

# Chapter 29

## Urban labs – a new approach in the governance of sustainable urban development

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## Abstract

European cities are facing complex economic, social, and environmental challenges. Improving the governance of urban complexity and creating more sustainable, inclusive, and economically viable cities requires new approaches. A currently popular approach is that of the urban lab, in which local governments engage in a problem-solving process together with other stakeholders in urban development. However, urban policy makers and stakeholders are struggling to implement urban labs, and seek guidance for their further development. Three major questions concern (1) the types of challenges for which urban labs are most suited, (2) how urban labs can best be organised in terms of structure, process, and participation, and (3) how urban labs can best be integrated into local government structures. In this chapter, we give some preliminary answers, based on the experiences with Maastricht-LAB, an urban lab in Maastricht, The Netherlands.

## 29.1 Introduction

### *The challenges of urban governance*

European cities are facing challenges of growing complexity (EU, 2011). These challenges involve economic, social, as well as environmental dimensions, and are often interrelated. Examples are: ageing populations, economic vulnerability, growing inequalities and social polarisation, congestion of transport networks, impacts of climate change, environmental pollution, and degradation of public spaces. At the same time, cities aspire to become more sustainable, inclusive, attractive, and economically competitive. To respond to these complex urban challenges, new forms of governance have been called for (KEI & NICIS, 2012). The common view is that these new forms should enable local governments to work across sectors in a participatory and flexible way, engaging citizens and utilising the cities' creative, intellectual, and social capital (EU, 2011).

### *The emergence of urban labs*

Examples of new forms of governance that have recently gained great popularity are so-called Living Labs and City Labs. Living Labs represent an approach to user-centred innovation by engaging users actively as contributors to the creative and evaluative processes in innovation and development (Følstad et al., 2009). City Labs are arrangements in which local governments and other stakeholders jointly seek to learn about and be involved in new ways of dealing with urban challenges, by means of experimental, real-life projects. Both types of 'lab' aim to extend the networks of those actively involved in finding innovative solutions by emphasising co-creation and joint learning by multiple urban actors. Here, we use the generic term 'urban labs' to refer to City Labs and (urban) Living Labs. Urban labs appear to be a particularly promising, innovative form of governance to address complex urban challenges and create public value (EU, 2011).

### *Three questions about urban labs*

Policy makers and other urban actors are, however, struggling with the implementation of urban labs, and seek guidance for their further development. There is as yet a lack of evidence-based guidelines and design principles concerning (1) the types of issues for which urban labs are most suited, (2) how urban labs can best be organised in terms of structure, process, and participation, and (3) how urban labs can best be combined and integrated with formal local government structures. Associated with these three central issues are a wide range of more specific research questions. For example, as regards the types of problems most suited to be dealt with in urban labs, important questions concern the determinants of problem selection and agenda setting for urban labs, and

the distinguishing characteristics of problems that can be successfully addressed in these labs. As regards the “good practices” of implementing urban labs in terms of structure, processes of co-creation, and engaging participants, relevant questions are: What factors appear to determine success or failure, and how are constraints overcome? How do policymakers and other actors relate in setting and pursuing agendas? How knowledge is integrated and how diversity of values and interests is managed? The third key issue concerns the integration of urban labs as a new, innovative form of governance with the existing formal local government structures. Associated questions are: What are the intended and current roles and positions of urban labs in systems of urban governance and city development? In what ways and to what extent do urban labs constitute an institutional innovation? What institutional settings are appropriate for urban labs in the overall governance system? How can governance systems be adapted to support the sustained embedding and extension of the urban lab approach? Led by ICIS, these issues are being addressed in-depth in the European research project URB@Exp ([www.urbanexp.eu](http://www.urbanexp.eu)) which involves action research in urban lab experiments in five European cities (Antwerp, Graz, Leoben, Maastricht, and Malmö). In this chapter, we present a preliminary exploration of the phenomenon of urban labs, guided by the three key questions.

## 29.2 The case of Maastricht-LAB

A promising example of a City Lab is Maastricht-LAB (M-LAB), a temporary governance platform for local experimentation and learning by doing. In this section, we describe its background, organisational design, and activities, focussing on its first phase (2012-2014). In the next section, we then present some “lessons learned” from this case in the form of preliminary answers to the three key questions about urban labs outlined above.

### *Background of M-LAB*

Maastricht is a medium-sized Dutch city (120,000 inhabitants), capital of the Province of Limburg, and situated in the very south of the Netherlands, near the borders with Belgium and Germany. Since World War II and until recently, urban development in Maastricht was growth-driven and had become a “game of big players”. The municipal authorities formed public-private partnerships with large project developers and housing corporations, to implement large-scale master plans and city development projects. However, since the start of the economic crisis in 2007, the urban planning and development landscape has changed rather dramatically, with the break-down of several large public-private partnerships as a result of both demographic and economic stagnation. To safeguard the urban quality of Maastricht in the absence of new large-scale plans and projects, the municipal authorities now want to stimulate a transition towards

novel modes of urban development. Key notions in this transition are repurposing of empty buildings, small-scale incremental development, temporary use, flexibility, sustainability, co-creation, and bottom-up initiatives. A crucial exercise in this regard is to mobilise citizens and local organisations to get them to contribute to the development of Maastricht by means of concrete initiatives and projects. The municipal authorities want to accomplish this by transforming its approach towards a more demand-driven, small-scale, flexible governance system of urban development. To anticipate this major change, the city has developed a new long-term vision document for spatial planning. This vision document, the ‘Structuurvisie Maastricht 2030’ (Gemeente Maastricht, 2012) offers a robust framework, rather than detailed development programmes. Furthermore, the document announces “a new period of urban development” for the city of Maastricht, which requires new ways of working, co-creation, and participation by interested citizens and local organisations in urban development. The establishment of Maastricht-LAB (M-LAB) as an experimental space for new forms of urban planning was briefly announced in this policy paper and realised shortly afterwards, in 2012.

### *Organisation of M-LAB*

M-LAB is a municipal project, but partially placed outside of the municipal government: institutionally by having an external partner as one of the two project leaders, and physically by being accommodated in a separate building. Political responsibility resides with the alderman responsible for spatial planning and environmental issues. M-LAB is a temporary governance platform with the aim of learning about new modes of urban development and thus stimulating the transition towards a different type of urban governance. The core element of M-LAB is small-scale experimentation with participatory forms and concepts of urban development and governance. In the first phase of M-LAB, which is the focus of this chapter, the organisational design consisted of four key components: a core team, a steering group called “Gideonsbende” (literally Gideon’s Gang, a Dutch word for an elite taskforce), the participants in the experiments, and partners in national and Euregional networks. In 2012, the core team of M-LAB consisted of two project leaders: one from the municipal government and a local architect. The core team was completed by a policy maker in an operational role and the municipal manager of spatial planning in a more strategic role. In addition, the alderman for spatial planning was also closely involved to create the necessary political space for experimentation and innovation. The “Gideonsbende” was inspired by the concept of a “transition arena” as introduced in the Transition Management framework (Kemp, Loorbach & Rotmans, 2007). It consisted of 16 members, combining influential regime players (the “usual suspects”) and emerging creative niche players. Members were selected for their visionary perspective, individual competences, and disciplinary background. They committed themselves on a voluntary basis: unpaid and in a personal capacity. During regular meetings throughout the first two years with this group of

frontrunners, urban development processes were addressed at a more strategic level, and ongoing processes within the experiments were discussed. Additionally, for each experiment two members were assigned the role of “guardians”, monitoring the progress of the experiment, safeguarding its experimental character, and enriching its content or process design. Each experiment had its own network of participants who were either personally invited or selected as a result of an open invitation, depending on the specific character of the experiment. At a national level, M-LAB takes part in the City Embassies network (“Stadsambassades”) and a network of other urban labs (initiated by the Creative Industries Fund NL), bringing together frontrunners in urban transition throughout the Netherlands. Financially, M-LAB is supported primarily by the municipal government and a number of national and Euregional organisations.

### *Activities of M-LAB*

The activities of M-LAB rest upon three pillars: experimentation through local projects (acting), the development of new coalitions (connecting), and creation of a broad knowledge infrastructure (learning). In its first two years (2012-2014), Maastricht-LAB conducted eight experiments, seven of which were initiated by the municipal authorities. Each experiment had its own challenges, complexity, and specific research questions (Box 29.1). What these have in common is a spatial focus and an innovative or experimental component which cannot be dealt with by the municipal authorities alone or within the current governance structures. In addition, they were considered typical examples of challenges that are occurring more commonly, in Maastricht or elsewhere. The first seven experiments of M-LAB enabled the municipal government to address urgent, complex urban challenges in a more experimental way. The challenges were identified by M-LAB, but the process design and its possible outcomes were the subject of discussion and negotiation. Co-creation was the main starting point for each experiment, and was based on a process in which multiple organisations and stakeholders participated on an equal basis throughout the process. In M-LAB, co-creation has two different but related meanings. Firstly, co-creation refers to processes of transdisciplinary knowledge production. Secondly, it refers to a new form of policy making and implementation in which active citizens and shared ownership of the process are crucial elements. Learning was (and still is) an explicit goal of every activity of M-LAB. M-LAB aims for three types of learning: the creation of actionable knowledge for the urban lab projects, lessons about performing experiments, and learning in the form of reflecting on frames held by the actors. For most of the experiments, a retrospective report (“LAB-journaal”) was written describing the experiment and its process design. In these reports, research questions, motivations, participants, goals, activities, results, lessons learned, and recommendations were integrated, discussed, and evaluated with the actors involved. These reports are publicly accessible on the M-LAB website (<http://www.maastrichtlab.nl/>). M-LAB also initiated a temporary and

informal educational programme for new urban development: the City Academy (“Stad.Academie”) with its own organisational structure and legal entity. It started in 2013 and consists of seven modules which will discuss different topics related to urban development. The goal is to jointly learn about several urban challenges from a transdisciplinary perspective. Other learning-related activities included writing blogs and columns on the M-LAB website and organising public debates, events, and symposia. Lessons emerging from the lab were disseminated through the networks of the actors involved.

**Box 29.1** The experiments of Maastricht-LAB (2012-2014)

EXP01: Park of the Future

How should a future park be developed, in an open planning process where there is room for citizen participation and local initiatives?

EXP02: New Zoning for Tapijn area

What does a new zoning plan for a former military barracks site look like, considering that the redevelopment phase will last at least 10-15 years?

EXP03: Old fire-station

How can an old inner city fire station be transformed into a public and business site, based on a process of co-creation with possible end users?

EXP04: Repurposing large monumental buildings

How can large monumental buildings be repurposed, in a more open governance approach involving stakeholders and market parties?

EXP05: Long-term vacant property

How should the city deal with an abundance of long-term vacant property, in a societal context where supply exceeds demand?

EXP06: High street

How can the high street be redeveloped, together with property owners, shopkeepers, inner city management and the municipal government?

EXP07: Sustainable energy

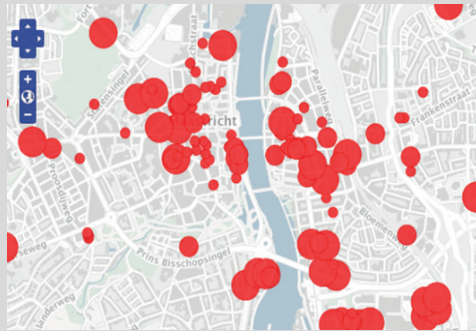
How can a local high school building be made more sustainable and CO<sub>2</sub>-neutral, in terms of energy use, education, and community building?

EXP08: Open Call

What concrete ideas and projects do local citizens and organisations have which can contribute to the development of the city?

**Box 29.2** Tackling the problem of vacant real estate in Maastricht

A priority area of M-LAB is to develop innovative solutions for empty buildings in the city. Vacant real estate has become a structural problem in Maastricht (and many other cities) and is not limited to just shops and offices, but also relates to a large number of historical buildings which determine the appearance of the city.



Maastricht map: web based interactive map indicating vacant real estate in the (inner) city of Maastricht



Sphinx building: former industrial building, currently under renovation for student hotel



Tapijnazerne: former military complex, now partially in use by Maastricht University



De Brandweer: former fire station, now it is a multifunctional building for start-ups, offices, a restaurant and meeting place for social events

Sources: Maastricht map, website M-LAB. Pictures buildings, Ron Cörvers.

*M-LAB Next*

In 2014, a new phase of M-LAB started: M-LAB Next. The major difference with the first phase is a new mode of operation. Instead of taking an initiating role, M-LAB now wants to cooperate as a partner with project initiators. Citizens and local (professional)



organisations can submit project ideas through a permanent open call. These ideas should meet four criteria, with respect to:

1. content: the project should be innovative and contribute to a new form of urban development;
2. value: the project should result in value creation in the broad sense (economic, spatial, social);
3. exemplary nature: the project should be an example for the city and transferable to other sites in the city;
4. project owner: the initiator must be able to carry the final responsibility for the project.

The shift from initiator to partner and facilitator meant that the governance structure of M-LAB has been adapted. The “Gideonsbende” has been replaced by a new open network supporting M-LAB, called “Stadmakers Maastricht” (Maastricht Citymakers). The Stadmakers comprise citizens and professionals willing to spend time, effort, and money in initiating or advising on new projects. More civil servants of the municipal government will be involved more closely than before in the various projects, as civil servants (instead of M-LAB staff) will act as the first contact person or “project ambassador” within the municipal government.

### 29.3 Lessons learned about urban labs

When reflecting on the experiences gained with M-LAB to give preliminary answers to the three key questions about urban labs, one quickly realises that these questions are closely interconnected and that it is almost impossible to answer them separately. The challenges for which an urban lab is most suited strongly depend on the way the lab is organised, and how the lab can best be organised depends on the challenges it is meant to address. M-LAB in its first phase was well suited to address urgent challenges requiring a flexible governance approach, but not very well suited to experiment with a governance approach in which citizens are the prime initiators. To take on this challenge in M-LAB Next, a change in the organisational structure was deemed necessary. The answer to the third question, how urban labs can best be integrated into local government, also depends strongly both on the challenges the lab is intended to address and on the way it is organised. In the case of M-LAB, for example, the answer to this question will be determined by its aim to stimulate a transition in the governance of urban development and its corresponding temporary nature. Therefore, although we here briefly present some generalised “lessons learned” about urban labs, one should bear in mind that the three questions addressed are closely interconnected.

### *Challenges for which urban labs are most suited*

M-LAB in both its phases has made it clear that an urban lab is well suited to explore new ways of governance in a changing urban development landscape. By conducting experiments on small scales (in terms of spatial extent, duration, budget, and number of people involved), new approaches can be tested without major consequences in case of failure. Combined with a strong focus on learning, the experiments provide a rich source of knowledge about what works and what does not. What remains unclear, however, is to what extent the approaches thus tested can be extrapolated to large-scale, more complex challenges.

### *How urban labs can best be organised*

Given their focus on participation, co-creation, and experimentation, urban labs on the one hand need to be open to citizens and other urban stakeholders, and on the other hand require political backing and support from the administration. The design of M-LAB as a boundary organisation (Hoppe, 2005), partly inside, though not embedded in the sectoral structure of the municipal government, and partly outside of the municipal government, appears to meet both requirements rather well. Furthermore, the open call mechanism in M-LAB Next seems an effective way of transferring the initiative to the citizens and engaging the city's creative and social capital. Whether this will also combine well with the aim of broad co-creation in problem-solving remains to be seen, as the open call may particularly attract people who have strong convictions about specific solutions, which may hamper the involvement of other stakeholders with different perspectives and the development of a broadly shared view on the problem and a wide range of alternative solutions.

### *How urban labs can best be integrated into local government*

It is almost impossible to make general statements concerning the embedding or integration of urban labs into local government. Even in the specific context in which M-LAB was established, i.e., a changing urban development landscape as a consequence of demographic and economic stagnation, different approaches would have been possible, depending on how the developments are interpreted. For example, M-LAB could have been given a permanent niche position in the municipal government to address relatively difficult but small-scale problems, such as the repurposing of vacant real estate. Or, in case the need for a change in governance is seen as temporary, the existence of M-LAB could have been made contingent upon the continuation or ending of the economic and real estate crisis in Maastricht. In contrast, change, and the need to adapt governance in response, can also be viewed as permanent, requiring M-LAB to be a permanent incubator and testing ground for new ideas. M-LAB is founded on the

view that the changes in the urban development context are fundamental and irreversible. As a consequence, M-LAB is seen as a temporary construction, which can be dismantled after a new approach to governance has been developed, tested, and embedded. This temporary nature is combined with a structured approach to learning and disseminating lessons, both in an informal way (involving civil servants and urban stakeholders in the experiments) and in a formal way (Stad.Academie). This appears to work well, although it is questionable whether the current scale and available time is not too limited to achieve the ambitious goal of a substantial transition in urban governance.

## 29.4 Outlook

Reflection on the experiences with M-LAB has not only led to the insight that the three original questions are closely interconnected, but has also raised new questions about the case of M-LAB, and about urban labs and urban governance in general. We conclude this chapter by presenting the more fundamental ones :

- Are urban labs – including their emphasis on active citizen participation – primarily a governance response to challenges and opportunities caused by the current economic crisis, which are mainly temporary in nature, or are they a response to fundamental and irreversible changes in society?
- Can the small-scale, flexible, participatory governance approaches developed in urban labs effectively address large-scale, highly complex issues, either by upscaling or by tackling large problems with many small-scale, bottom-up initiatives?
- To what extent can the governance of public interests, such as urban quality and sustainable development, be handed over to private actors (citizens, local organisations, business, etc.), who are by definition driven by private, material or immaterial, interests?

A major lesson we have learned from the M-LAB case is that we first need to think about these more fundamental questions before we can effectively address the three questions about urban labs asked at the beginning of this chapter.

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