AUTOPOIETIC AND DISSIPATIVE SELF-ORGANIZATION ON THE NEW DYNAMIC EQUILIBRIUM:
TOWARDS AUTHENTIC CO-GOVERNANCE?

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Abstract

The call for more co-operation in the past 50 years resulted a type of advocacy planning. However, society is demanding a greater role in prescribing solutions to local issues they face. Contemporary co-governance is based on the government keen to keep control over the levers of control. Whereas authentic co-governance is characterized by government letting go of the levers of control and allowing for equal power relations between citizens and governments. Authenticity implying a form of co-governance with its intrinsic moral principles of co-operation present in practice.

This study was conducted based on qualitative research and a literature review design. Assisted by critical social theory, which allows questioning assumptions and is concerned with issues of power. As well as grounded theory, which is a systematic methodology involving the analysis of data, allowing interaction with the data and forming personal ideas.

The investigated new dynamic equilibrium consists of combinations of: inside-out and outside-in views; top-down and bottom-up aspects; and autopoietic and dissipative characteristics. The new dynamic equilibrium provides opportunities for new governance structures to evolve, structures supportive of collaboration with the citizens it represents.

The Suiker Unie case study shows that implementing the theoretical characteristics of the new dynamic equilibrium in practice is difficult without preparations about its implications. It turns out to be difficult to let go of the levers of control. However, the Mayborhood case study has the potential to create an understanding by governments of bottom-up self-organization by means of teaching. Self-organization as a concept helps governments move towards authentic co-governance through reaching consensus about collaboration. Not half-measured collaboration with its insidious roots within the governmental institutions, as found in the Suiker Unie case study, but collaborations leading to policies supported and co-created by government and civil society. Combining the two case studies facilitates governmental understanding of the implications of the new dynamic equilibrium and ultimately move towards practices of authentic co-governance.

Keywords: Self-organization, New-, Sustainable-, D.I.Y. Urbanism, autopoietic, dissipative, new dynamic equilibrium, co-governance.

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1 Introduction

Increasingly concerned lay publics are demanding a greater role in prescribing solutions to local issues they face (Cole & Foster, 2001). This demand rises out of a sense of frustration at a lack of response from the government to what they perceive as safety problems in their neighborhoods. For example, the invention of the Dutch 'woonerf' (translated: living yard) stands out from many urban design innovations. It did not originate from the profession of traffic engineering but from citizens seeking to slow traffic in their community. The residents tore up the streets so cars would be forced to carefully navigate through their neighborhood. Their streets then became safe for bicycling, playing, and walking (Green, 2015). Additionally, in Vallejo, California, a man was arrested and imprisoned for painting a crosswalk at what he claimed to be a dangerous intersection. The man was motivated by a concern for public safety and the inability of the government to respond (Goodyear, 2013).

The goal of these self-organizing citizens is not to provoke or disrupt, but rather to assist cities in identifying problems and implementing changes that make sense in the local context (Finn, 2014). For governments, these actions represent a chance to demonstrate their responsiveness to the people they represent. It is an opportunity for the government to engage with its citizens and co-operate (Goodyear, 2013).

As the world is growing beyond the top-down control of the planner (De Roo, 2015), a trend is showing of new co-operative methods of civic involvement in spatial planning. In The Netherlands, various attempts have been made since the 1960s to involve citizens from the very outset in spatial development processes (Wetenschappelijke Raad voor Regeringsbeleid, 2008). One of the motivations for moving towards a participative society is that the Dutch government aims to transform the Dutch welfare state into one that is more supportive of society being increasingly based on self-organization (Ministerie van Algemene Zaken, 2007). Unfortunately, the results of more participatory spatial planning have been meagre. Some account these meagre results to the traditional methods of public participation in the Netherlands (Innes & Booher, 2000). These traditional methods of public participation are framed within the regimes and conditions of the government itself. Precisely this phenomenon –that is, the activities concerning participation have always been practiced within and therefore also based on government regimes– seems persistent. Co-operation between government agencies and citizens is therefore mainly based on government-led planning and participation, their inclusive path-dependencies and lock-ins. The call for more co-operation in the past 50

years merely resulted in a kind of advocacy planning, while government agencies expect the participating actors to execute government policies in the way these were broadly outlined beforehand (Boonstra & Boelens, 2011).

1.1 Problem statement and research questions

Traditional public participation methods are based on an inside-out approach of looking at participation, based from within the government (Innes & Booher, 2000), and ignoring the dynamic societal context in which the developments take place (Van der Heijden, 1996). Apart from this inside-out approach, Boonstra & Boelens (2011) argue for a combination of inside-out and outside-in. Outside-in refers to participation that originates from civil society itself. This combination requires an acceptance of an outside-in approach to prevent an impasse and lock-in of spatial planning and arrive at the aimed-for shared responsibility between governments and citizens.

Self-organization as a concept has the potential to shed light on the outside-in processes in co-governance. Where processes of co-creation by governments and citizens shape the city.

"The city is rooted in the habits and customs of the people who inhabit it. The consequence is that the city possess a moral as well as a physical organization, and these two mutually interact in characteristic ways to mold and modify one another" (Park, 1915, p. 578).

This quote exemplifies that while governments can plan for the physical organization of the city without public participation, attending to the social aspects of the city -comprising of civic wants and needs- does require public participation. Current practice of the Dutch government is to increasingly develop policies in co-operation with society (Ministerie van Algemene Zaken, 2007). Interaction with society often produces societal consensus and support upon which policy decisions are based. This development is far from trivial in light of the many complex, persistent problems that face Western societies, and for which solutions can neither be planned nor emerge spontaneously (Loorback, 2010). Arguments for enhanced citizen participation often rest on the merits of the process and the belief that a participative society is better than a passive society (King, et al., 1998). With a participative society, formulated policies become more realistically grounded in citizen preferences, the public might become more sympathetic evaluators of the tough decisions that government administrators have to make. The improved support from the public might create a less divisive and antagonistic

population to govern (Irvin & Stansbury, 2004). Moreover, since citizens' priorities can be better matched with policies, policies could become more focused, and communication between governments and citizens would improve (VROM, 2007).

Additional changing societal contexts are characterized by the changing intrinsic composition of society itself. Present-day society is characterized by: an improved accessibility to information; individualization; increased empowerment; improved technical means for social organization; and exchange of ideas on specific issues which all has resulted in a much more complex urban realm (Boonstra & Boelens, 2011). Local knowledge is putting pressure on planners to find new ways of fusing their own expertise with the contextual intelligence of the local population (Fischer, 2000). This increasingly complex urban realm desires a shift from the modern expert, who does the thinking for others, to the neo-expert, who helps people think for themselves (Richardson & Tait, 2010). Planners increasingly play a mediating role between policy makers and citizens. They need to learn new ways of discovering the embedded local knowledge within communities wherein they work. This type of knowledge is called phronetic knowledge and provides crucial insights often overlooked by professionals. Phronetic knowledge is practical local wisdom on how to address and act against problems in a particular context (Flyvbjerg, et al., 2012). This knowledge dictates a shift in roles for the planner and governments to facilitate citizens' participation in urban plan making. Now, governments wish to move away from a top-down planning system, towards one based on co-operation, called co-governance (Ministerie van Algemene Zaken, 2007). Contemporary co-governance however is still based on the government wanting to keep control over the levers of control (Johnson & Osborn, 2003). Moving towards a form of authentic co-governance is a shift towards the government letting go of the levers and allowing for equal power relations between citizens and government. With authenticity implying a form of co-governance with its intrinsic moral principles of co-operation present in practice (Van Lier, 2014).

One concept often overlooked in planning literature is self-organization. The reason for choosing self-organization as a concept for understanding urban processes in relation to co-operation is the current lack of understanding bottom-up processes from a governmental perspective (Boonstra & Boelens, 2011). However, if governments wish to move towards a system of authentic co-governance, with policies supported by government and civil society, the system has to comprehend a bi-directional storyline: comprising of both inside-out and

outside-in views; both top-down and bottom-up aspects. Self-organization has the potential to create an understanding of outside-in views, necessary for co-operation and shared responsibility between governments and citizens (Boonstra & Boelens, 2011).

In order to arrive at such results this research will answer several questions. The main question to answer is: *'How does self-organization as a concept help governments move towards authentic co-governance?'*

The sub-questions formulated support the answering of the main question in two separate steps:

(1) *What is the added value of self-organization in contemporary urbanism theories?*
(2) *What added value does understanding self-organization in contemporary urbanism theories bring to the shift towards authentic co-governance?*

Above stated questions will be answered using critical social theory. The basis of critical social theory is that it questions assumptions. It is concerned in particular with issues of power and justice and the way social institutions and dynamics interact to construct a social system (Zou & Trueba, 2002). Therefore the theory is suitable to investigate the opportunities to create insights into self-organization and ways governmental structures can be shaped to support bottom-up influences. In turn facilitating governmental practices to shift towards authentic co-governance.

1.2 Scientific and societal relevance

This research is of scientific relevance due to its contribution to understanding of self-organizational processes in the urban realm. It adds knowledge to the understanding of bottom-up processes in urban plan making. By differentiating between dissipative (boundary-breaking) and autopoietic (boundary-making) systems and relating those to self-organization (Van Meerkerk, et al., 2013), this study adds to the theoretical understanding of bottom-up urban processes.

This research is of societal relevance due to its ability to create an understanding of bottom-up processes in the urban realm. A combined understanding of top-down and bottom-up processes is linked to three chosen urbanism theories discussed. Furthermore, by linking the three urbanism theories to two empirical cases, this study bridges the theory-practice gap. By bridging the theory-practice gap of a combined understanding of both top-down and bottom-up

processes, this research facilitates the creation of guidelines for governments to move towards authentic co-governance practices. These practices in turn facilitates better communication and collaboration between governments and citizens, and therefore better supported outcomes of urban plans.

1.3 Reading guide

In the next section, the theoretical framework is presented. The theoretical framework is the scientific background of this research and starts by providing insights into the concept of self-organization. Ensuing paragraph focusses on autopoietic and dissipative systems wherein the combination is made with self-organization as a boundary-breaking and boundary-making concept. Followed by paragraphs which are dedicated to explaining the chosen urbanism theories and linked to autopoietic and dissipative self-organization. These linkages are explained by creating several models which illustrate the implications of the synthesis, followed by a recapitulation of key notions discussed and the conceptual framework. The latter shows how this research examines the link between theory and practice, and the steps in between.

The methodology chapter, describes the research design, the methods used for the data collection and the method of data analysis. Additionally, this chapter explains the rationale behind choosing the three urbanism theories as well as the two case studies investigated. After giving a short case description, a table is made to offer a clear overview of the data collected which gives insights into how the research questions were answered.

The following chapter is dedicated to the two empirical cases. Both cases start off with a paragraph describing the case and followed by an analysis of the found theory. The subsequent chapter is based on examining the failures and learning points from the two empirical cases and analyzing how theory and co-governance practice could benefit from this. Furthermore, an analysis is made how one case study could benefit the other.

In the last section, the most important findings are summarized and reflected upon. A conclusion will be given wherein answers to the research questions are provided. The theoretical and empirical implications of this research are discussed, and a reflection is made on the research limitations. Based on the conclusion, implications and research limitations, recommendations are provided for future research.

2 Theoretical framework

In the next sections of this chapter, the concept of self-organization will be further elaborated. Afterwards, a differentiation will be made between dissipative- and autopoietic systems. The understanding of the different facets of self-organization and the balance between autopoietic and dissipative systems facilitates an acceptance of an outside-in perspective, necessary for governments to move towards authentic co-governance.

Additionally, three urbanism theories will be given an introduction. Namely, New-, Sustainable- and D.I.Y. (Do-It-Yourself) Urbanism. The former two are chosen due to their base within contemporary planning systems. The latter for its intrinsic bottom-up nature.

2.1 Self-organization

The urban realm has always had self-organizing processes. For example the emergence of self-organizing patterns in traffic flows (Kerner, 1998), and the self-organizing pedestrian movement (Helbing, et al., 2001). These processes existed in the traditional era of policy making. However, by taking these processes for granted they never got much attention and therefore never fully understood in planning systems. They were there but never were they linked to the planners' language of control, regulation and rationality or the drive of the planner to reach consensus (De Roo, 2015).

Self-organization relates to a process of 'becoming' instead of 'being'. In a process of becoming, self-organization could be considered as 'effortless' and mainly 'spontaneous' (De Roo, 2015). Self-organization is considered a spontaneous bottom-up process organized by active citizens whose endeavors aim at improving local urban living environments. Albeit by building a community yard, producing a special event, or at a higher scale cooperate with governments to improve urban development plans (Horelli, et al., 2013). One of the principles of self-organization is the ability to induce willingness of its members to resist temptations and avoid defects in pursuit of its personal gain (Zopf & Forester, 1962). Self-organization relates to the capacity of social structures to self-circulate and maintain the information they carry. This capacity means that processes of self-organization have the ability to recapitulate social capital and meld it into the social relations inherent in context-specific social structures. These social relations in turn have the ability to form networks in itself through a process of combining experience and knowledge (Hasanov & Beaumont, 2015).

Self-organizing activities and urban planning meet one another all over the city, in its spaces, activities and citizens. Self-organization puts pressure on the core of the tacit exercise of power in cities (Horelli, et al., 2013). The functioning of citizen participation in co-governance practice can be considered the sum of its hardware and software. The hardware referring to the institutional framework of public administration and the software being the experience of ordinary citizens and their interaction with decision-making (Wagenaar, 2007). The software of the system comprising of present-day society is moving towards a society of assertive citizens with an enormous pace of response, learning ability and creativity. This increasingly capable society is stimulated by the fact that governments often do not have the capability anymore to play the leading role and big companies are having trouble to meet the specific needs of local people (De Jong, 2015). Indicating a need for a shift in roles for planners from modern-expert to neo-expert (Richardson & Tait, 2010) as well as a more prominent role for citizens to partake in urban plan making. Since developments that starts from within the urban area itself, enlarge the chance that the regeneration fits local needs and circumstances, hereby enhancing the commitment of the involved local stakeholders and therefore the implementation of visions and plans (Van Meerkerk, et al., 2013).

2.1.1 Viewpoints of self-organization

Self-organization has multiple viewpoints for investigation and uses. The purpose of highlighting the different stories below is to achieve a better understanding of the concept.

Boonstra and Boelens (2011) for example explore the role of self-organization as part of the actor-network theory (ANT). Their use of ANT is closely aligned with the principles of complexity theory (Hasanov & Beaumont, 2015). Complexity theory is characterized by three key features: non-linearity, coevolution and self-organization. Non-linearity refers to the idea that processes are always subject to dynamics and unforeseen change. Coevolution refers to the way in which different systems or subsystems influence each other, either opposing each other or synchronizing each other. Self-organization refers to the limits imposed on the steering capacity of a single actor by the autonomy of other actors and their ability to behave and organize as they choose (Urry, 2005). Non-linearity, coevolution and self-organization are the results of an infinite number of interactions between various components of a system (Heylighen, 2001). The attempt to find out why and how citizens could and would be self-motivated to contribute to urban development, Boonstra and Boelens propose turning the focus outside-in, instead of inside-out. Self-organization refers to initiatives that originate in civil

society itself (outside-in), via autonomous community-based networks of citizens outside government control which participate in developing the urban realm. Contrary to participatory planning proposals which remain controlled by public government (inside-out), and precisely that public government seems not to be very adaptive to initiatives that emerge from the dynamics of civil society itself (Boonstra & Boelens, 2011). The notion of self-organization used here is set in the realm of complexity theory refers to the idea that processes in society consist of such a large variety of components and interactions that these are hardly manageable if at all (Deppisch & Schaerffer, 2011). Hence, self-organization is according to Boonstra and Boelens (2011) to be seen as the emergent property of complex adaptive systems.

A different viewpoint is proposed by Hasanov and Beaumont (2015). By arguing that, self-organization should not be accepted as an axiomatic truth in urban planning that is explained solely by complex dynamics of urban networks. They aim to build an alternative vision of self-organization which goes beyond the reach of a complexity perspective. It is not the incompressibility of complex systems which prevents understanding, and that all methods that do not capture complexity to a complete extent are useless. But there is a need to develop an awareness of how our methods limit our potential understanding of such systems (Richardson & Tait, 2010). A beyond-complexity approach therefore needs to be developed which does not accept complex dynamics as an axiomatic truth. The 'complexity theory orthodoxy' in the studies of self-organization becomes apparent. Self-organization is an ongoing, community-based and social phenomenon loaded with socio-psychological implications for public participation. The importance of self-organization in the urban realm arises from the rootedness of the concept in collective intentionality as an innovative way to understand contemporary participatory approaches. Hasanov and Beaumont (2015) position self-organization beyond-complexity because the debates within cognitive and behavioral systems are replete with discussions of self-organization and cognitive representation, but are not clearly linked with the performances of socio-spatial realities. Besides, since constructing civil society is to a certain extent about creating stability in the social realm (Hindriks, 2013), the question of self-organization at a higher than personal level is the main thrust of their approach. Argued is that while the argument of self-organization as a solution for easing contested participatory practices, which calls for direct effect-causality linkages between citizen participation in urban politics explained through the social physics of the urban, it also locks self-organization in the debris of complexity and ANT. The theories backing this argument create an oxymoron: it

places the potential self-organized elements of urban governance in a pre-determined 'algorithmic' relationship (Hasanov & Beaumont, 2015). Hereby creating a sort of 'being' of self-organization in the urban realm instead of an effort of 'becoming' (De Roo, 2015). It becomes clear that the positionality of self-organization as a concept is not fixed and is open for debate.

2.2 Autopoietic and dissipative systems

The difference between autopoietic and dissipative systems is that autopoietic systems concern the stabilizing and sometimes intensifying of contemporary boundaries, the self-maintenance of what-is (Jantsch, 1980). Dissipative systems, however, aim to break away contemporary boundaries (Prigogine & Stengers, 1984). Dissipative systems can lead to dynamic processes, moving away from limitations towards far-from-equilibrium situations which in turn can bring opportunities for creating a new reality (Van Meerkerk, et al., 2013). In these far-from-equilibrium situations, systems are much more sensitive to external influences and their behavioral patterns are non-linear, small changes in the components of a system may lead to large-scale changes (Morçöl, 2005).

The difference thus becomes about keeping contemporary institutions and regulations -the current reality- intact (autopoietic) versus breaking and molding reality into something more appropriate for the wider system's needs (dissipative). A system that shows both autopoietic and dissipative characteristics are in a state of so-called 'bounded instability' (Edelenbos & Buuren, 2006). This state allows the system to self-organize and renew itself. It is capable of having enough stability to maintain its identity, while at the same time has enough change-ability to be sustainable in contemporary, increasingly complex, changing society. It is playing on the enclave between chaos and order, change and continuity, autonomy and interdependence (Merry, 1999). In situations of equilibrium, systems are too static to be really adaptive to new, unanticipated situations. Such a system can grow isolated and thus become irrelevant to its environment. Contrarily, when a system is totally unstable, it is not capable to respond in a coherent way to new challenges and such a system could easily become rudderless (Van Meerkerk, et al., 2013). Therefore a balanced interplay of dissipative and autopoietic systems can be seen as the ideal. The state of 'bounded instability' (Edelenbos & Buuren, 2006) combined with an interplay of outside-in and inside-out views, and top-down and bottom-up

influences is considered the new dynamic equilibrium. Such a situation provides space and opportunities for new governance structures related to local initiatives to evolve.

By bridging the wider aspects of autopoietic (inside-out) and dissipative (outside-in) characteristics with self-organization, two perspectives become apparent. Where autopoietic characteristics place self-organization as controlled by public government, dissipative characteristics focus on self-organization which originates from within civil society itself (Van Meerkerk, et al., 2013). There is continuous interplay between autopoietic and dissipative self-organization. This continuous interplay provides space for new governance structures related to the local initiatives to evolve, but in connection with existing institutional structures and actors relevant with regard to the urban processes. The continuous interplay is characterized by a constant power struggle as visualized in the figure below by the back and forth moving spiral. The power struggles make the system move between dissipative and autopoietic dominated systems, making the equilibrium a dynamic one. Changing dynamics within society require changing power relations between government and citizens. This is characterized by the push and pull movements on the new dynamic equilibrium in figure 1. These dynamics enables flexibility to find the most suitable power divide in systems of co-governance (Boonstra & Boelens, 2011).
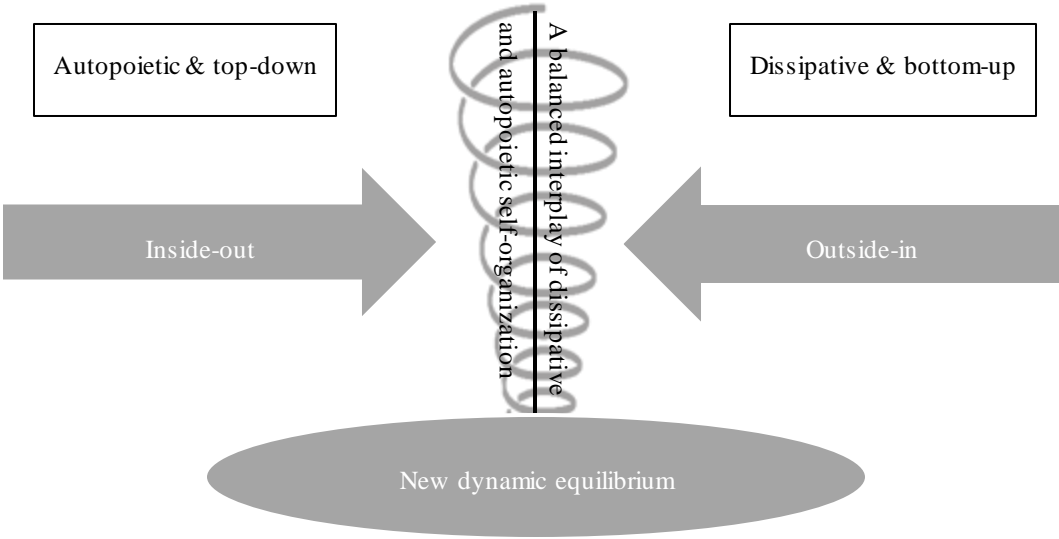

Figure 1 – Interplay on the dissipative and autopoietic enclave of self-organization – the new dynamic equilibrium.

The differences between inside-out and outside-in, as well as autopoietic and dissipative often times work conflicting and enable power struggles between active participants in planning processes. However, if the goal is authentic co-governance wherein top-down and bottom-up parties work together. Then these conflicting aspects should be embraced, as a combination of the two brings a surplus to producing sustainable urban plans (Boonstra & Boelens, 2011).

To embrace these conflicting aspects, 'boundary spanning leadership' can help create direction, alignment and commitment across tension fields in the new dynamic equilibrium. Boundary spanning leadership is a capability that resides within and across individuals, groups and teams, and larger organizations and systems, but requires impartiality and independence. Boundary spanning leaders can create an overarching focus towards a common ambition (Cross, et al., 2013). Important in achieving this common ambition is the creation of vital actor relations, which brings opportunities for mutual understanding of problem situations. Vital actor relations are characterized by ongoing interaction leading to joint strategies to solve problems and to collaboration and trust between interdependent actors (Van Meerkerk, et al., 2013). Effective boundary spanning leadership occurs when groups collaborate across boundaries to achieve outcomes that are above and beyond what those groups could achieve on their own. The synergetic outcomes at the nexus between individuals and governments need to be focused at their common ambition (Cross, et al., 2013). Important in achieving this common ambition together with boundary spanning leadership are vital actor relations. Vital actor relations develop joint fact finding and mutual understanding of problem situations. These relations are not dominated by conflicts or deadlocks, but are characterized by ongoing interaction leading to joint strategies to solve problems. Vital actor relations are important in complex planning and governance processes, because they lead to collaboration and trust between interdependent actors and subsequently to more legitimate and effective policy outputs (Van Meerkerk, et al., 2013).

2.3 Introduction to New Urbanism

New Urbanism is a movement that seeks to restore a civil realm to urban planning and a sense of place to our communities. It is a tangible response to the failed modernistic planning era that has resulted in unchecked urban sprawl, slavish dependence on the automobile and the abandonment and decay of cities (Katz & Scully Jr., 1994). Urban sprawl is considered to have adverse effects on environmental quality, social cohesion and human health and is synonymous

with unplanned incremental urban development, characterized by a low density mix of land uses on the urban fringe. Urban sprawl can be mitigated by policies that promote compact urban growth, pedestrian friendly environments, and urban revitalization (Knaap & Talen, 2005).

New Urbanism is an umbrella term which encompasses 'traditional neighborhood design' which lives by an unswerving belief in the ability of the built environment to create an 'authentic community' (Talen, 1999). A strong, close-knit community can be (re)generated by rebuilding cities according to the design principles. New Urbanists assert that the main defect of standard suburban development is not aesthetic or even environmental, but is its perilous social effects (Lance, 2001). The planning profession must work to extract the community-forming elements and reinstate them in new urban development (Talen, 2000). In existing cities, the concept of compaction arises through processes that intensify development and bring in more people to revitalize them (Burton, et al., 2003).

New Urbanism focusses on physical form, arguing that changes in physical form are a necessary precondition for urban economic, social, and ecological change (Knaap & Talen, 2005). New Urbanism offers more opportunities to get to know others in the neighborhood due to the compact developments. Resulting in meaningful relationships with more people, and a friendlier living environment. Interaction amongst citizens enhances the think-tank capacity and creativity (Boschma & Frenken, 2010). The increased social connections in the neighborhood can result in: less community resistance to local initiatives; less incentive to sprawl when urban core is desirable; and greater civic involvement (NewUrbanism, 2015).

New Urbanist values, beliefs, and design principles are summarized in a formal document, the Charter of the New Urbanism, outlined below. Guiding public policy, development practice, urban planning and design on the scales of the region, neighborhood and building (Congress for the New Urbanism, 2000).

1. The scale of the region: city and town.

   .1 The development and redevelopment of towns and cities should respect historical patterns, precedents and boundaries.

   .2 The physical organization of the region should be supported by a framework of transportation alternatives.

2. The scale of the neighborhood, the district, and the corridor.

    .1 Many activities of daily living should occur within walking distance, allowing independence to those who do not drive, especially the elderly and the young.

    .2 Within neighborhoods, a broad range of housing types and price levels can bring people of diverse ages, races, and incomes into daily interaction, strengthening the personal and civic bonds essential to forming a community.

3. The scale of the block, the street, and the building.

    .1 Properly configured, streets encourage walking and enable neighbors to know each other and protect their communities.

    .2 Preservation and renewal of historic buildings, districts, and landscapes affirm the continuity and evolution of urban society (Congress for the New Urbanism, 2000).

New Urbanism planning as laid out in the Charter of New Urbanism comprehends technical rational assumptions in regard to achieving its goals. Disregarding dissipative characteristics in planning processes and focus on its autopoietic strengths. The idea of New Urbanism of bringing people in closer proximity which will enable people to interact with each other, inspire, and motivate one another to partake in neighborhood activities (Agrawal, et al., 2008), could be perceived as flawed. As Wilson & Taub (2011) pose: is it possible that diversity is actually worse for community forming and instead creates tensions? Are social diversity and an authentic community not an oxymoron? Thereby eliminating any positive community building effect New Urbanist principles have.

A sense of community ignores the possibility of an ideal of city life. In this ideal, social relations affirm −not deny- group differences. Multiple groups coexist side by side, maintaining their own identities, lifestyles, values, and so on. Difference does not imply exclusion since no single group dominates. Rather, groups live together in the city without forming a single "community" (Young, 1990). The multiplicity permits different voices to be heard. Groups may interact as they go about urban life and may sometimes form coalitions while remaining conscious of their differences. For neighborhoods with diverse populations, the ideal of city life may be more suitable than the ideal of community that is promoted by New Urbanism (Day, 2003).

2.3.1 Admixing New Urbanism and self-organization

New Urbanism recommends mixed uses (commercial, public spaces, residential, etc.) to be incorporated in each community. The goals are to provide jobs near where people live and to allow residents to walk or bicycle to the places they need to go. Similarly, New Urbanism recommends neighborhoods incorporate alternative forms of transportation to decrease auto dependence (green transit-oriented developments) (Congress for the New Urbanism, 2000).

New Urbanism promotes physical changes that may not be the best solutions for the social problems that many urban neighborhoods face. New Urbanism is often used to try and fix complex urban problems. However, New Urbanism is accompanied by no such equally cohesive or persuasive set of nonphysical solutions (Day, 2003).

"Both public and private developers, viewing the world from the middle of the class structure, see a well-designed environment as a higher priority than intensive people-oriented solutions" (Pyatok, 2000, p. 808). Physical solutions are favored because they allow expedient and highly visible improvements (Day, 2003).

New Urbanism as a theory falls short in solving social urban problems due to its intrinsic physical focus. Urban regeneration processes in which local stakeholders take the lead bring opportunities for realizing tailor-made and sustainable urban regeneration (Van Meerkerk, et al., 2013). Neo-experts in this process of urban regeneration can create an approachable atmosphere where people feel free to speak their minds and thereby inspire each other to take action (Ruimtevolk, 2013). By offering a platform to discuss tensions between the interests of the government who tries to implement the New Urbanist principles and the citizens living in the particular area, an opportunity is created to investigate how to make these tensions manageable (Cohen, 1997).

For New Urbanism as a theory to be more practicable in contemporary society increasingly based on self-organization (Ministerie van Algemene Zaken, 2007), several changes need to be made. Space needs to be given within the theory for citizen participation, which in turn strengthens civic support for public policies (Boonstra & Boelens, 2011). This can be achieved by making use of the new dynamic equilibrium. This fluid area of continuous interplay provides space in which governance structures can grow in relation to local initiatives. By providing a box to think outside of, while letting it be flexible enough to allow changes. In such a fluid situation of shifting power relations the aforementioned independent boundary spanning leaders

can play a role in connecting the different parts of the system in a meaningful way (Cross, et al., 2013). Continuous efforts of the boundary spanners maintain vital actor relationships between the government and citizens. The collaboration and trust effort of the interdependent actors lead subsequently to more legitimate and effective policy outputs (Van Meerkerk, et al., 2013). By working on the hardware of the system, the institutional framework of public administration (Wagenaar, 2007), the software is given an opportunity to explore possibilities in the new reality. On the new dynamic equilibrium, existing roles of involved actors can change. For example, a more facilitating role for governmental organizations and a more integral focus in spatial development for the local community can be attained.

New Urbanism has the potential for allowing self-organization within the urban realm. Take for instance one of the main points of the Charter of New Urbanism, at the scale of the neighborhood, to: *"bring people of diverse ages, races, and incomes into daily interaction [...] strengthening the personal and civic bonds essential to an authentic community"* (Congress for the New Urbanism, 2000, p. 1). Social and spatial proximity are predispositions of knowledge exchange, which can produce and legitimate social bonds based on sharing information (Boschma & Frenken, 2010). Nearness predisposes a sense of interdependence where people are willing to share more knowledge, skills and information with each other and facilitate exchange of ideas, which otherwise could not be initiated. In other words, being close by provides a stage for expressing opinion within communities (Agrawal, et al., 2008). In this context, co-operative learning and sharing knowledge, through formal and informal institutions, can also be seen as an important feature of socio-spatial proximity. *"The power of collective social performance lies in their potential to launch and sustain an effective, inclusive and proactive community-based local or sectoral civic activity"* (Hasanov & Beaumont, 2015, p. 5). Bringing people together enhances the interconnectivity and collective intelligence.

New Urbanist principles should move away from top-down developments to allow room for citizen participation. Self-organization has the potential to facilitate New Urbanist principles into local context and enhance the chances of creating a tailor-made sustainable urban plan (Koppenjan & Klijn, 2004). Thereby decreasing the chances of NIMBYism, speeding up decision-making processes, better overall community image and greater civic involvement of the population (Involve, 2011) which potentially leads to authentic co-governance practice.

One example of putting New Urbanism into practice is guided by a written manual called 'The SmartCode', which is a unified development ordinance that incorporates the principles of Smart Growth and New Urbanism (Congress for the New Urbanism, 2009). The manual has been assembled to assist those who are considering calibrating and adopting this code for a city, region, or project. It is not instructive like a guideline, nor is it intentionally general like a vision statement. It is meant to be law. Precise and technical, administered by municipal planning departments and interpreted by elected representatives of local government (Duany & Plater-Zyberk, 2009). As a model code to be calibrated, it should be implemented by urban designers, planners, civil engineers, and architects, preferably with the participation of the local citizens (Congress for the New Urbanism, 2009).

Visualizing the process of applying SmartCode and therefore New Urbanist principles into practice:
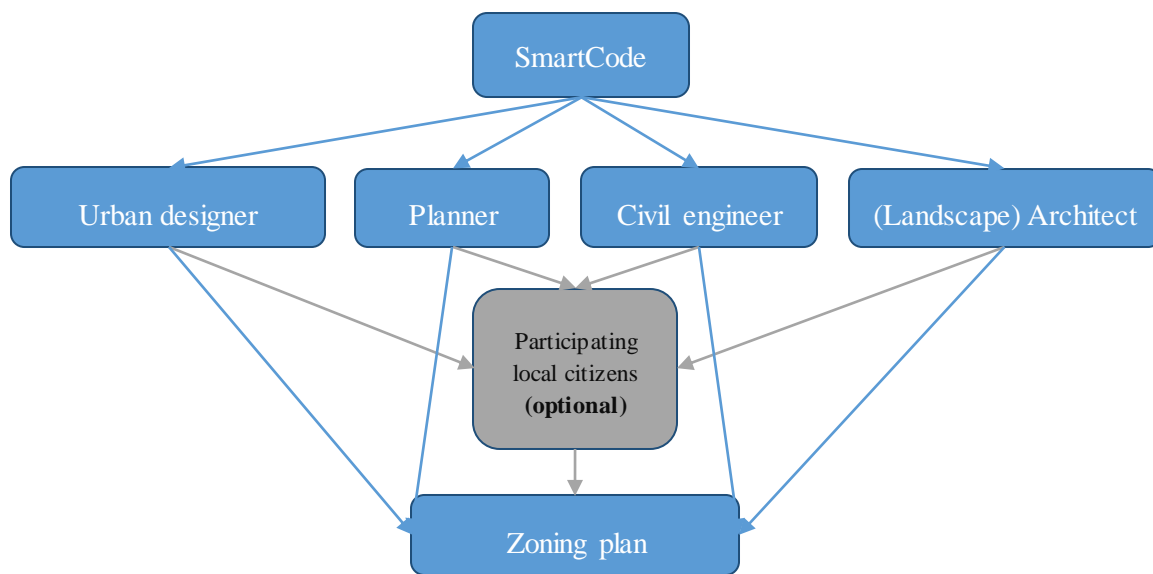
Figure 2 - Visualization of SmartCode implementation.

SmartCode is characterized by top-down implementation. Guided by ideas of the professionals with optional citizen participation. Force fitting SmartCode principles into zoning plans, potentially without societal consent. Points of criticism for implementing SmartCode are:

1. Guiding visions are set out by planning professionals. The Congress for the New Urbanism (CNU) sets the rules for realizing New Urbanist principles without taking into account global-local differences. It is a set of rules without context. The rules set out in the SmartCode are made to fit American cities.

2. Lacking input of citizens. Make citizen input central to the calibration of SmartCode principles in order to create context-specific guidelines.

A visualization (figure 3) is presented as an alternative way of implementing SmartCode into practice. This proposes a way to overcome above mentioned criticisms. Citizen participation has been given a central position, which facilitates the creation of tailor-made plans in a democratic fashion (Koppenjan & Klijn, 2004). Instead of top-down guidelines to implement New Urbanist principles, allowing citizen participation to achieve the desired results. Move away from the role of modern-expert, equipped with a predefined set of guidelines, towards neo-expert, facilitating bottom-up processes with expert knowledge (Richardson & Tait, 2010).
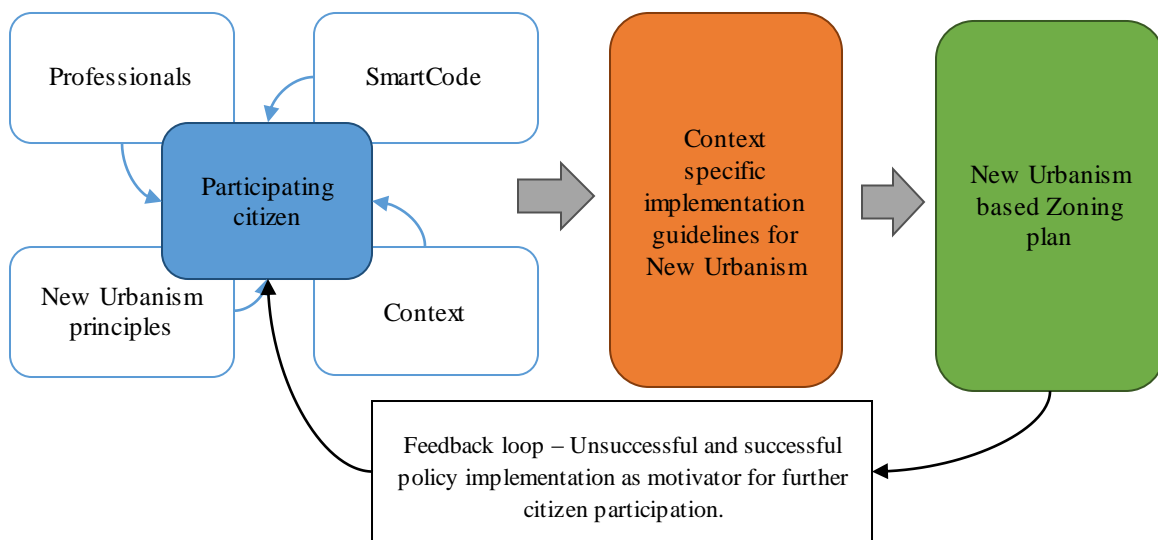
Figure 3 – Virtuous cycle of implementing SmartCode and New Urbanism principles in a bottom-up manner.

Giving the public a central role in the implementation process of the New Urbanism guidelines will greatly enhance the fluidity of the implementation process overall. There will be less citizens' disagreement due to it being agreed upon in a democratic fashion (Koppenjan & Klijn, 2004). New Urbanism principles become more realistic and better applicable in practice. As said before: involved local stakeholders will help realizing tailor-made solutions for sustainable urban plans. Collaboration between the interdependent actors lead to more legitimate and effective policy outputs (Van Meerkerk, et al., 2013). The city is a contested and shared space, comprised of complex structures and functions, which are best understood by local citizens living them (Horelli, et al., 2013).

Space needs to be given to citizen participation for contemporary New Urbanism to arrive at the new dynamic equilibrium. Therefore, the neo-experts as introduced to the theory, who can co-create context-specific guidelines by means of educating participants. Creating a better fit-for-purpose New Urbanist set of principles, wider applicable in practice and flexible for future changes, supported by the citizens. The neo-expert acts as a boundary spanning leader and facilitates the creation of direction, alignment and commitment across boundaries in order to help interdependent stakeholders realize their common ambition (Van Meerkerk, et al., 2013).

2.4 Introduction to Sustainable Urbanism

Sustainable Urbanism as set out by Farr (2008) is urban design with nature and grows out of three movements, namely: (1) Smart Growth, (2) New Urbanism, and (3) Green Buildings Movement. Farr (2008) describes in his book Design with Nature the struggle of a reconciliation of social science with ecology.

"[Sustainable] Urbanism – is that not an oxymoron in the same way that a hybrid SUV is an oxymoron? How can the city, with all its mechanisms of consumption – its devouring of energy, its insatiable demand for food – ever be ecological?" (Mostafavi, 2010, p. 3).

By elaborating on the long-running divide between nature-focused environmentalists and human-focused urbanists. Sustainable Urbanism highlights the benefits of integrating the two.

Sustainable Urbanism in its most basic principles, is walkable and transit-served urbanism integrated with high-performance buildings and high-performance infrastructure; where compactness and human access to nature are core values and where aspects of sustainability, functionality and interconnectivity are more important than design (Farr, 2008). Through guidelines, Sustainable Urbanism aims to restructure the built environment in manners that support a higher quality of life and promote a healthy and sustainable lifestyle (Farr, 2008). The basis for this transformation of the built environment is a synthesis of urbanism – the millennia old tradition of human settlements – together with late 20th century environmentalism. The synthesis of these two requires a new consensus of the role of humans in nature (Farr, 2011). The synthesis is vital to achieve the integrated approach Sustainable Urbanism stresses (Williams, 2010).

While Farr and associates created one definition of Sustainable Urbanism, it is not the only definition to consider. Another one is set out by the Sustainable Urbanism International (SUI):

"developing strategies for promoting culturally and environmentally sensitive strategies for urban development. By balancing the sensibilities of a globalized world while recognizing the importance of cultural context of a place" (Sustainable Urbanism International, 2015). SUI aims to develop an equitable world where all citizens engage with modernity positively on their own terms and for their benefit. At the same time respecting the resources and knowledge that individuals and communities represent while empowering them to manage the changing cultures of globalization (Sustainable Urbanism International, 2015). SUI recognizes the importance of local context and the historicized cultural particularities of a place in achieving sustainability and believes in adapting Sustainable Urbanism to context-specific needs. SUI intends to balance the scales between people, culture and nature.

A visualization is made to introduce the differences between the two definitions discussed:
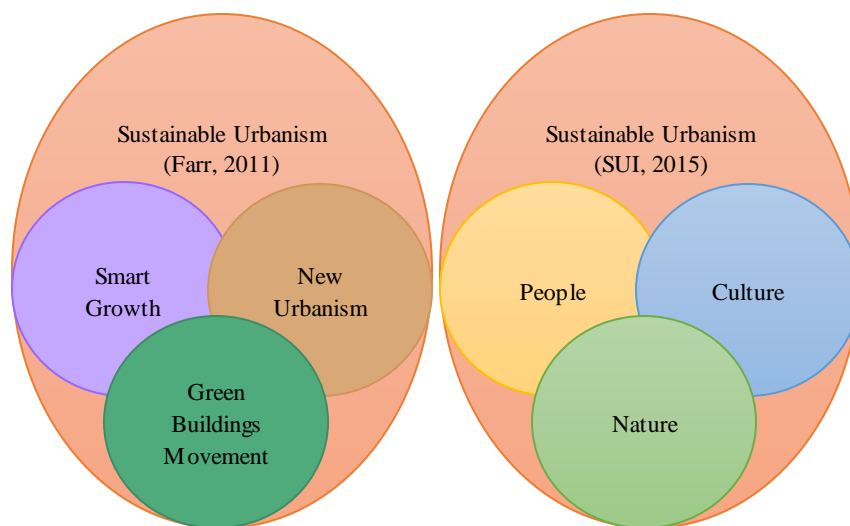
Figure 4 – Sustainable Urbanism by Farr (2011) compared to Sustainable Urbanism by SUI (2015).

Combining the two definitions of Sustainable Urbanism makes sense, using the specifics of the definition created by Farr (2011) and adjusting those to local context while being able to recognize the increasingly interconnected world (Sustainable Urbanism International, 2015).

In order to combine the two definitions, the differences to overcome are considered. Farr (2011) has been more concrete in its implementation processes, however autopoietic by nature. It aims to fit the guidelines within current regimes. Additionally the implementation processes of Farr (2011) are aimed towards American cities. Therefore this definition of Sustainable Urbanism is not universally applicable. The SUI (2015) overcomes this by focusing more on context and

self-organization. SUI's strategies retain and revive traditional forms, use and activities while adapting them to context. Sustainable livelihood strategies are aimed at poverty alleviation and empowerment of women and marginalized populations through microenterprises. Efforts include participatory design, supportive policies, training and capacity-building (Sustainable Urbanism International, 2015). However, an implementation process has not been developed for the definition of the SUI. A combination of the two could overcome the limitations of either. Developing an implementation process that include co-creation by means of enabling self-organization and recognizing the importance of local context. Using the expert knowledge of the three planning movements that comprise Sustainable Urbanism as laid out by Farr (2011) and giving them the role of neo-expert. A Sustainable Urbanism movement can be made that is co-created, emphasizes a walkable, transit-served urbanism and is integrated with high-performance buildings and high-performance infrastructure, which fits into the local historicized context.

It is not just the physical environment people live in that shapes the way they interact, people in turn also interact and shape the physical environment (Park, 1915). Social problems are more-dimensional (Mumford, et al., 2000) and public interests are not served by top-down dominance. Instead it would just lead to frustrated relationships and sub-optimal solutions (Boonstra & Boelens, 2011). New models of collaboration are needed. Sustainable Urbanism has the potential to enable processes of self-organization by bringing people together. Through means of urban compaction, civil society will become more interconnected by being in closer contact with each other (Boschma & Frenken, 2010). By walking to the neighborhood grocery store, people come into contact with others, talk and often exchange ideas. These social relations in turn have the ability to form networks in itself through a process of combining experience and knowledge (Agrawal, et al., 2008). This collective intelligence can potentially be used to launch and sustain an effective, inclusive, and proactive community based local civic activity. These self-created and organizing networks are crucial to the creation of contemporary urban spaces (Hasanov & Beaumont, 2015). Opportunities for admixing self-organization and Sustainable Urbanism to arrive at new models of collaboration will be investigated in the next paragraph.

2.4.1 Admixing Sustainable Urbanism and self-organization

Sustainable development should be the quintessence of any development path. Just as comic strip artist Joel Pett illustrated in a comic questioning sustainability: "what if it is a big hoax and we create a better world for nothing? (Pett, 2009)" - being oxymoronic on purpose. Sustainability ought to be the guiding manifest any action partakes upon. Allowing the production of urban plans with bottom-up input helps create tailor-made sustainable solutions for local problems (Van Meerkerk, et al., 2013). The combination of top-down and bottom-up influences facilitates co-operation in a system of co-governance. Self-organization has the potential to facilitate the top-down Sustainable Urbanism movement into becoming applicable in a system of co-governance.

Through the design of the urban professionals, Sustainable Urbanism aims to create a movement which induces citizens to live more sustainable – a more human-powered and less resource-intensive lifestyle (Farr, 2011).

"The task of implementing Sustainable Urbanism will require the participation of the next generations of development professionals" (Farr, 2011, p. 12).

However, in order to induce the citizens to live more sustainable, one needs to involve citizens and make them commit to the movement (Abelson, et al., 2003).

To shift away from a professionals dominated movement towards a more co-operative way of implementing Sustainable Urbanist principles previous paragraph proposes to combine the Sustainable Urbanism definitions of SUI (2015) and Farr (2011). The combination of the two definitions interplay the particularities of the new dynamic equilibrium. Characterizing an interplay of autopoietic characteristics, found in the definition of Farr (2011) and dissipative characteristics, found in the definition of the SUI (2015); bottom-up as well as top-down influences; with a combination of outside-in and inside-out views.

An example initiative of the CNU to implement contemporary form of Sustainable Urbanism and laid out by Farr (2011) in practice is Urbanism +2030: a partnership for implementing Sustainable Urbanism and resilient communities (Congress for the New Urbanism, 2013). Urbanism +2030 is a collaboration between the CNU and Architecture 2030, the combination will provide development models to help communities visualize and implement low-carbon resilient development. Urbanism +2030 aims to achieve a dramatic reduction in fossil fuel

consumption and greenhouse gas emissions of the built environment by changing the way cities and buildings are renovated, planned, designed and constructed (Architecture 2030, 2011).

Urbanism +2030 will enable developers, the public sector, property owners, and managers to integrate sustainable urbanism across multiple scales of their community, from energy and water consumption to transportation and urban design by providing the 'tools for success'. The towering role of the professionals over the stakeholders (Farr, 2011) and its intrinsic autopoietic implementation is illustrated below, based on Urbanism +2030 guidelines (Congress for the New Urbanism, 2013).
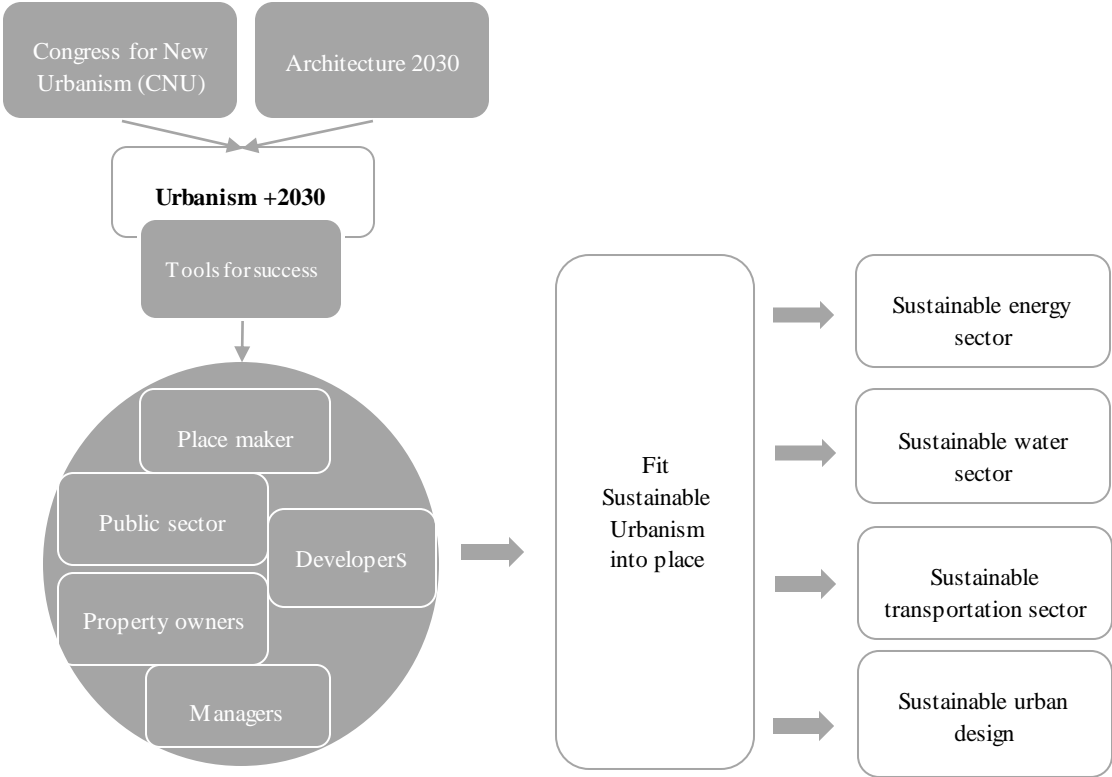
Figure 5 - Visible hierarchy and the marginal role of the involved local stakeholders.

Figure 5 shows that the 'tools for success' to work with are set out from the top-down by professionals of the CNU and Architecture 2030. With this predetermined set of principles the stakeholders depicted in the bottom-left -comprising of place makers, the public sector, developers, property owners and managers- are given the predetermined principles, which then needs to be fit into local context (Congress for the New Urbanism, 2013). Whilst the effect is a more sustainable sector in an abundance of domains, the autopoietic processes leaves no room for feedback moments from citizens for local and context specific implementation issues.

The difference between the CNU principles for Sustainable Urbanism and the more theoretical self-organizing capacity of the SUI (2015) become clearer. SUI chooses to design and interact together with communities to develop livelihood strategies. Context matters. SUI efforts include participatory design, supportive policies, training and capacity building. This includes for example: integration of performing arts into public spaces, or local cuisine development in restaurants, cafes and vendors (Sustainable Urbanism International, 2015). The informal arena with bottom-up initiatives is vital in gaining policy support and also helps creating tailor-made solutions for sustainable urban plans. Local initiatives enhance the chance the plans fit local needs and circumstances and enhances the commitment of the involved stakeholders and therefore the implementation of it (Koppenjan & Klijn, 2004). Therefore citizen participation should be encouraged, and supported by professionals in realizing them into practice (Van Meerkerk, et al., 2013). The definition by the SUI serves a wider ideal. SUI balances the sensibilities of a globalized world and recognizes the importance of local context (Sustainable Urbanism International, 2015). Who else than local stakeholders can be a better informant and decision maker of local context and historicized cultural particularities? The capacity of involving the informal arena of the SUI (2015) combined with the more practical applicable idea of Sustainable Urbanism by Farr (2011) has the potential to play into the wants and wishes of contemporary society and government, opportunities to co-create policy plans (see figure below).
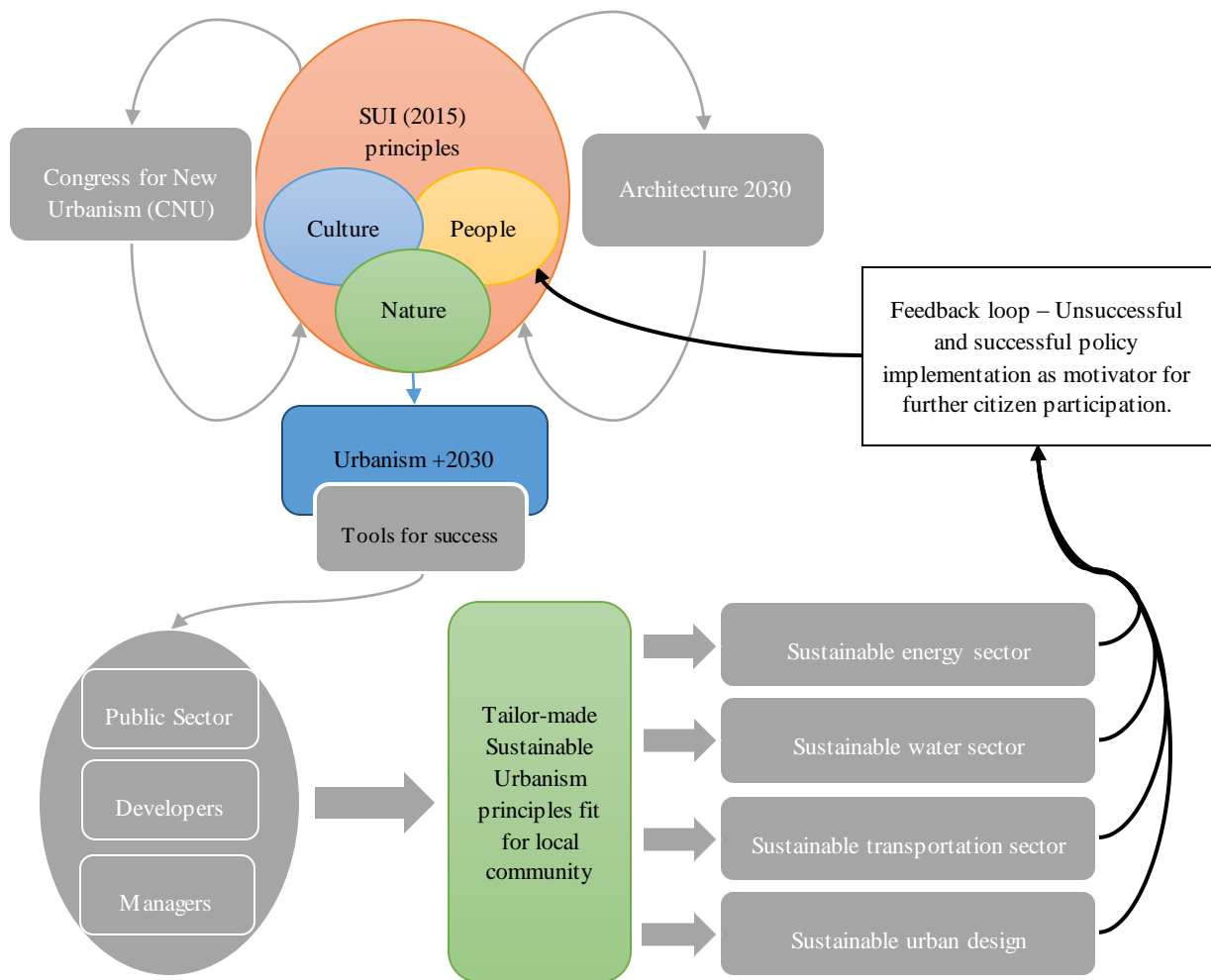
Figure 6 - Central role of the citizen in fitting Urbanism +2030 into practice.

While the outcomes of figure 5 and 6 are essentially the same, namely sustainable developments in a plethora of sectors. Figure 6 lets go of the intrinsic autopoietic processes found in figure 5 and moves towards a combination of autopoietic and dissipative influences. Allowing the implementation process to become more flexible for local context. By giving the SUI principles of Sustainable Urbanism a central place in the feedback loops with both the Sustainable Urbanism definitions of Farr (2011) implicated by CNU – which comprises Smart Growth, New Urbanism and Green Buildings Movement (see figure 4) – and Architecture 2030, this figure comprehends the Sustainable Urbanism aspects for creating the 'tools for success'. The involved local stakeholders from figure 5 in the bottom-left now comprise the 'People' segment in figure 6. As argued; giving citizens a central role in the plan making processes creates support for policy plans because the plans have been tailor-made for their context, in a democratic fashion (Koppenjan & Klijn, 2004). This leads to a tailor-made fit for the context wherein the Sustainable Urbanism principles ought to be applied. In case the process does not lead to the

desired results the plan above dictates, a final feedback-loop is incorporated. Not to prevent mishaps for happening, but to prevent them from being unsolvable.

Sustainable Urbanism has potential as a theory to move towards the new dynamic equilibrium. Where it is led by a combination of both top-down and bottom-up interactions. Sustainable Urbanism at the new dynamic equilibrium is a Sustainable Urbanism that is capable of balancing the sensibilities of a globalized and interconnected world, but still recognizes the importance of local context and the historicized cultural particularities of place. Giving a new infill to the CNU professional knowledge by creating a role in the process as facilitative neo-expert. Combined with the phronetic knowledge of local citizens it becomes possible to co-create sustainable urban plans.

2.5 Introduction to D.I.Y. Urbanism

D.I.Y. Urbanism is described as short-term action for long-term change. It is an approach to neighborhood building and activation using short-term, low-cost, and scalable interventions and policies (Lydon, et al., 2015). D.I.Y. Urbanism is used by a range of actors, including governments, business and nonprofits, citizen groups, and individuals. It makes use of open and iterative development processes, efficient use of resources, and the creative potential unleashed by social interaction (Deslandes, 2013). It is making plans without the usual preponderance of planning. In many ways, it is a learned response to the slow and siloed conventional city building process (Lydon, et al., 2015).

"Needs cause motivation. Deep-rooted desires for esteem, affection, belonging, achievement, self-actualization, power, and control motivate us to push for what we want and need in our lives" (Myers, 2012, p. 122).

D.I.Y. Urbanism is often called 'tactical urbanism', 'guerilla urbanism', or 'pop-up urbanism' (Pagano, 2014). It is the self-organization embodiment of an urban theory and is how most cities are built. It is step-by-step, piece-by-piece (Lydon, 2012). The goal is not to simply do an effervescent project that will get cleaned up by the city or thrown away, but to make something that will change how a place works and is perceived (Lydon, et al., 2015). It is an approachable way to execute personal needs which requires only the resources one is able to afford.

"A lack of resources is no longer an excuse not to act. The idea that action should only be taken after all the answers and the resources have been found is a sure recipe for paralysis. The planning of a city is a process that allows for corrections; it is supremely arrogant to believe that planning can be done only after every possible variable has been controlled" (Lydon, et al., 2015, p. 4). D.I.Y. Urbanism allows local actors to test new concepts before making substantial political and financial commitments. Sometimes sanctioned, sometimes not. D.I.Y. Urbanism projects intentionally create a laboratory for experiments (Lydon, et al., 2015).

In recent years, bottom-up interventions have claimed and shared the use of urban space. The diverse range of projects encompass some that are large and ambitious, some that are small and personal. Some examples of D.I.Y. Urbanism interventions are:

- De-fencing: the act of removing unnecessary fences to break down barriers and encourage community building (Downtown De-Fence Project, 2014).
- PARK(ing) Day: an annual event where on street parking is converted into park-like spaces (Best, 2011).
- Yarn Bombing: the practice of adding knitted and crocheted additions to all sorts of public objects, just for the fun of it. Bus stops are given giant winter hats, and custom-crocheted sweaters are made for phone booths (Rogers, 2014).

D.I.Y. Urbanism occurs when people make unauthorized changes to public space to address local needs. D.I.Y. Urbanism is committed by well-intentioned members of the local community who seize an opportunity to make a change where governments have failed to do so (Douglas, 2011). Although such informal improvements mimic formal urban planning, their impacts on residents and cities can be complex and multilayered. While D.I.Y. Urbanism generally adds functional or aesthetic value to a city, such interventions may also increase property values, leading to further gentrification and reinforcing the patterns of neoliberalism (Douglas, 2014). While acts of D.I.Y. Urbanism are out of good intentions, not everyone appreciates them. For example, a New York City man routinely removes corporate advertisements from bus stops and replaces them with artwork. This interferes with the effort of ad sponsors to capture the attention of passerby and promote their brand among local residents. While some of his acts constitute vandalism, his intention to benefit the community complicates this categorization (Norman, 2015). D.I.Y. Urbanism actions do not occur in a

vacuum. By definition, they tend to happen on the property of someone else, whether private or public. Potentially costing owners or taxpayers money, and impacting anyone in the surrounding area.

D.I.Y. Urbanism is the urbanism theory embodiment of self-organization and bottom-up initiatives. The movement is a form of dissipative self-organization, looking to break away from the lethargic democratic systems of governments in order to make improvements in the here and now. Moving D.I.Y. Urbanism from a dissipative system towards the new dynamic equilibrium adds value to the theory. D.I.Y. Urbanism would benefit from support of the government, making their change efforts longer lasting. Their change efforts would not get cleaned up when approved by the city council. Additionally, institutionalizing D.I.Y. Urbanism benefits from centralized planning in collaboration with bottom-up wants and needs (Boonstra & Boelens, 2011). Phronetic knowledge combined with expert knowledge creates possibilities for sustainable context-specific urban plan making (Richardson & Tait, 2010; Flyvbjerg, et al., 2012).

2.5.1 Institutionalizing D.I.Y. Urbanism

D.I.Y. Urbanism starts out from the idea that if city officials will not do their part to make public spaces more fun, efficient, useful, comfortable and creative, citizens will take matters into their own hands (Rogers, 2014). D.I.Y. Urbanism has become increasingly recognized as a non-professional and non-technocratic practice of urban alteration (Deslandes, 2013). D.I.Y. Urbanism is for example turning vacant lots into temporary playgrounds (Rogers, 2014). It is about making the ordinary special and the special more widely accessible by expanding the boundaries of understanding and possibility with vision and common sense. It is about getting it right for the present-day (Lydon & Garcia, 2015).

Figure 7 – Turning a vacant lot into a temporary playground (Rogers, 2014).

There are, however, some downsides to D.I.Y. Urbanism. In installing benches and other street furniture, or creating faux-official signage to promote desired civic improvements or commemorate unheralded events, people are responding to perceived inadequacies in their communities and taking design responsibilities into their own hands (Douglas, 2014). Small-scale acts of aesthetic alteration assert a vision of the city as open to individual 'beautification' (Talen, 2015). However, these actions are the products of those who are considered members of the so called creative class (Florida, 2005). D.I.Y. Urbanism often reflects the preference of the privileged (Douglas, 2011). While this is not intrinsically harmful, it does not happen in a vacuum. By focusing on your 'right' to improve your surroundings, one may infringe upon others' right to stay put (Hartman, 1984). Making improvements in one neighborhood creates a rise in housing values, enabling processes of gentrification and neo-liberalization (Douglas, 2014). Aside from increasing inequalities, D.I.Y. Urbanism also has the potential to complicate carefully considered long-term planning and urban design strategies (Finn, 2014). While there are advantages to bottom-up planning actions in D.I.Y. Urbanism, it can be counterproductive for longer-term plans made by governments. For this reason, it is important that the plans regardless their direction of top-down or bottom-up, they are discussed with all stakeholders so their plans can be adjusted accordingly.

Institutionalization of D.I.Y. Urbanism has the potential to be a powerful tool for governments. Instead of creating vast pre-planned projects incorporated in a decade long master plan for city developments, D.I.Y. Urbanism allows cities to cherry-pick aspects and see what works in their context. Including public feedback, allowing context-specific tweaking whilst new communication technologies such as the internet will allow for successful projects to be quickly replicated in other areas (Matchar, 2015). Furthermore, the co-operative aspect of combining bottom-up and top-down influences in institutionalizing D.I.Y. Urbanism create possibilities for fine-tuning urban plans for both wants and needs.

Examples of admixing D.I.Y. Urbanism as a bottom-up initiative together with the 'pesky, bureaucratic, rules-driven channel known as local government' can be found in the city of Denver, Colorado (Knight, 2014). Showing that city governments are paying attention (Matchar, 2015). A senior planner from the City of Denver (Chris Gleissner) felt that D.I.Y. Urbanism was a low-cost and agile alternative to citizens having to show up at the city offices for a boring meeting where planners are talking at citizens. Instead, D.I.Y. Urbanism is an experimental exploration of urban planning and urban design by means of residents' demonstrations (Knight, 2014). City planners in Denver were taken on an excursion through a neighborhood, where residents taped and duct-taped stripes on the ground for crosswalks, and showed how the city could plan and design bike lanes in ways to improve the neighborhood (London, 2014). By creating a government-driven D.I.Y. Urbanism, city planners and designers were able to get real-time and real-world information (Matchar, 2015). Based on citizens' demonstrations in their context, showing where the current momentum in the neighborhood is, city planners can focus on finding context specific solutions for what needs to be done for that particular area. This way it becomes clear what projects local citizens will get behind and support (Knight, 2014).

City planner Steven Chester (also works for the City of Denver) created and supports a website called "Tactical Urbanism HERE". It is a web mapping platform dedicated to D.I.Y. Urbanism in Denver with the motto: *"Our urbanist mission: transform our shared spaces into functional, beautiful, creative people-space; Hands-on, intelligent urban experimentation to change how a place works and is perceived, ultimately leading to permanent change. Post what you see, share what you learned"* (Chester, 2015).

It is a place where "Denverites" and people from other cities have a way to share, discover and inspire D.I.Y. Urbanism. The 25th & Eliot Intersection Mural (figure 8) contributes to place

making processes in the neighborhood, bringing previously strangers together and contributing to community-forming. It proved successful enough to be embraced by cities like Portland and Boulder in order to create more lively streets (Chester, 2015).

Figure 8 - The 25th & Eliot Intersection Mural (Chester, 2015).

Government-driven D.I.Y. Urbanism provides real solutions for what needs to be done for scenario and area planning (Matchar, 2015). It helps prioritize projects based on feedback from residents' demonstrations (Knight, 2014). It also provides an approachable way for citizens to be engaged in urban planning. By linking self-organization in D.I.Y. Urbanism to the planners' language of control, regulation and rationality (De Roo, 2015) a government can be formed that is compatible with and supportive of contemporary society increasingly based on self-organization (Ministerie van Algemene Zaken, 2007). A government that is capable of understanding and supporting contemporary increasingly knowledgeable and complex society (Fischer, 2000; De Jong, 2015)

Institutionalizing D.I.Y. Urbanism and moving away from being a purely bottom-up movement towards the new dynamic equilibrium brings advantages for both governments and citizens. Whereas governments will be able to respond more rapidly and fluidly to constantly evolving needs in society (Matchar, 2015). Society itself will benefit from more rapidly tailor-made solutions for their context-specific issues.

2.6 Key notions

The new dynamic equilibrium comprises an interplay of both dissipative and autopoietic characteristics; bottom-up and top-down influences; and a combination of outside-in and inside-out views. The new dynamic equilibrium is visualized in a spectrum.
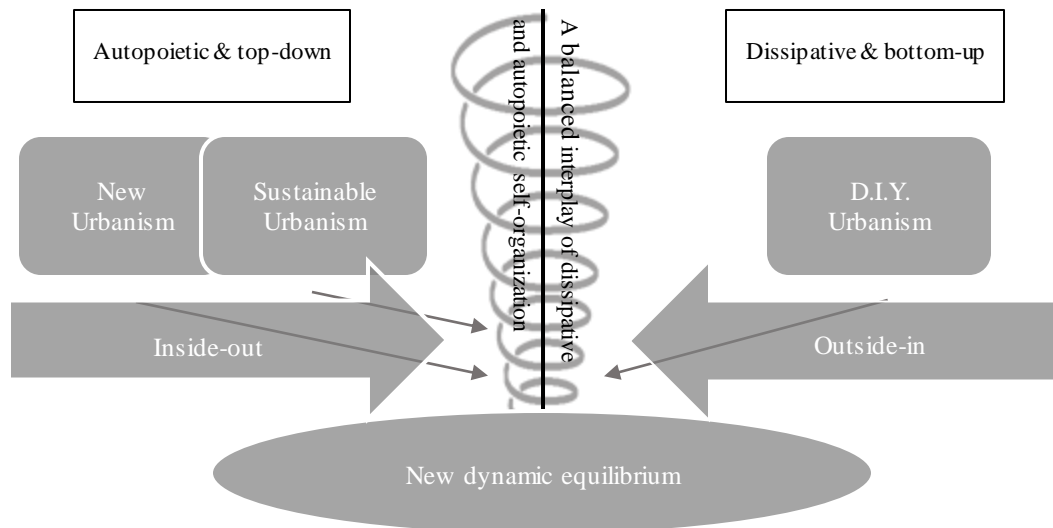
Figure 9 – Positioning the theories on the investigated spectrum in relation to the new dynamic equilibrium.

The left side of the spectrum is characterized by professionalized, top-down urbanism theories, containing New- and Sustainable Urbanism. Characterized by autopoietic systems, they are developed within contemporary boundaries of governmental systems, driven by professionals (Katz, 1993). Contrary is the dissipative system within D.I.Y. Urbanism, which is a citizen-driven movement comprising of bottom-up initiatives in the urban realm. Untouched by top-down wants and needs, it is a movement for and by the local citizens (Finn, 2014). Meaning to break away the boundaries of the contemporary system and seek to improve the current urban realm. Placed on the right side on the spectrum.'

Moving away New Urbanism from the top-down autopoietic side of the spectrum, space has to be given to bottom-up influences as shown in figure 3. Visualizing a new way of implementing SmartCode into practice where a central role is given to the neo-experts and citizens, who can co-create context-specific guidelines to create a better fit-for-purpose set of New Urbanist principles.

Moving Sustainable Urbanism towards the new dynamic equilibrium, away from the autopoietic, top-down side is characterized by giving a new infill to the CNU professionals by creating a role for them in the process as facilitative neo-expert. Combining the phronetic knowledge with the professional support, it becomes possible for Sustainable Urbanism to balance the sensibilities of a globalized world, but still recognize the local context (Sustainable Urbanism International, 2015). Sustainable Urbanism in that scenario is capable of co-creating tailor-made sustainable urban plans.

By moving D.I.Y. Urbanism away from being a dissipative bottom-up based movement towards the new dynamic equilibrium brings advantages for both governments and citizens. By means of government-driven D.I.Y. Urbanism, governments will be able to respond to the constantly changing momentum in society (Matchar, 2015) whilst society will benefit from rapid tailor-made solutions for their issues.

These steps towards co-creation and co-operation move in the direction of reaching consensus about urban plans and towards authentic co-governance.

2.7 Conceptual framework

The conceptual framework below shows how the relationships between the different constructs in this research will be investigated to create a link between theory and practice. It is the directing framework for conducting further empirical investigations.
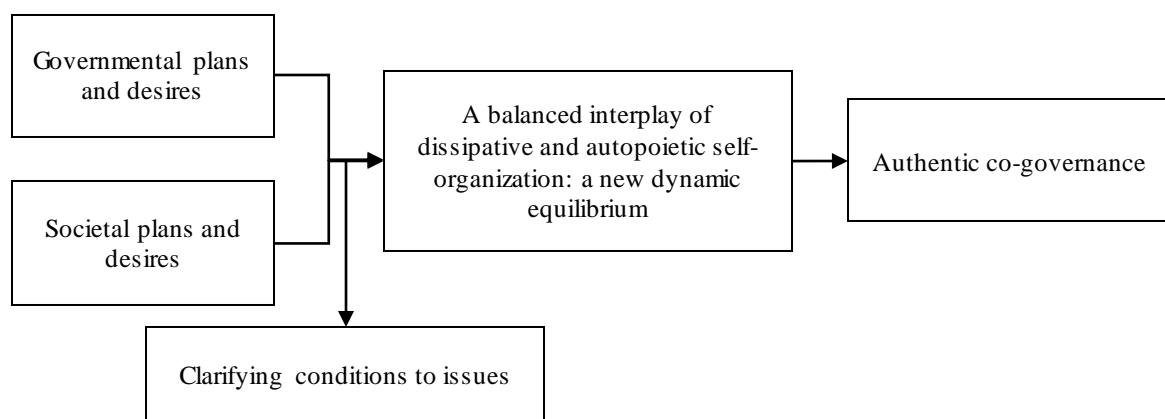
Figure 10 - Conceptual framework.

In this research top-down and bottom-up plans and desires are differentiated and understood as being conflicting sometimes. Take figure 7 for example, where the government might plan for housing development at the vacant lot. Society decides to claim the space and create a playground, generating a conflict in interests and desires. The objective is to explain ways to overcome these conflicting desires and arrive at the new dynamic equilibrium in practice. Where space is given, from a top-down perspective, to citizen participation. The collaboration creates opportunities for authentic co-governance with policies supported by government and civil society.

3   Methodology

The aim of this research is to create insights into the potential of self-organization to incorporate bottom-up influences to contemporary co-governance. By creating an understanding of the bottom-up aspects of co-governance, this research argues that self-organization has the potential to direct governments towards a system of authentic co-governance. Supported by government and civil society.

3.1 Research design

The main question of this research is: *'How does self-organization as a concept help governments move towards authentic co-governance?'* In order to answer this question, an extensive literature review was conducted. The literature review design facilitates the identification for potential areas for research. Alongside the concept of self-organization, several other concepts were found in literature and identified helpful to facilitate the shift towards authentic co-governance, like neo-expertise and boundary spanning leadership. Main source of data collection in this research is therefore from existing data sets, which potentially hold the answer to the research question posed. Capitalizing on these data sets makes sense (O'Leary, 2010). However, in order to link the literature review to practice two interviews were conducted (Gill, et al., 2008). The two interviews were conducted to provide additional in-depth information into the empirical cases that were investigated.

Case studies were chosen to facilitate systematic theory building. In the social science realm, there appears to be mainly context-dependent knowledge. Which rules out the possibility of epistemic theoretical construction. *"Context-dependent knowledge and experience are at the very heart of expert activity"* (Flyvbjerg, 2006, p. 5) and lie at the center of the case study as a research method. This research sheds light on context-dependent information, from which lessons are learned to move towards authentic co-governance. The learning process of the involved stakeholders takes them from rule-based beginners to virtuoso experts in implementing ways to authentic co-governance.

"Context-independent facts and rules will bring the student just to the beginner's level" (Flyvbjerg, 2006, p. 5). The highest levels in the learning process are reached only via a person's own experience as practitioner of the relevant skill. Therefore teachings on case-specific knowledge is central to human learning (Christensen & Hansen, 1987). It is not that context-independent knowledge should be discounted, it is important especially to beginners in the field

of knowledge. However, to make context-independent knowledge the highest goal of learning is regressive. There is a need for both approaches (Flyvbjerg, 2006). Which is why this research has a theoretical context-independent base and continues with two context-specific studies of cases.

3.2 Research strategy

Critical social theory enables thinking outside of contemporary institutions and therefore facilitates an understanding of the dissipative constructs set out in this research. The power of critical social theory is its ability to question autopoietic boundaries and assumptions in power relations (Zou & Trueba, 2002), critical social theory facilitates thinking in terms of the new dynamic equilibrium.

This research focusses on understanding processes of self-organization and combining that understanding with autopoietic and dissipative systems. Furthermore, investigating three urbanism theories which could potentially benefit from autopoietic- and dissipative self-organization in the urban realm. The three urbanism theories are chosen for a reason. New Urbanism, for example, is chosen for its significance in contemporary urbanism planning. It is the leading theory promoting walkable, mixed-use neighborhood development and extensively studied (Katz & Scully Jr., 1994; Day, 2003; Burton, et al., 2003; Knaap & Talen, 2005; Duany & Plater-Zyberk, 2009; Congress for the New Urbanism, 2009).

Sustainable Urbanism takes sustainability issues a step further and therefore has the potential to fit with the wishes of contemporary society to becoming a small-ecological footprint society. Sustainable Urbanism is equally supported by much research (Farr, 2008; Farr, 2011; Architecture 2030, 2011; Congress for the New Urbanism, 2013; Sustainable Urbanism International, 2015).

Contrary to the other theories, D.I.Y. Urbanism is a bottom-up movement, initiated by self-organizing citizens who want to make small-scale and temporary changes to their urban environments. It is the urbanism theory embodiment of self-organization. It is an example of the capacity of self-organization to make a change in the urban realm. Although it is not as mainstream as the above mentioned theories. It is nonetheless a much discussed urbanism theory in current practices (Myers, 2012; Lydon, 2012; Rogers, 2014; Douglas, 2014; Finn, 2014; Knight, 2014; Lydon, et al., 2015; Norman, 2015).

3.3 Case description

In order to link the literature review to practice two cases were investigated. Firstly, the Mayborhood (in Dutch: Mag stad?), which is a sort of role-playing game. It is an attempt to stimulate citizens to think outside of contemporary institutions and regulations. There are no all-knowing experts that tell people what to do, but instead the experts take the role of the neo-expert (Mag Stad? Academie, 2014). This Mayborhood is supportive of investigating dissipative self-organizational in society and aims to broaden the understanding of it from a governmental perspective.

Secondly, the Suiker Unie area (translated: Old Sugarfactory) is investigated. While the ambition of the municipality of Groningen is unachievable for the coming 15 years, an idea emerged to transform the Suiker Unie area into a live testing field for bottom-up initiatives. The municipality initiated a contest. Allowing citizens with plans that add value to the city to realize their initiatives (Gemeente Groningen, 2011). Based on autopoietic self-organization this case study has the potential to explain and identify processes of co-governance.

Lessons can be learned from both cases separately, however by linking the two cases together, insights are created in both the pre-development phase and the development phase of co-governance. The combination of the two cases adds knowledge to the overall process and potentially increases the chances of success for realizing authentic co-governance in practice.

3.4 Data collection and analysis

The data collection in this research consists of extensive literature reviews, policy documents, and conducting interviews. The nature of the research question make that it should be answered using a combination of these data sources, allowing for theoretical and empirical insights (Verd, 2004). Only two interviews were conducted due to time constraints, both linked to the Suiker Unie area case. This particular case study had limited available information regarding the answering the research questions of this research. In-depth information for the analysis of the case was obtained through the interviews. Information regarding the Mayborhood was ample (Ruimtevolk, 2013; De Stentor, 2013; Mag Stad? Academie, 2014; Mag stad?, 2014; Twynstra Gudde, 2015; Gemeente Zwolle, 2015). Therefore the choice was made to focus the two interviews on the Suiker Unie area case.

The two interviews focus on the two sides involved in the collaborative aspects of the Suiker Unie area. For the bottom-up storyline an interview was held with the initiator of the

Wolkenfabriek, a bottom-up initiative currently located at the Suiker Unie area. This interview sheds light on the collaboration issues between the initiative and the municipality. The initiator will be further referred to as 'Initiator'. The second interview was held with a civil servant at the municipality of Groningen, head of Legal Affairs and Real Estate and actively involved in the developments at the Suiker Unie area. This interview sheds light on the 'why' and 'how' of the developments at the Suiker Unie area, along with the perspective of how the municipality experienced their new role therein. The civil servant of the municipality will be further referred to as 'Employee'. The interviews were semi-structured, which means they were prepared and structured by use of a topic list (see Appendix A). The semi-structured design helped to diverge the subject in order to pursue the interviewees view on the matter, however still provided guidelines for relevant key topics (Gill, et al., 2008). The data collected to answer the research questions are summarized in table 1.

Table 1 – Data proposed to offer insights into answering the research questions.

Research question / Data	Literature (SmartCat, PiCarta, Google Scholar, Websites)	Interviews (Municipality of Groningen, Initiator of the Wolkenfabriek)	Policy documents (Website Gemeente Zwolle, Gemeente Groningen, Ministerie van Algemene Zaken, Wetenschappelijke Raad voor Regeringsbeleid)
Sub-question 1: *What is the added value of self-organization in contemporary urbanism theories?*	Self-organization. Autopoietic vs. Dissipative. Modern-expertise vs. Neo-expertise. Boundary spanning leadership. New Urbanism. Sustainable Urbanism. D.I.Y. Urbanism.	No examples identified.	No examples identified.
Sub-question 2: *What added value does understanding self-organization in contemporary urbanism theories bring to the*	Self-organization. Autopoietic vs. Dissipative. Modern-expertise vs. Neo-expertise. Boundary spanning leadership. Authenticity. Advocacy planning. Co-governance.	Self-organization. Autopoietic vs. Dissipative. Bottom-up vs. top-down. Financial vs. Societal added value.	Increasingly develop policies in co-operation with society. Contemporary co-governance. Welfare state vs. one supportive of society

shift towards authentic co-governance?	Traditional methods of public participation vs. Authentic co-governance. Linking the ambition of the citizens to the planners' language of control.		increasingly based on self-organization. Match citizens' priorities with policies.
Main question: *Does self-organization as a concept help governments move towards authentic co-governance?*	Self-organization. Autopoietic vs. Dissipative. Modern-expertise vs. Neo-expertise. Boundary spanning leadership. New Urbanism. Sustainable Urbanism. D.I.Y. Urbanism. Authenticity. Advocacy planning. Co-governance. Traditional methods of public participation vs. Authentic co-governance. Linking the ambition of the citizens to the planners' language of control.	Self-organization. Autopoietic vs. Dissipative. Bottom-up vs. top-down. Differences in priorities. Financial vs. Societal added value.	Increasingly develop policies in co-operation with society. Contemporary co-governance. Welfare state vs. one supportive of society increasingly based on self-organization. Match citizens' priorities with policies.

The collected data is analyzed on the basis of grounded theory. The basis of grounded theory is that theory is derived from data, systematically gathered and analyzed throughout the research process (Corbin & Strauss, 1990). Grounded theory provides relevant predictions, explanations, interpretations and applications (Glaser & Strauss, 2009). It offers a flexible set of inductive strategies for collecting and analyzing qualitative data. These strategies emphasize building inductive theories through data analysis (Charmaz, 2003). The deductive part is based in the literature, additional documents and webpages, as well as the created topic list.

This research began with questions about the influence of self-organization in regard to improving bottom-up and top-down collaboration in urban plan making. As more data was collected about the topic and reviewed, more concepts of importance for answering the research questions became apparent (Allan, 2003). The follow stages of analysis were undertaken during the research process:

1. Coding text and theorizing; Taking a chunk of text from which useful concepts are being identified and key phrases are being marked (Bernard & Ryan, 2009). For instance, the article of Richardson and Tait (2010), from which the differentiation is found between modern-expertise and neo-expertise. This phase comprehended conceptualizing, elaborating, and relating concepts (Corbin & Strauss, 1990).

2. Memoing and theorizing; Memoing is when the running notes of each of the concepts that are identified are kept. The importance of keeping memos is "*to theoretically develop ideas*" (Glaser, 1978, p. 83) and to raise theoretical awareness. Memos give rise to important theoretical recognition to concepts and are vital as they provide "*a bank of ideas which can be revisited in order to map out the emergent theory*" (Glaser, 1978, p. 84). This phase for example allowed to make the connection with in stage one identified neo-expertise with the concept of boundary spanning leadership found in the article of Cross et al. (2013) and later combine those theoretical ideas with the empirical cases.

3. Integrating, refining and theorizing; Link together the theoretical models around self-organization, and self-organization to the theoretical models (Bernard & Ryan, 2009). This stage allowed the integration of several concepts and enabled the creation of the new dynamic equilibrium.

The visualizations used in this research (figure 1, 2, 3, 4, 5, 6, 9, 10 and 14) were used for linking concepts together and can be considered "*visual memos*" (Strauss & Corbin, 1998, p. 217). They provide a visual representation of relationships between categories created during the coding phase. The diagrams are tools that enable overview and see the "*scope and directions of categories and the connections among them*" (Charmaz, 2006, p. 118). The analysis process in grounded theory is characterized by the interplay between the researcher and the data (Corbin & Strauss, 1990). Grounded theory is designed to facilitate the linking of concepts in order to give a theoretical explanation to phenomena found in practice (Walker & Myrick, 2006). Therefore facilitates the linking between the literature review and practice, and allows empirical testing of the new dynamic equilibrium in relation to arriving at authentic co-governance. There are no predetermined or constant set of rules for conducting qualitative research in combination with grounded theory. The recommendations of grounded theory should be seen as flexible guidance mechanisms. Procedures should not be followed dogmatically, but rather adjusted to fit the research (Corbin & Strauss, 1990). Grounded theory facilitated the use of both context-dependent and context-independent knowledge to facilitate the answering of the question which

required a combination of theory and practice (Flyvbjerg, 2006). Bridging the gap between deductive- and inductive reasoning, the gap between theory and practice.

Moreover, contrasts greatly improve the quality of this research. For example, between the two empirical cases, namely one being a conceptual role-playing case and the other physically established. Additionally the contrast between the two sides of the co-operative story at the Suiker Unie area adds quality to the knowledge gathered (Strauss & Corbin, 1998).

Grounded theory is a comparative and interactive model. The analysis is constructed by comparing bits of data with each other. The comparing is part of the analysis. Grounded theory allows interaction with the data and forming personal ideas about it. Grounded theory is capable of addressing any kind of research question (Charmaz, 2003). The dissipative characteristic of grounded theory combines well with dissipative thinking enabled by critical social theory used in this research. Critical social theory enables thinking beyond the autopoietic boundaries found in the natural sciences. The social sciences approach taken supported by dissipative thinking has the best fit-for-purpose in answering the research question posed. Flyvbjerg (2001) rejects naturalism in social sciences. More specifically the explaining of processes in human affairs by natural sciences, the understanding of core human values, politics and power struggles (Flyvbjerg, 2006). Therefore the qualitative, social sciences approach is best used in the complex realm of urban planning which is loaded with human affairs (Flyvbjerg, 2001; Boonstra & Boelens, 2011) in order to explain processes of co-governance.

3.5 Validity

The validity of a grounded theory is determined by empirical facts and reasoning (Lomborg & Kirkevold, 2003). A distinction is made between internal and external validity.

Internal validity measures if the interpretations of the data is in line with the collected data (Plochg, et al., 2007). Although in qualitative research it is difficult to limit the likelihood of errors, there are various ways of improving the internal validity. In this research the validity was improved by triangulation of the data. Triangulation involves the usage of different data collection methods (interviews, policy documents and web-pages) and different data sources (planning-, psychology- and sociology literature). This way, validity was increased since the data can be analyzed using different perspectives from the memos and codes (Mays & Pope, 2000).

External validity, or generalizability, depends on the question to which extend the conclusion is universally valid (Plochg, et al., 2007). High external validity in qualitative research is often difficult to reach. The specific characteristics of the interpretation of the data and personal idea forming processes lead to a low generalizability of the research results. In this research, by collecting data from different case studies and comparing them to literature an attempt was made to optimize the external validity. However, through the study of two case studies the claims regarding them are of a generic level (Silverman, 2011). Though, accuracy is not at stake so much as establishing the structural boundaries of a fact in grounded theory (Glaser & Strauss, 2009). Therefore, the collection of data by using the two case studies in this research enable to make general claims which can be used as starting point for further research.

Contrarily, validity, is not the only aspect of interest when considering the quality of theoretical findings. Since, if research is to contribute to the understanding of human affairs (Flyvbjerg, 2006), theory must be modifiable because of the dynamic nature of social reality (Lomborg & Kirkevold, 2003).

3.6 Reliability

Reliability refers to the consistency of the research instrument. It is linked to replicability, which is the extent to which the conducted research is repeatable and produces the same results in similar circumstances and conditions (Holloway & Wheeler, 2009). Social science, and in this case qualitative research, is characterized by the study of human affairs, which intrinsically means that the research cannot be wholly replicable (Flyvbjerg, 2006). Repeating the interviews will unlikely yield the same answers in a different point in time. Interpretations of literature will differ due to different socio-cultural backgrounds of the researchers (Mortelmans, 2007; Holloway & Wheeler, 2009). In order to downscale the limitations of reliability in qualitative research, a topic list is made on the basis of the literature review in order to guide the researcher during the interviews. Furthermore, a table is created of the data analyzed used to answer the research questions (table 1). By taking a neutral stance during the analysis process, the chance of coloring the data by personal characteristics and background was minimized.

4 Case studies

This chapter focusses on the case studies of the Mayborhood and the Suiker Unie area. With either case starting off with a case description, followed by further analysis in which processes regarding collaboration between citizens and government are identified.

4.1 Description of the Mayborhood

In an attempt to stimulate bottom-up initiatives the possibilities for social-design approaches within the Rotterdam area were investigated. Social design can be used as a design approach to develop new and usable ideas for questions with momentum within society. The social designer therefore takes the role as neo-expert. These neo-experts involve end-users in ways of thinking of their problems and enables them to find solutions by themselves (Richardson & Tait, 2010; Ruimtevolk, 2013). By taking a dual perspective from both governmental as well as citizens, the neo-expert is capable of providing handles to explore ways to bridge the gap between governments and citizens (Richardson & Tait, 2010). From this social design approach one main notion became apparent regarding bottom-up initiatives: successful bottom-up initiatives are guided by a fugleman –an instructor. One who knows the system and knows how to work it (Ruimtevolk, 2013). Bottom-up initiatives which do not know the procedural road tend to get lost in sidetracks or give up half-way. Lost in the bureaucratic system known as local government (Knight, 2014).

The Mayborhood (in Dutch: Mag stad?) was created in response to the social design approach. The Mayborhood offers a platform to discuss tensions and conflicting interests between governments and citizens. It creates an opportunity to investigate how to make these tensions manageable (Twynstra Gudde, 2015). A way of exploring how planners can combine their expert knowledge with the phronetic knowledge of the participating citizens (Fischer, 2000) by dictating a new role for the planner as neo-expert (Richardson & Tait, 2010).

The Mayborhood is a conceptual case wherein people are able to investigate the possibilities to self-organize outside of ruling regulations and institutions by means of role-playing. It is exploring the options for dissipative self-organization. It is not a physical town, but a testing field. The idea of the Mayborhood is to initiate stakeholders into thinking beyond the systems boundaries and hereby prompting creative dissipative thinking. In the Mayborhood, the participants are placed in a 'blue box' (Mag Stad? Academie, 2014). This blue box represents

a regulationless and institutionless space, where the only limitation is imagination. In this blue box the participants are asked to explore their deepest wishes. The neo-expert in this process aims to shed light into processes for realization. The Mayborhood therefore aims to provide insights into, as well as stimulate, processes of self-organization (Twynstra Gudde, 2015).

Figure 11 - Mayborhood: a space of initiatives (Mag stad?, 2014)

The Mayborhood aims to create insights into the changing relations between governments and citizens in an attempt to move towards authentic co-governance (Twynstra Gudde, 2015). The Mayborhood beliefs governments want to move towards a system of co-creation with society (Mag stad?, 2014). However, the Mayborhood recognizes that realizing practices of authentic co-governance is not as easy as deemed in the pre-development phases (Ruimtevolk, 2013). Problems arise because, as Van Gijzel, the current mayor of Eindhoven, states: *"We, as government, often state that the 'citizen is central', but often times what we mean to say is that we will put the citizen in a central position, that we will have to create the chances for citizen participation. However, if citizens participate on their own accord, we are unable to respond appropriately"* (NRC, 2013). An understanding of the differentiation between dissipative- and autopoietic self-organization is shown by the government. The former is self-organization that is autonomous from governmental actions (Boonstra & Boelens, 2011), and is characterized by wide boundary judgements combined with an acceptance of involving a plethora of actors and ideas (Van Meerkerk, et al., 2013). Hereby allowing initiatives to originate from the wishes of

civil society itself as presented by D.I.Y. Urbanism. The latter is self-organization that is characterized by prearranged sets of wishes as determined by the government (Wagenaar, 2007). Problems of co-governance arise because, as Van Gijzel stated, the government is mainly the initiator in steering the processes of self-organization from their own ambition (NRC, 2013). Making these efforts of public participation produce meagre results (Innes & Booher, 2000), as they are a form of advocacy planning (Boonstra & Boelens, 2011). Demotivating collaboration amongst participating citizens (NRC, 2013).

By exploring friction points between the initiative and the institutions, the Mayborhood aims to create insights into change-management and collaboration. By means of guidance by the neo-experts, the Mayborhood aims to teach stakeholders to learn from past successes and friction points in practice (Mag stad?, 2014) in order to overcome the inability of the government to respond to dissipative self-organization (NRC, 2013). The Mayborhood facilitates an understanding of citizen participation and bottom-up initiatives by creating space in the bureaucratic system for a combination of autopoietic and dissipative self-organization.

4.2 Analysis of the Mayborhood

The necessity in starting the Mayborhood is accounted to misunderstandings between governments and bottom-up initiatives. These initiatives tend to be framed within local wishes and outside of contemporary institutions (NRC, 2013). The Mayborhood aims to bridge the gap between autopoietic- and dissipative self-organization and thereby facilitate the desire of the government to move towards a system of authentic co-governance (Ministerie van Algemene Zaken, 2007). By enabling the combinations of: both top-down and bottom-up; both autopoietic and dissipative; both inside-out and outside-in, the Mayborhood enables a shift towards the new dynamic equilibrium which permits governance structures to potentially evolve towards being compatible with authentic co-governance practice.

Friction points in realizing practices of authentic co-governance are identified in the Mayborhood and are accounted to the difference between dissipative self-organization and autopoietic self-organization (Mag stad?, 2014). Combining wishes of autopoietic- and dissipative self-organization in the co-creation process could produce policies supported by all involved stakeholders. As suggested in the implementation process of the SmartCode (figure

3) and Urbanism +2030 (figure 6). By creating space in the bureaucratic system for dissipative bottom-up influences, a system supportive of collaboration is created (Boonstra & Boelens, 2011). Collaboration between government and citizens will lead to more legitimate policy plans due to the plans being agreed upon in a democratic fashion (Koppenjan & Klijn, 2004; Van Meerkerk, et al., 2013). The Mayborhood aims to shed light on processes of collaboration, implying assigning equal importance to autopoietic- and dissipative self-organization. By exploring the practices of dissipative self-organization in a role-playing manner in the blue box, the government could learn where the momentum in society is found. As demonstrated by government-driven D.I.Y. Urbanism (Knight, 2014; Matchar, 2015). Creating an understanding of bottom-up wishes, from a top-down perspective, allows the understanding that a combination of both autopoietic- dissipative self-organization can bring a surplus to producing sustainable tailor-made urban plans (Boonstra & Boelens, 2011). By interplaying the particularities of the new dynamic equilibrium, the Mayborhood facilitates a shift in governmental structures to be compatible with authentic co-governance practices. Because in this fluid state governmental structures could shift towards a system more compatible with collaboration. Move away from the central position and letting go of the levers of control (Johnson & Osborn, 2003), thereby allowing for equal power relations between citizens and governments. Allowing for the combination of expert- and phronetic knowledge (Flyvbjerg, et al., 2012) to co-create initiatives that will fit into both the wishes of society and government.

An example initiative thought of in the Mayborhood and then taken to practice is the Sassenstraat Allicht project in Zwolle. The project replaces ordinary streetlights with over 300 living room lamps and aims to increase the commercial potential of the street (De Stentor, 2013). The project attempts to distinguish the Sassenstraat from other streets in Zwolle, increase the neighborhood feeling, and attract additional shoppers. Resurrecting the liveliness in the Sassenstraat. The Sassenstraat Allicht project is an example of how obtaining ideas by thinking outside of autopoietic boundaries can help to inspire citizens to self-organize and create their own initiative out of their ambition. The project exemplifies value creation by means of co-creation. With the ambition of citizens to distinguish the Sassenstraat from other streets, the project contributes to the ambition of the municipality of Zwolle to become the 'most hospitable city' in the Netherlands as well. By means of collaboration between all stakeholders the project

became reality and beneficial, and is currently one of the highlights in Zwolle (De Stentor, 2014).

Figure 12 - Sassenstraat Allicht in Zwolle.

Sassenstraat Allicht includes forms of both dissipative and autopoietic self-organization. The dissipative side is characterized by the wishes of the initiator (a citizen of the city Zwolle) and additional contributors to create something out of the ordinary, thereby distinguishing the Sassenstraat from other streets. Whereas the autopoietic side is characterized by the wishes of the municipality of Zwolle to become the 'most hospitable city', and facilitating the initiative by efforts such as legality checks and implementing safety measures (Gemeente Zwolle, 2015). The Sassenstraat Allicht project embodies the admixing of wishes from both sides and plays on the new dynamic equilibrium. It makes use of the combination of expert and phronetic knowledge to provide a suitable project for the context. These combination is what made the Sassenstraat Allicht project a success. The project was supported by municipality and society, and co-created in a democratic fashion.

The Mayborhood interplays the particularities of the new dynamic equilibrium, however is intrinsically conceptual. Contrasting the physically executed Sassenstraat Allicht project. By means of training and teaching participating citizens the Mayborhood aims to stimulate citizens to not be hindered by boundaries, but instead create their own opportunities with the system.

The Mayborhood acts as a fugleman and neo-expert by teaching ways to citizens to implement their ambition into practice. The Sassenstraat Allicht project is an example of this teaching effort. The Mayborhood stimulates in dissipative creative thinking while supporting the participants by fitting their ambition into the context of the autopoietic system. This facilitating process encourages citizens to self-organize and not be hindered by impossibilities.

4.3 Description of the Suiker Unie area in Groningen

The Suiker Unie area (translated: Old Sugarfactory) in the south-west of Groningen is part of the collective memory of many of the citizens in Groningen. For more than a century this factory has been giving the city center a faintly sweetish but sickly smell in the autumn months (Rozema, 2015). Many citizens of Groningen have worked in or just outside of the factory (Gemeente Groningen, 2011). The Suiker Unie area is unique thanks to its vast size and the location nearby the city center. It is locked-in between residential and labor areas (Gemeente Groningen, 2011).

The municipality of Groningen bought the Suiker Unie area in 2009 to develop housing. A combination of factors resulted in an immediate suspension of developments in the area. Firstly, the economic crisis (Elsinga, et al., 2011); secondly, housing developments in other parts of the city (Provincie Groningen, 2015); thirdly, physical boundaries (Employee, 2015); and lastly, EU regulations which resulted in imposed destruction of major parts of the factory (Toebast, et al., 2009). All these factors led to the Department of Spatial Planning and Economic Development to be left with an area they could not develop any time soon. The department expected to need a timeframe of approximately 15 years before they could transform the area into the preferred residential function (Employee, 2015).

The old Suiker Unie area was in a state of dilapidation. Alternative functionality for the area had to be thought of, whilst keeping in mind the lack of sewerage, water, and electricity (Employee, 2015). In 2011, an idea from the municipality emerged to transform the Suiker Unie area into a live testing field for bottom-up initiatives. The municipality initiated a contest to allow citizens with creative plans that add value to the city to realize their initiatives at the Suiker Unie area (Gemeente Groningen, 2011). The idea is for the Suiker Unie area to become a magnet and nursery to attracted new activities in the businesses of food, small scale manufacturing, events, energy, and temporary living and working (Rozema, 2015).

Figure 13 – The Suiker Unie area in the south-west of Groningen.

The contest yielded several ideas from which some have been developed. The Wolkenfabriek (translated: Cloud factory) is one of them. The Wolkenfabriek is a 'slide-in' restaurant where caterers and people are invited to organize their own events (Gemeente Groningen, 2013).

The Wolkenfabriek exists due to dissipative creativity combined with the contest of the municipality. It has structurally organized events called 'Wolk-ins', where everybody is invited to join the conviviality. By organizing 'Wolk-ins' every Sunday and creating an overall hospitable environment the initiator of the Wolkenfabriek wants to *"invites people to stop by and have fun"* (Initiator, 2015). The Wolkenfabriek aims bring together people and their ideas, and be a space of culinary and cultural meetings, where ideas fizzle and people inspire each other (Punt, et al., 2012). *"The Wolkenfabriek is the central meeting space at the Suiker Unie area where people can meet up and have food and drinks"* (Initiator, 2015).

4.4 Analysis of the Suiker Unie area

The Suiker Unie area developments in this case started with the desire of the municipality to create a live testing field for bottom-up initiatives (Gemeente Groningen, 2011). Starting a contest wherein citizens can contribute to plans that fit into the wishes of the municipality. The contest yielded winners whose initiatives are deemed fit for the Suiker Unie trajectory.

The pre-development phase of the Suiker Unie project is characterized by autopoietic self-organization. This type of self-organization is characterized by prearranged sets of wishes as

determined by the government. Due to this predetermined set of wishes, projects are only chosen if they fit into the autopoietic boundaries set beforehand (Wagenaar, 2007). This creates insidious rigid boundaries which limits the possibilities for dissipative desires of public participants to be realized. This traditional manner of organizing public participation produces a divisive group in participation (Irvin & Stansbury, 2004). As stated by Van Gijzel (2013), and illustrated in the Mayborhood case study, the government has its roots in steering the processes of self-organization. However, dissipative self-organization is new and unknown and the bureaucratic rules-driven system does not yet know how to respond (NRC, 2013).

The autopoietic self-organized desires of the municipality of Groningen determined which projects were chosen to be realized. The Wolkenfabriek initiative was chosen because it fulfilled all the basic requirements of the municipality and therefore received green light to develop the restaurant (Initiator, 2015). However, many other initiatives did not pass the threshold requirements. "*A lot of initiatives came up with nice ideas, but when you asked for their financial plan, they appeared to lack any financial base*" (Employee, 2015).

By means of imposing guidelines, safety measures and various other rules onto the initiatives (Initiator, 2015), the municipality reacquired the role of modern-expert. Deemed necessary in order to make the winning initiatives fit in line with the wishes of the municipality. In an attempt to realize the personal dissipative ambitions, the initiator of the Wolkenfabriek started the developments by "*throwing down a couple of tables and chairs, and don't occupy yourself with impossibilities*" (Initiator, 2015). Instead of getting lost in the side tracks of the bureaucratic system (Knight, 2014), a decision was made to take matters into own hands. "*The Wolkenfabriek is now where it is, because I did not always follow the rules. It is where it is because I made it so. By interpreting the 'maybes' of the municipality as 'yes', I started to create my restaurant*" (Initiator, 2015). The Wolkenfabriek is an example of attempting to widen the autopoietic boundaries set in the pre-development phase by exploring what is possible. Without occupying oneself with the impossibilities guided by the municipal institutions, the dissipative ambitions can still become reality.

The municipality confirms that the Wolkenfabriek has reached its current state due to the perseverance of the initiator. "*By means of 'country conquering', the Wolkenfabriek is now in business*" (Employee, 2015). The municipality however, does not commend such actions. After debating with the initiator, agreements are made that the Wolkenfabriek can currently stay where it is, however rules need to be followed; legality checks need to be conducted; and money

needs to be earned. If this does not happen in the near future, the Wolkenfabriek project will be removed from the Suiker Unie area (Employee, 2015). Main points to work on for the Wolkenfabriek for their continued existence are therefore: arranging a catering permit; arranging certain safety precautions (i.e. fire escape); and ensuring a financial healthy business.

The municipality functions as an authoritarian inspection of checks and balances. Thereby limiting the power of the initiatives at the Suiker Unie to function as a live testing field for bottom-up initiatives. Namely, the initiatives situated at the Suiker Unie area currently are framed within the wishes of the municipality. Instead of developments characterized by equal power relations, the Suiker Unie developments are based within autopoietic self-organization and therefore fall into the categorization of advocacy planning instead of the intended co-governance (Boonstra & Boelens, 2011).

The civil servant of the municipality pointed out that *"the municipality is not Santa Claus, one has to come up with a serious and plausible financial plan to pay back the loans in time. Societal added value is only weighed as standard of measurement if the initiative can present ways of future cost-savings for the municipality. Providing jobs in the initiative for people currently working in social workspaces is an example of such"* (Employee, 2015). Because social added value is hard to measure, the municipality is afraid of taking chances and approving the bottom-up initiatives which do not have a solid way of earning revenues. *"The municipality is afraid to take chances and let go of the reins of control"* (Initiator, 2015).

Additionally, the municipality does not feel pressured into understanding and facilitating dissipative self-organization. The initiatives that fail due to their dissipative characteristic are according to the municipality self to blame. *"There are a lot of initiatives that do succeed. The ones that do not succeed are just the extreme cases"* (Employee, 2015). One can surmise that the so called 'extreme cases' are the initiatives that do not fit within the boundaries of the municipal system. The initiatives that fit into contemporary institutions are executed and the dissipative initiatives are disregarded (NRC, 2013). Contributing to the differentiation between autopoietic- and dissipative self-organization as found in the Mayborhood. Whereas an understanding that the combination of both leads to more legitimate policy plans (Van Meerkerk, et al., 2013). Following the municipal predisposition by taking the role of modern-expert in the planning processes (Richardson & Tait, 2010; Boonstra & Boelens, 2011). The municipality is sticking to their central power role of decision making, and is the main initiator

in steering the processes of self-organization from their own ambition (Johnson & Osborn, 2003).

The initial idea of the municipality of Groningen to create a testing field for bottom-up initiatives turned out difficult to execute in practice. The municipality needs to adjust to the new role of neo-expert. Which is not directing but facilitating of both autopoietic and dissipative self-organization (Richardson & Tait, 2010; Van Meerkerk, et al., 2013). Instigating the pre-development phase in ways of the new dynamic equilibrium, with equal power relations between bottom-up and top-down influences. By linking the ambition of the citizens to the planners' language of control (De Roo, 2015), the municipality of Groningen could interplay the particularities of dissipative initiatives as well as municipal desires and co-create the live testing field of bottom-up initiatives.

However, a notion needs to be made that bottom-up initiatives should equally have an understanding of municipal budget limitations. *"Many initiatives have an idealistic plan to add value to society, however beg the municipality for the funds to realize it. When told not everything can be paid for by the municipality and some things have to be earned by themselves, like electricity, they give up and tell others that the municipality is all about the money and unwilling to cooperate"* (Employee, 2015). Therefore, it is important to create a bi-directional understanding of the possibilities of either party. Both sides are limited by undefined variables and without knowing those limitations of the other, neither party can contribute to mutual understandings of problem situations (Van Meerkerk, et al., 2013). By engaging in extensive dialogue in the pre-development phase with an appointed independent boundary spanning leader, the common ambition could be achieved by creating direction, alignment and commitment across the tension fields (Cross, et al., 2013). Citizens' priorities can be better matched with plans at the Suiker Unie area, and the communication could be improved between citizens and the municipality (VROM, 2007). With the municipality taking the role of neo-expert in the pre-development phase of the Suiker Unie, a combination could be made between the expert knowledge of the municipality and the phronetic knowledge of the participating citizens. This increases the fluidity of the implementation process and decreases citizens' disagreement due to it being agreed upon in a democratic manner (Koppenjan & Klijn, 2004), and will help create tailor-made plans for the wishes of civil society. Therefore lead to more effective policy outputs (Van Meerkerk, et al., 2013).

5 Empirical analysis

This chapter focusses on learning from the two above investigated cases by examining the failures and strong points. Lessons are found and solutions are given which facilitate the shift towards more authentic co-governance projects in the future.

The Mayborhood case study is relevant for analyzing processes of dissipative self-organization. Facilitating the fitting of dissipative initiatives into the system and its institutions. The Mayborhood is also a testing field to initiate participants into thinking beyond the contemporary boundaries. By placing the participants in a regulationless 'blue box' (Mag Stad? Academie, 2014), and supported by the neo-experts of the Mayborhood, processes of both autopoietic and dissipative self-organization are stimulated (Twynstra Gudde, 2015).

Main limitation of the Mayborhood is its intrinsic conceptual characteristic. Examining the possibilities of implementing dissipative ambitions of citizens into practice might not be enough to facilitate actual implementation. As implementation requires consent of the municipality or government. A government that has been stuck in its role of modern-expert by means of advocacy planning for the past 50 years is inclined to disregard dissipative initiatives which threaten its boundaries (Richardson & Tait, 2010; Boonstra & Boelens, 2011).

Equally the Suiker Unie case study, which started with the desire of the municipality to co-create a live testing field for bottom-up initiatives (Gemeente Groningen, 2011) but eventually occurred based on autopoietic self-organization. The Suiker Unie case turned out unsupportive of wider dissipative initiatives. By creating the boundaries and predetermined wishes wherein the initiatives had to fit, instead of developments characterized by equal power relations, this case study turned out to be more representative of advocacy planning rather than co-governance (Boonstra & Boelens, 2011).

Main limitations identified in the attempt to move towards co-governance in the Suiker Unie area case is the fear of shifting roles from modern-expert towards neo-expert. By holding onto the levers of control and the central position (Johnson & Osborn, 2003), thereby not allowing equal power relations. Whilst the facilitation by the neo-expert of the combination of phronetic knowledge and top-down expertise could realize the live testing field for bottom-up initiatives, half-measures by the municipality created tensions and hurdles down the collaborative road (Initiator, 2015). The contemplation between control and regulation on one side and the letting-

go on the other are the main impediments identified in this case study which prevented the developments at the Suiker Unie area to transpire in an authentic co-governance manner.

Placing these two case studies on the new dynamic equilibrium as developed in the theoretical framework is visualized below. The Mayborhood interplays the characteristics of the new dynamic equilibrium by facilitating both autopoietic and dissipative characteristics, bottom-up and top-down influences as well as combining outside-in and inside-out views. The Suiker Unie area case, however, is placed on the autopoietic and top-down side of the investigated spectrum. By keeping the focus on the wishes of the government and facilitating only initiatives that fit within the predetermined boundaries, this case does not interplay the characteristics of the new dynamic equilibrium.
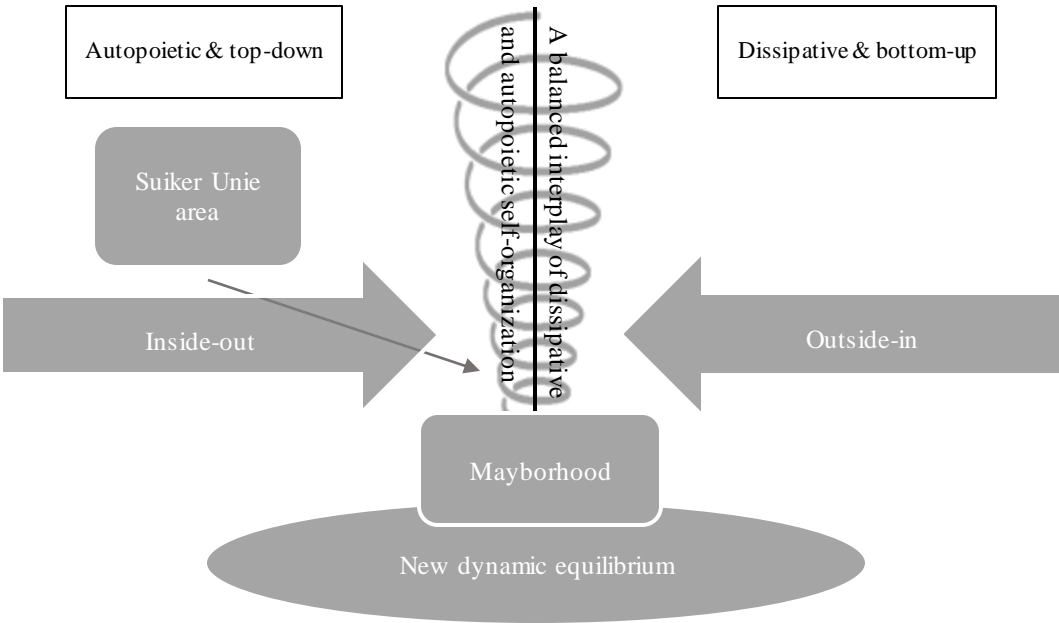

Figure 14 – Positioning the cases on the investigated spectrum in relation to the new dynamic equilibrium.

Lessons can be learned from the rigid autopoietic boundaries that characterize the developments of the Suiker Unie area. The regulatory top-down way of force-fitting the bottom-up initiatives demotivated citizens to continue in a fun and spontaneous way. The municipality however, decided to abide their strict regulations adhered to normally. Removing the spontaneous characteristic of self-organization (De Roo, 2015). Dissipative self-organization is new and unknown (NRC, 2013), and requires the municipality to play a different role in the process. The

Mayborhood case study could facilitate the transition into these new processes by means of teaching and training. Governments could partake in the lessons given in the Mayborhood in an attempt to understand dissipative wishes and to learn how to facilitate these within contemporary system. By means of learning the implications of dissipative wishes the government could take the role of neo-expert. In an increasingly capable society which is stimulated by the fact that governments do not have the capability anymore to play the leading role, neo-experts can help meet the specific needs of local people (Richardson & Tait, 2010; De Jong, 2015).

A collaboration with the Mayborhood in the pre-development phase could benefit the Suiker Unie area. The Mayborhood experts can act as independent boundary spanning leaders to achieve vital actor relations between the municipality and the participating citizens, which develop joint fact finding and mutual understanding of problem situations (Van Meerkerk, et al., 2013). By allowing the boundary spanning leader to create direction, alignment and commitment across the tension fields (Cross, et al., 2013), more legitimate and effective plans can be created beforehand (Van Meerkerk, et al., 2013). By co-creating the plans it becomes clearer what is to be expected in the next phases of the project. Priorities can be better matched to the project and the project can become more focused (VROM, 2007).

A collaboration between the Mayborhood and the Suiker Unie developments interplays the particularities of the new dynamic equilibrium in practice due to the combinations of: (1) an inside-out view, based from within the government, and an outside-in view from civil society (Boonstra & Boelens, 2011); (2) combined top-down and bottom-up influences; and (3) interplaying autopoietic and dissipative characteristics (Van Meerkerk, et al., 2013). These particularities could facilitate the development of the Suiker Unie area to take place in an authentic co-governance manner.

6   Conclusion, discussion and recommendations

In this section, the most important findings are summarized and critically reflected. A conclusion will be provided by linking the data to the research question. In the discussion, a critical reflection discusses the most remarkable findings and relates these to the existing theories and practice. Furthermore, the research methodology is discussed and limitations are outlined. Lastly, based on the discussion and limitations of this research, recommendations are provided.

6.1 Conclusion

In this paragraph an answer is given on the main question of this research, namely:

'How does self-organization as a concept help governments move towards authentic co-governance?'

The answering of this question is split into two steps, starting with the first sub-question, being:

What is the added value of self-organization in contemporary urbanism theories?

Self-organization in contemporary urbanism theories enables an understanding of the implications bottom-up influences can have, thereby creating an understanding of the bi-directional storyline: containing both top-down and bottom-up influences and a combination of outside-in and inside-out views. Being the starting point of the shift towards the new dynamic equilibrium. Allowing the theories to shift away from understanding planning systems from a traditional top-down advocacy perspective towards planning systems based on co-operation (Ministerie van Algemene Zaken, 2007). The practical applicability of theory will improve due to interplaying the dissipative and autopoietic characteristics of the new dynamic equilibrium and therefore, account for increasingly complex society with its ever changing wants and needs (Boonstra & Boelens, 2011). The dissipative characteristics of the new equilibrium allow for flexibility to change within the urbanism theories and therefore be able to adapt to changing societal wishes, whereas the autopoietic characteristics enable the theory to fit into contemporary practices. The added value for increased practicability therefore lies in the combination of the two characteristics.

The second step in answering the main research question lies in the second sub-question which is formulated as follows: *What added value does understanding self-organization in contemporary urbanism theories bring to the shift towards authentic co-governance?*

Combining the characteristics of the new dynamic equilibrium with urbanism theory, theory increasingly has the potential to facilitate a shift towards authentic co-governance practice in

the pre-development phases. The combination of the characteristics of the Mayborhood neo-experts with the Suiker Unie area developments is an example of interplaying the particularities of the new dynamic equilibrium. Assisting the shift away from autopoietic developments at the Suiker Unie area towards a combination of autopoietic- and dissipative self-organization. Additionally, in the pre-development phase an independent boundary spanning leader should be appointed which can facilitate reaching the common goal amongst the interdependent stakeholders (Cross, et al., 2013). The fluid state of the new dynamic equilibrium provides space and opportunities for new governance structures, supportive of dissipative bottom-up inputs, to evolve. Potentially governance structures supportive of collaboration with the citizens it represents (Innes & Booher, 2000). By creating an understanding of the new dynamic equilibrium in the early stages of collaboration, more effective plans can be made (Van Meerkerk, et al., 2013). The co-creation of the plans in a democratic fashion with equal power relations, creates a path towards authentic co-governance. Authenticity implying a form of co-governance with its intrinsic moral principles of co-operation present in practice (Van Lier, 2014). Governance structures capable of combining the knowledge of the neo-experts with the phronetic knowledge of the citizens (Richardson & Tait, 2010; Flyvbjerg, et al., 2012) creates potential for shifting the contemporary autopoietic system towards the new dynamic equilibrium. Therefore, capable of balancing the sensibilities of bottom-up and top-down wishes in practices of authentic co-governance.

The answering of the main question is a combination of the two answers. Self-organization as a concept helps governments move towards authentic co-governance by means of reaching consensus about collaboration. Not half-measured collaboration with its insidious roots within the municipal boundaries, as found in the Suiker Unie case study, but collaborations leading to policies supported and co-created by government and civil society. The new dynamic equilibrium creates opportunities for governance structures to evolve. A fluid governance structure with the ability to change, and supportive of a bi-directional storyline, has the potential to shift governmental structures towards being supportive of authentic co-governance practices.

6.2 Discussion

This section discusses the most remarkable findings and relates these to existing theories. Theories are combined with the cases and theoretical findings and possible explanations are provided and discussed.

6.2.1 Theoretical reflection

Moving away from either top-down or bottom-up perspectives towards a combination of both (Boonstra & Boelens, 2011) facilitates the creation of theories better applicable to wishes of authentic co-governance. This dictates a shift in roles for the planner, governments and citizens, including shifting the intrinsic power composition of society, therefore also a different perspective in urban theories is necessary. Moving away from theory understanding planning methods in the traditional top-down sense (Ministerie van Algemene Zaken, 2007) towards theory understanding the shifting power relations between the planner, government and society.

The implication for understanding self-organization in relation to New Urbanism is that New Urbanism should not be viewed purely as an axiomatic professionalism driven movement. Co-creation of New Urbanist principles with society will enable tailor-making those principles to become better applicable in the specific context (Koppenjan & Klijn, 2004). By shifting the role of the professional from modern-expert in traditional New Urbanism towards the role of neo-expert, who enables cooperation with civil society, a more suitable New Urbanist set of principles can be co-created together with society. Combined with the principles of the new dynamic equilibrium creates opportunities to co-create policy for local context based on New Urbanist guidelines. Co-created policies will lead to more legitimate guidelines to implement with the addition of being supported by the local citizens (Van Meerkerk, et al., 2013). The neo-expert can act as independent boundary spanning leader in this process, who helps to create direction, alignment and commitment across tension fields due to conflicting interests. However, these tensions are managed by joint fact finding and mutual understanding of problem situations between the interdependent actors (Cross, et al., 2013; Van Meerkerk, et al., 2013).

Sustainable Urbanism should after this study not be viewed as a singular definition dominated movement. The definition could be construed in multiple ways. For example the professionalism driven definition by Farr (2011), or the abstract but context-specific definition by the SUI (2015). An alternative definition includes the intermixing of Sustainable Urbanism with self-organization, additionally with the basis in above two definitions, to form a new definition. In this definition citizens' input is determined to be vital in gaining support for policy plans based on Sustainable Urbanist principle. Citizens' input helps create tailor-made solutions towards their local needs and in turn enhances their commitment to the policy (Koppenjan &

Klijn, 2004). Reducing the chances of NIMBYism and overall citizens' disagreement. Intermixing self-organization with the expert knowledge of the professionalism driven definition of Farr (2011) and the context-specific definition of the SUI (2015) will enable the creation of a Sustainable Urbanism theory that is capable of interplaying the particularities of the new dynamic equilibrium. By means of combining the autopoietic characteristics of the definition given by Farr (2011) and the dissipative definition created by the SUI (2015). Furthermore, interplaying the combinations of: inputs of both top-down professionals and bottom-up phronetic knowledge; both inside-out, comprising of the wishes of the adopter that implements the Sustainable Urbanism principles, and outside-in views, comprising of the wishes of the local citizens. These variables induce a Sustainable Urbanism theory that is capable of balancing the sensibilities of a globalized world whilst recognizing the importance of local context (Sustainable Urbanism International, 2015), supported by the new neo-expert role of the professionals of the CNU who facilitates the input of the local citizens (Richardson & Tait, 2010; Farr, 2011) and thereby create commitment to the movement (Abelson, et al., 2003). This enables the Sustainable Urbanist principles of a compact, walkable, and transit served urbanism movement to be realized in an authentic co-governance fashion. Implemented by means of equal power relations and a shift in roles for the planner and government (Richardson & Tait, 2010; Farr, 2011; Van Lier, 2014).

Contemporary D.I.Y. Urbanism contains some downsides, including enabling processes of gentrification and neo-liberalization by creating a rise in housing values (Douglas, 2014); complicating carefully considered long-term planning (Finn, 2014); actions considered as vandalism (Norman, 2015). Bridging the gap between the intrinsic bottom-up movement that is contemporary D.I.Y. Urbanism and the new dynamic equilibrium requires a reverse process compared to New- and Sustainable Urbanism. The shift entails an institutionalization of D.I.Y. Urbanism. Adding top-down influences to D.I.Y. Urbanism allows for the creation of tailor-made solutions for issues with momentum in society, supported by the government (Knight, 2014; Matchar, 2015). Institutionalizing D.I.Y. Urbanism has the potential to create an understanding of the bi-directional storyline by providing chances for up-close inspection of the issues at hand (Matchar, 2015). Combined with the autopoietic characteristics of the democratic system and the dissipative characteristics of D.I.Y. Urbanist initiatives, the institutionalization facilitates the shift towards the new dynamic equilibrium. The new dynamic equilibrium in turn enables dialogue between government and citizens to co-create plans to

facilitate finding solutions for priority issues within society (Knight, 2014) and enables linking D.I.Y. Urbanism to the planners' language of control, regulation and rationality (De Roo, 2015).

Institutionalizing D.I.Y. Urbanism brings advantages to both governments and citizens. The former will be able to respond more rapidly to constantly evolving needs in society and therefore demonstrate their responsiveness to the people they represent. It is an opportunity for governments to engage with its citizens and co-operate (Goodyear, 2013). While the latter benefits from faster tailor-made solutions for context-specific wishes (Matchar, 2015).

Considerations need to be made that although the new dynamic equilibrium is stated to bring opportunities for new governmental structures to develop, the literal definition of 'new dynamic equilibrium' itself is an oxymoron. Namely, dynamic defined as *"a nonequilibrium system governed by nonlinear dynamics"* (De Roo, 2015, p. 10), being the antithesis of an equilibrium situation. Since non-equilibrium systems do not require a detailed balance, they exhibit potentially richer behavior than equilibrium situations (Hinrichsen, 2000). However, the theoretical understanding of urban non-equilibrium processes is still at its conception and is based within complexity theory. Whereas this research argues that a beyond-complexity approach needs to be developed. Self-organization should not be accepted as an axiomatic truth in planning that is explained by the complex dynamics of the urban realm, since it is not the incompressibility of complex systems which prevents understanding, but there is a need to develop awareness of how our methods limit our potential understanding of non-equilibrium situations (Richardson & Tait, 2010; Hasanov & Beaumont, 2015). The discussion therefore becomes of positionality. It is proposed that the new equilibrium situation is dynamic because the continuous interplay of autopoietic and dissipative self-organization requires dynamics. Continuously changing dynamics within society, and between society and government, require changing power relations to be determined context-specifically. The dynamic and fluid situation provides space for governance structures related to local initiatives to evolve and strengthen. Move governance structures away from the central position by letting go of the levers of control (Johnson & Osborn, 2003) and allowing equal power relations between the involved stakeholders. Leading potentially to a system supportive of contemporary increasingly complex society which are demanding a greater role in prescribing solutions to local issues they face (Cole & Foster, 2001). Allowing for processes of co-creating tailor-made urban plans which are supported by all involved stakeholders. Therefore shifting towards a system of authentic co-governance, which is characterized by benefits for citizens and governments. The

former enjoying faster tailor-made solutions for context-specific wishes (Matchar, 2015) and the latter capable of demonstrating their increased responsiveness to constantly evolving needs within the society they represent (Goodyear, 2013).

Additionally, the dynamic state of the new equilibrium allows for shifting power relations when necessary. Equal power relations are not a prerequisite for the new dynamic equilibrium, it is nonetheless supportive of it. However, in case the lethargic bureaucratic system of the government is incapable of addressing needs in society fast enough, the dynamics allow the society to pull power towards themselves. Allowing society to activate processes of addressing the needs with momentum in a less collaborative manner, however best suited for the situation. The mechanics work the same vice versa, because top-down is not always the instigator of sluggish developments. Citizens can be uncooperative solely based on personal reasons. Disliking, for example, their neighbor who is in favor of the developments to take place, and therefore delay the projects out of spite. In such a situation, the dynamics of the new equilibrium allow for a pull of power, away from the uncooperative citizen, in order to ensure developments to continue. However, keeping the power relations equally divided is more likely to generate plans that achieve societal consent. Developments often only require majority consent, leaving the minority disgruntled (Boland, 1989).

6.2.2 Empirical reflection

This research shows that public participation viewed from both an inside-out and outside-in approach strengthens civic support for public policies (Boonstra & Boelens, 2011). On the new dynamic equilibrium citizens' priorities can be better matched with policies, and policies in turn become more focused (VROM, 2007). The new dynamic equilibrium brings opportunities for creating a new reality due to the fluid state of governmental structures. Existing roles of involved actors have the chance to change (Cross, et al., 2013). Governmental structures could, for example, be adapted to fit contemporary complex society and shift from a directing to a facilitating role (Ministerie van Algemene Zaken, 2007; Richardson & Tait, 2010). The shift towards authentic co-governance by moving away from the traditional method of public participation and towards the new dynamic equilibrium is characterized by benefits for citizens and governments (Van Meerkerk, et al., 2013). Authentic co-governance facilitates the wishes of the government to move away from contemporary welfare state and transform into a state that is more compatible with increasingly capable society based on self-organization (Ministerie

van Algemene Zaken, 2007) while society receives a greater role in prescribing solutions to issues they face (Cole & Foster, 2001).

The Mayborhood case study shows that citizen participation facilitated by neo-experts has the potential to facilitate the shift towards authentic co-governance. Characterized by dissipative and autopoietic forces it plays on the interface of the new dynamic equilibrium. However, its intrinsic conceptual characteristic of exploring possibilities for dissipative initiatives might not be enough to facilitate the actual implementation in practice. Implementation requires consent of the government. Collaboration between the Mayborhood initiative and the government in the pre-development phases could bridge the gap between conceptuality and practicality and achieve consent.

The Suiker Unie area case shows that implementing the theoretical characteristics of the new dynamic equilibrium in practice can be difficult without preparations about its implications. The case shows that co-creating a live testing field for bottom-up initiatives (Gemeente Groningen, 2011) from an autopoietic stance does not lead to practices of authentic co-governance, but rather advocacy planning (Boonstra & Boelens, 2011). The developments were characterized and dominated by the wishes of the municipality, which discarded dissipative initiatives. Hindering the realization of the live testing field for bottom-up initiatives, instead turning it into a testing field for top-down chosen initiatives. Potential ways of overcoming such limitations in the future are allowing more democratic space for dissipative wishes. Provide flexibility within the predetermined autopoietic boundaries. This could be achieved by collaborating with initiatives such as the Mayborhood. Allowing insights into dissipative processes in a conceptual manner and thereby creating an understanding how to fit such processes into the governmental system. Dissipative self-organization is new and unknown (NRC, 2013), and requires a different role of the government in the process (Richardson & Tait, 2010; De Jong, 2015). Authentic co-governance relies on the government to let go of the levers of control (Johnson & Osborn, 2003). By making use of the combined knowledge of top-down expertise and phronetic knowledge (Flyvbjerg, et al., 2012), and allowing the Mayborhood experts to take the role of neo-expert in the pre-development phase of the Suiker Unie area. In such a scenario the developments could take place in an authentic co-governance manner. As the neo-expert can act as independent boundary spanning leader to create direction, alignment and commitment across tension fields (Cross, et al., 2013), as well as achieve vital actor relations which are characterized by interdependency. Interdependency in turn creates equal

power relations which can develop mutual understanding of problem situations and joint fact finding (Van Meerkerk, et al., 2013). By means of co-creation of the Suiker Unie area development plans, the expectations in the different phases of the project become aligned and commitment to the common goal is achieved (Cross, et al., 2013).

Conversely, contemporary co-governance research has its focus in individual incentives. Main findings of co-governance practices are an increase of democratic deficits and higher levels of inequality in the allocation of resources. Those who are able to exercise greater access and expertise in the co-creation processes are more likely to derive greater benefits from them (Lemos & Agrawal, 2006). Other co-governance research, whose primary aim is reducing the burden of the state, impose substantial requirements to the new structures in terms of administrative capacity (Jänicke & Jörgens, 2006). Shifting the capability issue from governing towards administration (Hajer & Laurent, 2004). The shift from contemporary attempts at co-governance towards authentic co-governance might therefore still be typified as a shift in capability issues from a central position.

Co-governance practices are additionally burned by a differentiation in priorities. From a governmental perspective the priority is of public health and economic stability. Whereas the priorities of the individual are of smaller scale. To ensure the economic stability, a healthy financial checks and balances needs to be maintained. This implies making budget choices, limiting the freedom of governments to maximize the societal added value if there are insufficient monetary benefits to be gained. A mutual understanding is required to enable practices of co-governance. Citizens need to recognize the governmental monetary limitations to funding initiatives, whilst governments need to understand citizens' willingness to improve their direct living environments by means of initiatives (Berkes, 2002). This divide also shows from the Suiker Unie case study. Initiatives need to come up with plausible financial plans to pay back loans in time. The municipality is not Santa Claus, and therefore societal added value is only weighed as standard of measurement if the societal added value presents ways of future cost-savings for the municipality (Employee, 2015).

Co-governance practices also differ per scale, and type of policy plans. Starting with the first, scale. Consent, for example, could be accomplished on a macro scale for building new housing, but not at a micro scale. The individual might oppose against the construction plans next to his home, whilst the rest of the country is pro-development. It is nigh impossible to achieve consent on all scales. Co-governance also differs per type of policy plan, however ties closely with

scale. Co-creating policy plans for industry might achieve consent on a macro scale with the majority in favor of the plan, but fail on the micro scale. Whereas co-creating policy plans regarding the enhancement of flora and fauna is more likely to achieve consent on all scales. Issues of scale and policy plan are closely tied with co-creating based on majority consent, leaving the minority disgruntled (Boland, 1989).

Additionally, in case the theoretical thoughts of co-governance are flawed in practice a shift can be made from collaboration towards negotiation. The concept of 'principled negotiation' facilitates governments and citizens to seek an agreement on objective standards for resolving opposed interests (Fisher & Ury, 1982). It negotiates the actions of stakeholders with different interests, allowing for distributed optimization. The stakeholders search for and propose options for mutual gain (Wangermann & Stengel, 1999). Changing the perspective from a co-operative standpoint towards a negotiation game. Both parties are involved in their own interests, however by negotiating, jointly generate options that are mutually advantageous (Fisher & Ury, 1982).

6.2.3 Research limitation reflection

Although this research provides valuable insights into self-organization as a concept for arriving at authentic co-governance practice, this study has limitations. Therefore, this study must be viewed with these limitations in mind.

First of all, this research provides insight into only two cases. From which only one is physically developed. This leads to a lower generalizability of the results from this research. A case study research with more than two cases can be considered in order to identify differences in attempts of implementing authentic co-governance in practice. Lessons can be learned from the differences in implementation and especially the differences in failures during executing authentic co-governance practices. This could simplify tweaking the co-governance theories to become more realistically grounded. Additionally, this research was limited to cases in the Netherlands, an international authentic co-governance practice investigation enables higher generalizability of results. However, the primary goal of this study was not maximizing the generalizability (Yin, 2008) but rather investigate the implications of the new dynamic equilibrium in relation to authentic co-governance practice.

Secondly, due to time constraints only two respondents were interviewed. Priority of the interviews was given to the Suiker Unie area due to the limited relevant information available.

Additionally, an interview could have been conducted with a rejected dissipative initiative to find out the friction points with the autopoietic municipal system. These points of failure can be turned into lessons for future practices of authentic co-governance. The missing information from the rejected dissipative initiative in this case study lead to lower external validity of this research. The dissipative initiative could shed light and possibly reject assumptions made.

Lastly, there are analyzation limitations due to mental and time constraints. Certain sources will unsurprisingly have been neglected due to an error in assessing its value, and certain sources will not have been addressed (O'Leary, 2010). There will be oversights which lead to disagreement and discussion about the results. However, the internal validity of this research has been maximized by means of triangulation. Ensuring the data can be analyzed using different perspectives (Mays & Pope, 2000).

6.3 Recommendations

In light of the theoretical and empirical reflections and taking the methodological limitations into account, recommendations for future research and practice are provided.

Firstly, future research could be based on gathering additional information about the interaction between dynamics and equilibrium situations. The two being the antithesis of each other. Further information should be gathered about how the two interplay the particularities proposed of the new dynamic equilibrium, namely combinations of: autopoietic and dissipative, inside-out and outside-in, and lastly top-down and bottom-up. Additional research could be based on non-equilibrium processes, highlighting the differences between equilibrium and non-equilibrium states and what such systems provide towards practices of authentic co-governance. This research on the differences between non-equilibrium and equilibrium situations in relation to the concept of new dynamic equilibrium enables the development of an awareness of how our methods limit our potential understanding of non-equilibrium situations (Richardson & Tait, 2010).

Secondly, practical implications of the new dynamic equilibrium in relation to the shift towards authentic co-governance should be further investigated. It is important to know how governments, as well as citizens, respond to their changing role on the new dynamic equilibrium in order to make recommendations to authentic co-governance practices. Prospective research is recommended for studying the governmental and societal attitudes during co-creation processes. A prospective study design will limit the development of a distorted view and will

provide insight into attitudes at the start of the project and how these develop over time, in real-time (Bitektine, 2008).

Thirdly, additional research should be conducted from the rejected dissipative initiatives point of view. As per the case of the Suiker Unie area, a more holistic data set could have been collected by means of investigating both the initiatives that did fit within the framework set by the municipality, as well as the ones that did not fit.

Fourthly, it is important to recognize that co-governance practice is not perfect. There are limitations with, for example, achieving consent on all scales and additional administrative functions. Additional research on alleviating and limiting governmental procedures in the processes of co-governance is needed to make recommendations for co-governance practices that not only burden governments with a plethora of new administrative functions. Instead make recommendations that will enable co-governance practices to transpire by means of collaboration and trust between the interdependent actors.

Fifthly, this research focused mainly on investigating top-down difficulties in implementing authentic co-governance. A bottom-up perspective is valuable in investigating difficulties of implementing authentic co-governance and will bring a surplus to the holistic co-governance picture. A multiple viewpoint of implementation difficulties will enable better recommendations for the shift towards future authentic co-governance.

Lastly, a practical recommendation is that governments should invest extensively in the pre-development phase and learn the implications of collaboration. Authentic co-governance requires dissipative self-organization to also have a say in developments. Additionally, dissipative initiatives could invest time in learning about the autopoietic boundaries of the municipality. Combining the two learning efforts could lead to the happy medium for creating a live testing field for bottom-up initiatives.

References

Abelson, J. et al., 2003. Deliberations about deliberative methods: issues in the design and evaluation of public participation processes. *Social science & medicine,* 57(2), pp. 239-251.

Agrawal, A., Kapur, D. & McHale, J., 2008. How Do Spatial and Social Proximity Influence Knowledge Flows? Evidence from Patent Data. *Journal of Urban Economics,* 64(2), pp. 258-269.

Allan, G., 2003. A critique of using grounded theory as a research method. *Electronic Journal of Business Research Methods,* 2(1), pp. 1-10.

Architecture 2030, 2011. *The 2030 Challenge for Planning.* [Online]
Available at: http://architecture2030.org/2030_challenges/2030_challenge_planning/
[Accessed 21 05 2015].

Berkes, F., 2002. Cross-scale institutional linkages: perspectives from the bottom up. *The drama of the commons,* pp. 293-321.

Bernard, H. R. & Ryan, G. W., 2009. *Analyzing qualitative data: Systematic approaches.* s.l.:SAGE Publications.

Best, H., 2011. *Park(ing) day!.* [Online]
Available at: http://spacing.ca/toronto/2011/09/16/parking-day/
[Accessed 26 04 2015].

Bitektine, A., 2008. Prospective case study design: qualitative method for deductive theory testing. *Organizational Research Methods,* 11(1), pp. 160-180.

Boland, P. J., 1989. Majority systems and the Condorcet jury theorem. *The Statistician,* pp. 181-189.

Boonstra, B. & Boelens, L., 2011. Self-organization in urban development: towards a new perspective on spatial planning. *Urban Research & Practice,* 4(2), pp. 99-122.

Boschma, R. & Frenken, K., 2010. The spatial evolution of innovation networks. A proximity perspective. In: R. Boschma & R. Martin, eds. *The handbook of evolutionary economic geography.* Cheltenham: Edward Elgar Publishing Limited, pp. 120-135.

Burton, E., Jenks, M. & Williams, K., 2003. *The compact city: a sustainable urban form?.* s.l.:Routledge.

Charmaz, K., 2003. Grounded theory. *Qualitative psychology: A practical guide to research methods,* pp. 81-110.

Charmaz, K., 2006. *Constructing grounded theory: A practical guide through qualitative analysis (Introducing Qualitative Methods Series).* s.l.:s.n.

Chester, S., 2015. *25th & Eliot Intersection Mural.* [Online]
Available at: http://www.tacticalurbanismhere.com/place/25th-eliot-intersection-mural
[Accessed 20 July 2015].

Chester, S., 2015. *Tactical Urbanism Here.* [Online]
Available at: http://www.tacticalurbanismhere.com/
[Accessed 20 July 2015].

Christensen, C. R. & Hansen, A. J., 1987. *Teaching and the Case Method.* Boston: Harvard Business School Press.

Cohen, P., 1997. Beyond the community romance. *Soundings,* Issue 5, pp. 29-51.

Cole, L. & Foster, S., 2001. *From the ground up: Environmental racism and the rise of the environmental justice movement.* New York: New York University Press.

Congress for the New Urbanism, 2000. *Charter of the New Urbanism,* New York: McGraw-Hill.

Congress for the New Urbanism, 2000. Charter of the New Urbanism. *Bulletin of Science: Technology & Society,* 20(4), pp. 339-341.

Congress for the New Urbanism, 2009. *The SmartCode.* [Online]
Available at: https://www.cnu.org/resources/projects/smartcode-2009
[Accessed 19 05 2015].

Congress for the New Urbanism, 2013. *Urbanism +2030 - A Partnership for Implementing Sustainable Urbanism and Resilient Communities.* [Online]
Available at: https://www.cnu.org/urbanism2030
[Accessed 21 05 2015].

Corbin, J. & Strauss, A., 1990. Grounded Theory Research: Procedures, Canons, and Evaluative Criteria. *Qualitative Sociology,* 13(1).

Cross, R., Ernst, C. & Pasmore, B., 2013. A bridge too far? How boundary spanning networks drive organizational change and effectiveness. *Organizational Dynamics,* Volume 42, pp. 81-91.

Day, K., 2003. New Urbanism and the Challenges of Designing for Diversity. *Journal of Planning Education and Research,* Volume 23, pp. 83-95.

De Jong, M., 2015. Working on the interface of institutions and networks; directing, partnering and facilitating. In: *Spatial Planning in a Complex Unpredictable World of Change; towards a proactive coevolutionary planning, introducing innovative non-linear perspectives within a 'Delta' planning arena.* s.l.:InPlanning.

De Roo, G., 2015. *'Self-organization and Spatial Planning: The foundations, the challenge, the constraints and the consequences' mimeo.* Groningen: Department of Spatial Planning and Environment, University of Groningen.

De Stentor, 2013. *Eerste lampenkappen hangen in Sassenstraat.* [Online]
Available at: http://www.destentor.nl/regio/zwolle/eerste-lampenkappen-hangen-in-sassenstraat-1.4073825#comments
[Accessed 10 August 2015].

De Stentor, 2014. *Cultuurcongres Award 2014 naar Sassenstraat Allicht.* [Online]
Available at: http://www.destentor.nl/regio/zwolle/cultuurcongres-award-2014-naar-sassenstraat-allicht-1.4220764
[Accessed 10 August 2014].

Deppisch, S. & Schaerffer, M., 2011. Given the Complexity of Large Cities, Can Urban Resilience be Attained at All?. *German Annual of Spatial Research and Policy 2010,* pp. 25-33.

Deslandes, A., 2013. Exemplary amateurism: Thoughts on DIY urbanism. *Cultural Studies Review,* 19(1), pp. 216-227.

Douglas, G. C. C., 2011. Do-It-Yourself Urban Design: 'Improving' the City through Unauthorized, Creative Contributions. *American Sociological Association,* 21st August.

Douglas, G. C. C., 2014. Do-It-Yourself Urban Design: The Social Practice of Informal "Improvement" Through Unauthorized Alteration. *City & Community,* 13(1), pp. 5-25.

Downtown De-Fence Project, 2014. *Downtown De-Fence Project.* [Online]
Available at: http://www.publicspace.ca/defence.htm

Duany, A. & Plater-Zyberk, E., 2009. *SmartCode Version 9.2,* Gaithersburg: The Town Paper Publisher.

Edelenbos, J. & Buuren, M. W., 2006. Innovations in the Dutch polder: Communities of practice and the challenge of coevolution. *Emergence: Complexity and Organization,* 8(1), pp. 42-49.

Elsinga, M., De Jong-Tennekes, M. & Van der Heijden, H., 2011. *Crisis en woningmarkt,* Delft: TU Delft.

Employee, 2015. *Suikerunie terrein* [Interview] (29 May 2015).

Farr, D., 2008. *Sustainable Urbanism: Urban Design with Nature.* 1st ed. New Jersey: Wiley & Sons.

Farr, D., 2011. *Sustainable Urbanism: Urban Design with Nature..* Berlin: John Wiley & Sons.

Finn, D., 2014. DIY Urbanism: Implications for cities. *Journal of Urbanism: International Research on Placemaking and Urban Sustainability,* 7(4), pp. 381-398.

Fischer, F., 2000. *Citizens, experts, and the environment: The politics of local knowledge..* Durham, North Carolina: Duke University Press.

Fisher, R. & Ury, W., 1982. Getting to Yes. *Management Review,* 71(2), pp. 16-21.

Florida, R., 2005. *Cities and the creative class.* s.l.:Routledge.

Flyvbjerg, B., 2001. *Making social science matter. Why social inquiry fails and how it can succeed again.* s.l.:Cambridge university press.

Flyvbjerg, B., 2006. Five misunderstandings about case-study research. *Qualitative inquiry,* 12(2), pp. 219-245.

Flyvbjerg, B., Landman, T. & Sanford, S., 2012. *Real social science: Applied phronesis.* s.l.:Cambridge University Press.

Gemeente Groningen, 2011. *Suikerfabriek.* [Online]
Available at: http://gemeente.groningen.nl/suikerfabriek
[Accessed 13 July 2015].

Gemeente Groningen, 2011. *Suikerfabriek Terrein.* [Online]
Available at: http://gemeente.groningen.nl/suikerfabriek/karakteristiek
[Accessed 25 August 2015].

Gemeente Groningen, 2013. *De Plannen voor het Suikerfabriekterrein.* [Online]
Available at: http://gemeente.groningen.nl/suikerfabriek/plannen-voor-de-toekomst
[Accessed 25 August 2015].

Gemeente Zwolle, 2015. *Licht dooft voor Sassenstraat Allicht.* [Online]
Available at: https://www.zwolle.nl/licht-dooft-voor-sassenstraat-allicht
[Accessed 16 August 2015].

Gill, P., Stewart, K., Treasure, E. & Chadwick, B., 2008. Methods of data collection in qualitative research: interviews and focus groups. *British Dental Journal,* Volume 204, pp. 291-295.

Glaser, B., 1978. *Theoretical sensitivity.* San Francisco: University of California.

Glaser, B. G. & Strauss, A. L., 2009. *The discovery of grounded theory: Strategies for qualitative research.* s.l.:Transaction Publishers.

Goodyear, S., 2013. *Painting Your Own Crosswalk: Crime or Civic Opportunity?.* [Online]
Available at: http://www.citylab.com/commute/2013/06/painting-your-own-crosswalk-crime-or-civic-opportunity/5791/
[Accessed 04 August 2015].

Green, J., 2015. *Everything You Wanted to Know About Tactical Urbanism.* [Online]
Available at: http://dirt.asla.org/2015/05/19/everything-you-wanted-to-know-about-tactical-urbanism/
[Accessed 04 August 2015].

Hajer, M. A. & Laurent, C., 2004. *Nieuwe vormen van governance, een essay over nieuwe vormen van bestuur met een empirische uitwerking naar de domeinen van voedselveiligheid en gebiedsgericht beleid.* Den Haag: Ministerie van Volksgezondheid, Welzijn en Sport.

Hartman, C., 1984. The Right to Stay Put. In: *Land Reform, American Style.* Totowa(New Jersey): Rowman and Allanheld, pp. 302-318.

Hasanov, M. & Beaumont, J., 2015. *'The value of socio-psychological traits for understanding urban self-organization' mimeo.* Groningen: Department of Spatial Planning and Environment, University of Groningen.

Helbing, D., Molnar, P., Farkas, I. J. & Bolay, K., 2001. Self-organizing pedestrian movement. *Environment and Planning B,* 28(3), pp. 361-384.

Heylighen, F., 2001. The science of self-organizaiton and adaptivity. *The encyclopedia of life support systems,* 5(3), pp. 253-280.

Hindriks, F., 2013. Restructuring Searle's Making the Social World. *Philosophy of the Social Sciences,* 43(3), pp. 373-389.

Hinrichsen, H., 2000. Non-equilibrium critical phenomena and phase transitions into absorbing states. *Advances in physics,* 49(7), pp. 815-958.

Holloway, I. & Wheeler, S., 2009. *Qualitative Research in Nursing and Healthcare.* Third ed. West Sussex: Blackwell Publishing Ltd.

Horelli, L., Saad-Sulonen, J., Wallin, S. & Botero, A., 2013. When self-organization and urban governance intersect: Two cases from Helsinki. pp. 1-18.

Initiator, 2015. *Wolkenfabriek* [Interview] (28 May 2015).

Innes, J. & Booher, D., 2000. Planning institituions in the network society: theory for collaborative planning. In: *The revival of strategic spatial planning.* Amsterdam: Royal Netherlands Academy of Arts and Sciences, pp. 175-189.

Involve, 2011. *People & Participation: How to put citizens at the heart of decision-making.* [Online]
Available at: http://www.involve.org.uk/wp-content/uploads/2011/03/People-and-Participation.pdf
[Accessed 20 August 2015].

Irvin, R. A. & Stansbury, J., 2004. Citizen Participation in Decision-Making: Is it Worth the Effort?. *Public Administration Review,* 61(1), pp. 55-65.

Jänicke, M. & Jörgens, H., 2006. New Approaches to Environmental Governance. In: *Environmental Governance in Global Perspective: New Approaches to Ecological and Political Modernisation.* Berlin: Freie Universität Berlin, pp. 167-298.

Jantsch, E., 1980. *The self-organizing universe: Scientific and human implications of the emerging paradigm of evolution.* Oxford: Pergamon Press.

Johnson, C. & Osborn, S. P., 2003. Local Strategic Partnerships, Neighbourhood Renewal, and the Limits to Co-governance. *Public Money & Management,* 23(3), pp. 147-154.

Katz, P., 1993. *The New Urbanism: Toward an Architecture of Community.* 1st ed. Columbus, Ohio: McGraw-Hill Education.

Katz, P. & Scully Jr., V., 1994. *The New Urbanism: Toward an Architecture of Community.* New York: McGraw-Hill.

Kerner, B. S., 1998. Experimental Features of Self-Organization in Traffic Flow. *Physical Review Letters,* Volume 81, pp. 3797-3800.

King, C. S., Feltey, K. M. & Susel, B. O., 1998. The Question of Participation: Toward Authentic Public Participation in Public Administration. *Public Administration Review,* 58(4), pp. 317-326.

Knaap, G. & Talen, E., 2005. New Urbanism and Smart Growth: A Few Words from the Academy. *International Regional Science Review,* 28(2), pp. 107-118.

Knight, J., 2014. *"Tactical Urbanism" Implemented by the Planning Department in Denver, Colorado.* [Online]
Available at: http://www.globalsiteplans.com/environmental-design/tactical-urbanism-implemented-by-the-planning-department-in-denver-colorado/
[Accessed 20 July 2015].

Koppenjan, J. & Klijn, E. H., 2004. *Managing uncertainties in networks.* London: Routledge.

Lance, F., 2001. The effects of sprawl on neighborhood social ties: An explanatory analysis. *Journal of the American Planning Association,* 67(1), pp. 69-77.

Lemos, M. C. & Agrawal, A., 2006. Environmental Governance. *Annual Review of Environment and Natural Resources,* 31(3), pp. 297-325.

Lomborg, K. & Kirkevold, M., 2003. Truth and validity in Grounded Theory - a reconsidered realist interpretation of criteria: fit, work and modifiability. *Nursing Philosophy,* Volume 4, pp. 189-200.

London, N., 2014. *Colorado City Planners Take Guerilla Tactics Mainstream.* [Online]
Available at: http://www.cpr.org/news/story/colorado-city-planners-take-guerrilla-tactics-mainstream
[Accessed 20 August 2015].

Loorback, D., 2010. Transition Management for Sustainable Development: A Prescriptive, Complexity-Based Governance Framework. *Governance: An International Journal of Policy, Administration, and Instititutions,* 23(1), pp. 161-183.

Lydon, M., 2012. *Preparation for the book Tactical Urbanism 2: Short-Term Action, Long Term Change* [Interview] (02 March 2012).

Lydon, M. & Garcia, A., 2015. Tactical Urbanism How-To. *Island Press/Center for Resource Economics,* pp. 171-208.

Lydon, M., Garcia, A. & Duany, A., 2015. *Tactical Urbanism 2: Short-Term Action, Long Term Change,* Washington: Island Press.

Mag Stad? Academie, 2014. *Mag Stad? Academie / ruimte van West.* [Online]
Available at: https://magstad.wordpress.com/mag-stad-academie-amsterdam-west/
[Accessed 7 August 2015].

Mag stad?, 2014. *Toolkit.* [Online]
Available at: https://magstad.wordpress.com/toolkit/
[Accessed 24 August 2015].

Mag stad?, 2014. *Welkom in Mag Stad?.* [Online]
Available at: https://magstad.wordpress.com/theorie-examen/
[Accessed 22 05 2015].

Matchar, E., 2015. *Tactical Urbanists are Improving Cities, One Rogue Fix at a Time.* [Online]
Available at: http://www.smithsonianmag.com/innovation/tactical-urbanists-are-improving-cities-one-rogue-fix-at-a-time-180955049/?no-ist
[Accessed 20 August 2015].

Mays, N. & Pope, C., 2000. Qualitative Research in Health Care: Assessing Quality in Qualitative Research. *Britisch Medical Journal,* 320(7226), pp. 50-52.

Merry, U., 1999. Organizational strategy on different landscapes: a new science approach. *Systemic Practice and Action Research,* 12(3), pp. 257-278.

Ministerie van Algemene Zaken, 2007. *Samen werken, samen leven - Coalitieakkoord tussen de Tweede Kamerfracties van CDA, PvdA en ChristenUnie,* Den Haag: Ministerie van Algemene Zaken.

Morçöl, G., 2005. A new systems thinking: implications of the science of complexity for public policy and administration. *Public Administration Quarterly,* 29(3), pp. 297-320.

Mortelmans, D., 2007. *Handboek kwalitatieve onderzoeksmethoden.* Den Haag: Acco.

Mostafavi, M., 2010. Why ecological urbanism? Why now?. *Ecological Urbanism. Baden: Harvard University School of Design.*

Mumford, M. D., Zaccaro, S. J., Jacobs, T. O. & Fleishman, E. A., 2000. Leadership skills for a changing world: Solving complex social problems. *The Leadership Quarterly,* 11(1), pp. 11-35.

Myers, L., 2012. *3 Off the Tee: Make It Happen: A Healthy, Competitive Approach to Achieving Personal Success.* 1st ed. Barrie(Ontario): Leda Publishing Corporation.

NewUrbanism, 2015. *New Urbanism: Principles of Urbanism.* [Online]
Available at: http://www.newurbanism.org/newurbanism/principles.html
[Accessed 19 05 2015].

Norman, K., 2015. *DIY Urban Design: Community improvement or an act of crime?.* [Online]
Available at: http://chicagopolicyreview.org/2015/04/23/diy-urban-design-community-improvement-or-an-act-of-crime/
[Accessed 06 05 2015].

NRC, 2013. *Participerende burger weggewimpeld.* [Online]
Available at: http://www.nrc.nl/handelsblad/van/2013/november/28/participerende-burger-weggewimpeld-1322971?status=ja-betaald
[Accessed 24 August 2015].

O'Leary, Z., 2010. *The Essential Guide To Doing Your Research Project.* London: SAGE Publications Inc..

Pagano, C. B., 2014. DIY Urbanism: Property and Process in Grassroots City Building. *Marquette Law Review ,* Volume 97.

Park, R., 1915. The city: suggestions for the investigation of human behavior in the city environment. *The American journal of sociology,* 20(5), pp. 577-612.

Pett, J., 2009. *What if we create better world for nothing?.* [Art] (GoComics).

Plochg, T., Juttman, R. E. & Klazinga, N. S., 2007. *Handboek gezondheidszorgonderzoek.* Houten: Bohn Stafleu van Loghum.

Prigogine, I. & Stengers, I., 1984. *Order Out of Chaos: Man's New Dialogue with Nature.* New York: Bantam Books.

Provincie Groningen, 2015. *Blauwestad.* [Online]
Available at: http://www.provinciegroningen.nl/uitvoering/wonen-en-welzijn/blauwestad/
[Accessed 25 August 2015].

Punt, T. et al., 2012. *De Wolkenfabriek - Waar inspiratie het ingrediënt is,* Groningen: Gemeente Groningen.

Pyatok, M., 2000. Comment on Charles C. Bohl's "New Urbanism and the city: Potential applications and implications for distressed inner-city neighborhoods" - The politics of design: The New Urbanists vs. the grass roots. *Housing Policy Debate,* 11(4), pp. 803-814.

Richardson, K. & Tait, A., 2010. The Death of the Expert?. *E:CO,* 12(2), pp. 87-97.

Rogers, S., 2014. *Hack Your City: 12 Creative DIY Urbanism Interventions.* [Online]
Available at: http://weburbanist.com/2014/03/12/city-hacktivism-12-fun-diy-urbanism-interventions/
[Accessed 14 July 2015].

Rozema, L., 2015. *Suikerunie Groningen.* [Online]
Available at: http://sargasso.nl/suikerunie-groningen/
[Accessed 25 Augustq 2015].

Ruimtevolk, 2013. *Social Design als truffelvarken?.* [Online]
Available at: http://ruimtevolk.nl/2013/09/13/social-design-als-truffelvarken/
[Accessed 13 July 2015].

Silverman, D., 2011. *Qualitative Research: Issues of Theory, Method, and Practice.* 3rd ed. Thousand Oaks, California: Sage.

Strauss, A. & Corbin, J., 1998. *Basics of qualitative research: Techniques and procedures for developing grounded theory.* Thousand Oaks, CA: Sage.

Sustainable Urbanism International, 2015. *Mission.* [Online]
Available at: http://home.sustainurban.org/about/mission/
[Accessed 21 05 2015].

Talen, E., 1999. Sense of Community and Neighbourhood Form: An Assessment of the Social Doctrine of New Urbanism. *Urban Studies,* pp. 1361-1379.

Talen, E., 2000. New Urbanism and the culture of criticism. *Urban Geography,* 21(4), pp. 318-341.

Talen, E., 2015. Do-It-Yourself Urbanism A History. *Journal of Planning History,* 14(2), pp. 135-148.

Toebast, K., Sekuur, M. & Hernandez, R., 2009. *Sloop Suikerfabriek Groningen wel heel erg drastisch: blijft er dan niets van over?.* [Online]
Available at: http://www.gic.nl/nieuws/sloop-suikerunie-groningen-wel-heel-erg-drastisch-blijft-er-dan-niets-van-over
[Accessed 25 August 2015].

Twynstra Gudde, 2015. *Succesvolle burgerinitiatieven: workshop Mag Stad?.* [Online]
Available at: http://www.twynstragudde.nl/opleiding/succesvolle-burgerinitiatieven-workshop-mag-stad
[Accessed 10 August 2015].

Urry, J., 2005. The Complexity Turn. *Theory Culture Society,* 22(5), pp. 1-14.

Van der Heijden, R., 1996. Planning large infrastructure projects: seeking new balance between engineering and societal support. *DISP,* Volume 125, pp. 18-25.

Van Lier, L., 2014. *Interaction in the language curriculum: Awareness, autonomy and authenticity.* s.l.:Routledge.

Van Meerkerk, I., Boonstra, B. & Edelenbos, J., 2013. Self-organization in urban regeneration. A two case comparative research. *European Planning Studies,* pp. 1630-1652.

Verd, J. M., 2004. *Qualitative research methods.* s.l.:Universitat Pompeu Fabra.

VROM, 2007. *Meerwaarde van beleid met burgers,* Den Haag: Ministerie van Volkshuisvesting, Ruimtelijke Ordening en Milieu.

Wagenaar, H., 2007. Governance, complexity, and democratic participation: How citizens and public officials harness the complexities of neighborhood decline. *Sage Public Administration Abstracts,* 34(3).

Walker, D. & Myrick, F., 2006. Grounded Theory: An Exploration of Process and Procedure. *Qualitative Health Research,* 16(4), pp. 547-559.

Wangermann, J. P. & Stengel, R. F., 1999. Optimization and coordination of multiagent systems using principled negotiation. *Journal of Guidance, Control and Dynamics,* 22(1), pp. 43-50.

Wetenschappelijke Raad voor Regeringsbeleid, 2008. *Innovatie Vernieuwd - Opening in viervoud,* Den Haag: WRR.

Williams, K., 2010. Sustainable Cities: research and practice challenges. *International Journal of Urban Sustainable Development,* 1(1), pp. 128-133.

Wilson, W. J. & Taub, R. P., 2011. *There Goes the Neighborhood: Racial, Ethnic, and Class Tensions in Four Chicago Neighborhoods and Their Meaning for America.* s.l.:Vintage.

Yin, R. K., 2008. *Case Study Research: Design and Methods.* Thousand Oaks: Sage Publications.

Young, I., 1990. *Justice and the politics of difference.* Princeton, NJ: Princeton University Press.

Zopf, G. & Forester, H., 1962. *Principles of Self-Organization; University of Illinois Symposium on Self-Organization.* New York: Pergamon Press.

Zou, Y. & Trueba, E. T., 2002. *Ethnography and schools: Qualitative approaches to the study of education.* Washington D.C.: Rowman & Littlefield Publishers.

Appendices

Appendix A – Approximate question list for interviews

Initiator - Wolkenfabriek
• Wat zijn in uw ogen voordelen van bottom-up initiatieven?
• Is samen werken met andere bottom-up initiatiefnemers lastig?
• Zo ja, wat zijn de meest voorkomende obstakels in het samenwerkingsproces? Indien nee, hoe denkt u dat het komt dat deze samenwerking zo gemakkelijk verloopt?
• Heeft u het idee dat er een 'baas' in deze samenwerking is of?
• Zijn er manieren waarom u het samenwerkingsproces kunt sturen om bijv. toch te krijgen wat u wilt i.p.v. wat de initiatiefnemer wilt?
• Vind u dat bottom-up initiatieven gestimuleerd moeten worden vanuit de overheid?
• Zo ja, hoe zou u dit doen?

Employee – Municipality of Groningen
• Is het voor u lastig om te faciliteren in bottom-up initiatieven?
• Wat zijn de grootste obstakels in uw opzicht?
• Waar liggen de grootste spanningen?
• Wat zijn manieren om deze obstakels en spanningen te overbruggen?
• Denkt u dat er meerwaarde uit een samenwerkingsverband gehaald wordt of?
• Is het naar uw idee überhaupt een samenwerkingsverband of meer een 'ik met zij' verhaal?