

## Capacity Area B2 Topic 1.2 Milestone 2

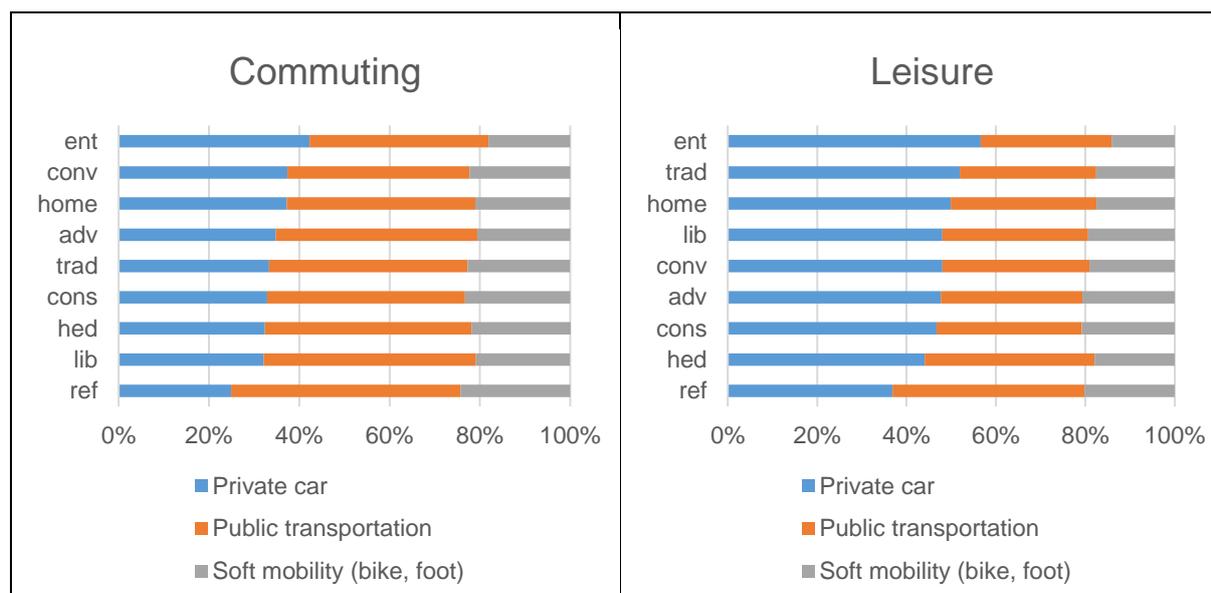
### Empirical analysis on changes of lifestyle and society complete

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This milestone aimed at an in-depths investigation of the influence of lifestyles on mobility behavior and how one can motivate the society to engage in a sustainable mobility lifestyle. The topic was addressed by two different studies yet closely connect to each other.

The first study, where initial results were already presented at the last annual mobility conference in 2019, investigated the influence of mobility lifestyles on mode choice behavior for commuting and leisure trips. The study contributes to the scarce literature body dealing with theoretically pre-defined lifestyles, operationalized as variables or typologies in mobility research. The Otte typology can be constructed based on 10 standardized questions. The typology used in this study is based on Otte typology questions from the SHEDS 2016 wave questionnaire.

The results of a multinomial logit reveal that, controlled for age, sex, income and education, there is a significant effect of lifestyles on the mode choice for leisure and commuting. In particular, not being entertainment-oriented increases the probability of choosing public transport instead of private car for commuting by 68.6%. Not being reflective instead decreases the probability of choosing public transport instead of private car for commuting by 35%. Not being reflective also decreases the probability of choosing soft mobility instead of private car for commuting by 38%. Investigating the influence of lifestyles on leisure mode choice reveals that The analysis of the lifestyle effect on the mode choice shows that not being hedonist and reflective decreases the probability of choosing public transport instead of private car for leisure by 19.5% and 43.5% respectively. In addition, not being entertainment-oriented instead increases the probability of choosing public transport instead of private car for leisure by 93.4%. All the results have to be interpreted relative to the group of advancement-oriented, which were taken as a reference group due to their position exactly in the middle of the endowment-modernity space, on which the typology is based. The lifestyle-specific modal split presented in the figure below illustrates these lifestyle-specific tendencies.



Note: trad: = traditional workers, home = home-centered, ent = entertainment-oriented, conv = conventionalists, adv = advancement-oriented, hed = hedonists, cons = conservatives, lib = liberals, ref = reflexives

These results from the first study are particularly relevant for the SCCER Mobility as only little is known about specific lifestyle typologies and their mobility behavior. Through the low data collection efforts of the Otte typology compared to other segmentation analyses, one could provide decision-makers fast and easy updateable information regarding which lifestyle supports a sustainable mobility behavior, supporting the decision on who should be targeted in order to increase public transport use and decrease private car use.

The future of private car mobility is foreseen to be dominantly electric, powered by batteries. Yet, considering environmental impacts of electric vehicles, smaller vehicles with a smaller battery (and thus a smaller range) should be preferred over cars with bigger batteries. This results in a trade-off between range and environmental impact from the battery size. We will address this challenge by the second study proposing alternatives with a small electric vehicle (including a smaller battery) in combination with either public transport or car-sharing for long-range trips where the range of the EV is not sufficient. We further propose an alternative without any car ownership, as this would result in an even more sustainable mobility lifestyle. This will be investigated by a multiple price list experiment implemented in the SHEDS wave 2020. We included three different treatments to assess the influence of information about the total cost of ownership, increased convenience of electric vehicles and increased convenience of car-sharing.

The results from the second study will guide policy maker, practitioners and mobility-planners on how to best increase the openness by the general public to engage in a sustainable long-term mobility lifestyle. Both, the first and second study thus provide crucial information for an efficient and effective use of limited resources by policy- and decision makers to tackle the aim defined within SCCER Mobility.