



PHOTO: ÖIR

Experiments and innovations in ‘soft’ urban planning: urban living labs

In the current era, in which cities are considered to be key arenas for coping with a number of societal challenges, there is also renewed interest in the mobilisation of experimental practices within urban planning. Corresponding initiatives that are targeted at promoting co-creation, exploration, experimentation, and evaluation, such as urban living labs, must be understood in relation to the uncertainty regarding the post-modern growth paradigm and its institutional arrangements.

THIS POLICY BRIEF discusses the opportunities and challenges of the urban living labs concept and related experimental practices from an urban planning and governance perspective. It will be argued that the core principles of urban living labs (i.e. co-creation, exploration, experimentation, and evaluation) offer a useful analytical and theoretical frame to understand and position different informal self-organizing initiatives in contemporary urban development. Furthermore, considered as a planning practice (or methodology), urban living labs (or

similar approaches that are expected to support innovations and experimentation within urban planning) can be construed as a temporary, informal mode of ‘soft’ governance which include a number of merits in terms of defining innovative pathways for urban planning beyond ‘business as usual’ thinking. However, caution must be taken due to a number of inherent shortcomings of such soft governance approaches in terms of democratic legitimacy, tendencies towards exclusiveness, and extreme temporality.

What are urban living labs?

“A forum for innovation, applied to the development of new products, systems, services, and processes in an urban area; employing working methods to integrate people into the entire development process as users and co-creators to explore, examine, experiment, test and evaluate new ideas, scenarios, processes, systems, concepts and creative solutions in complex and everyday contexts.”¹

Policy considerations

■ Urban living labs can be seen as ‘experimental’ stakeholder-driven arrangements, since the rules of the game are often not defined in order to avoid restricting innovative and visionary thinking. However, learning and co-creation are resource-intensive processes, which mean that although it is important to safeguard time and individual capacities, it is also important to be patient and fair when evaluating the applicability of results/outcomes. Urban living labs are primarily based on knowledge-sharing and various kinds of interaction among the involved actors. Hence, method suitability has to be well-reflected in terms of allowing for co-creation, exploration, experimentation and evaluation, while at the same time safeguarding issues such as inclusiveness and equality.

■ Urban living labs need opportunities, impulses and stimulus. These can be provided by specific investigations, the gathering of empirical data or inspiring talks by invited guests for instance.

■ The explorative nature of urban living labs offers, in principal, a promising method for balancing power within the context of participative urban development. However, they also bear the risk, as with other forms of governance, to become arenas of unequal expectations, power games, and conflicts.

■ Urban living labs might be considered as an approach that can encourage active stakeholders and citizens in the co-creation of knowledge at a very early stage. However, the approach in itself is clearly not a guarantee for a democratic or legitimate process.

■ It is important to clarify how urban living labs as an informal soft mode of governance could be related to other more formal modes of government.

■ Another significant aspect is the temporality of urban living labs. It is important to question if and how to follow-up, and most importantly, what can be learned in preparation for (similar) future activities.

In contrast to other living labs, ‘urban’ living labs do not only add “the urban component to the conceptual design, but also a range of topics including societal, political, and technological questions”ⁱⁱ. This is clearly evident in the above definition of urban living labs provided by the Joint Programme Initiatives (JPI) Urban Europe within their Strategic Research and Innovation Agenda. The aim of urban living labs is not centrally focused on technological innovation, but rather on fostering social innovations through the involvement of various stakeholders for a carefully defined project in an urban area.

In this vein, urban living labs are offering both a methodology and an environ-

ment for social as well as technical innovations.ⁱⁱⁱ Through public-private-people partnerships, the intention is to overcome institutional lock-ins and to utilise multidisciplinary collaboration. The idea is to mobilise individual stakeholders as experts of their experiences and enable them to advance from participants to co-creators of knowledge. In doing so, these partnerships can bring creative outcomes and facilitate experimentation. Urban labs can change how actors approach planning cases, ideally creating a stronger connection between the process of the activity and its outcome.

Research on urban living labs has (so far) mainly focused on the tools, meth-

ods, processes and assessments of the generated technical and social innovations^{iv}, instead of critically investigating the quality of living lab governance and how they inform, or are engaged with, policies and politics.

There are at least three main types of living labs^v. Within the the first type, urban areas serve as ‘technology-assisted research environments’, where users provide feedback on services or products through digital platforms or sensor-based methods. These urban living labs may aim to improve an urban environment or service, such as public transportation, waste management or housing. The second type is about the co-creation of local



Figure 1: Example of a ‘communal probe’. Participants describing their trips on a usual day and a mobility chain they wish for. Source: ÖIR 2015

Box 1. Key principles of urban living labs

■ Co-creation

Given the emphasis on socio-spatial co-development, urban living labs aim to offer an inclusive, participatory and do-it-yourself setting that engages citizens and local actors in the processes of shaping the city.^{vi} In an era of declining civic involvement, societal fragmentation and demands for greater institutional flexibility, urban living labs seem to be a tool to foster social, political and economic innovation, development, and cooperation in cities. Urban living labs can also be used to translate research into applied uses in civic society and to enhance data collection within a defined, often local, scale.

■ Exploration

The open-minded environment of urban living labs shall encourage the attitude that 'there are no stupid questions, only stupid answers'. This may enable actors who may otherwise not feel confident enough to express their views or challenge those of a traditionally dominant actor. Furthermore, the overtly exploratory nature of urban living labs helps to familiarise actors with uncertainty, since urban living labs are expected to test ideas which can encourage more creative or provocative initiatives without the fear of long-term negative consequences should the initiatives fail to deploy as expected. Also this principle reduces the likelihood that any single actor is able to achieve an overt dominance over the content of an urban living lab during the process, as it is difficult to achieve this position without having a clearly defined aim or outcome.

■ Experimentation

There are considerable variations among urban living labs in the way in which the concepts of 'laboratory' and 'experiment' are employed. In some cases, urban living labs may use these notions as a way to further establish and reinforce dominant patterns of urban development. Other urban living labs might adopt more progressive and open approaches, where cooperative and communicative initiatives are undertaken to foster change. It is thus important to carefully question the way in which the notion of a laboratory can be applied, since it might imply a regulated and controlled 'environment for experimentation' instead of claiming 'openness' and 'dealing with complexity'. The discrepancy between labs can be problematic, as it risks creating a situation where the urban living lab concept becomes so broad and ubiquitous that it loses meaning.

■ Evaluation

The flexibility to select methods and tools tailored to the aims and approaches of a particular urban living lab can increase the contextual place-based relevance of the urban living lab concept, but might limit the capacity to compare, contrast, and consolidate findings from a diversity of urban living labs. These issues could limit the potential of urban living lab development. Furthermore, with the emphasis on processes, co-creation, experimentation, and exploration, the impacts (and evaluations) of urban living labs are not straightforward issues and are not similar to more result-oriented initiatives. More specifically, impacts are seen within incremental change throughout the project rather than in a single end-product or outcome.

spaces, services and/or objects, including underused or abandoned buildings, day-care services or public spaces. In the third type, urban living labs result in new or enhanced forms of urban planning that use new tools or processes. Here, facilitating local vision-making and planning procedures and/or greater opportunities for stakeholders to meet and learn from one another are the central objectives, as our two examples illustrate further below. In doing so, the lab can serve as a platform for stakeholders to take part in planning initiatives and decision-making processes. However, urban living labs

should not be conflated with traditional planning, since they do not necessarily result in a plan or development project. (See Box 1.)

Case 1: Experimenting with new forms of urban governance: the example of 'Mobile in Vienna-Liesing'

In September 2015 an experimental exhibition was set-up in Vienna Liesing by the ÖIR- research team (see last page for more details) to test the applicability of an urban living lab approach. The experiment 'Mobile in Liesing' includes the de-

velopment of a local, interactive method developed by the researchers intended to set up a local example for inclusive governance in the areas of mobility and transport. It involved actors from the municipal administration; neighbourhood management entities; local organizations; the local borough authority as well as residents of Liesing. The experiment included a number of analytical steps (see Box 2) that culminated in an exhibition showing the main results of the process in the form of posters and invitations for visitors/residents to contribute further to the ideas displayed – in a spirit of co-creation. The exhibition took place in a former coffin factory, a new cultural venue in Liesing, which has been used for similar purposes before, such as 'Perspektive Liesing', a city-driven process which led to a strategic development plan for Liesing. But in contrast to similar processes, this experiment was driven by the desire to integrate residents in the production of knowledge. In quantitative terms, these engagement efforts have achieved their target; however, the expectation of drawing in actors that go beyond the existing actor constellations have been limited by temporality, since the exhibition was only open for three days.

Within the experiment 'Mobile in Liesing' a number of co-creation practices could be identified: the development of best-practices catalogue, discussion with scientific and policy experts, and practices which can be qualified as highly performative in allowing the local population to co-create supportive information through communal probes and an exhibition.

Institutional learning occurred only in terms of feedback that has been received by policy makers over the course of the experiment. This feedback points into two directions: on the one hand, the need for a certain dimension of citizen engagement has been recognised through the process, but questions remain regarding how such participatory processes could look in practice, what resources could be mobilised to foster them and on what levels these processes could be situated. On the other hand, conflicting relationships between the city and the local borough council could not be set aside, since they are dependent on decisions made outside

Box 2. Case 1: "Mobile in Liesing"

A telephone survey with 400 residents of Liesing on mobility lifestyles and behaviour was conducted before interactive methods were applied. The results formed the backbone of another analytical investigation, namely the application of so-called 'communal probes' that allowed for co-creation among the participants as well as for qualitative verification of the quantitative survey results. Communal Probes are a creative approach to capture citizens' perceptions and opinions about Liesing's mobility. The tool was designed and used with 20 citizens in spring 2015. The study's aim was to involve citizens in creative self-reporting activities to collect insights about citizens' perceptions of Liesing's mobility system, and to identify particular problem areas and suggestions for improvements. For this purpose, the tool incorporates a number of (open) questions that participants are expected to answer creatively using the 'Probes Package'.

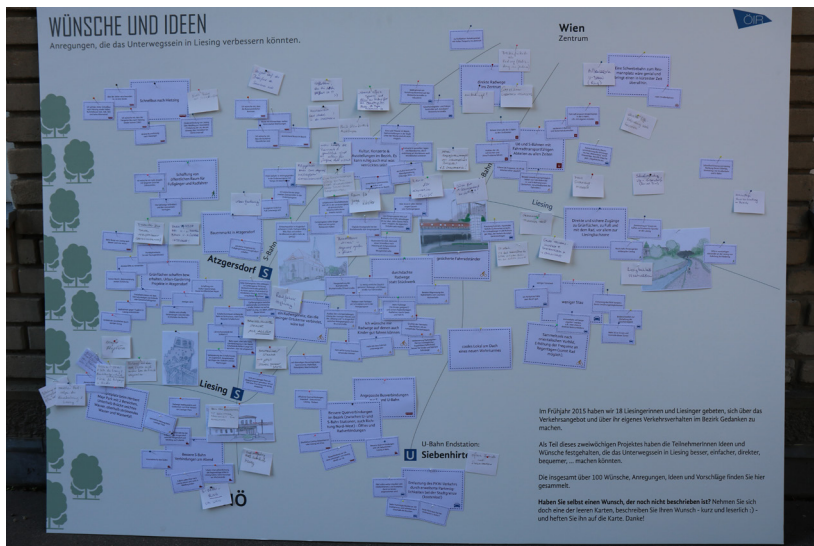


Photo 1: Wishes and ideas for mobility improvements in Liesing. Source: ÖIR 2015

the scope of power of the participating actors themselves.

Evidence of individual learning could also be recognised in participant feedback from the communal probes. Interviews with participants indicate that communal probes stimulated active perception of one's own mobility behaviour and promoted reflection and analysis of this behaviour and possible options to change it. Furthermore, the probes allowed participants to perceive the transport system in a more holistic way, thus enabling a better understanding of transport problems. Finally, it allowed participants to start discussions in their families, circles of friends and acquaintances.

As a fast growing district, Liesing is a privileged site of experimentation for new urban visions. The analysis of the different processes that have been applied so far in the area illustrates the lack of guidance, ultimately to the detriment of achieving different sectoral strategies. The shaky and contingent nature of the strategic context may be the very precondition for experimentation to take place, but this context also created insecurity among actors where stability was needed.

Testing the applicability of the urban living lab approach in an area where there is little willingness to engage in experimentation, and where there is great conflict about development goals, has shown mixed results. A number of key principles of urban living labs have been simulated and practiced. However, due to the limitation of the approach (being embedded in a research project), 'Mobile in Liesing' could not change the given actor constellations. At the same time, it was virtually the first strategic process of its kind: inclusion of the local population featured as a uniquely prominent intervention principle. This may well lead us to the conclusion that such experiments never completely alter situations or strategically re-orient them. However, they are still setting an example by harnessing existing potentials and opening up avenues for future changes.



Figure 2: Mobile in Liesing' – the process, Source: ÖIR 2015

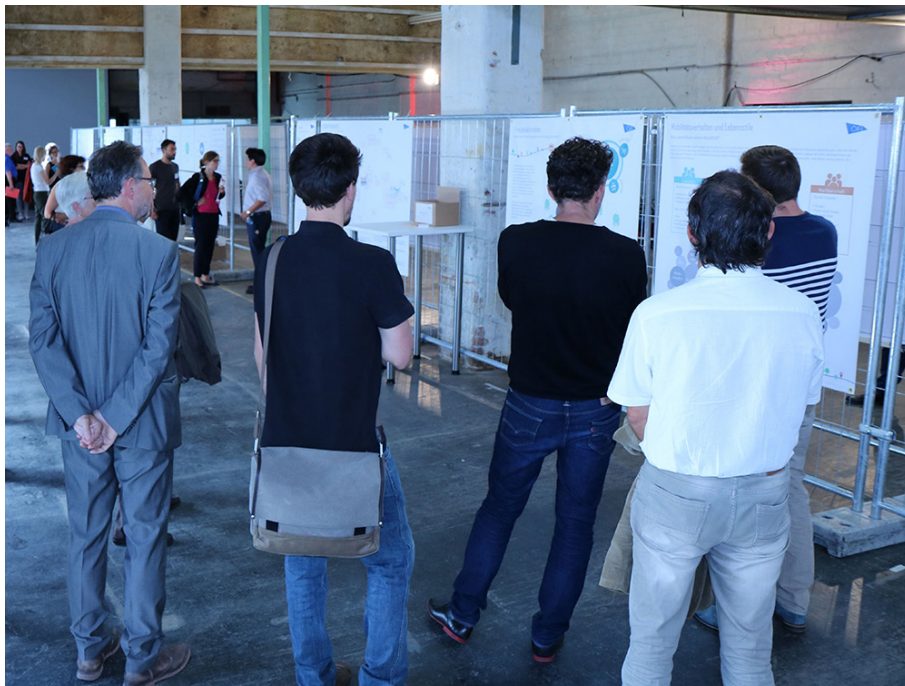


Photo 2: Visitors at the exhibition in Liesing. Source: ÖIR 2015

Similarly, the existence of a mutually accepted framework for collaboration is an essential pre-condition for experiments that are expected to contribute to the policy arena. To some extent, the created experiment embodies a planning situation where strategy and implementation temporally coexist and where forms of situatedness, contingency and change orientation could be observed. A crucial question is the relation of such experiments to other soft or more formalised modes of governance within the city. The case of Vienna-Liesing shows that such an experiment, driven by a team of researchers without any mandate, is operating in a vacuum. In other words, efforts have to be undertaken to support this temporary soft mode of urban governance that has been created here and to connect it to other layers and policy levels of governance in the city.

Case 2: Exploring 'Experiment Stockholm' as an urban living lab

In this section, we discuss findings of another case study, namely the making and implementation of the exhibition 'Experiment Stockholm' in 2015. Based on artistic exhibits as well as a number of forums, this event aimed to generate creative narratives for a sustainable urban future in the Swedish capital city-region. The exhi-

bition 'Experiment Stockholm' has been facilitated by the Stockholm-based foundation for art, architecture and urbanism 'Färgfabriken' (the paint factory – named after the former use of the premises where the foundation is located and operating).

During 2013 and 2014, the preparatory work was completed, which specifically included the activation of both old and new collaborators and funding partners in the Stockholm city-region, along

with the identification and formulation of a number of questions and themes. Two so-called partner-meetings, together with a number of other workshops, seminars and related activities have been arranged during spring 2015. These were supposed to form an 'inspirational ground' on which parts of the exhibition have been based on.

In total, nine themes (see box 3) have been distilled within a number of bilateral meetings and discussions, primarily between Färgfabriken and the involved 35 partners, which represent (among others): five municipalities within the Stockholm county (Hanninge, Knivsta, Sollentuna, Nacka and Stockholm); the Mälardalsrådet, a non-profit special interest organisation for municipalities and the five county councils around the lake Mälaren; the Swedish Environmental Protection Agency; The Nordic Building Exhibition; the Swedish Architects Union; The Nordic Building Exhibition; three research institutions; and five private companies in the fields of environmental consulting, architecture, construction and real estate. These 35 partners have financially supported the exhibition project, albeit with different price tags, and have thus guaranteed themselves 'a say' in the preparation and even implementation of the exhibition.

The box (5) comprises the main part

Box 3. Färgfabriken and Experiment Stockholm

Färgfabriken is an independent foundation, financed by the National Arts Council, the Culture Administration of Stockholm and the Stockholm County Council, which seeks to challenge, engage and create new connections and collaborations.

Among the various exhibitions and related projects and activities in which Färgfabriken has been involved since 1995, this exhibition is the third of its kind to illustrate urban planning issues and potential futures related to the city-region of Stockholm.



Photo 3: Färgfabriken, photo by Åke E.son Lindman



Photo 4: Impressions from an 'experiment'. Photo by Nordregio.

Box 4. The nine key themes of Experiment Stockholm (2015)

- City, suburb, countryside
- Interaction and integration
- Nodes and hubs
- The 'bigfoot'
- Dialogue is not monologue
- Informal methods
- Varied building, varied functions
- Beyond the car age
- Planning for the unplanned

of the official opening statement on Färgfabriken's homepage, describing what Experiment Stockholm is about and what the main intention is. It coincides nicely with the key principles that characterise urban living labs (see Box 1) and which structure the analysis below. It is also noteworthy that we focus specifically on six so-called 'experiments' within the exhibition and not on the many other events, seminars or even the artistic exhibits that were presented in the exhibition spaces. These experiments have essentially been workshops organised by one of the partners (often municipalities in concert with Färgfabriken) which were addressing one or two of the nine overall themes (see Box 4), and which were targeted at developing various futures and planning solutions of physical neighbourhoods in the Stockholm city-region. This case study is largely based on participant observation, as the researchers were involved in the preparation and implementation of the exhibition and thus had 'direct access to the empirical field'. In addition, a number of interviews were conducted with Färgfabriken and a number of the partners involved.

The various 'meetings' and 'experiments' have illustrated the important role of organisational issues in practicing 'co-creation' and 'experimentation' within multi-disciplinary networks. First

to be mentioned is the functioning of the networking-platform, which includes the role and performance of the facilitator as well as the moderator. One critical point for reflection is the membership principle, which included those with the willingness to spend their resources (money and time), but excluded others. As a consequence, the established temporary multi-disciplinary networks can be characterised as an exclusive, if not elitist, urbanist community within the Stockholm city-region.

Otherwise, one can certainly note that Experiment Stockholm has offered a learning environment with many networking potentials (for members within the experiments, but also for other interested 'persons' in the numerous seminars

and events, as well as the artistic exhibition itself). Also, some of our respondents mentioned that the various activities have helped them to think in a more comprehensive way about urban planning and thus overcome the prevailing silo mentality in urban planning, opening up avenues for cross-sectoral coordination.

Our observations within Experiment Stockholm suggest that this soft, temporary, and to some extent experimental mode of governance faces the same deficits regarding transparency, legitimacy, durability and equality as similar attempts to strengthen participative planning approaches that run in parallel with formalised urban planning procedures. First to be mentioned here is the rather individualistic approach, which means that not only does the membership principle decide who is in or out, but also, once included, the individual capacities play a crucial role. Here one should mention the observed group work dynamics



Photo 5: Impressions from an 'experiment'. Photo by Nordregio.



Photo 6: Impressions from an 'experiment'. Photo by Nordregio.

(and their inherent selective processes), presentational and communicative skills, and the fact that such settings clearly privilege charismatic and knowledgeable personalities. Another point is the durability of the established actor-networks, which need to be carefully maintained by follow-up activities and the creation of new opportunities for co-creation. All of these critical points need to be carefully considered when appraising 'urban living labs-like' approaches, as the case of Experiment Stockholm illustrates.

Experiment Stockholm can indeed be characterised as a soft mode of urban governance that helped to unlock creativity and opened up avenues for experimentation and alternative solutions, as most of the interviewed partners noted. However, caution must be taken to not overvalue such approaches, as our example implies a rather exclusive expert forum instead of a mode of governance that might be asso-

ciated with openness and wider engagement. In addition, our example illustrates the significance of suitable methods, which otherwise can limit the innovative capacity of the participating stakeholders and their search for alternative solutions. We argue that, if considered as a complementary approach to public urban planning, the applicability and legitimacy of such soft and experimental modes of governance as discussed above (such as the 'urban living labs-like' approaches) need to be carefully considered.

Box 5. The scope and idea of "Experiment Stockholm"

EXPERIMENT STOCKHOLM is a project that raises questions about, and seeks to examine and experiment with, strategies and solutions for dealing with the challenges of a rapidly growing Stockholm region. What kind of society are we building for future generations? How are we to cope with unforeseen events? How could the built and the green interact in the city environment? Experiment Stockholm is a laboratory made up of the exhibition spaces, of seminars, debates and other events. We hope many people will meet in this experimental environment where we challenge old ways and propose and test new models and ideas together. #experimentstockholm

Source: <http://www.fargfabriken.se/en/startside-expriment-stock-eng>

Endnotes

- ⁱ JPI URBAN EUROPE (2015). Transition Towards Sustainable and Livable Urban Futures: The Strategic Research and Innovation Agenda, SRIA.
- ⁱⁱ Yvonne Franz, Karin Tausz & Sarah-Kristin Thiel (2015). Contextuality and Co-Creation Matter: A Qualitative Case Study Comparison of Living Lab Concepts in Urban Research. In: Technology Innovation Management Review, 5 (12), 48-55.
- ⁱⁱⁱ Veekman, Carina; Schuurman, Dimitri; Leminen, Seppo & Westerlund, Mika (2013). Linking Living Lab Characteristics and Their Outcomes: Towards a Conceptual Framework. In: Technology Innovation Management Review, 3 (12), 6-15.
- ^{iv} cf. *ibid* and Juujärvi and Pessa (2013).
- ^v Juujärvi, Soile & Pessa, Kaija (2013). Actor Roles in an Urban Living Lab: What Can We Learn from Suurpelto, Finland? In: Technology Innovation Management Review. 3 (11), 22-27.
- ^{vi} Franz, Y. (2014). Chances and challenges for social urban living labs in urban research. In: Conference Proceedings of Open Living Lab Days 2014, Brussels: European Network of Living Labs (ENoLL), 105-114.

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Resources

CASUAL: Co-creating Attractive and Sustainable Urban Areas and Lifestyles: exploring new forms of inclusive urban governance is a research project within Joint Programme Initiative (JPI) Urban Europe (www.jpi-urbaneurope.eu/casual/).

The CASUAL project explores how to promote sustainable living and consumption patterns by engaging people, as citizens and consumers, along with other urban development actors in the governance of urban areas.

To that end the project focuses on the intersections between the built environment and technical elements where individual preferences influence sustainability (e.g. choice of transport modes and related mobility patterns, housing preferences and lifestyles).

Nordregio is lead partner of the project which includes the Austrian Institute for Spatial Planning (OIR) and TUDelft – Delft University of Technology.



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