

Knowledge to transition:

Settings and approaches for co-production

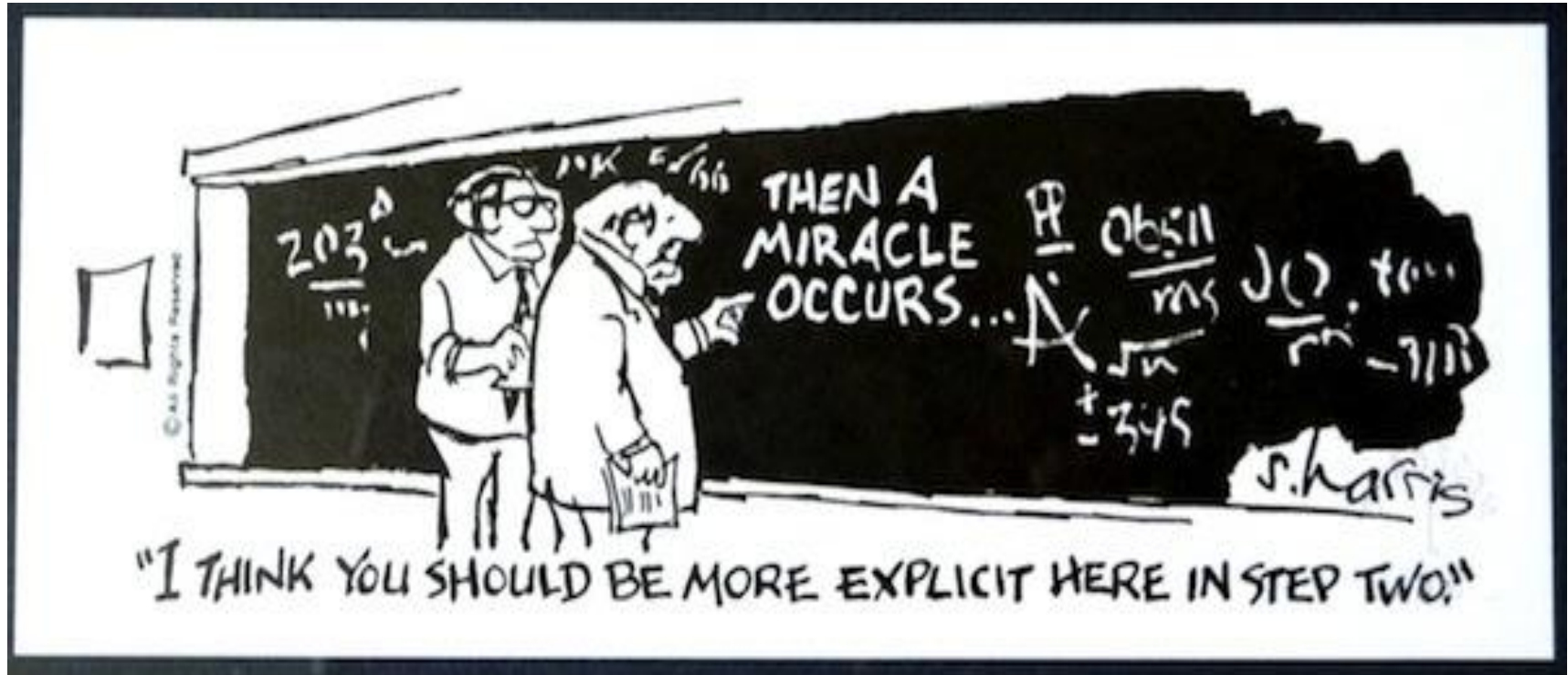
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FU Berlin, April 2nd 2019



The challenge to create change (towards sustainable pathways)



Key arguments

1. CONCEPTUAL POSITION: Sustainability transitions require socio-technical system innovation.
2. KNOWLEDGE: Transition knowledge requires to combine scientific rigor with societal relevance & action.
3. GOVERNANCE: Transition governance builds on Settings to experiment and Strategies to translate lessons learnt to diversified policies and societal uptake.

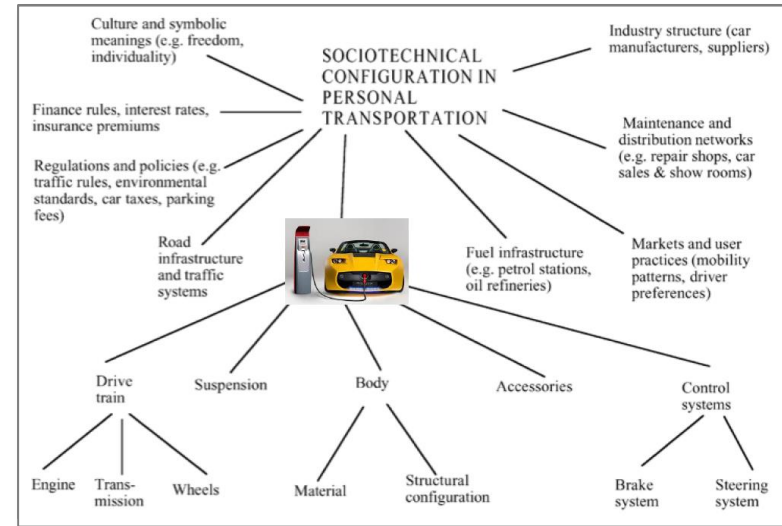


Conceptual position: Socio-technical system innovation

Transition theory proposes system innovation, i.e. deep-structural changes of socio-technical configurations underlying the respective sectors. (Markard et al. 2012; Van Den Bergh et al. 2011)

Technological innovation or system optimization alone will not suffice. (Loorbach et al 2017, von Wirth et al. 2019)

- Rebound effects
- Institutional lock-ins

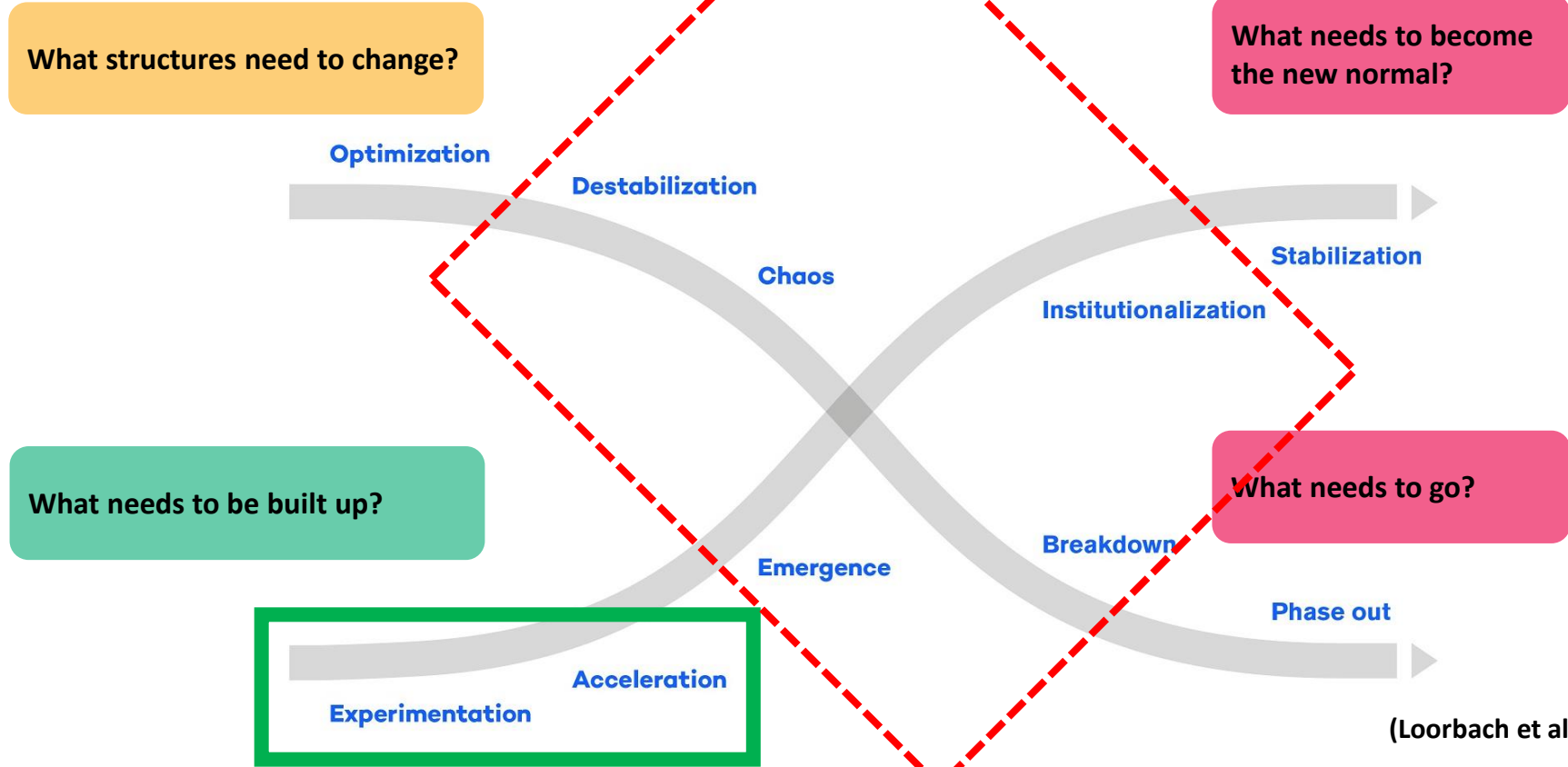


(Geels 2005)

Navigating sustainability transitions

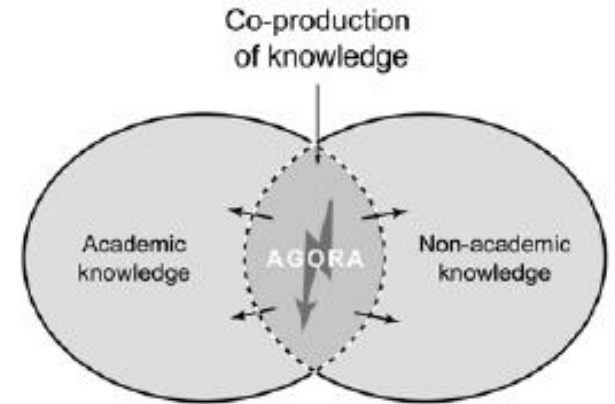
- Conventional policy interventions, e.g. R&D investments or targeted subsidies (alone), will most likely not be enough to initiate and foster sustainability transitions. (Fuenfschilling & Truffer 2016)
- Transition scholars call for governance that is built around ‘provisional, flexible, revisable, dynamic and open approaches that include experimentation, learning, reflexivity and reversibility’ (Kuhlmann & Rip, 2014).

Navigating Sustainability Transitions



Transition knowledge(s)

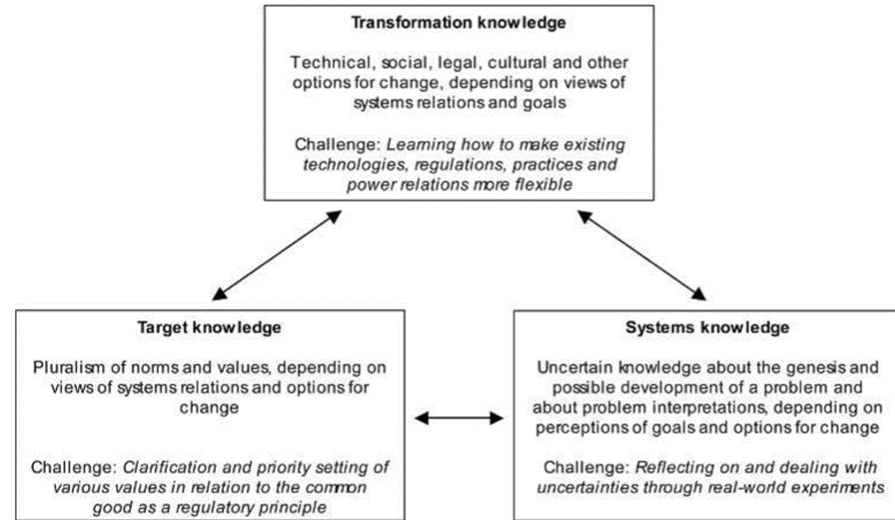
- Grand societal challenges as persistent, contested, value-loaded problems asking for knowledge from different scientific disciplines and societal actors! (Maurer et al 2013; Lang et al 2012)
- Claims for joint problem solving between science and society. Contextualize (e.g. sustainability) research around contested stakeholder interests foster more “socially robust knowledge”. (Gibbons & Nowotny 2001)
- Principles of transdisciplinary and co-creative knowledge production!



Pohl et al. 2010: 269

Transition knowledge(s)

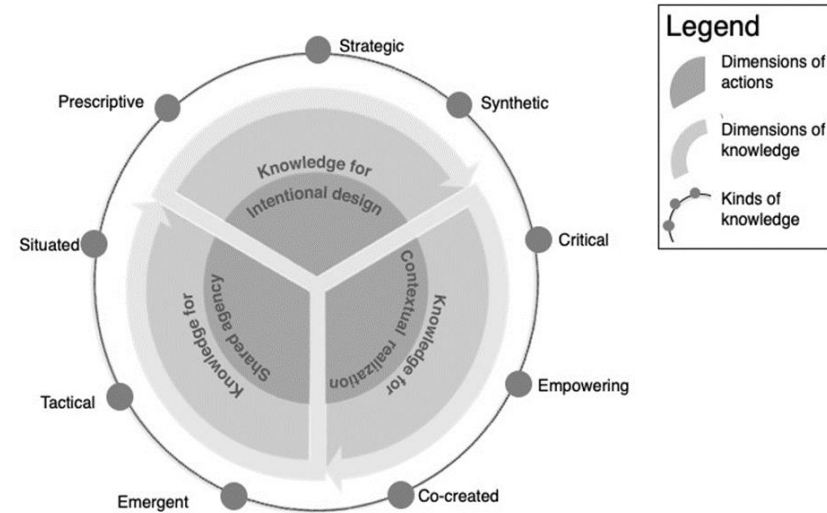
- Objective: generating action-oriented or transformational knowledge: providing guidance for transition and intervention strategies (including goals, norms, visions, policy mixes) (Hirsch Hadorn et al. 2008)
- Rationale: increasing the legitimacy, (co-)ownership, and accountability for the problem, as well as for the solution options among all collaborating actors.



Action-oriented knowledge

- The 2018 IPCC report points out that action-oriented knowledge is needed to support individuals and groups from “national and sub-national authorities, civil society, the private sectors, indigenous peoples and local communities” in the “implementation of ambitious actions” that can help limiting global warming to 1.5°C above pre-industrial levels.

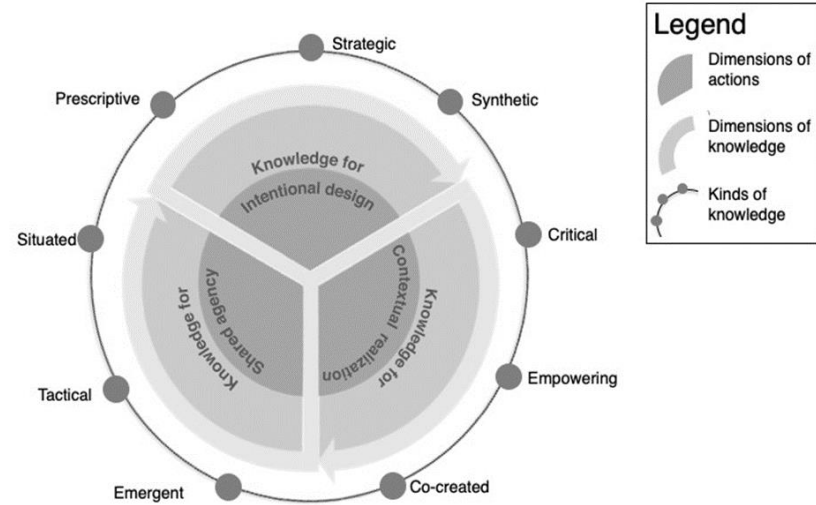
(Masson-Delmotte et al. 2018, D7)



(Caniglia et al. under review)

Action-oriented knowledge

- Knowledge for intentional design, contextual realization, and shared agency.
- “How to intervene to move towards possible sustainability solutions” (Wiek et al. 2012)
- Settings that enable the (co-) creation of action-oriented knowledges? Examples:
 - Transition Labs / Living labs
 - Transition Management arenas
 - Transdisciplinary case study designs



(Caniglia et al. under review)

Urban Living Labs?

“**Sites in cities** devised to **design, test and learn** from social and technical innovation in real world settings.”

Voytenko et al. 2016

“An institutionally bounded environment (...) to make material **interventions in the city and learn** from them.’

Evans & Karvonen 2014



UE at a glance

- Leefstraat experiments (“Living Street project”, e.g. City of Ghent, Belgium)
- Temporary interventions that build on Transition arena’s, lab context and co-creation processes among diverse urban actors with a strong focus on citizen visions and needs.

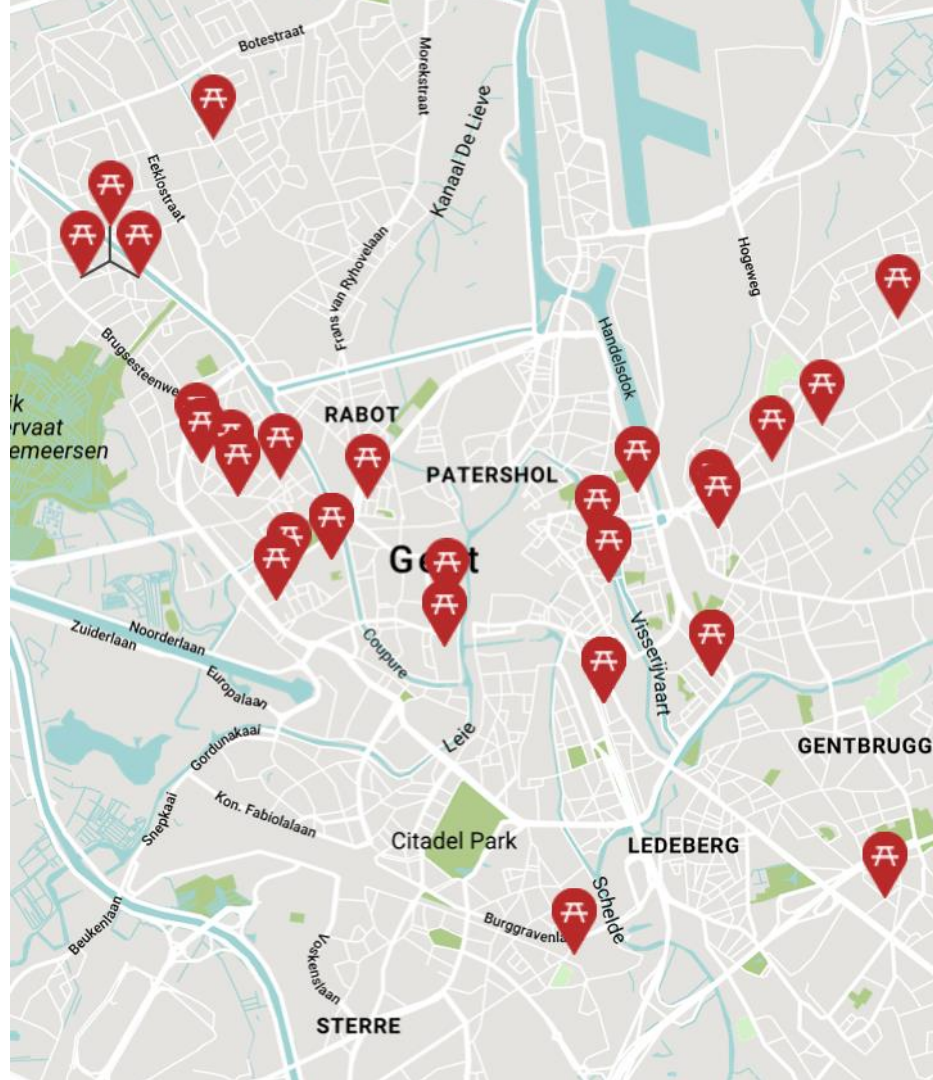
(<https://www.leefstraat.be>; EU Interreg IV B project ‘MUSIC’)



UE at a glance

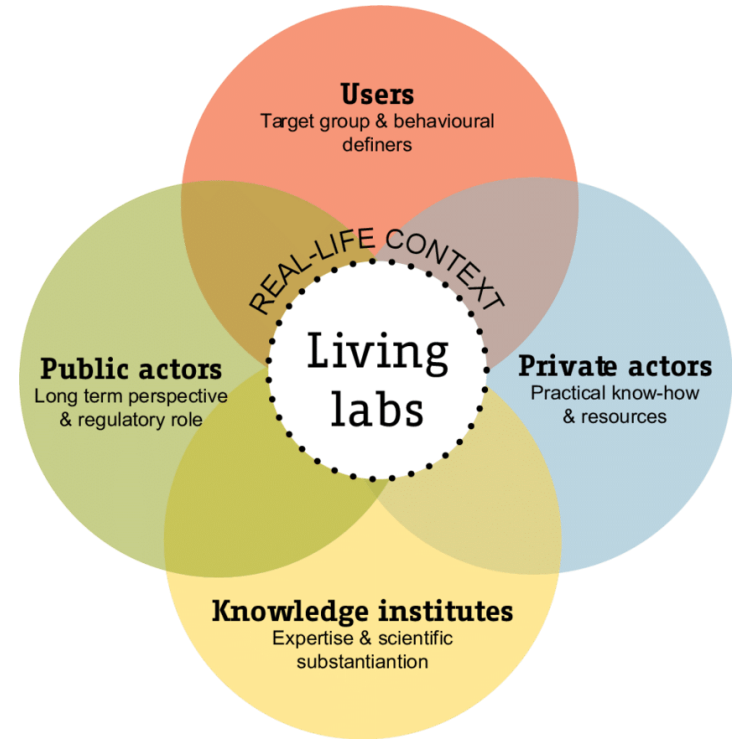
- Leefstraat experimentation then “translated” into cities like Antwerp, Brussels, Rotterdam, Utrecht, Amsterdam.
- Impact of 51 experiments in Ghent?
 - 70% of inhabitants indicated that the experiment lead to better and increased relationships among neighbors.
 - >50% had a significant lower use of their car during time of experiment.
 - 80% of inhabitants would be willing to park their car outside of that area in post-experiment time.
- 1st. Living Streets congress in 2017

(<https://www.leefstraat.be>; EU Interreg IV B project ‘MUSIC’)



ULLs promising characteristics

- Geographically embedded / real world setting
- A shared (sustainability) vision
- Early involvement of users and other actors
- Co-creation of knowledge and outcomes
- Transparent mechanisms for project selection
- **Transformative Impact?**
 - **Strategies and practices to diffuse?**



Broader impact to transform?

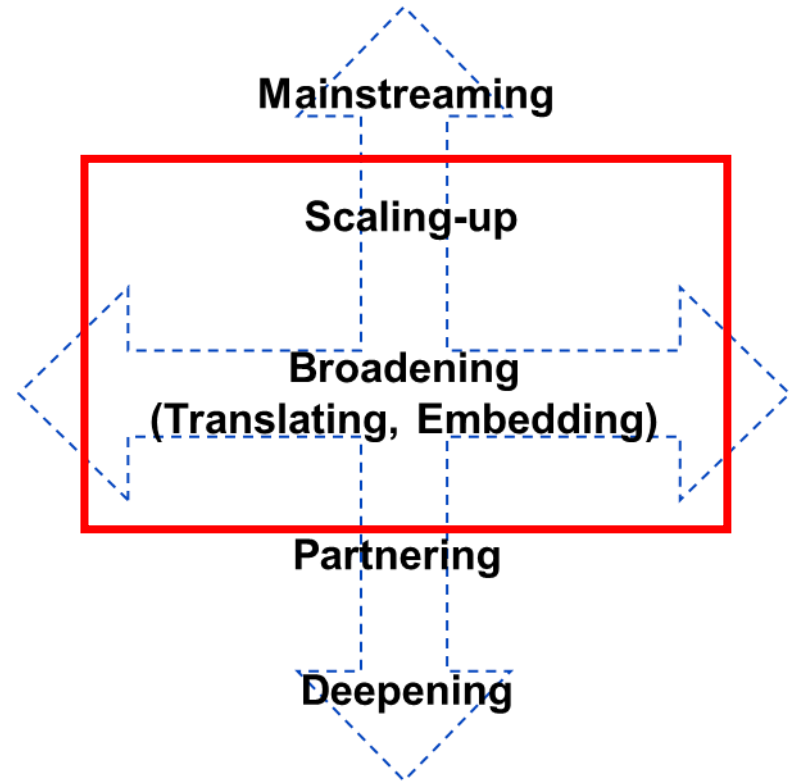
*“Transformative potentials
of Urban Living Labs will
be realized by applying
their lessons to places,
organizations and
policies.”*

(Evans 2017)



Diffusion mechanisms

- Diffusion to other actors
- Diffusion to other locations
- Changing professional norms
- Changing societal norms
- Change in rules and regulations
- Change in public procurement
- ... and others!

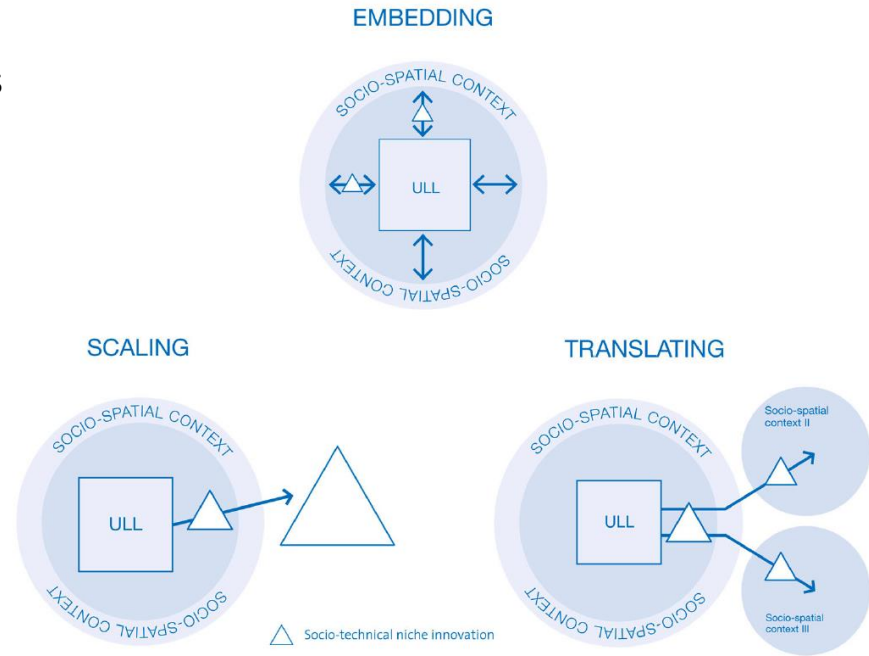


Understanding diffusion mechanisms

Scaling: refers to the internal development and growth of niche experiments. It thus seeks to capture the ways in which an experiment becomes bigger in terms of content and remit.

Translation: addresses the process through which constitutive elements of an experiment are being replicated and reproduced elsewhere. Translation deals explicitly with changing the context of an experiment.

Embedding: the adoption and integration of its design, approach or outcomes into existing local structures (institutions, regulations, planning) and/or communities of practice.



ULL strategies to create broader impact

Table 2. Strategies and exemplary practices of initiating wider sustainability transitions out of ULL.

	Embedding		Translating		Scaling	
Strategies	Transformative place-making	Activating network partners	Replication of lab structure	Education and training	Stimulating entrepreneurial growth	Narratives of impact
Exemplary Practices	<ul style="list-style-type: none"> Integrating lab in press tours of city marketing agency; providing space for local sustainability initiatives and community meetings. Create social incentives by allocating resource savings from lab experiments to local infrastructure (e.g. a school building) 	<ul style="list-style-type: none"> Actively demonstrating lab effects on social integration, knowledge exchange and creative city-making to the city administration and further partners. Practicing new local collaborations between STPLN, Malmö University and the waste water utility, for implementing up-cycling stations. 	<ul style="list-style-type: none"> Establishing an international learning network on how to replicate Blue Economy Experiments in ULL elsewhere. Observational visits and 'how to do it' meetings have initiated Spin-offs of bicycle kitchen in other Swedish cities and other countries. 	<ul style="list-style-type: none"> Implementing Lab studies in educational curricula of local knowledge institutions. Training of coordinators to set up and run 'co-labs'; collaborative spin-offs that replicate one of the lab innovations under university supervision. 	<ul style="list-style-type: none"> Supporting business models of circular economy start-ups. Flexible growth in container units and other decentralized locations. Active partnering with European business accelerator initiative to identify and upscale profitable business models. 	<ul style="list-style-type: none"> Continuously produce and discuss stories about alternative futures in line with the goals of the ULL Conducting a series of community meetings and setting the Lab activities into a 'bigger narrative'.
ULL	Blue City Lab 010, Concept House Lab Malmö Innovation Platform	Malmö Innovation Platform, Stpln Lab	Blue City Lab 010, Stpln Lab	Blue City Lab 010, Concept House Lab, Malmö Innovation Platform	Blue City Lab 010, Concept House Lab,	Blue City Lab 010, Concept House Lab, Stpln Lab
Exemplary quotes	'Part of the concept is that we do everything in this iconic building. That helped these companies to be on the radar, which also helps them finding investors and clients to grow.' (BlueCity Lab, Lab founder)	'Another spin off from STPLN is the upcycling station (...), which is now developed in a new collaboration between STPLN, Malmö University and the water utility VASVD.' (Stpln Lab, Lab Designer & Senior Researcher)	'The STPLN organizational model is easy to be transferred to any geographical context, if there is an interest of actors, supporting infrastructure and access to initial funding.' (Stpln Lab, Lab Designer & Senior Researcher)	'In all our building related programs at the University of Applied Science, active work of students in the ULL is a regular part of the curriculum.' (Concept House Village Lab, Academic initiator/Lab manager)	'For impact you need scale and for scale, you need a solid business model. So we really try to be an incubator that focuses on scale.' (BlueCity Lab, Lab founder)	'(...) the habit of a radical story-telling culture to continuously produce and discuss stories about alternative futures is a means to achieve these forms of more active participation.' (Malmö Innovation Platform, Lab initiator, Senior Researcher)



Critical perspective: scaling/replication

- Acknowledging different socio-spatial contexts
- Be aware of naïve scaling/replication across places.
- Expected impacts may vary significantly as well



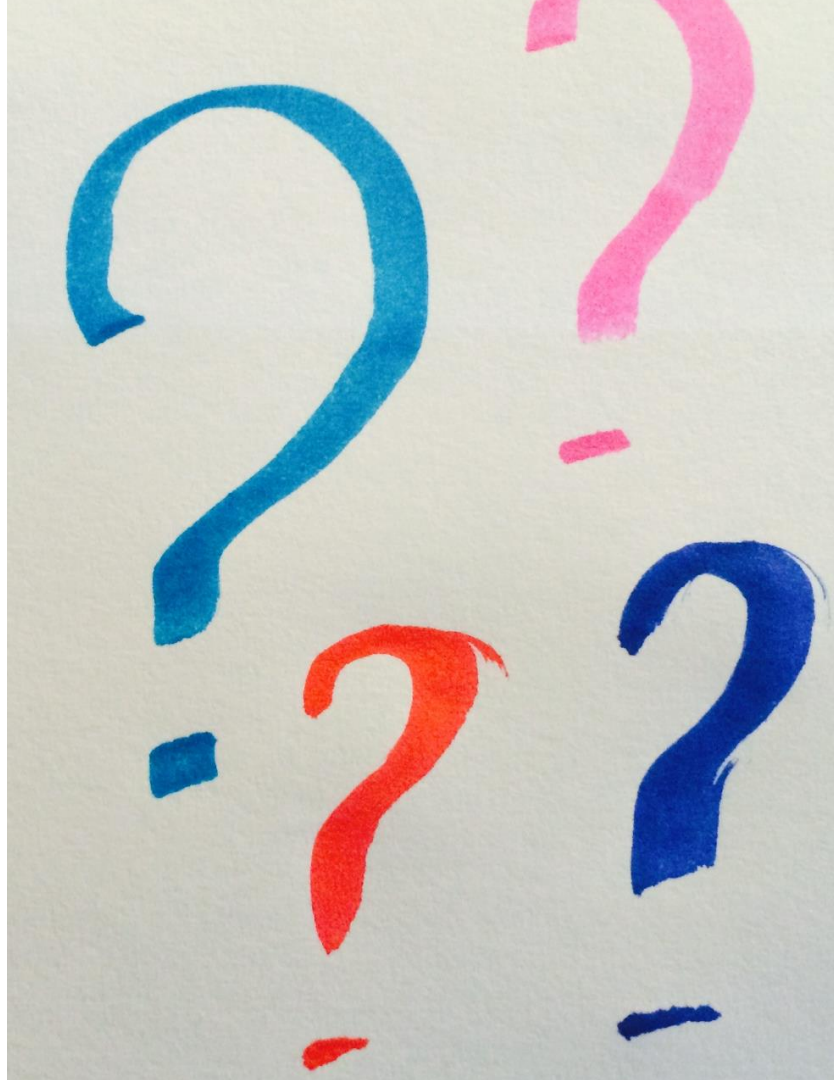
ULL and transition governance

- ULL promise to leverage participation and inclusive knowledge creation through collaboration.
- **Risk:** experimental governance arrangements bear risk of “organized irresponsibility” (Beck, 1998).
- Who is in and who is out of the ULL? Open questions of Agency, Legitimacy, Accountability, Exclusivity.
- Linking ULL to top-down decision making, formalized planning and broader policy strategies.



Outlook and open questions

- Are we scaling up the right alternatives?
 - Combine process perspective with Sustainability assessments & SDG targets
- Impact is hard to assess – seeds of change might instigate transformation.
 - New ways of capturing institutionalizing and mainstreaming needed.
 - Effects of positive imaginaries on exnovation and shrinkage understudied.



Collaborators: Harriet Bulkely, Lars Coenen, Annica Kronsell, Yulia Voytenko, Lea Fuenfschilling, Niki Franzeskaki, Derk Loorbach, Simon Marvin, and others.

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