EDITORIAL

1 Christoph Kueffer
Can real-world labs reach through the fog?

INTRODUCTION

4 Niko Schäpke et al.
Impacts of real-world labs in sustainability
transformations. Forms of impacts, creation strategies,
challenges, and methodological advances

FORMS AND TYPES OF IMPACTS

- 10 Michael Kreß-Ludwig, Oskar Marg, Rieke Schneider, Alexandra Lux Lessons from transdisciplinary urban research to promote sustainability transformation in real-world labs. Categories, pathways, and key principles for generating societal impact
- 18 Philip Bernert, Annika Weiser, Teresa Kampfmann, Daniel J. Lang Impacts beyond experimentation – Conceptualising emergent impacts from long-term real-world laboratory processes

- 26 Michaela Christ et al. Putting sufficiency into practice. Transdisciplinary sufficiency research in urban development: The Hafen-Ost real-world laboratory in Flensburg, Germany
- 35 Dominik Noll et al. Insights into 15 years of transdisciplinary research on a small Greek island

MECHANISMS AND CONDITIONS BENEFITING IMPACT CREATION

- 44 Dierk Bauknecht, Klaus Kubeczko
 Regulatory experiments and real-world labs:
 A fruitful combination for sustainability
- 51 Nicole Mitchell, Carolin Herdtle, Klaus Jacob Examining the dynamics of social cohesion: A call for a different perspective on scaling impacts of real-world laboratories
- 57 Alice Guittard et al.

 Using multi-actor labs as a tool to drive sustainability transitions in coastal-rural territories: Application in three European regions

CHALLENGES IN ADVANCING IMPACT

- 64 Jetske C. Erisman et al.

 Labbing for sustainability transformations:

 Learning about challenges and strategies for impact
- 72 Anke Klaever, Katharina Goetting, Julia Jarass
 Conflicts in real-world labs Perspectives of critical
 and ambivalent residents on a temporary public space
 redesign project in Berlin
- 80 Manuel Jung, Alexander Wentland
 Beyond scalable impacts: Roles of mobility experiments
 in local transition governance
- 87 Artem Korzhenevych
 Speaking of success: Real-world experiments for sustainability transformations and causal inference

METHODOLOGIES FOR SYSTEMATIC ANALYSIS OF IMPACT

94 Jasmin Wiefek, Emilia Nagy, Martina Schäfer Formative evaluation of transdisciplinary research for systematic impact orientation in real-world laboratories

- 102 Matthias Wanner, Karoline Augenstein, Timo von Wirth,
 Daniel J. Lang
 Impacts of urban real-world labs. Insights from a
 co-evaluation process informed by structuration theory
 in Wuppertal-Mirke
- Marlene Franck, Nadja Hempel, Sebastian Preiß,
 Ralph Boch
 Creating and observing impacts in transdisciplinary
 projects Insights from the social design lab
- 116 Niko Schäpke et al.

 Gaining deep leverage? Reflecting and shaping real-world lab impacts through leverage points