



# Trust and acceptance of contemporary vehicle automation: a multi-country, on road assessment

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## Motivation

Automated driving research involving drivers are often limited to drivers of one nation, or assess the experience of driving in a driving simulator. As part of the BRAVE research project we have conducted on-road testing with a number of vehicle types (Volvo S90 [2017], Mercedes S-Class and Tesla model X) in Sweden, Slovenia and France respectively. As this is an ongoing effort in assessing drivers' trust in automated driving technology, preliminary results are presented from the abovementioned 3 countries whilst data is collected throughout the project partners.



## Method

This research effort took place in 3 countries; Sweden, Slovenia and France, coordinated by VTI, Sweden. Therefore the testing locations, and available vehicle differ somewhat.

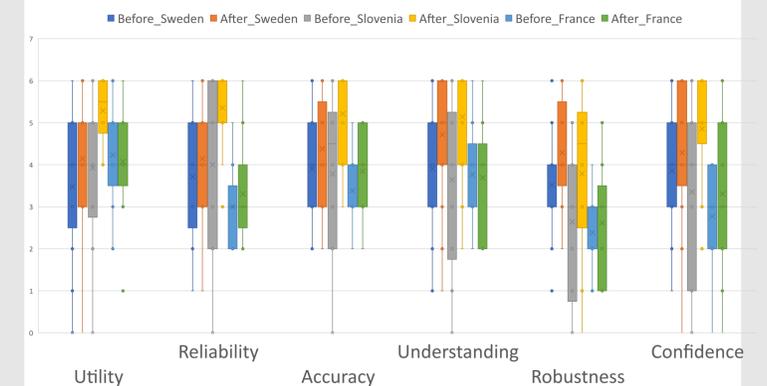
The test took place on motorway road-infrastructure in each country, consisting of approximately 20 minutes of driving.

Prior to driving, participants received a manual of the vehicle, and its ADAS functionality and were asked to read through the manual thoroughly. Upon completion of reading the manual, they were asked to rate their a-priori trust scores to the described system using the SATI-scale. The same scale was then filled out after completing a drive using the system in motorway conditions.

## Results

The results show variation in SATI ratings both a-priori, i.e. when reading the manual, indicating either regional, or brand related factors influencing trust.

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.



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