

Transforming The Swiss Mobility System – Who Are The Future E-Sharers?

The Swiss mobility system is undergoing a paradigm shift from fossil fuel based mobility to more carbon neutral and energy efficient ones. Yet, this transformation is still in its infancy. With the current trends of digitalisation new forms of mobility service emerge. Such service include the option of car and ridesharing as well as Mobility as a Service (MaaS) through easy-to-use mobile apps. In order to reach the CO₂ target defined by the Swiss energy strategy in 2050, a key point is the electrification of passenger cars. To achieve this, it is

suggested that MaaS and e-sharing platforms could foster an acceptance of electric vehicles. While many scholars already investigated the relevant factors that would promote the use of sharing or electric vehicles [1][2][3], less is known about the groups or segments that are open for e-sharing and MaaS. We thus adopted a top-down segmentation approach to identify relevant groups for e-sharing and MaaS, supporting policy makers and practitioners in accelerating the transformation of the Swiss mobility system by developing tailored incentives.

Raphael Hoerler

ZHAW

Institute for Sustainable Development (INE)

raphael.hoerler@zhaw.ch

Uros Tomic

ZHAW

Institute for Sustainable Development (INE)

uros.tomic@zhaw.ch

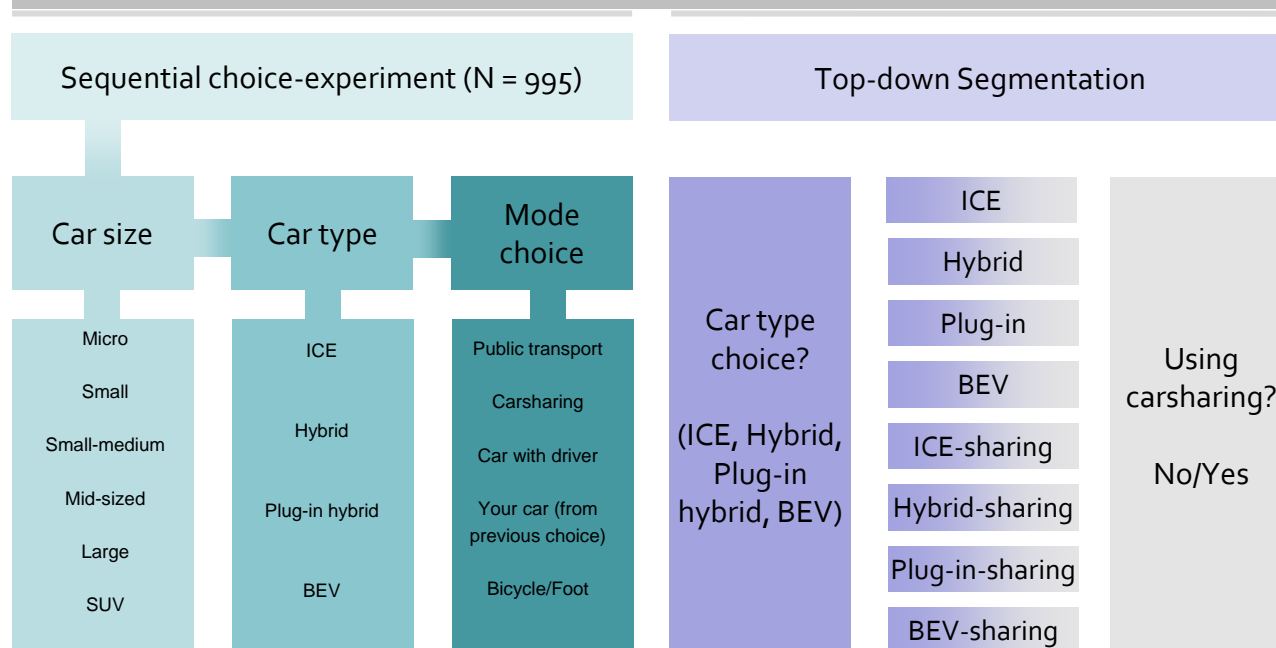
Dr. Andrea Del Duce

ZHAW

Institute for Sustainable Development (INE)

andrea.delduce@zhaw.ch

Approach



Research Question

In a first step, we analysed the **top-down segments** according to a plethora of socio-demographic variables as well as their openness to use MaaS (Q1). In a second step, we investigated the **mode choice decisions** of the **top-down segments** in three specific trip purposes: commuting, weekday leisure less than 10km away from place of residence and weekend trips (Q2).

Q1:

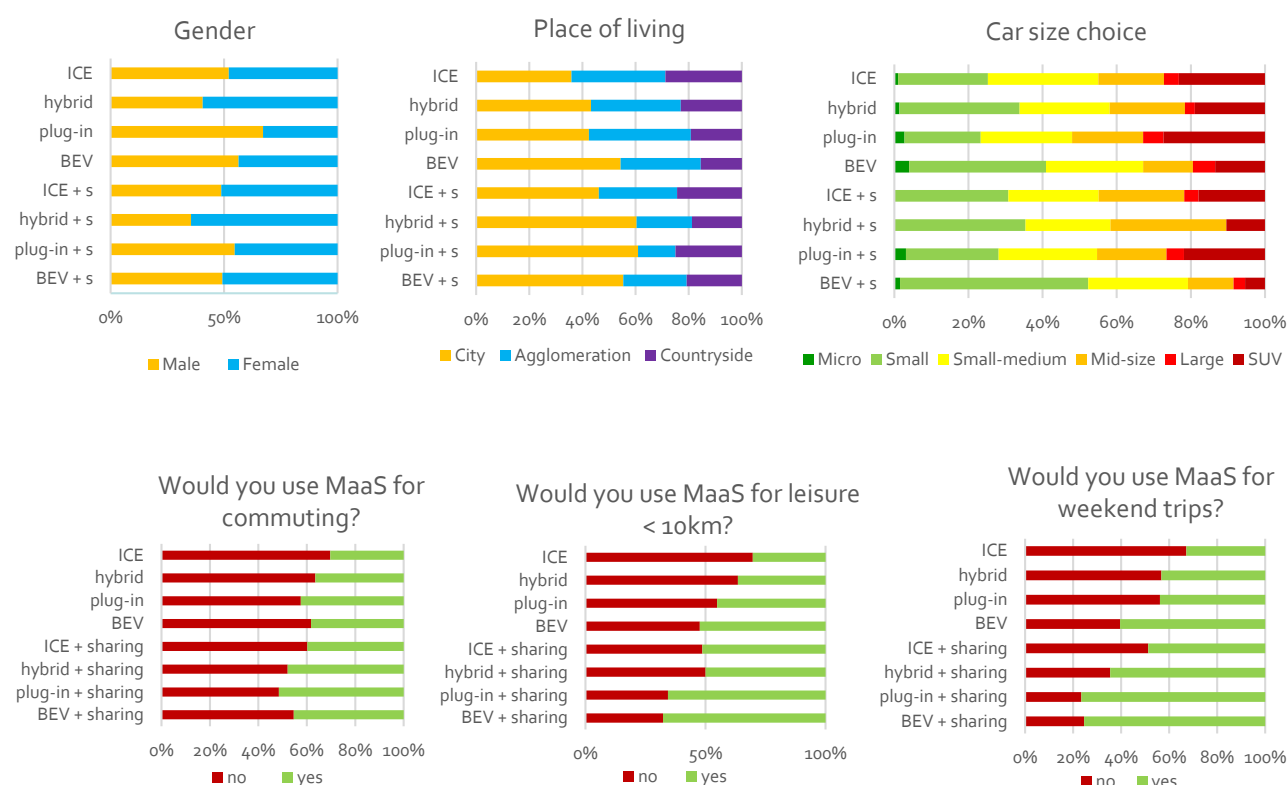
Who are the future e-sharers and MaaS users?

Q2:

Do the segments differ in mode choice?

Preliminary Results Q1

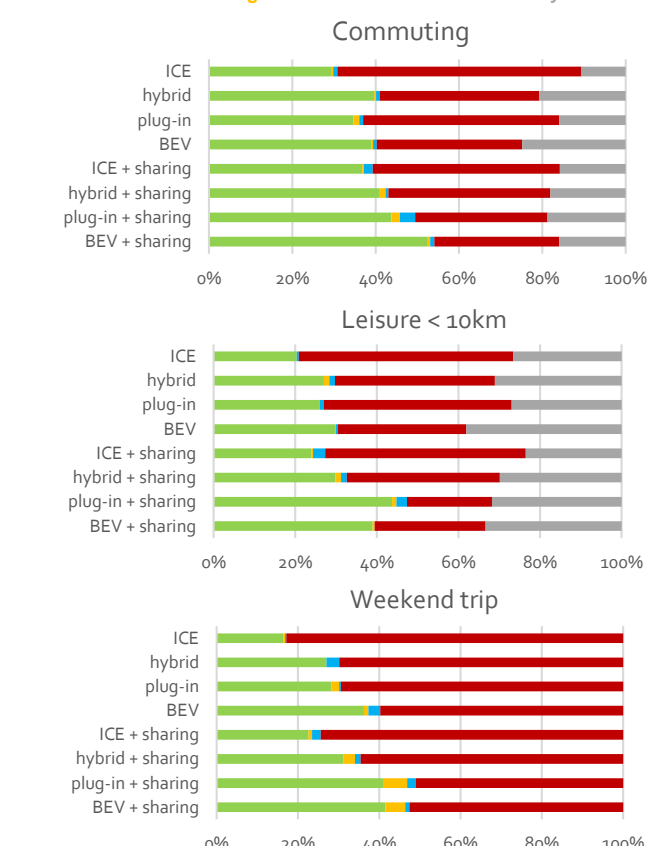
The e-sharers are better balanced in regard of gender compared to solely plug-in buyers. They also increasingly live in the city and opt for a smaller car as compared to ICE buyers. Generally, experience with sharing leads to higher openness for MaaS, while BEV and plug-in buyers display the highest openness.



Preliminary Results Q2

Differences in mode choice for each segment.

Public trans. / Carsharing / Car w. driver / Chosen car / Bicycle&foot



Expected impact

The study is expected to fill the gap of the current literature by defining the characteristics of e-sharers, factors that would increase the likelihood of belonging to this segment and provide further psychological as well as sociological insights of the specific segments. Contrasting the e-sharer segment to the ice group, relevant differences can be revealed and used as starting points when defining tailored policy interventions to promote the uptake of electric vehicles as well as MaaS and as such, increase the sustainability of the Swiss transport system.

References

- [1] Burghard, U., & Dütschke, E. (2019). Who wants shared mobility? Transportation Research Part D: Transport and Environment, 71, 96–109. <https://doi.org/10.1016/j.trd.2018.11.011>
- [2] Kawgan-Kagan, I. (2015). Early adopters of carsharing with and without BEVs with respect to gender preferences. European Transport Research Review, 7(4), 33. <https://doi.org/10.1007/s12544-015-0183-3>
- [3] Mohamed, M., Higgins, C., Ferguson, M., & Kanaroglou, P. (2016). Identifying and characterizing potential electric vehicle adopters in Canada. Transport Policy, 52, 100–112. <https://doi.org/10.1016/j.tranpol.2016.07.006>