

**IC - (20925) - USER-BASED REDISTRIBUTION IN A FREE-FLOATING CARSHARING SCHEME**

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**Background and objectives**

Free-floating carsharing schemes, where members can pick-up and return cars anywhere within a certain city zone, are on the rise. Research has shown that CO<sub>2</sub> savings could be achieved through a decrease in private vehicle purchases and the efficiency of vehicles used in the schemes. However, often cars are not available in high-demand zones or have long idle times in low-demand zones, leading to operator redistributions. This of course negates CO<sub>2</sub> savings and increases operation costs.

**Process and methods (for empirical research)**

In a first step we investigated preferences for four/five incentive strategies (extra driving time, financial discount, collecting points (money) for social or environmental projects, gamification approach, guaranteed parking space\*only for dropping off) for user-based redistribution to motivate users to walk further when picking-up cars in low-demand zones and dropping-off cars in high-demand zones. We now test the most popular strategy, receiving extra time with different time-variations, in a 6 months RCT (one experiment group and one control group) field experiment lasting from 01.22 - 07.22. The field experiment collects booking information and survey data.

**Main results (or main arguments in the case of critical reviews)**

The talk will provide an overview of the project and report the latest (preliminary) findings.

**Implications for research and practice/policy | Importance and originality of the contribution**

To achieve a significant reduction in CO<sub>2</sub> new modes of operation are needed in all energy sectors, including the mobility sector. The findings of this study will inform businesses and other sharing operators on how to best incentivise user-based redistribution of cars so that maximum CO<sub>2</sub> savings can be achieved within a free-floating carsharing scheme.