1. INTRODUCTION

Autonomous driving will potentially impact mobility:
- Perception of **travel time** might change
- **New user groups** gain access to individual transportation
- **New mobility options**, e.g. Vehicles on Demand (VoD), become available

Simultaneously:
- **Lack of empirical data** on user preferences and factors influencing the mode choice related decision making process
- Such data is needed in order to predict the impact of automation

2. FOCUS OF THE RESEARCH

- **How might autonomous driving affect VTTS?**
  Addressed in a first study
- **How can the changes in VTTS be explained?**
  Addressed in a follow-up study build upon the first one

3. STUDY DESIGN

- Online survey, sample size: 485
- Commuting, shopping, leisure trips
- Two Stated Choice (SC) experiments – current and future available alternatives
- Two concept of autonomous driving – private autonomous vehicle (AV) and driverless taxi (VoD)
  - Including psychological constructs (e.g., attitudes, perceptions)

4. MODEL ESTIMATION

- Mixed Logit model with random parameters for in-vehicle and waiting time
- **Hybrid choice model** incorporating psychological constructs

5. RESULTS

**Estimated changes in the VTTS**
- VTTS reduction of 34% when driving autonomously vs. driving manually, however, only for commuting
- In-vehicle time in an AV is perceived similar as using public transportation
- Riding a **privately owned AV** in automated mode is more attractive than using a **driverless taxi**

Conceptual model to explain the VTTS changes
- Based on behavior theories and theoretical considerations on positive utility of travel
- Consider empirical results from studies on acceptance of autonomous driving

6. NEXT STEPS

- Follow-up empirical study on VTTS for autonomous driving incorporating psychological factors