

# Deconstructing Economic, Ecologic and Social Urban Discourses for Innovation Policies

David Hamers

(Dr David Hamers, PBL Netherlands Environmental Assessment Agency, P.O. Box 30314, 2500 GH, The Hague, The Netherlands, david.hamers@pbl.nl)

## 1 ABSTRACT

Worldwide, cities are called upon to help achieve a wide variety of policy goals, varying from economic growth, increased energy efficiency and the mitigation of global warming, to improving the liveability of urban neighbourhoods and the active participation of the population in urban planning. In particular, cities are supposed to help achieve necessary innovations in these domains. Both local governments (municipalities) and regional alliances of local governments (in metropolitan areas) are thought to have a thorough insight into relevant local and regional circumstances, are supposed to be able to act relatively quickly and decisively, and are thought to be able experimenters.

This paper acknowledges that a growing number of (larger) cities present ambitious policy plans and take effective action in the (combined) fields of economic growth, the mitigation of climate change, and improving liveability and sociale inclusion in urban neighbourhoods. However, it also acknowledges that there are limits to the capacities of cities to help achieve innovations, think of cities' limited abilities to change established large-scale systems in the field of energy production.

The following central question is addressed: Under which conditions are (cooperating) cities able to plan and act quickly and decisively, learn from local experiments, and share insights across national borders and sectoral domains?

This question is approached by performing a discourse analysis of the relevant scholarly literature and policies and plans regarding the roles of cities in innovation processes in the combined fields introduced above. The paper takes the current debate in the Netherlands as a starting point, considering it in the context of related debates in the international arena.

## 2 INTRODUCTION

### 2.1 Background: cities are expected to act as agents of change

Worldwide, cities are called upon to help achieve a wide variety of policy goals, varying from economic growth, increased energy efficiency and the mitigation of global warming, to improving the liveability of urban neighbourhoods and the active participation of the population in urban planning. In particular, cities are supposed to help achieve necessary innovations in these domains. Both local governments (municipalities) and regional alliances of local governments (in metropolitan areas) are thought to have a thorough insight into relevant local and regional circumstances, are supposed to be able to act relatively quickly and decisively, and are thought to be able experimenters.

On the one hand there is certainly evidence to substantiate claims such as these, both in the scholarly literature (e.g. on smart cities, eco-cities and inclusive cities) as well as in the policy and planning practice. For instance, a growing number of (larger) cities present ambitious policy plans for decoupling natural resource use and environmental impacts from economic growth. Also, cities increasingly share lessons learned from local experiments with their counterparts in international networks, opening up opportunities for scaling-up best practices. On the other hand critics point towards the limited capacities of cities to affect established systems that function on a global scale, e.g. the interdependent infrastructures facilitating fossil-fuel dependent energy production. This paper acknowledges the merit of both positions in the ongoing debate about the scope of metropolitan innovation in the combined fields of economic development, energy use and climate change, and liveability and social participation.

### 2.2 Research question and objective

In order to assess and discuss both cities' opportunities and limitations regarding policy and planning innovation in the combined fields mentioned above, this paper addresses the following central question: *Under which conditions are (cooperating) cities able to plan and act quickly and decisively, learn from local experiments, and share insights across national borders and sectoral domains?*

This question is approached by performing a discourse analysis of the relevant scholarly literature and policies and plans regarding the roles of cities in the combined fields introduced above. The paper takes the current debate in the Netherlands as a starting point, considering it in the context of related debates in the international arena. Sub-questions are: How are cities defined from a (spatial-)economic, energy/climate, and social/liveability perspective? How are policy and planning innovations framed from the different perspectives? How do so-called living labs (testbeds for experiments) function in practice? And, what do they ask of both government bodies and civic collectives?

By exploring these questions, the concepts of the city and the urban condition that feature so prominently in both the current scholarly and policy and planning debates – e.g. think of the Dutch national Urban Agenda, the Urban Agenda for the EU and the United Nations' New Urban Agenda – can be deconstructed. Black boxes are opened and light can be shed on complex material, metabolic, institutional and social assemblages that make up our cities. By doing so, this paper aims to help scholars, policy makers and planning professionals to reconsider and reassess pressing issues related to experimentation and innovation, and draw their attention to both the potential and the limits of urban policies in the fields of economic growth, energy use and climate change, and social inclusion and liveability.

### 3 RESULTS OF THE DISCOURSE ANALYSIS

#### 3.1 The innovative city in three different guises

This paper is based on a quite elaborate analysis of scholarly and policy and planning literature that is expected to be published by PBL Netherlands Environmental Assessment Agency shortly (Hamers 2016, forthcoming, in Dutch). Without trying to dive into details, this paper presents some of the key results of the discourse analysis. The analysis clearly shows that in the debate about the role that cities can play in innovation processes in the fields introduced above, cities appear in three different guises. These three guises are presented in the diagram below (figure 1).

The circles in the diagram represent the three domains: economy, climate and energy, and liveability and inclusion. In each of these domains the innovative city is characterised differently. Five key characteristics are summarised in five layers (in blue, to be read in outward direction): (1) the dominant concept of the city; (2) the city considered as an opportunity and/or threat; (3) the key policy objective; (4) the main strategy to achieve the objective; (5) the prevalent concrete implementation of this strategy in the urban practice. Additionally, the tensions between all three domains are shown (in red), as well as key concepts that summarise what the three domains have in common (in green).

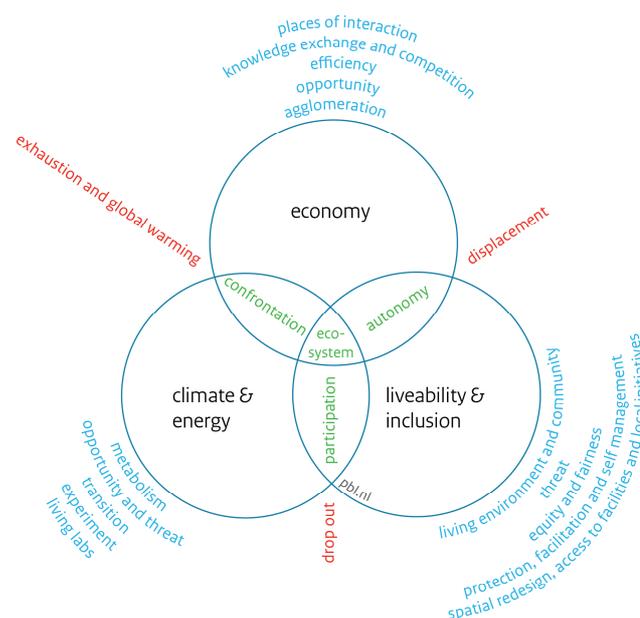


Fig. 1: The innovative city in three different guises.

It is widely acknowledged that the problems that cities need to address in the three fields identified in this paper, can only be solved in interrelation to one another. However, the fact that the innovative city appears in different guises in each of the three domains indicates that developing policies and plans for innovation in the combined fields is a considerable challenge. This applies to all actors involved in innovation processes, varying from the national government and (coalitions of) municipalities, to private companies, civic collectives, and active individual citizens. Together, they have to face this challenge. In each of the domains different actors act as key advocates of certain innovations. They operate in varying alliances, that encounter different obstacles and create different opportunities to change existing policy frameworks and established institutions.

### **3.2 The city as an engine of economic growth: places of interaction for knowledge exchange**

In cities as so-called engines of economic growth, knowledge exchange is considered a key aspect of achieving agglomeration economies, especially regarding innovation. Developing new products and systems requires face-to-face meetings. Personal meetings provide opportunities to get to know each other, create trust and exchange ideas (Storper and Venables 2004). For cross-pollination to take place, creative people need to be near each other. Physical proximity (and a certain urban density and mass) is a necessary condition: innovation is highly localized (Moretti 2012). Cities can provide proximity. By planning and designing 'places of interaction', an urban environment is created that can help strengthen urban actors' (not only companies, but also government bodies) ability to learn, i.e. to enter into new relationships, inspire each other and explore opportunities across (sectoral) boundaries and (physical and institutional) borders.

On the basis of a series of examples of several types of these places of interaction (in the fields of congress, culture and knowledge, in Amsterdam, Rotterdam, and Delft) a number of important characteristics can be identified. One can think of mixed use, a walkable and bicycle-friendly urban environment, a lively public space and a certain overlap of the collective domains of different types of users. Although all of these characteristics are known qualities in urban planning and design, in many cities they are not self-evident; they require substantial additional support from policy makers, not only on the municipal level, but also on the national level.

Arguing for planning and design that focusses on creating the spatial conditions for interaction, however, does not mean that actual knowledge exchange can be guaranteed. Fortunately, one could add, because in addition to planned meetings, accidental encounters are highly regarded in both economic and spatial disciplines. Several researchers stress the importance of so-called looseness and slack in the urban environment. Interaction that allows for innovation to take place requires room for unforeseen use, as can be illustrated by the many informal and sometimes even illegal interventions by all kinds of pioneers in so-called brown fields in the past decades, that only recently have resulted in official urban transformation policies and plans. Some novel ideas remain outside the mainstream for a long time before they become more widespread and lead to a breakthrough in institutionalized, somewhat 'rusty' practices. This kind of innovation goes beyond innovation in product development or new technical applications that are the central topic of a considerable part of the economic literature. It involves more radical forms of change, in which cities play a different role and other actors take the lead. This kind of innovation will be addressed in the next section, that deals not with the economic city but with the possible roles of cities in the light of climate change.

### **3.3 The city as a living lab: testbeds as experimental practices**

Cities represented as so-called low-carbon, eco and green cities are quite different from the city as an engine of economic growth. Such cities do not strive for modest innovations and efficiency gains, but aim for a breakthrough in conventional climate and energy related institutions and practices. Such a breakthrough is usually framed as a transition from one climate and energy regime to another, in short, a system change. A number of examples (Freiburg, Graz, Stockholm, Copenhagen) show that cities can play an important role in helping to set things in motion (Blok 2013; Rohrer and Späth 2014; Rutherford 2014). On the basis of ambitious policy plans and concrete regional and local actions, municipalities can be key actors in alliances that often also include private companies and civic collectives. Together, they can experiment with innovative approaches, including not only new technologies, but also novel financial and legal arrangements as well as new ways of collaborating in hybrid public-private coalitions.

However, the same examples also clearly show that even the most ambitious cities encounter serious obstacles to radical change. In some cases, different government bodies work against each other (e.g. a municipality and province), while in other cases different departments within one government institution (e.g. a municipality) have contradictory policies in place. It also becomes clear that policy makers and planners underestimate the messy character of most experiments. Many so-called living labs and testbeds do not function as clean and orderly laboratories. They can include quite unruly practices, involving a wide variety of actors (both professionals and active ‘ordinary’ citizens) with varying motives, often working with a trial-and-error approach, and producing different kinds of knowledge. To learn from experiments such as these, conventional project management is not sufficient. Working with clear targets, a one-to-one relationship between means and ends, and a focus on short-term efficiency can even be an obstacle to achieving innovation. Instead, providing room for adjustments to unforeseen events and welcoming interferences by unexpected actors can point towards opportunities for radical change.

This argument for involving a variety of actors and confronting different ideas (and types of knowledge) resonates with proposals by urban sociologists such as Sennett (1970) to plan and design the urban environment not to avoid confrontations but to provoke them: cities should encourage conflict. Although this perspective on the city goes well beyond what economists have to offer (section 3.2), it is less far removed from the economic urban discourse than might be expected. Moretti (2012), for instance, advocates a fertile urban environment in which ideas (unexpectedly) collide; it is only when ideas collide that something is created that did not exist before. Currently, however, a large part of urban policy and planning (worldwide) points in the opposite direction: a need for control. Although control can be understood from certain policy angles (and in certain parts of the city), it can act as a barrier to the development of the city as a living lab.

### **3.4 The liveable and inclusive city: room for local initiatives and resources for self-management**

The third and final guise of the city in this paper is the city as a collection of neighborhoods and as the everyday environment of different types of inhabitants. Urban dwellers can differ considerably, for instance in terms of their socio-economic status. Factors such as education and income correlate with and to a large extent explain differences in the quality of life in neighbourhoods, the average health of different population groups, and the extent to which they have control over their lives (autonomy). The city – mirroring society as a whole – does not provide a level playing field. For different socio-economic groups, development opportunities vary. The same holds true for the extent to which different groups (can and wish to) contribute to innovation processes.

From the perspective of liveability and inclusion, planning, organising and designing the city is not a matter of increasing efficiency (section 3.2) or aiming for a transition (section 3.3), but primarily a matter of equity, justice and fairness (Rawls 1999). Equity does not necessarily mean equality (of outcomes); it is much more about providing different people with equal and fair opportunities (to start with).

Inviting various stakeholders to contribute to innovation processes may seem a good idea in theory; in practice, however, enabling different urban actors to collaborate in experiments appears to be a formidable challenge. Local policy, planning and design can help improve the liveability in urban neighborhoods in a variety of ways, think of taking measures against air pollution in certain urban areas and improving access to all kinds of social and health facilities for low-income groups. But stimulating less-educated and low-income groups to team up to take action aimed at innovation appears to be more difficult.

In the Netherlands, Van den Berg (2013) and Franke *et al.* (2015) provide a good overview of how different urban dwellers help change cities (the urban environment) and use cities (the urban condition) to change the policy and planning practice by developing and testing social and institutional innovations. These tests show that (a limited number of) citizens find their way in the newly developing so-called participatory society (that, in some respects, can be considered a Dutch version of the UK’s Big Society). Additionally, they make clear that government bodies struggle with their role in new alliances and arrangements. A number of cases (in Amsterdam and Rotterdam) reveal a collision between a traditional command and control culture and the unpredictable nature of citizen-led (bottom-up) local projects. Too often, for instance, policy makers expect outcomes to be known in advance, whereas local participants need room for manoeuvre. A certain degree of freedom is what inspires them to take the initiative and collaborate for change. If there is no room for surprises (and failure), it hardly makes sense to experiment with do-it-yourself ways of working.

This does not mean that government has no role to play anymore. To the contrary, active citizens can benefit from municipalities offering a clear framework that helps set priorities and safeguard public values. Providing space for bottom-up initiatives does not mean that anything goes. It does, however, require that government dares to differentiate between policies in different areas and make room for (temporary) exceptions to rules in certain cases (Reuser interviewed by Miazzo and Kee 2014), since, if government wants to fulfill its intended role of the so-called facilitator, it needs to open up new possibilities rather than limit them. Referring to Sennett (2007), policies that aim for (cities to play a leading role in) experimentation and innovation, should have a certain degree of indeterminacy. Along the same lines, spatial planning should to some extent be incomplete and design should be porous.

#### 4 CONCLUSION

To conclude this paper, it is good to recall that policy makers and planners on local, national, EU and global levels expect cities to play a leading role in innovation processes, in the combined fields of economic growth, energy and global warming, and liveability and social inclusion. The discourse analysis in this paper – better, the much larger research project on which this paper is based (Hamers 2016, forthcoming) – shows that cities are indeed well-equipped to provide the necessary insight into relevant local circumstances, to act relatively quickly and decisively, to conduct experiments, and to share results across borders. However, cities' (like any entity's) capacities for change are limited. Municipalities, for instance, often are not in command of large-scale infrastructures, and their room for manoeuvre is limited by (inter)national rules and regulations. Additionally, for municipalities (as well as the private companies and civic collectives they collaborate with) to effectively act as agents of change, higher tiers of government have to change their attitude towards experiment and innovation. To stimulate innovation, policy makers should allow for diversity in regulations in different areas and (temporary) exceptions to rules in certain cases. Furthermore, to conduct experiments, policy makers and planners should realise that living labs are messy practices: they involve multiple stakeholders with varying backgrounds and motives, they are characterised by unpredictable processes, they yield unexpected results and produce new types of knowledge.

Finally, policy makers and planners propagating (cities' role in) innovation should be aware that experiments do not only involve technical innovations, but also social and institutional innovations. They can challenge not only conventional policies and planning approaches, but also form a new political arena that competes with familiar government and governance arrangements (Bulkeley and Castán Broto 2013; Evans 2011). If local participants are (expected to be) involved, they will ask for a certain degree of autonomy, including adequate resources to make things happen. In this sense, it is clear that experiments and innovation involve taking risks: established positions will be challenged, with trial comes error (failures are inevitable), and success has many faces.

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