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# Experimental governance for low-carbon buildings and cities: Value and limits of local action networks

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ABSTRACT

City governments have become increasingly active in governing the transition to low-carbon buildings and cities. They are often more ambitious than the governments of the nation states they are embedded in. They are, however, limited by their national legal and policy frameworks in realising these ambitions. In response, city governments have begun to experiment with local action networks that bring together policymakers, city bureaucrats, firms, citizens, and civil society groups. To better understand their value and limits, this article studies four such action networks from Australia and the United States. It finds that the scalability of lessons learnt from these action networks is hampered by too strong a focus on leadership by the network administrators.



## 1. Introduction

Cities are essential in the global response to climate change. They make up less than 5% of the world's landmass, but it is here where most resources are consumed and wastes are produced—including 70% of global energy consumption and 70% of global carbon emissions. At the same time, cities hold much potential for significant reductions in resource consumption and waste production. Well trialled technology and knowledge of behavioural change are available to achieve reductions of up to 80% at city level (IPCC, 2014; Van der Heijden, 2014b).

To achieve these reductions these technology and knowledge need appropriate application, on a large scale, and in a timely manner. However, governing this transition is complicated. To date traditional governance instruments—such as direct regulatory interventions, subsidies, and taxes—have not been able to incentivise a large uptake of technology and knowledge. Legally binding commitments to carbon emission reductions are made at national level, and cities are often delegated to implement traditional governance instruments for low-carbon development and transformation that are developed by their national (or regional, state, or provincial) governments (Bulkeley, 2002; James, 2015).

Such high-level commitments and instruments often present 'one-size fits all' approaches to governing city development and transformation. At the city level more fine-grained approaches are often possible. Understanding the potential that cities have in the transition to a low-carbon society, city governments around the globe have begun to make pledges to reduce their resource and carbon intensity, often well beyond those of their national governments. They have also begun to experiment with novel governance instruments to achieve these goals.

One such experimental governance instrument is that of action networks. Action networks bring together various actors and seek to understand how they can collaboratively generate knowledge on how to reduce urban resources and carbon intensities. Such action networks might link cities with other cities—at regional, national, or international level—or they might link city governments with local firms, local citizens, and local civil society organisations. City-to-city networks have attracted a fair deal of academic scrutiny. Studies of well-known international networks, such as ICLEI (Local Governments for Sustainability) and the C40 Cities Climate Leadership Group, have found that these networks have generated valuable lessons on low-carbon development and transformation. Yet, they also point to limitations: these networks may exclude specific cities from the knowledge they generate, or they may only give the illusion of action whilst de facto doing nothing meaningful (Hoffmann, 2011; Kern & Alber, 2010).

Less well understood are local action networks. These often create a financially or otherwise secure local environment for applying innovative technology or state-of-the art ideas of how people can interact better with buildings or cities. This can be achieved, for example, by temporarily or locally lifting restrictive building regulations so that knowledge can be generated in a 'tabula rasa' situation, or by pooling resources so that the risks of losing the time and money invested do not

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have to be carried by a single person or firm. They are a popular approach for governing the transition to resource-efficient and low-carbon built environments around the globe (Bai, Roberts, & Chen, 2010; Bulkeley & Broto, 2013).

Are these local action networks capable of accelerating a transition to low-carbon cities and how might they achieve this? What are their values, and what are their limits? These questions are central to this research article. The article seeks to answer these questions by closely studying four local action networks—two from Sydney, Australia, and two from Chicago in the United States. They are studied as part of a larger research project on experimental governance instruments for low-carbon city development and transformation.[1] They were selected because of their mutual goal (reducing the energy and carbon intensity of office buildings), but also because of their slightly different approaches to achieving this.

The article unfolds as follows. In the next section I briefly introduce action networks and reflect on the governance literature to express expectations about their performance in a local city context. In the section that follows I briefly discuss the research methodology and approaches to data collection and analysis. This is followed by a discussion of the four action networks. In the final section I draw conclusions.

## 2. Action networks: An experimental governance theory perspective and expectations

The notion of experimental governance has made rapid inroads in governance theory and practice. Its origins can be traced back to renowned social reformers such as John Dewey (1991 [1927]) and Donald Campbell (1969). They argue that governance instruments need to be treated as somewhat malleable and fluid interventions, as opposed to the more conventional understanding of instruments as fixed programmes. In their opinion, instruments should be designed to address a specific societal problem, preferably at local scale; they should be implemented, monitored, and observed for their consequences and outcomes; and, based on lessons learnt, they should be adjusted, modified, discarded, or even scaled up. The expectations of such monitoring, flexibility, and adjustment are evident: if governance instruments are capable of responding to and are aligned with their specific local contexts they may be more effective and efficient than traditional 'one size fits all' instruments.

Since Dewey and Campbell's pioneering work the understanding of what makes 'good' experimental governance has expanded. Experimental governance scholars now argue that a wide range of actors—those governing and those governed—should be involved in the development of experimental governance instruments. Through such collaborative approaches the tacit knowledge of those governed can be included in the instrument design, which may further their (local) effectiveness (De Burca, 2010; Sabel & Zeitlin, 2011). In addition, so argue these scholars, instruments should be developed and implemented in consensus based decision-making processes. This may increase the legitimacy of these instruments, as well as the willingness of those subject to the instruments to comply with them (Borzel, 2012; Davis, 2011). Finally, these scholars argue for a wider repertoire of governance instruments than traditional government-led direct interventions—such as regulation, subsidies, and taxes. By including market based approaches and incentives—such as benchmarking, information sharing, and media attention—highly localised governance instruments can be developed that are of specific interest to local actors (Evans, 2011; Van der Heijden, 2014a). At city level governance, experimentation is considered as particularly promising because of scaling possibilities: if an experiment works in a specific part of a city it, or the lessons learnt from it, might easily be scaled up to other parts of the city or even to other cities (Sassen, 2015).

The four action networks that are studied in this article all fit these design characteristics of experimental governance. They were initiated by city governments (the City of Sydney and the City of Chicago) that have set more ambitious carbon emission reductions than their national governments have. They were developed in collaboration with the local actors they govern (predominantly property owners and office tenants). All programmes focus on reducing office building related resource consumption or carbon emissions. They reward participants with knowledge of how to achieve such reductions as well as with acknowledging their leading performance via local, national, and international media outlets. Finally, all programmes have a formalised structure for drawing lessons, and they have all been modified based on lessons learnt since they were implemented. In sum, these four action networks are illustrative of what may be expected to be promising experimental governance instrument designs. Table 1 presents a brief summary of the networks.

## 3. Research design

The four action networks were studied as part of a larger research project on experimental governance for low-carbon building and city development and transformation globally (Van der Heijden, 2015). Cases (experimental governance instruments) were identified through internet searches and desk research. They can be understood as illustrative of the broader trend of experimental urban governance described above. By no means, however, does this article claim that the six examples are representative of all possible designs and contexts of local action networks around the globe.

Relevant data for analysing the networks was obtained from websites, existing reports, and other sources. New data was obtained through a series of interviews. These aimed to fill in gaps in the data from other sources, to resolve conflicts in data from other sources, and to gain additional insight in the practices under scrutiny. Interviewees were traced through internet searches and through social-network websites, particularly LinkedIn. Over 200 interviewees from various backgrounds, including policymakers, bureaucrats, property developers, architects, engineers, and property owners, were involved in the larger research project. Of these, 20 were specifically interviewed for insights into the four action networks studied here.

The interviews were recorded and, based on the recording and notes taken during the interviews, a summary report was drafted that was returned to the interviewees for validation. The interviewees were often aware of and involved in more than one experimental governance instrument. It is expected that this (partly) helped to overcome a sampling bias of administrators (and participants) who were overly enthusiastic about their 'own' example (Sanderson, 2002). Interviews lasted for approximately 1 h and were generally conducted at the interviewees' work location. The interview data and additional data were processed by means of a systematic coding scheme and qualitative data analysis software (Atlas.ti). Using this approach, the data was systematically explored and insight was gained into the 'repetitiveness' and 'rarity' of experiences shared by the interviewees.

Each action network was asked the following questions: What initiated the development and implementation of the network? Who are the main actors involved and how are they involved in the development and modification of the network? What lessons have been learnt, if any? What modifications have been made to the network, if any? What is the potential to scale up the network or the lessons resulting from it throughout the city, or even to other cities? These questions follow other studies into experimental urban governance instruments (e.g., Boyd & Ghosh, 2013; Hohn & Neuer, 2006).

## 4. The four action networks studied

In what follows I present each action network and reflect on the questions that guided the research. To prevent too much overlap

[1] For a full overview of the study see www.jeroenvanderheijden.net/research_current_VENI.html.