

Thematic collection

Real-World Laboratories as Spaces of Sustainability Transformations: A Relational Perspective

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Call

Since the 2010s, **real-world laboratories** as a research and practice approach **have steadily gained importance in the scientific landscape**, particularly in transdisciplinary and transformative sustainability research. The concept of the real-world laboratory has also found its way into federal, state and local politics and, with the planned real-world laboratory law in Germany now manifests in federal legislation.

A diverse and increasing variety of activities in science and practice can empirically be observed that make use of labels such as **‘Real-World Laboratory’** or **‘Transformation Lab’**, **‘Urban Living Lab’**, **‘Transition Experiment’** and similar terms. They cover many topics and address different policy areas, ranging from mobility, energy and nutrition to coastal fishing and forestry as well as education policy and academia itself. Starting with larger cities and urbanised areas, many small and medium-sized towns, rural areas and marine regions now also form their spatial context and boundary object. This diversity features divergent understandings of real-world laboratories as a concept, method, research infrastructure or governance approach. The expectations and goals associated with the approach and the roles and responsibilities of involved actors also differ significantly. At the same time, this diversity represents a great treasure of plurality for shared learning among science and practice.

Acknowledging the debate on the **importance of a spatial perspective in sustainability transition and transformation research** in general (Egermann et al. 2024), we consider the relationship between **real-world laboratories and space** as fruitful **theoretical, empiric and methodological perspective** and put it centre stage in this thematic collection. In doing so, we

follow a relational understanding of space (Egermann et al. 2024, von Wirth and Levin Keitel 2020).

This Special Issue / Thematic collection is calling for paper contributions in four thematic blocks, which we describe in the following:

In a **first thematic block** '*Real-world laboratories, conceptions of space and spatial planning*', we invite contributions that address the relationship between real-world laboratories and space as well as spatial planning. We welcome theoretical, conceptual and methodological perspectives that deal with this relationship, the spatial embedding of real-world laboratories and their evolutionary role of co-creating spatial and transformative contexts, as well as empirical contributions that increase our understanding of the connection between real-world laboratories and space.

In a **second thematic block**, we invite theoretical, methodological and empirical contributions that study real-world laboratories from a governance perspective and shed light on '*Real-world laboratories as spaces to foster transformative governance*'. These contributions should explore how experimentation in real-world laboratories strengthens transformative capacities. They could further investigate whether and how learnings from experimentation in real-world laboratories can be embedded in existing practices, cultures and structures, and transform modes of governing. We welcome contributions that analyse how real-world laboratories introduce novel modes of governance (e.g. co-creation) and how these complement or create tensions with existing modes of governance (e.g. hierarchy).

In the **third thematic block**, '*Real-world laboratories as spaces of conflict in society*', we invite theoretical, methodological and empirical papers that consider real-world laboratories and real-world experiments as arenas of conflict. Conflictual settings often include questions of actual or perceived distribution or access to resources, goods or processes, different value systems and worldviews. Being spaces of conflict means that necessary negotiations about different values and interests about concrete sustainability issues take place, while also underlying societal dynamics, such as insecurities, polarisation and populist simplifications are expressed. This block calls for new contributions that analyse and explain such conflicts and the involved actors in their relational context. We aim to receive contributions that shed light on the consequences for real-world laboratory work with regard to formats, methods, processes and actor roles during times of transition backlash and societal friction.

In a **fourth thematic block**, we would like to address '*Real-world laboratories as spaces for learning and relationship-building*'. We are particularly interested in whether and how real-world laboratories can fulfil the claim of an individual and collective learning space and how, considering the conflicts and tensions emerging in real-world laboratories (see thematic block 3), real-world laboratories can be conceived and designed as safe places for transformative learning and relationship building, even and especially when intense emotions can be observed in relation to (envisioned) change (e.g. experiences of transformation, fear of loss). We also welcome contributions that use real-life laboratory work to address changing relationships between humans and nature.

Possible but not conclusive questions on these four thematic blocks could be

A) Real-world laboratories, conceptions of space and spatial planning

1. What **spatial understandings** do real-world laboratories have and what implications does this have for real-world laboratory research and practice?

2. How do **scale levels, system boundaries and geographies** of real-world laboratories affect their design and impact?
3. What role do **spatial and sectoral planning** play in real-world laboratories and real-world experiments?
4. How have experiences and findings from the real-world laboratory work affected subsequent or parallel **formal/informal planning processes** (e.g. shifts in discourse, reorientation, ignorance)?

B) Real-world laboratories as spaces to foster transformative governance

1. How can real-world laboratories and experiments strengthen **transformative capacities** and promote transformative change towards sustainability?
2. How can findings and learnings from real-world laboratories and experiments **be embedded in existing practices, cultures and structures**?
3. How can real-world laboratories and experiments **be embedded in governance arrangements** and which motivations, interests and values underlie these processes of institutionalisation?
4. How does **governance through co-creation (new public governance) co-exist, complement or create tensions with governance through hierarchy** (old public administration)? How can policy-makers and public officials navigate such tensions?

C) Real-world laboratories as spaces of conflict in society

1. What **conflicts arise in real-world laboratories**, how do real-world laboratory actors deal with these conflicts as well as with hostility and emotions, and what additional roles and actors (e.g. intermediaries, mediators) are needed to address these challenges?
2. How does real-world laboratory work relate to **current transformation dynamics**, such as an increasing unrest and (perceived) destabilisation of society and democracy and what could be the **generative power** of real-world laboratories as new political actors and conflict arenas?
3. To what extent are real-world laboratories suitable as necessary **spaces for negotiation**, outside of formalized political decision-making, for example with regard to values and norms as well as the specific interests of different societal actors and institutions?
4. To what extent do (temporary) real-life experiments become **triggers for underlying value conflicts in society** and what consequences does this have for real-life laboratory work and its impacts?

D) Real-world laboratories as spaces for learning and relationship-building

1. In what form do real-world laboratories enable **in-depth reflection, transformative learning, political education and the acquisition of democratic competences** and thus become places of learning for socio-ecological transformation?

2. How do real-world laboratories create '**safe-enough spaces**' for joint learning and **experimentation** in an increasingly uncertain, politically and affectively polarised environment and what significance does the composition of the participants (homogeneous/heterogeneous) have and how does the participation of diverse, even polarised actors succeed?
3. How do real-world laboratories enable the perception and handling of **emotions** of (non-)sustainability and transformation (e.g. climate anxiety, environmental grief, transition pain) and affective polarisation?
4. What perspectives and experiences of **changes in relationships with non-human actors** exist in the real-world laboratory context, what methods are used and what conclusions can be drawn for sustainability transformation as a result?

Timeline:

01.01.2025 Opening: Call for extended abstract

05.02.2025 Closing: Call for extended abstract

14.02.2025 Notification of acceptance starts

14.03.2025 Notification of acceptance ends

Please save the date(s):

19.03.2025 Option 1: Online workshop with authors (1pm - 5pm, CET, UTC+1)

24.03.2025 *Option 2: Online workshop with authors (9am - 1pm, CET, UTC+1)*

31.03.2025 *Option 3: Online workshop with authors (9am - 1pm / 1pm - 5pm, CET, UTC+1)*

01.04.2025 Opening: Submission of full papers

30.09.2025 Closing: Submission of full papers

31.03.2026 Closing: Coordination of the thematic collection

Submission of extended abstracts:

We co-create this thematic collection based on a two-stage submission process. If you are interested in being part of this thematic collection, please send us an extended abstract including:

- working title,
- list of authors and affiliations,
- abstract of approximately 500 words
- information which section (A, B, C, D) you will contribute to,
- information which format your contribution has according to the options of the journal. Please consult the information on the website and be aware that for this thematic collection the spatial focus extends the 'urban' lense and includes all spatial categories and scales.
 - [Research](#): Original research work on the subject.

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 - [Analysis](#): propose new research topics, approaches or concepts for advancing the science and practice
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- Please indicate if you would be available as reviewer for other contributions.

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