

## PlayMobi

### Changing mobility behavior in a playful way

A project funded in course of the call **Mobilität der Zukunft** (Personenmobilität)

In the course of "PlayMobi" an integrative game concept was developed, which promotes diversity in individual mobility choices and encourages players to choose inter- and multimodal mobility options. The research approach is based on human playfulness (" homo ludens ") in course of which game mechanics, motivation and commitment are key factors for promoting sustainable mobility behavior.

The development of the game concept and the app demonstrator "traces" took place using the mobile living lab method in order to involve the target group as soon as possible. Following this approach, the basic game mechanics, the functionality and usability were optimized iteratively based on the feedback from potential audiences. In addition, experts from the field of mobility and the game development were also involved, in order to enable a high level of technical and practical implementation.

„traces“ represents a synthesis of a serious game with location based gamification elements, latest technologies (like NFC and geofencing techniques) as well as behavioral theories (self-regulation model, flow theory, FOGG model). The goal of the project was to promote multimodal mobility in urban areas by changing and enhancing existing behavioral patterns. Alternative modes of transportation were promoted in course of the game while the reward system included virtual and real incentives.

Following the game motto - „make Vienna more colorful“ – each player left colorful traces (see right screenshot) on a gray city map through the use of climate-friendly means of transport (cycling, public transportation, micro scooters, walking, car sharing). Motivating game mechanics (like emptying and filling virtual paint pots), an exciting narrative, on-site interventions at busy places in combination with challenging quests encouraged players to use as many different mobility options as possible. Each quest was tailored to predefined player types, in order to increase the level of personal involvement.



The project was evaluated using an extensive repertoire of methods (focus groups, expert workshops, summative evaluation). The results of the 2 -week field test included recommendations for the optimization of the game and an impact analysis with respect to the behavioral and cognitive effects.

It was shown that the „traces“ game was generally well accepted. The success of the project is indicated by the numerous tracks which were recorded until well after the end of the field test. Bugs or tracking problems which occurred occasionally were resolved gradually through regular updates. Although the main aim of changing behavioral patterns with respect to increased multimodality could not be demonstrated statistically, a significant impact on the personal attitude towards and the perception of environmentally friendly transport could be found. These results could serve as facilitator for future research projects.

# Mobilität der Zukunft



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