the perspective of different road users, or roles that they could find themselves in as users of the transport system (e.g. car driver, or pedestrian). During the interview emphasis was placed on the interplay between participants who, collectively, could outline the direction of the discussion.



## RESULTS

The results capture opinions, concerns, suggestions, and feelings about automated driving. For instance, they had many opinions and expectations regarding the human-machine-interface (e.g. eHMIs, feedback and communication needs), but interestingly, they also touched upon ethical, juridical, and psychological aspects related with the introduction of automated driving systems. The results suggest that young adults are aware of the complexity and efforts needed with the introduction of automated driving, yet they show acceptance towards it.

The authors would like to acknowledge the work of project partners at VTI and IFES who were involved in the development of the methodology.

## We were at EU CAD 2019 and ITS World congress 2018

On April 2<sup>nd</sup> and 3<sup>rd</sup>, BRAVE partners attended the EU CAD conference in Brussels. This event is a major gathering of Connected and Automated mobility experts from Europe and beyond. BRAVE shared a booth with InterACT and TrustVehicle, our 'sister-projects' also funded by the European Commission under H2020-ART call for proposals.

This second European Conference on connected and automated driving was untitled 'Connected Automated Driving: Europe takes the lead'. EU CAD 2019 brings together political leaders from the European Commission

and Member States, experts from the industry and road authorities to discuss all the major challenges related to automated mobility. More details are available on the [conference website](#)

A similar initiative took place earlier this year during ITS World Congress 2018 (Copenhaguen), where the three ART projects organised a joint session untitled 'User-centric approaches enabling wider acceptance of Automated Vehicles in mixed traffic'.

### KEY FIGURES

**Consortium:** 11 partners from 7 countries (Spain, France, Germany, Slovenia, Sweden, U.S.A, Australia)

**Project duration:** 36 months

**7 work packages**

**27 experts involved in the Advisory Board**

### CONTACT US

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