MARKET ACCEPTANCE OF SHARED ELECTRIC MOBILITY IN GERMANY

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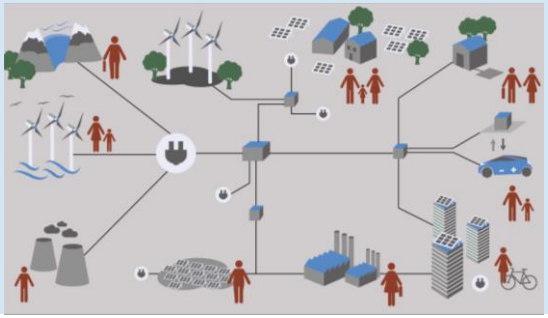

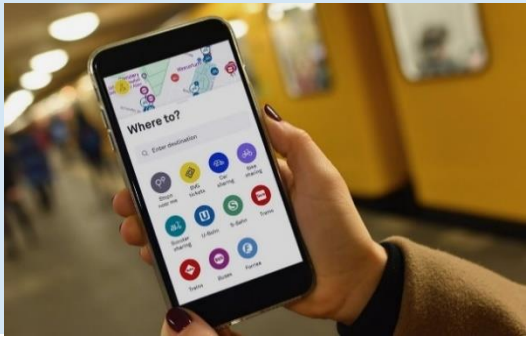

Sources: tagesspiegel.de, voiscooters.com, karlsruhe.stadtmobil.de, joincoup.com, nextbike.co.uk, combined-transport.eu

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- Theory of social acceptance
- Market acceptance of shared electric mobility in Germany
  - Literature review
  - First results of a representative survey
- Summary and conclusion

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Background: New mobility services are becoming more diversified

Carsharing
- Shared use of a car fleet (electric & conventional)
- stationbased (e.g. Flinkster, Cambio, Stadtmobil) and freefloating (e.g. car2go)

Bikesharing
- shared use of a bike fleet (electric & conventional)
- stationbased (nextbike, Call-a-Bike) and freefloating (e.g. Mobike)

E-scootersharing
- Shared use of a scooter fleet (electric)
- freefloating (e.g. VOI)

From product to service

Ridesharing / -selling
- Shared use of a transport service
- Real-time dynamic routes
- Peer-to-Peer or commercial (MOIA, Clever-Shuttle, Berlkönig (BVG), Hansa-Taxi

Multimodal platform
- Use of different services and vehicles
- e.g. swith-hh

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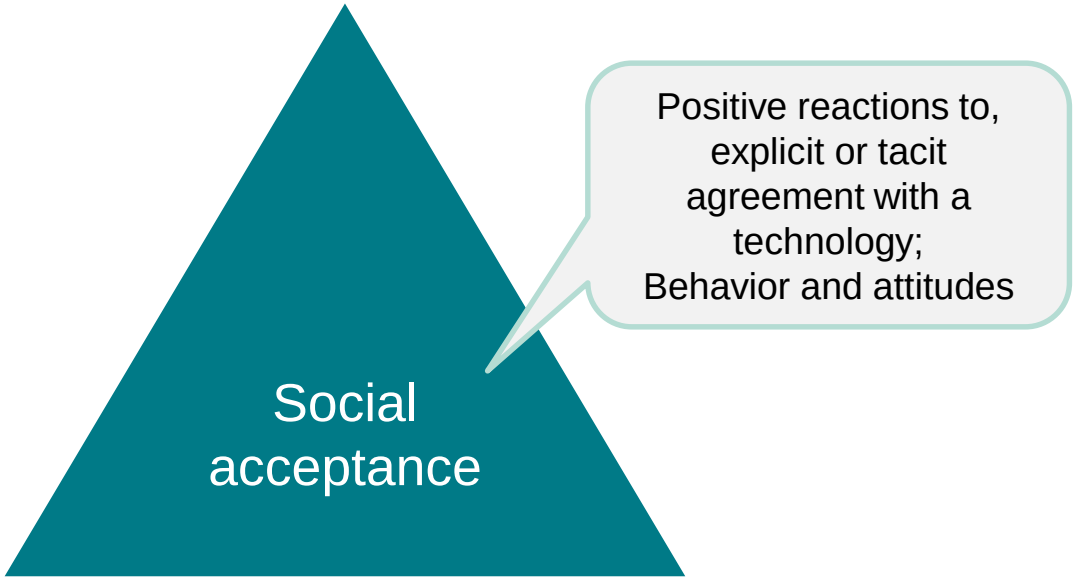
Theory of social acceptance

Socio-political acceptance:

general societal climate towards technology or innovation



Market acceptance:

market success of an innovation

Local acceptance:

attitudes and behaviours exhibited by those indirectly affected

Wüstenhagen et al. (2007)

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Market acceptance of shared electric mobility in Germany: Literature review

Studies on the acceptance of **carsharing** with EVs in Germany. Fields of study:

- **Sociodemographics:** young, employed, highly-educated people, often men, from small households.
- **Psychological variables**:
  - Carsharing-users hold more positive **environmental attitudes** than non-users
  - **Mobility-related attitudes**: EV-sharing users attach less importance to owning a car than non-users and are less dependent on the car for their daily mobility
  - **Affinity for carsharing and EVs** is closely connected
  - For individuals who are interested in using car-sharing **social norms** are relevant for their perceptions on carsharing as well as perceived compatibility with daily life

References: Kawgan-Kagan 2015; Burghard and Dütschke 2018; Hinkeldein et al. 2015; Schlüter and Weyer 2019

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Market acceptance of shared electric mobility in Germany: Literature review

Very little research on the acceptance of **further sharing concepts** (with EVs) in Germany, like bikesharing, e-scooter-sharing and ridesharing

- **bikesharing**: Several socio-scientific studies from the U.S., Europe, Australia and Asian countries
- **e-scooter sharing**: A few socio-scientific studies from the U.S. and Asian countries
- **ridesharing**: Several socio-scientific studies from the U.S., Europe and Asian countries

No further studies referring to the market acceptance of other actors, foremost operators of carsharing, could be identified.

Market acceptance of shared electric mobility in Germany: First results of a representative survey

Research design	Objective	Target group	Questionnaire
Representative online survey (panel)	Acceptance and effects of new mobility services on the mobility behavior	German population of 18 years and older in major cities (>100.000 inhabitants)	Four different new mobility services - carsharing, bikesharing, e-scootersharing, ridesharing - presented to four subsamples

Sample size: n=3.061

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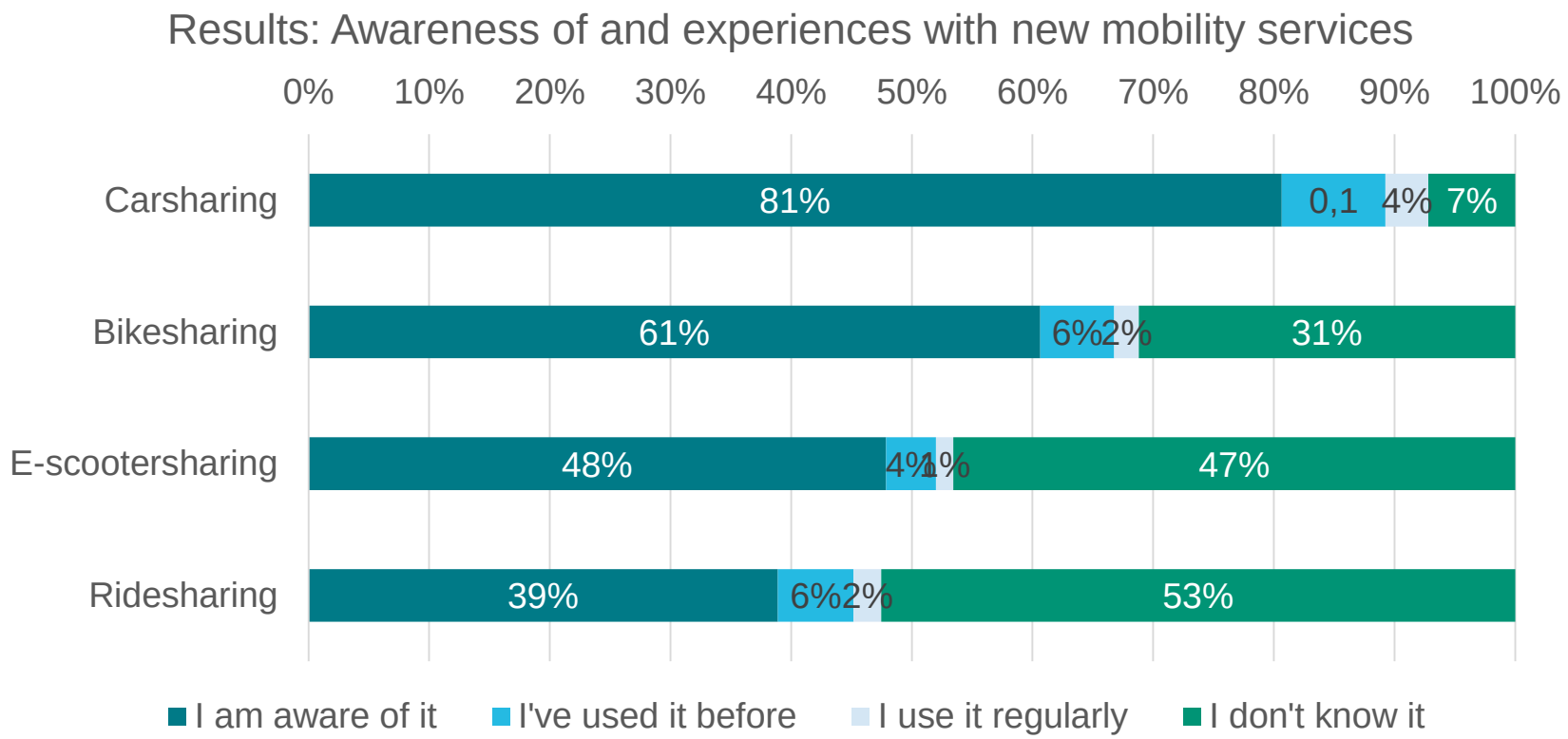
Market acceptance of shared electric mobility in Germany: First results of a representative survey

Sample description

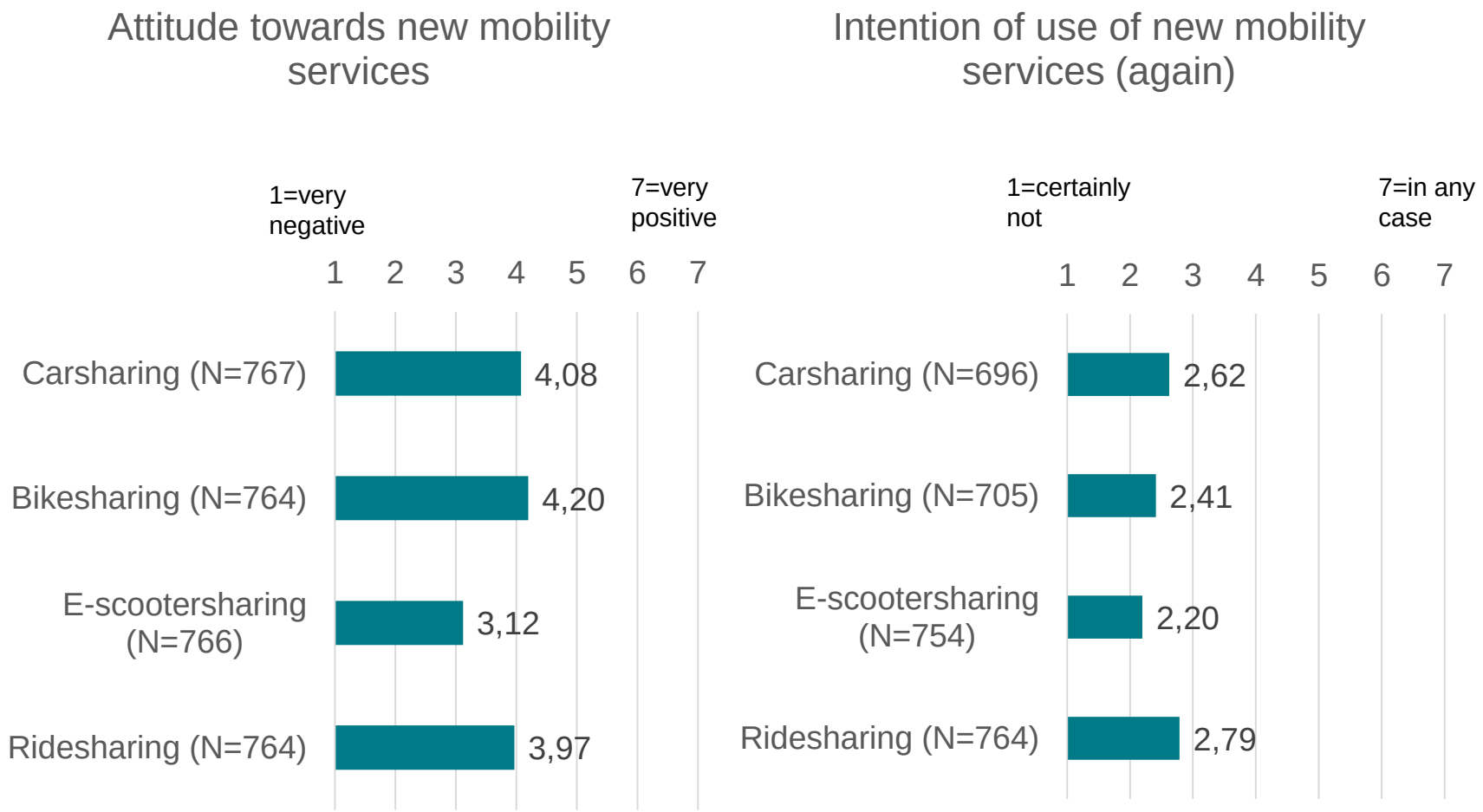
- Total sample and 4 subsamples are representative for the population in major cities in Germany (quotas: age, gender, education, region)
- Mobility-related characteristics
  - Availability of car in household: Always: 61%; often: 12%; rarely: 9%; never: 18%
  - Public transport abo: 46%

Market acceptance of shared electric mobility in Germany: First results of a representative survey

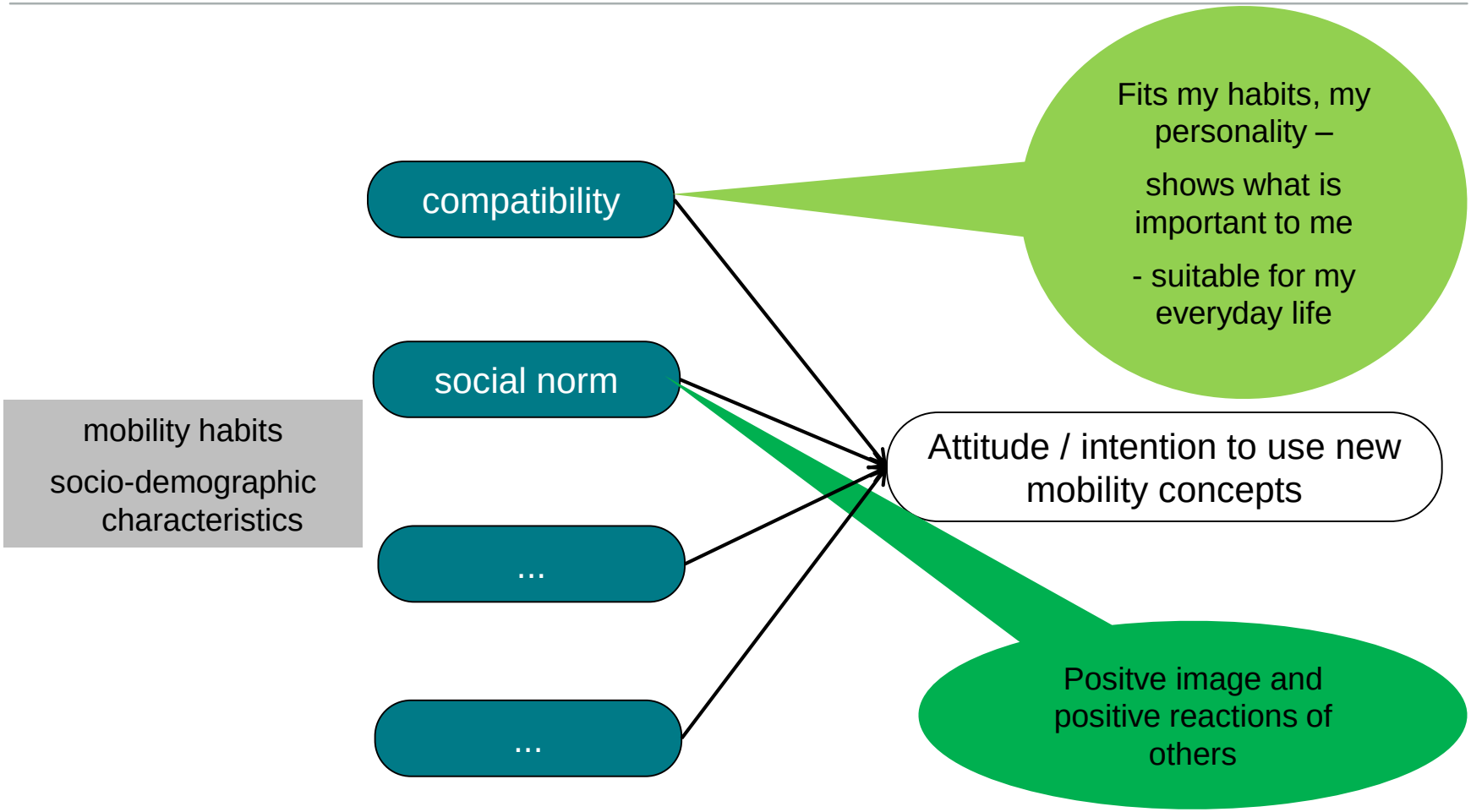


n=3.061

Market acceptance of shared electric mobility in Germany: First results of a representative survey



Market acceptance of shared electric mobility in Germany: Further analyses planned

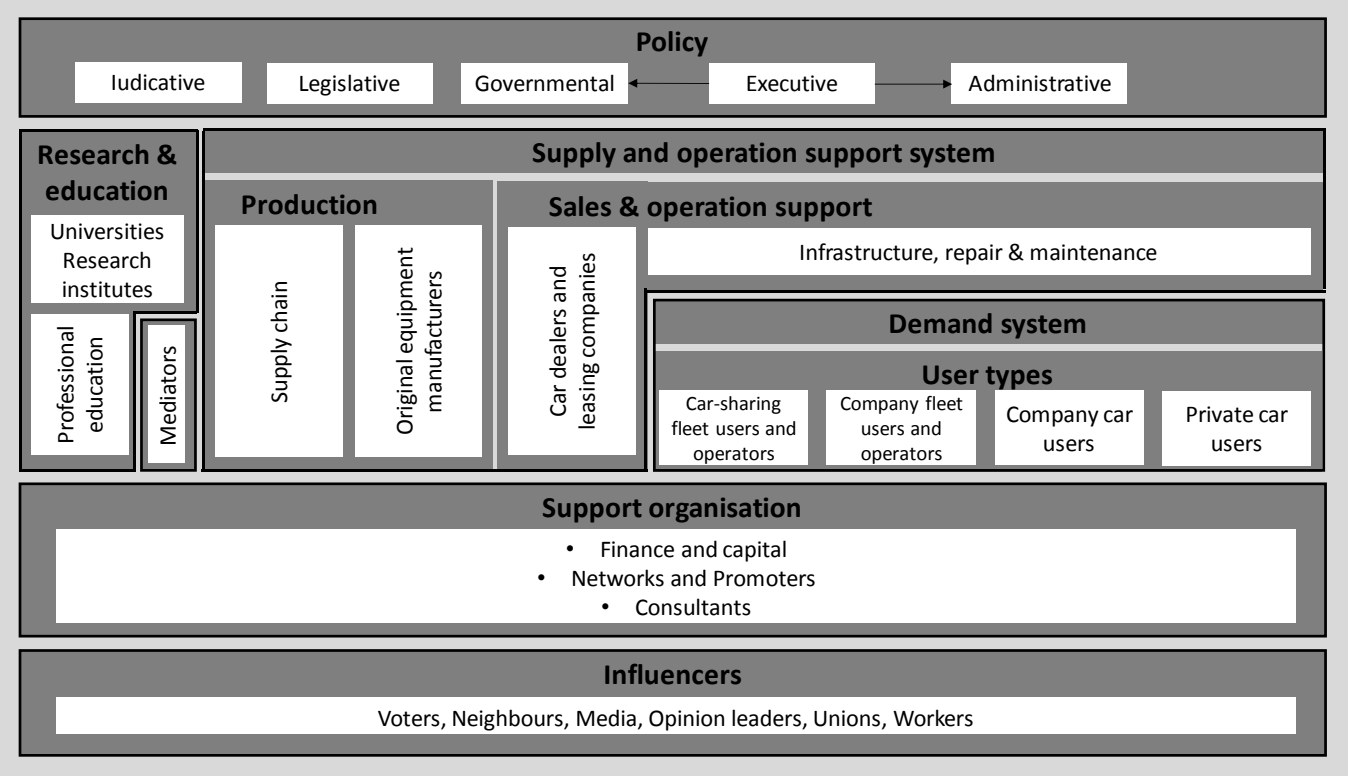


Summary and conclusion

- Especially the new sharing services (e-scooter- and ridesharing) are not yet very well known among the population
  - Regular users: Between 3.6% (carsharing) and 1,4% (e-scootersharing)
  - Intentions of use are still at a rather low level.
- Population is rather neutral towards new mobility concepts; e-scootersharing is evaluated slightly more negatively, probably due to negative media reports
- Further analyses planned to reveal significance of psychological variables for the attitude and intention to use these new services
- Beyond the demand system and market acceptance, there is very little research on further dimensions of social acceptance: Socio-political and local acceptance

Actors in the technological innovation system

- For a transition towards an electric transport system a deeper systemic understanding of all actors is necessary: potentials for further acceptance research on electric mobility



Thank you for listening!

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