Virtual Final Event

interACT

Designing cooperative interaction of automated vehicles with other road users in mixed traffic environments

interACT

Wrap up and conclusions

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DLR e.V.

19 June 2020

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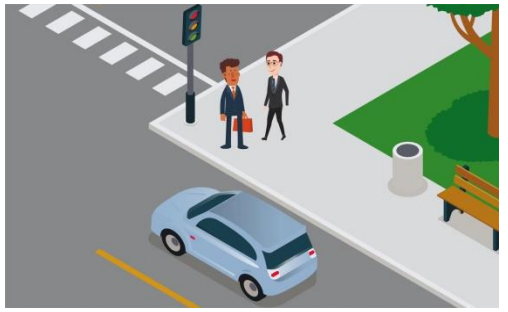
The challenge

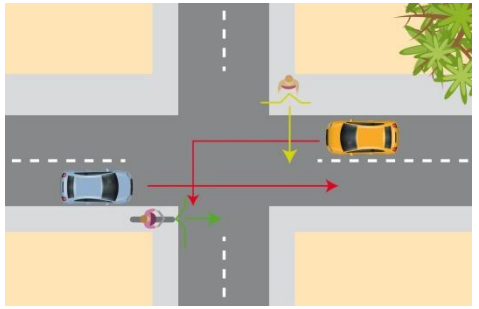
1st Objective

Psychological models



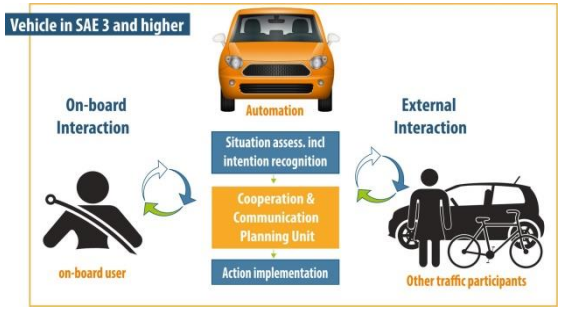
2nd Objective

Intention recognition & behavioural predictions



3rd Objective

CCPU & safety layer



4th Objective

Novel HMI elements

5th Objective

Methodology for assessing the quality of interaction

Conclusions & Impact

What we achieved:

- **Cross-cultural observations** and understanding for human-human interaction in mixed traffic resulting in **human interaction models**
- **Improvement of intention recognition algorithms** to identify relevant interaction situations
- Development of **Cooperation and Communication Planning Unit** and full integration in CRF vehicle
- Newly developed **eHMI and HMI** elements and prototypical implementation in CRF and BMW demonstrators
- **Evaluation** of project intermediate and final solutions with various evaluation methodologies such as Virtual Reality studies, simulator, test track and Wizard-of-Oz

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Conclusions & Impact

What we achieved:

- **Road safety:** Safety layer implemented in CCPU that avoid collisions and higher perceived subjective safety by eHMI and vehicle movement design
- **User-acceptance** and **ease-of use** of Automated Vehicles: User needs considered in the whole design process; Evidence that eHMI could increase subjective acceptance and satisfaction in interaction with AVs
- **Validation procedures for Automated Vehicles:** Reviewed and new evaluations methodes; Novel, on-the-fly techniques for manoeuvre and trajectory planning
- **Leadership of industry:** Higher TRL levels for several technical developments compared to the start of the project, e.g. eHMI components and CCPU

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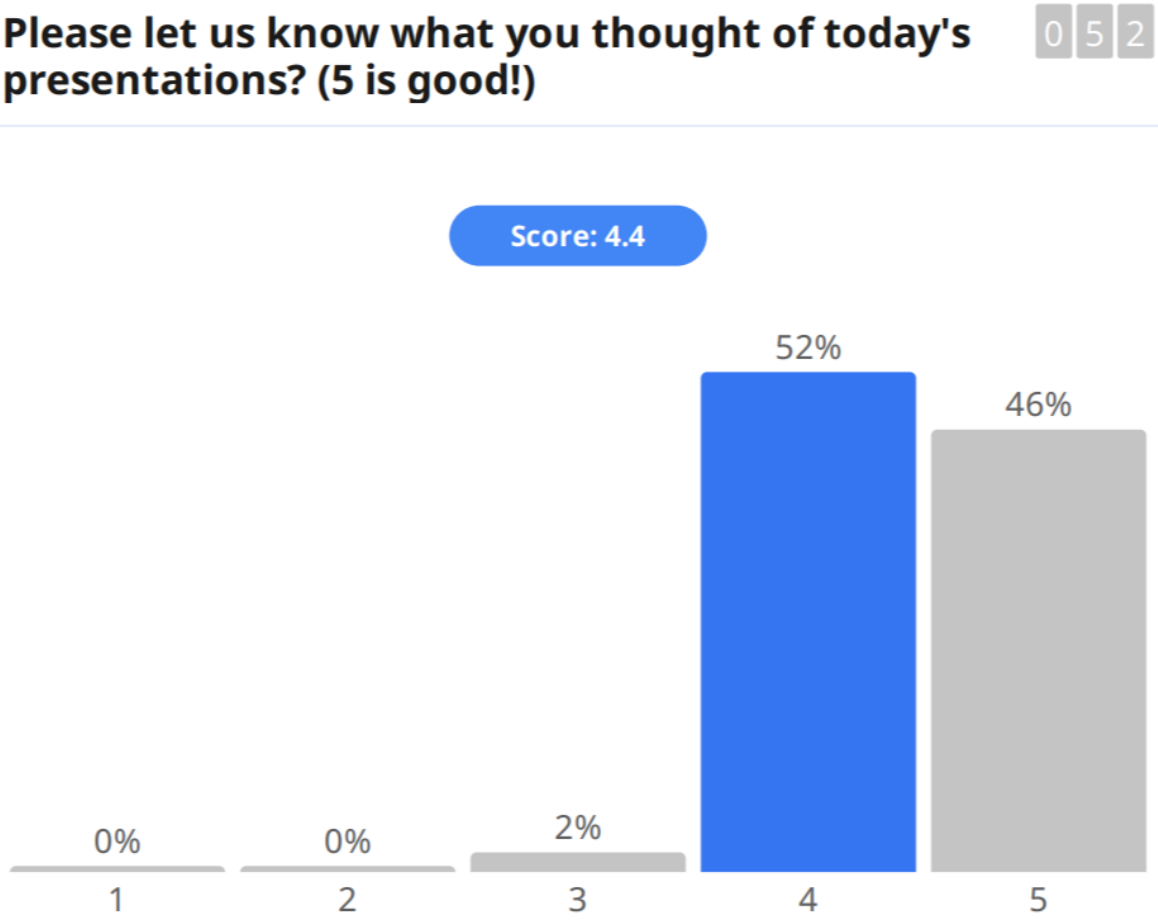
Poll questions



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Poll questions

What was the most interesting result from today?

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Read more

All material will be available on our website.

Visit:

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3 years of interACT team work

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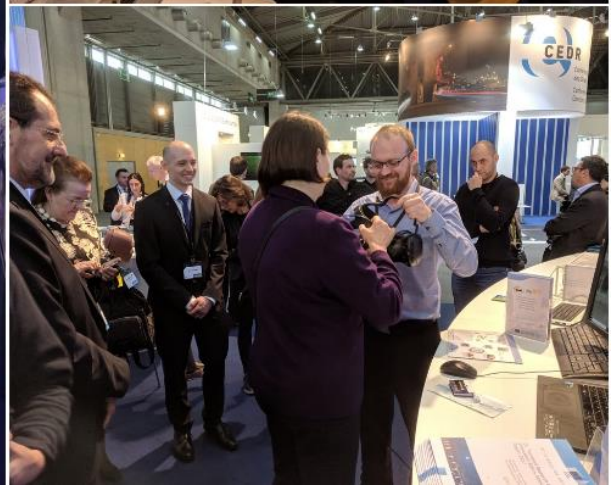

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NatashaMerat @NatashaMerat · 16. Okt.
@RSS2017social workshop of @Europe_CAD work on AVs and VRUs went well, I believe. @markkula @interACT_EU @HFS_ITSLeeds

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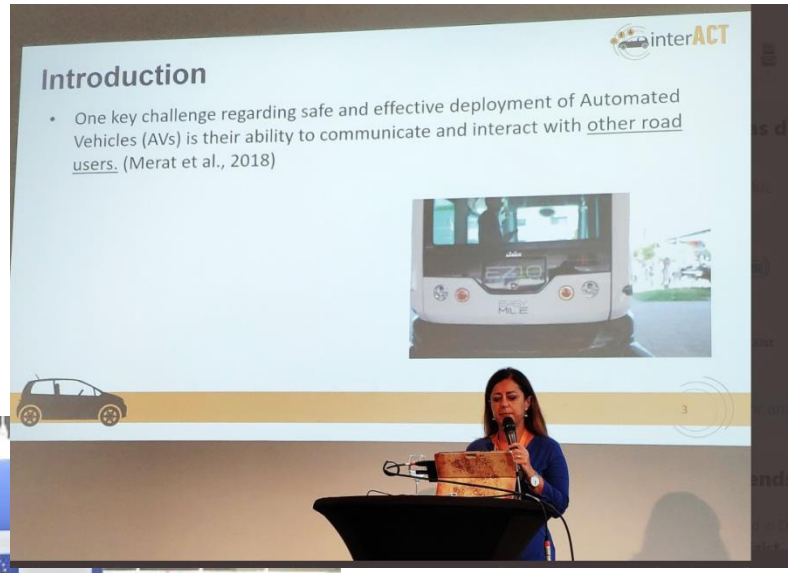
interACT @interACT_EU · 22. Nov. 2018

During the workshop "Joint Workshop of European Projects on Automated Road Transport" on 21/11, Marc Wilbrink from @DLR_Verkehr & @interACT_EU leaded the session regarding "Relevant Use Cases for Autonomous vehicles". Thank you @AutomateEu for the wonderful organisation!



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Thank you!

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