NRP71

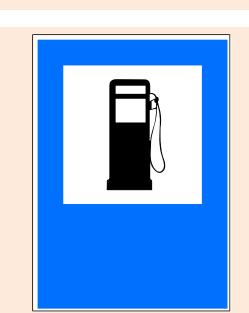
Transport and mobility

Sharing is Saving

As on www.nrp71.ch

Overview

How collaborative mobility can reduce the impact of energy consumption for transportation



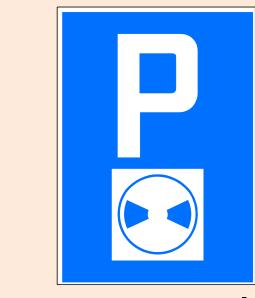
In Switzerland, 25.9% of the total energy is consumed as fuel.



400m² of land per inhabitant of which 31% used for transportation



858 days of congestion on the Swiss national road network in 2013



private cars only used for 1 hour per day

car-sharing

bike-sharing

saving through sharing

carpooling

???

Compose a selection of possible scenarios with

Task 2/5: Use a multi-agent-based microsimulation to simulate

the effect of the different scenarios

different levels of diffusion and integration of shared

modes, pricing regimes as well as transportation policies

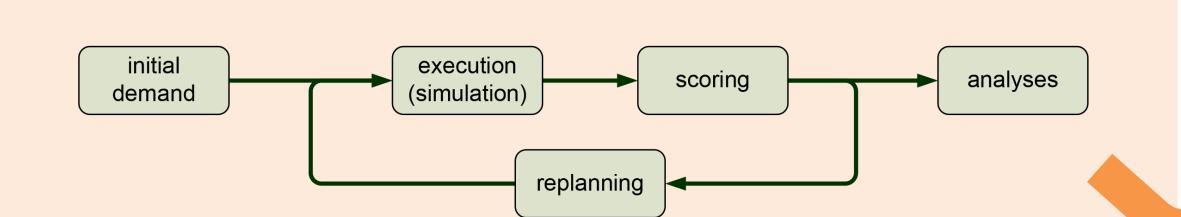
Task 4: **Stated Preference-Survey**

questions based on hypothetical scenarios derived from best-performing scenarios – 1'000 responses

Use survey results to estimate choice models to allow a better simulation of the trade-offs of the public regarding adoption of shared mobility and response to policies

MATSim

Task 1:



Task 3/6: Analyse scenarios with respect to costs and benefits including energy and resource consumption, land use, identification of winners and losers

Results

Choice Models & Simulations to better understand the public reaction towards shared mobility

Policy Evaluation

to identify effective measures to steer the developments

Impact Quantification

to evaluate the potential of shared mobility for energy savings

Future Scenarios

of high significance enabling planners to shape the change

Partners and Collaboration

mobility car sharing

- Partner of this project
- ► Exchange of experiences
- ► Provides car-sharing data
- Receives insights into promising future business models



- Commissioned a study on the free-floating car-sharing pilot in Basel
- Receives insights into promising future business models

Energy Turnaround

Innovative mobiliy services

Transport **policies** & taxation

Strategic mobility decisions

- Home/work location
- Car purchase
- Mobility subscriptions

Tactic mobility decisions

- > Activity choice
- Mode choice
- Time planning



The transportation sector accounts for a large share of the Swiss energy consumption. Efficiency can only be increased by new systems and/or a change in behaviour. This research provides a calibrated tool to estimate effects of large-scale shared mobility solutions and supporting policies prior to their implementation.

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