

# Living Labs for Transition Experiments (TE). A New Methodology to Accelerate the Change of Behaviors, Attitudes and Mindsets (MACBAM) towards Sustainable Mobility



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## INTRODUCTION

The concept of Transition Management (TM) and Transition Experiments (TE) [1]-[5] emerged at the beginning of this century in the Netherlands as a methodology to accelerate systemic changes towards sustainability in society. In the present action-research, these methodologies are articulated in an innovative way with the Urban Acupuncture (UA) project techniques, in a continuous interaction of experimentation, reflection and evaluation, consummating a logic of "learning-by-doing". Thus, with the main objective of defining and evaluating a Methodology to Accelerate Change in Behaviors, Attitudes and Mentality (MACBAM) towards the promotion of Sustainable Urban Mobility (SUM) [6], a cyclic interaction between research techniques and action techniques (evaluated by research techniques) was applied to a Living Lab in a neighborhood in Braga, as an exploratory case study. The use of Experimentation and Simulation in an incubator allowed the analysis of social phenomena in a real context, the testing of research hypotheses and the identification of causal effects of variables on outcome measurements. It also allowed the engagement of Transition Agents, promoting capacity building and mutual learning (between Researchers, Administration and Society) to change the current system to a more sustainable one with an impact on Structure, Culture and Practices.

### RESEARCH QUESTION

What is the model that Accelerates the Change of Behaviors, Attitudes and Mentality of the Society for the Promotion of SUM?

### RESEARCH HYPOTHESIS

The articulation of TE with UA projects increases the impact on changing the Behaviors, Attitudes and Mentality of Society towards the Promotion of SUM.



FIGURE 1, 2 AND 3 - TRANSITION ARENA - LOCAL AGENTS

### METHODOLOGY

This Research in Architecture (with a strong transdisciplinary component) used an Action Research Meta-Method [7] that combined the Mixed Method (quantitative and qualitative), the Case Study, the Holistic, Experimental and Simulation Method. Thus, the research process, after an exhaustive literature review, began by exploring the physical and social conditions of the case study, which came to frame the application of TE and confirm the hypothesis that the study area had favorable physical and social conditions for the application of the methodology. This was followed by a monitoring of the Transition Arenas (TA) (with the involvement of pioneering transition agents who were challenged to create a Transition Agenda for the city of the future 2050) and the TE (which tested changes in the redistribution of space from cars to pedestrians). These procedures framed the preliminary design and the UA Project for 2050, developed in co-design. The final project resulted from the engagement through TE, Co-Design, Virtual Reality and Augmented Reality.



FIGURE 3, 4 AND 5 - TE - LIVABLE STREETS; PARKLET; AND COLLABORATIVE PAINTING LANE (PIANO)

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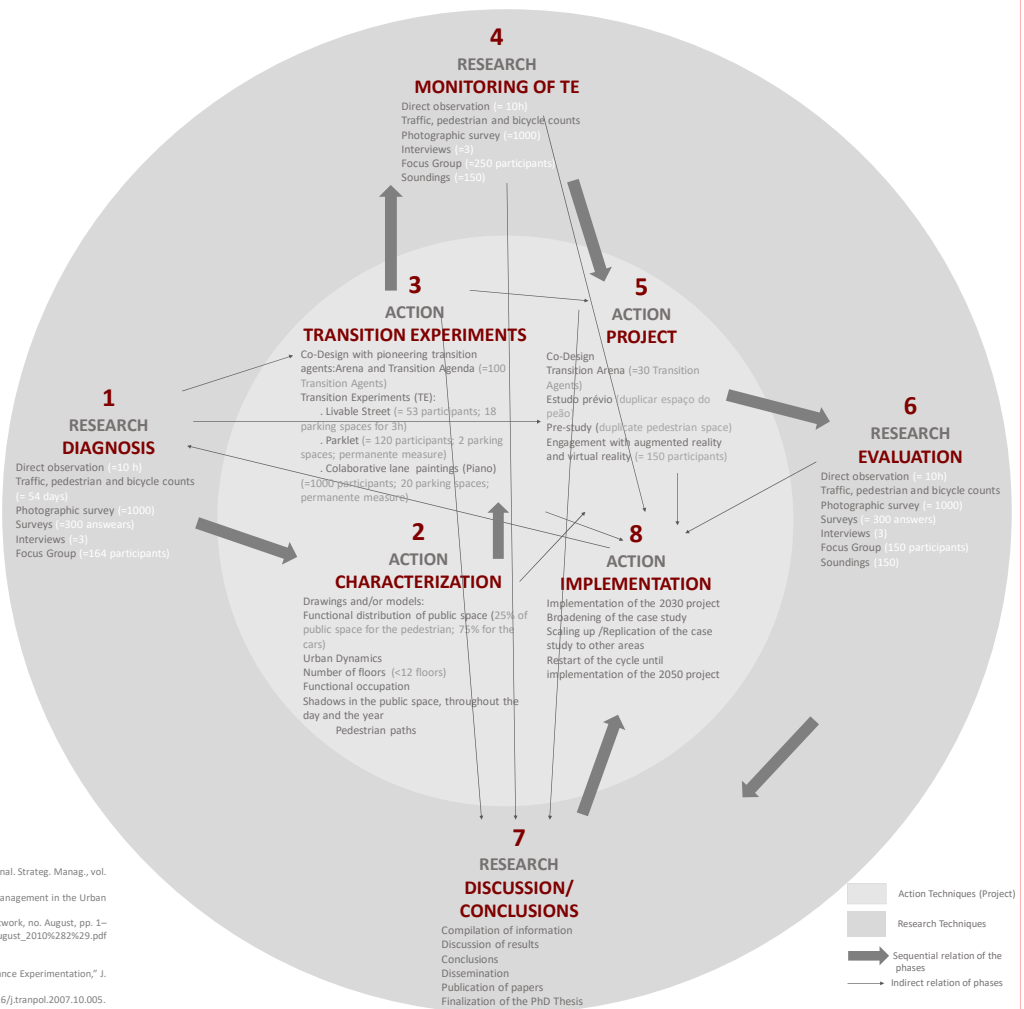
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### PRELIMINARY RESULTS AND FUTURE WORK

The initial engagement with pioneering Transition Agents ensured that they focused on sustainability targets and the subsequent capacitation of stakeholders enabled collective empowerment in this direction. Around 3000 people participated through: Focus Group, Surveys, Interviews, Transition Arena, TE and co-design. The Co-Design process enabled the capacitation and mutual learning between researchers, administration and society. The social component of the research was essential for the realization of the physical action. The Future Thinking methodology (setting the challenge in 2050 and then returning to the present) allowed to define more ambitious long and short term goals. This exploratory study allowed to define a new MACBAM that could be replicated in other case studies and dynamically refined making it more robust.

## MACBAM SCHEME

### ACTION RESEARCH METHODOLOGY APPLIED TO THE CASE STUDY



### PROJECT 2050 PROJECT 2040 PROJECT 2030



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