

Publication

Will consumers prefer shared and pooled-use autonomous vehicles? A stated choice experiment with Swiss households.

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Autonomous vehicles, understood as vehicles that do not require manual steering, will cause disruptive changes in the transportation sector. Many studies on autonomous vehicles address the sustainability potential of this technology, and they assume that vehicles will no longer be privately owned and will be used with pooling options (multiple riders on a trip). However, there is currently little evidence to indicate whether this assumption is supported by user preference. To address this gap, an online choice experiment including 709 participants was conducted. It assumed the full-market penetration of autonomous vehicles and explored future mode choices, considering both short-term and long-term mobility decisions. The experiment tested the influence of 15 short-term and 13 long-term decision instruments to encourage the adoption of shared and pooled use of autonomous vehicles, like autonomous taxis and autonomous public transport. Our findings partly support the assumption in the existing literature that vehicles are likely to be used in a pooled mode. In the control condition, 61% of Swiss respondents preferred pooled autonomous vehicles over private autonomous cars. Moreover, stated preferences indicated that combined instruments influencing comfort, cost, and time are likely to increase the proportion of pooled uses of autonomous vehicles.

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