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Rick Meijer and Arend Jonkman¹

Land policy instruments for densification: the Dutch quest for control

Abstract

Land policy instruments are important to local governments for the implementation of densification. This article explores the factors behind local governments' motives that determine the use of specific land policy instruments to achieve densification. The aim is to increase understanding of how available land policy instruments are applied in practice by local governments to realise housing development at inner-urban locations. In-depth analysis comparing two Dutch municipalities shows that common underlying factors explain municipal land policy applications, while available instruments are used differently. Insights into these factors helps to explain local governments' behaviour regarding land policy instruments.

1. Introduction

Densification is a policy objective for a growing number of local governments in the western world, to restrict urban land consumption and urbanise in a more sustainable way. Densification can be the primary mechanism, for example, to contain urban sprawl, but may also be part of wider aspirations, as is the case with transit-oriented development, urban growth boundaries (Dierwechter, 2014), smart growth (Addison et al., 2013), the compact city (Westerink et al., 2013) or new urbanism (Neuman, 2005). The implementation of these densification policies is a challenge for local governments for both political and economic reasons (Touati-Morel, 2015). The lack of available land for development within existing urban areas is one of the main problems for densification.

Local governments have specific sets of land policy instruments available for the implementation of spatial planning policies (Gerber et al., 2018). These instruments can be used for 'governmental and communal measures, which influence the workings, use and distribution of land' (Davy, 2018: 268), and is therefore focused on *how* objectives can be met. Land policy instruments are thus defined as tools available to local governments that directly impact property rights (and affect the working, use, and distribution of land) for the implementation of spatial planning policies. The specific application of a set of available land policy instruments to pursue spatial planning objectives can be defined as land policy strategy.

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The design and (potential) effectiveness of land policy instruments have received substantial attention from scholars. However, only a few recent studies provide in-depth empirical knowledge on the motivations behind the use of land policy instruments by local governments (Holtslag-Broekhof, 2008; Ploegmakers et al., 2013; Van Oosten et al., 2018). These studies show that the municipal behaviour regarding specific instruments actually varies to a large degree in practice. How public actors use land policy instruments to achieve specific planning policies is under-researched. Therefore, it remains unclear why different local governments with similar means and similar objectives apply available land policy instruments differently. This knowledge is very relevant for debate about the implementation of planning policies because it informs the theoretical functionality, and because the behaviour of actors towards specific instruments determines their effectiveness. Therefore, this paper focuses on the factors that determine why specific land policy instruments are applied. The research question in this article is as follows: *what factors influence local governments' application of land policy instruments for densification?*

In order to shed light on the use of land policy instruments to achieve densification, this paper focuses on the Netherlands. Compact urban development has been a national aim since the 1960s in the Netherlands. More recently, planning has become decentralised. Municipalities are increasingly focused on the realisation of new housing developments within existing urban boundaries. In order to do so, Dutch municipalities have a large set of land policy instruments available. In contrast to most other countries, municipalities in the Netherlands have a tradition of active involvement in the land market. Municipalities strategically acquire land for long-term development or tactical land acquisition to influence specific urban developments. The land is consequently serviced before buildable plots are sold to private developers (Van der Krabben & Jacobs, 2013). With this practice of public land development, Dutch municipalities are actively involved in the realisation of spatial planning objectives such as the provision of housing, infrastructure, and public services.

The Dutch planning system is often considered as an example by other countries (Faludi & Van der Valk, 1994; Bontje, 2003), and the use of land policy instruments is regarded as one of the drivers behind the effectiveness and efficiency of the Dutch planning system (Hartmann & Spit, 2015). Following the Dutch achievements, various countries have considered providing local governments with additional instruments so they can play a more active role in the land market and realise spatial planning objectives (Monk et al., 2013). Therefore, valuable lessons can be drawn from the Dutch experience regarding local governments' use of land policy instruments.

The next section of this paper elaborates on the use of land policy instruments for the implementation of densification policies. The subsequent section focusses on the

research method and introduces the cases. In the section thereafter the available land policy instruments in the Netherlands and their applicability to the implementation of inner-urban housing developments is described. Afterwards, the empirical research results from the case studies are presented. In the concluding section, the results of the Dutch case studies are presented and placed within a broader national and international perspective.

2. Densification and instruments of land policy

Markets can produce suboptimal outcomes (i.e. market failures) as a result of a lack of competition, the existence of public goods that are difficult to capitalise or from which people cannot be excluded, information asymmetries in which buyers lack adequate information to make informed decisions or to adequately compare different goods, and different externalities (negative and positive) that are not incorporated in the price of the good (Bruinsma & Koomen, 2018; Vining & Weimer, 2015). The land market is particularly prone to market failures, as a result of the specific characteristics of land. First, land is per definition fixed in space (Alexander, 2014) and every site is unique (different place-specific characteristics and a different location in relation to amenities and locational qualities). This space-specificity limits the substitutability of sites and limits competition between landowners. Simultaneously, the uniqueness of sites complicates an adequate comparison of the supply of land and thus fosters information asymmetries. Second, the supply of land is limited, while demand changes significantly over time and space, influencing the distribution of power between actors. Third, the demand for and value of land is derived from the demand for different uses for which land is needed. Land is both a recourse and an investment good, which complicates adequate valuation. Fourth, the value of land is highly dependent on (public) investment in surrounding areas. For example, the construction of a new highway may change the value of land, both positively due to improved accessibility and negatively due to increased nuisance and conflicts between land uses. Fifth, only a limited number of transactions occur on the land market. This further complicates accurate price setting, since it is more difficult to derive the value of land from comparable transactions. Sixth, the specific use of land, through its interaction with the surrounding area, may result in external effects. The spatial organization of land uses can result in unwanted negative externalities and suboptimal outcomes when potential positive externalities are not met. It can be a fine line between the positive effects related to mixed urban developments and possible conflicts between land uses (Bruinsma & Koomen, 2018).

Market failures can justify government intervention (Vining & Weimer, 2015) and are typical arguments for spatial planning (Dierwechter, 2014). In particular, densification policies are argued to both advance different positive externalities while at the same time hampering various negative externalities. Positive externalities ascribed to densification include agglomeration economies (Bruinsma & Koomen, 2018),

increased support for (public) amenities and public transport which contributes to a more liveable city. Higher densities can result in decreased demand for mobility and improve walkability (Westerink et al., 2013), especially in combination with mixed-uses. These positive effects of densification are, for instance, stressed in the compact city (Westerink et al., 2013), smart growth (Addison et al., 2013) and new urbanism (Neuman, 2005) approaches. Negative externalities that are allegedly alleviated by urban densification, primarily relate to the alternative of urban expansion and its extreme form of urban sprawl (Ye et al., 2005). These include land take and soil sealing, which reduce space for nature and lower the amount of productive land and soil that could otherwise be used for the production of food (Ceccarelli et al., 2014), increased car-dependency, and higher energy usage.

Urban densification itself is also argued to produce negative externalities. Densification can put pressure on existing services and infrastructure, lead to higher overall house prices if combined with urban growth boundaries or other measures increasing the scarcity of buildable land (Mathur, 2014), reduce the absolute and relative availability of open and green space in urbanised areas (Giezen et al., 2018), and even impact species richness and abundance in remaining greenspace (Vergnes et al., 2014). In addition, urban densification has been argued to be unfeasible, as often there remains a need for urban expansion (Breheny, 1996; Westerink et al., 2013), and environmental benefits are said to fall short of predictions (Westerink et al., 2013). Nevertheless, urban densification is a policy objective for a large number of governments in the western world.

Externalities can be dealt with in different ways. Webster and Lai (2003) argue that negative externalities can be regarded as a result of incomplete property rights. Individuals lack the right to object when it comes to the negative effects of actions of others and/or the transaction costs for objecting may be too high. Urban planning policies such as growth boundaries and zoning regulations (Dierwechter, 2014), are also used to influence land markets, producing sub-optimal urbanisation outcomes.

Land policy instruments provide governments with tools to intervene in property rights and the working, use, and distribution of land, in the pursuit of correcting and preventing market failures. Different land policy instruments are applied to implement densification objectives (Touati-Morel, 2015). Examples of these instruments are land use planning, zoning, and regulations. Governments can also follow a more active approach in the realization of spatial plans by impacting property rights for spatial planning purposes. Examples of instruments for this type of approach are compulsory purchase and land banking. Governments in, for example, The Netherlands, Finland, Sweden, China, and Singapore actively intervene in land markets (Lichtenberg & Ding, 2009; Ooi et al., 2011; Needham, 2014; Valtonen et al., 2016), and in countries such as Switzerland, Luxembourg, United Kingdom, France, and Spain a more active role

on the land market is under serious consideration (Munoz-Gielen, 2011; Becker & Hesse, 2011; Knoepfel et al, 2012; Monk et al, 2013; Gerber, 2016). Even where a local government applies an active approach, urban densification can be challenging, because of scarcely available land. Complicating factors include high land prices, the current use of the land for which an alternative location may be needed, the need to demolish existing constructions (resulting in some form of capital destruction), and fragmented parcels with multiple owners (resulting in higher transaction costs).

Countries that have adopted land policy instruments that equip local governments to pro-actively intervene in land markets face an important challenge next to the availability of land. Since the role of the government as regulator of land use and land development is a given, local governments are both market players and in charge of the rules of the game. This double role of governments has garnered substantial attention in the literature, with a general emphasis on its negative and unwanted effects (Lefcoe, 1977; Needham, 1997; Alterman, 2009; Van der Krabben & Jacobs, 2013). In this debate, little attention has been paid to the potential contribution that land policy instruments can bring to the implementation of specific planning policies, while this is one of the cornerstones of the successful systematic urbanisation of the Netherlands.

3. Method

This paper builds on empirical research to gain insights into why and how land policy instruments are used for the implementation of densification. In order to shed light on the motivations and considerations of the use of land policy instruments by local governments, a multiple case study approach is conducted. The empirical study consists of a qualitative in-depth analysis of two comparable medium-sized Dutch municipalities.. The municipalities of Zwolle and 's-Hertogenbosch were selected. These municipalities are comparable in terms of location, being in between the economic core region of the Randstad and the periphery of the Netherlands. Cases are selected that are not located in the most urbanised area of the country, the Randstad, because, due to the concentration of cities at a limited distance from each other in the Randstad, the land and housing market in the Randstad operates on a more regional level. In addition, both cities are growing and have similar housing construction objectives. In regards to densification, both municipalities aim to build at least 50% of the housing units within existing urban boundaries.

The two cases are selected as diverse cases (Gerring, 2007), differentiating with regard to the municipal land policy. 's-Hertogenbosch is considered a 'reference case', because of the preference for public land development in dozens of projects (Municipality of 's-Hertogenbosch, 2018a). The municipality of Zwolle, on the other hand, is less engaged in public land development and has adopted a framework for deciding on land policy strategy depending on the concrete circumstances of a development project: a 'situational land policy' (Municipality of Zwolle, 2015). By

selecting these cases that differ in land policy approach, we can explore why municipalities choose different land policy approaches, despite the similarities in context, housing policy objectives, and available land policy instruments.

For both municipalities, policy objectives regarding housing development and densification are determined via a policy document analysis and semi-structured interviews. The semi-structured interviews are furthermore used to explore motivations regarding the use of different land policy instruments. The planners' perspective on the use of land policy instruments is central in this case study research. Professionals from different departments and working in different roles were selected to be able to gather data on municipal housing and land policy and different phases of land and housing development projects.

Respondents for both cases were selected in cooperation with a contact within the municipality who facilitated scheduling the interviews. In the municipality of Zwolle and 's-Hertogenbosch respectively seven and six civil servants were interviewed. Both cases included a diverse group of respondents from the housing department and the land development department and ranging from project managers to directors, in order to include different perspectives in the study. Excluded from the case study were city councillors and aldermen as we focused on the perceptions of civil servants. Most interviews lasted between 45 minutes and an hour. The interviews were all recorded and transcribed with permission of the respondents. Before the interviews, housing and land policy documents from both municipalities were analysed to determine which housing development objectives and land policy principles had been established per the municipality. Semi-structured interviews were conducted during which the same topics were addressed for both cases. The interviews were somewhat adjusted to fit the function and knowledge of the interviewees but always included the municipal housing policy objectives (including densification), the municipal land policy, how decisions regarding the use of land policy instruments are made and how the municipality relates to other housing market actors. Both authors conducted part of the interviews for both cases, applying the same interview guide.

The transcripts were coded applying a coding list, consisting of codes ranging from land policy instruments, to housing development projects, to planning and development process phases, to success factors and obstacles, and to considerations for using certain land policy instruments. After coding three interviews, the coding list was reviewed and adjusted, before restarting the coding-process. The analysis was done by reviewing the text fragments per code for both cases. Preliminary results were discussed with representatives of the two cases during a two-hour workshop. This was used to verify interpretations of the research and was helpful in identifying additional nuances.

4. Land policy in the Netherlands

This section describes the Dutch institutional setting of housing development and land policy. After providing a brief overview of the national framework, the practice of municipal land policy for densification is discussed.

4.1 Urban housing development

Post-war housing development in the Netherlands can predominantly be characterised as urban expansion, ranging from developing new towns to expanding small municipalities located near the larger cities (Van der Cammen & De Klerk, 2010). This is largely due to the strong involvement of the Dutch national government in the planning of urbanisation throughout the post-war period. Municipalities, in turn, have played a key role in the implementation of the national spatial planning visions. Since the global financial crisis of 2008 and a liberal turn in Dutch national politics since 2010, however, the national government has largely withdrawn from spatial planning (Janssen-Jansen et al., 2012). Housing development has become more demand-led (Buitelaar et al., 2011) and focused on densification through transformation of buildings, redevelopment of inner-urban brownfields and smaller-scale infill within existing urban boundaries.

Based on a spatial analysis of detailed land use data, it is shown that, since 2012, the majority of the housing developments in the Netherlands have been developed within existing urban boundaries (Claassens & Koomen, 2017; see Table 1). In addition, the share of inner-urban residential development increased over the period 2000-2018. This shift in locational focus for new housing developments is in line with most municipal housing and planning policies. The trend of inner-urban development and increasing residential density in the Netherlands is in contrast with density changes in many cities around the globe that expand in size and decrease in average residential density (Broitman & Koomen, 2015). In the Netherlands, however, between 2012 and 2017, 69% of new residential developments took place on inner-urban locations (see Table 1). Even though the global financial crisis caused a decline in the overall production of new residential developments since 2010, the contribution of densification to urban development is evident.

Table 1. Greenfield development versus inner-urban development in the Netherlands (in percentage), source: Claassens & Koomen (2017)

	2000-2005	2006-2011	2012-2017
Greenfield development	58	53	31
Inner-urban development, of which:	42	47	69

In the last few years, after a severe housing market crisis, as a result of the global financial crisis in 2008, the Dutch housing market has recovered and house prices are exceeding pre-crisis levels (CBS, 2018). Despite the increasing inner-urban

developments in relative terms, housing shortages in absolute terms have increased in urban areas due to even greater increases in demand. Local governments are challenged by both private sector developers and the public about the provision of enough new housing. The unified ambition of real estate developers is to develop at least one million new residential units by 2030 (NEPROM, 2018). This means that around 80,000 new residential units have to be delivered per year. Therefore, a substantial increase in housing production is necessary, with a current average of approximately 50,000 units delivered per year between 2010 and 2017 (CBS, 2018a). This short-term challenge for the construction of large numbers of housing seems to be difficult to reconcile with densification ambitions. Although the percentage of inner-urban development has increased sharply in the period 2012-2017, this has been accompanied by a decline of new residential developments per year.

4.2 From an active to a passive land policy strategy?

Local governments in the Netherlands have a tradition of active involvement in property rights in the land market, by combining several land policy instruments. This applied land policy strategy in the last decades is known as public land development (or: 'active land policy', see, for example, Needham, 1992; Priemus & Louw, 2003; Buitelaar, 2010). With this strategy, a municipality buys agricultural land for urban development in order to deliver specific planning objectives. After a municipality becomes the owner, the land is developed, the zoning plan is changed, the land divided into buildable plots, and the public space and utilities are developed. The buildable plots are sold to (semi-)private actors who carry out the construction (Needham, 1997:291; Buitelaar et al., 2007). Public land development has been a successful strategy in terms of sufficient housing production ever since the reconstruction after World War II (Priemus & Louw, 2003).

The most important reasons for municipalities to apply this strategy are the ability to steer the development process, the possibility to deliver 'public goods', the ability to recover costs and the ability to capture value (Buitelaar, 2010). Priemus and Louw (2003) summarise this as objectives with respect to land use, finance, and process. The use of public land development is closely related to the role of municipalities in the Netherlands, whose 'efforts should aim at guaranteeing that houses are actually built, within an environment that meets numerous policy objectives (integration, high-quality public space, and social equality), and on-time' (Tennekes, 2018:102).

The use of public land development as a land policy instrument, especially dominant in the greenfield developments in the Netherlands, has in the last decade been criticised for several reasons (Buitelaar, 2010; Council for Financial Relations, 2015; Buitelaar & Bregman, 2016). Firstly, in 2008 the Dutch Planning Law was revised. One of the underlying motives was to introduce several alternative land policy instruments to contribute to the redevelopment of inner-urban locations, such as urban land

readjustment and improved instruments for cost recovery (Van der Krabben & Needham, 2008; Van der Krabben & Jacobs, 2013). These new instruments were supposed to make public land development, as a planning instrument, obsolete. Municipalities would no longer be dependent on public land development to reach intended objectives (Buitelaar, 2010; Buitelaar, Galle & Sorel, 2011). Secondly, Dutch municipalities suffered severe losses as a result of the global financial crisis. Due to public land development, municipalities faced stalled development projects, oversupply of publicly acquired land and substantial financial losses (Council for Financial Relations, 2015). A less active land policy strategy has been argued to have become unavoidable for local governments (Buitelaar & Bregman, 2016; Tennekes, 2018). Thirdly, local governments' emphasis on housing production is more and more directed towards inner-urban development (Claassen & Koomen, 2017). In general, it is much more difficult for municipalities to acquire land for development at inner-urban locations than at locations outside of existing urban areas. Van der Krabben & Needham (2008:651) indicate three characteristics that are considered to be responsible for this: fragmented land and property ownership, the costs of including public services in combination with positive externalities and existing cohesion with adjacent areas that cause unclear boundaries of the redevelopment area.

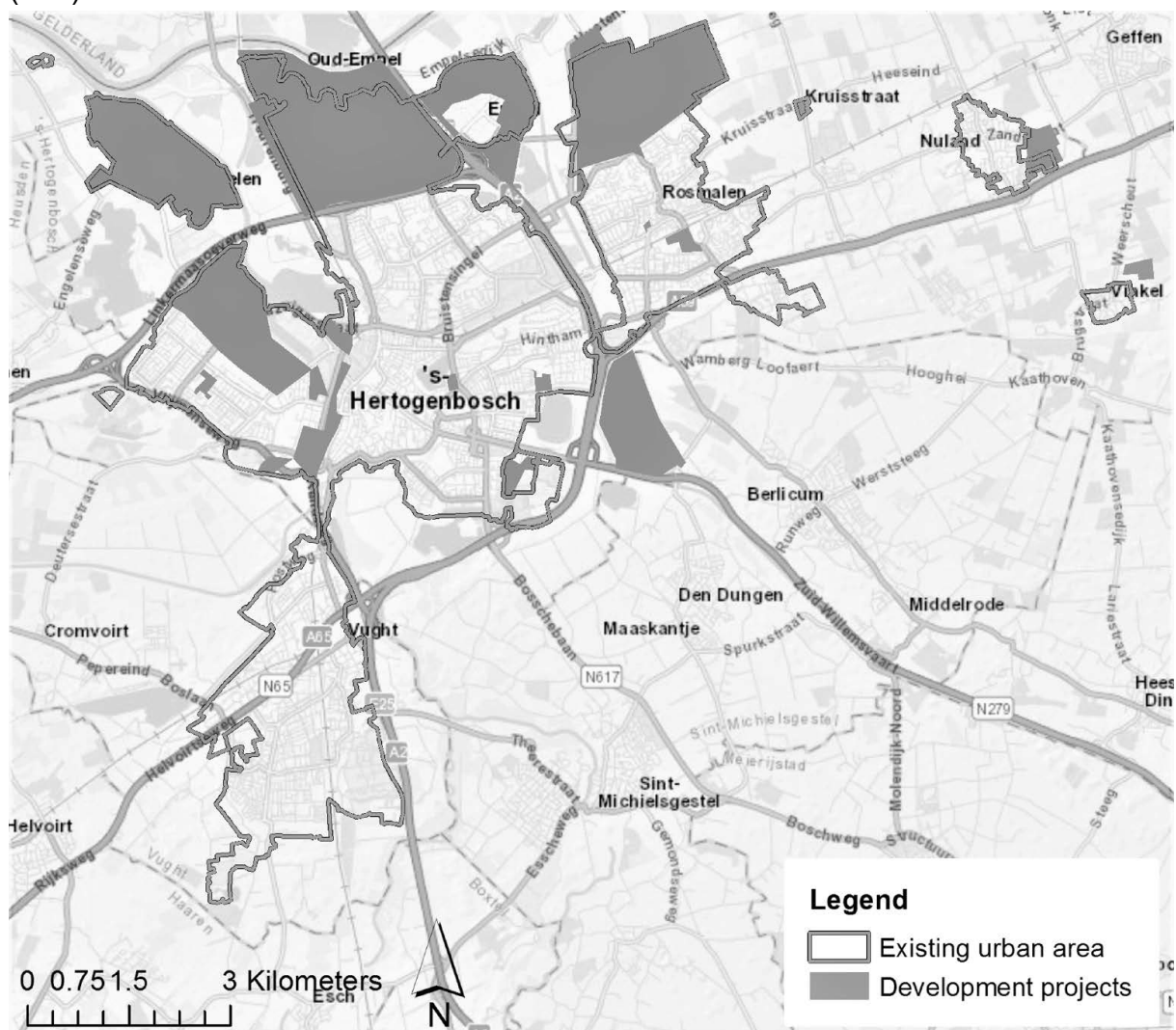
5. Land policy in the quest for control

5.1 Revolving public land development in 's-Hertogenbosch

The municipality of 's-Hertogenbosch is located in the south of the Netherlands and has approximately 153,000 inhabitants. The policy objective for housing development is set at 8,000 new housing units before 2025, and the municipality aims to develop more than 50% of these housing developments within existing urban areas (Municipality of 's-Hertogenbosch, 2016). Current public land development projects of the municipality are located both inside and outside existing urban areas (see Figure 1).

The majority of development in the municipality of 's-Hertogenbosch takes place on locations where the municipality is actively involved. Mostly, this is because of the municipality's existing landownership and land policy attitude. The municipality continuously acquires land for future developments. The municipality of 's-Hertogenbosch follows guidelines of an 'active, unless' land policy, which is stated in the land policy memorandum (Municipality of 's-Hertogenbosch, 2018a). This implies that the municipality prefers to actively acquire land for development and prefers to develop the land themselves.

Figure 1. Public land development locations of municipality of 's-Hertogenbosch. Made by authors, data sources: Municipality of 's-Hertogenbosch (2018); Openstreetmap (n.d.)



The criteria for the actual assessment of public land development concerns the possibility to acquire land, the potential to realise municipal ambitions on the specific location, the dependence of active municipal involvement to achieve those objectives and the risks involved in the development. This analysis is made on a case-by-case basis, depending on the specific circumstances and context. The result of this policy is a hands-on approach: the municipality is willing and able to develop land that would add to achieving policy objectives, as soon as it turns out that other actors are not willing or able to develop it. The municipality remains dependent on private sector involvement for the actual real estate development but has a very proactive attitude towards potential land development:

The most important thing is to do your homework. That means an assessment of the available instruments, draw up plans, and, if necessary, acquire land. In

summary, take care of the explicit execution of development plans, and do it in the right way (Interview Municipality of 's-Hertogenbosch, 2018).

For inner-urban housing development, the municipality is often unable to acquire the land. In these locations, real estate developers may have already acquired the specific location for development or the current landowner may be unwilling to sell the plot for a reasonable price. In these situations, the municipality tries to collaborate with the landowners and real estate developers, in order to be able to implement the desired municipal objectives and ambitions. The extent to which this is successful “depends on the skills of the municipality in this process” (Interview Municipality of 's-Hertogenbosch, 2018). Although the municipality qualifies itself as successful in this manner, the general preference still lies with a more active involvement. The municipality of 's-Hertogenbosch is in a position to actively operate at inner-urban development locations because of the amount of strategically acquired land over the last decades. For the realization of municipal ambitions of densification and inner-urban development, the municipality owns several locations that are to be developed in the next decades.

The most important argument for the preference of an active municipal involvement in 's-Hertogenbosch is control. A deep-rooted belief prevails that the municipality is the only actor capable of monitoring the quality of new large-scale developments:

An active involvement of the municipality is crucial for large-scale housing developments. These developments require an integral approach and a committed actor with a long-term perspective (Interview Municipality of 's-Hertogenbosch, 2018).

In order to realise municipal objectives and ambitions, the municipality wants to be able to steer developments. The best way to do this is from a position of municipal land ownership: “With our experience over the last forty years, we are convinced that with active municipal land development we are better capable to steer developments” (Interview Municipality of 's-Hertogenbosch, 2018). The positive historic financial results of public land development of residential areas help the municipality to keep carrying out this principle and, more importantly, to create a revolving system in which the development gains of current developments are used to acquire new strategic locations for the long term.

The governance of land policy in 's-Hertogenbosch is oriented towards an active approach. This approach is supported by a luxurious position of substantial strategic land ownership, including promising locations within existing urban boundaries. The implementation of public land development is characterised by financial prudence, which is a conscious choice. The financial results of land development are largely used

to acquire strategic locations for future development. The result is a long-term oriented land development strategy in which public funds are used in a revolving way, since the results of public land development are re-invested.

The application of this strategy is largely attributed to the role of the urban development department within the municipality in general and the introduction of financial prudence and a long-term strategy by the former director in particular:

Our former director has led this process for forty years. The municipal policy has therefore been very stable over a long period of time. [...] The former director believed in this vision and in combination with his very strong personality, he was able to get things done (Interview Municipality of 's-Hertogenbosch, 2018).

5.2 Tempting developers in Zwolle

The municipality of Zwolle is located in the north of the Netherlands and has approximately 126,000 inhabitants. The policy objective is to develop 6,000 new housing units by 2027, and the municipality aims to develop at least 50% of new housing developments within existing urban areas (Municipality of Zwolle, 2017). The current land ownership of the municipality contains approximately 700 hectares and is mainly situated in locations outside existing urban areas (see Figure 2).

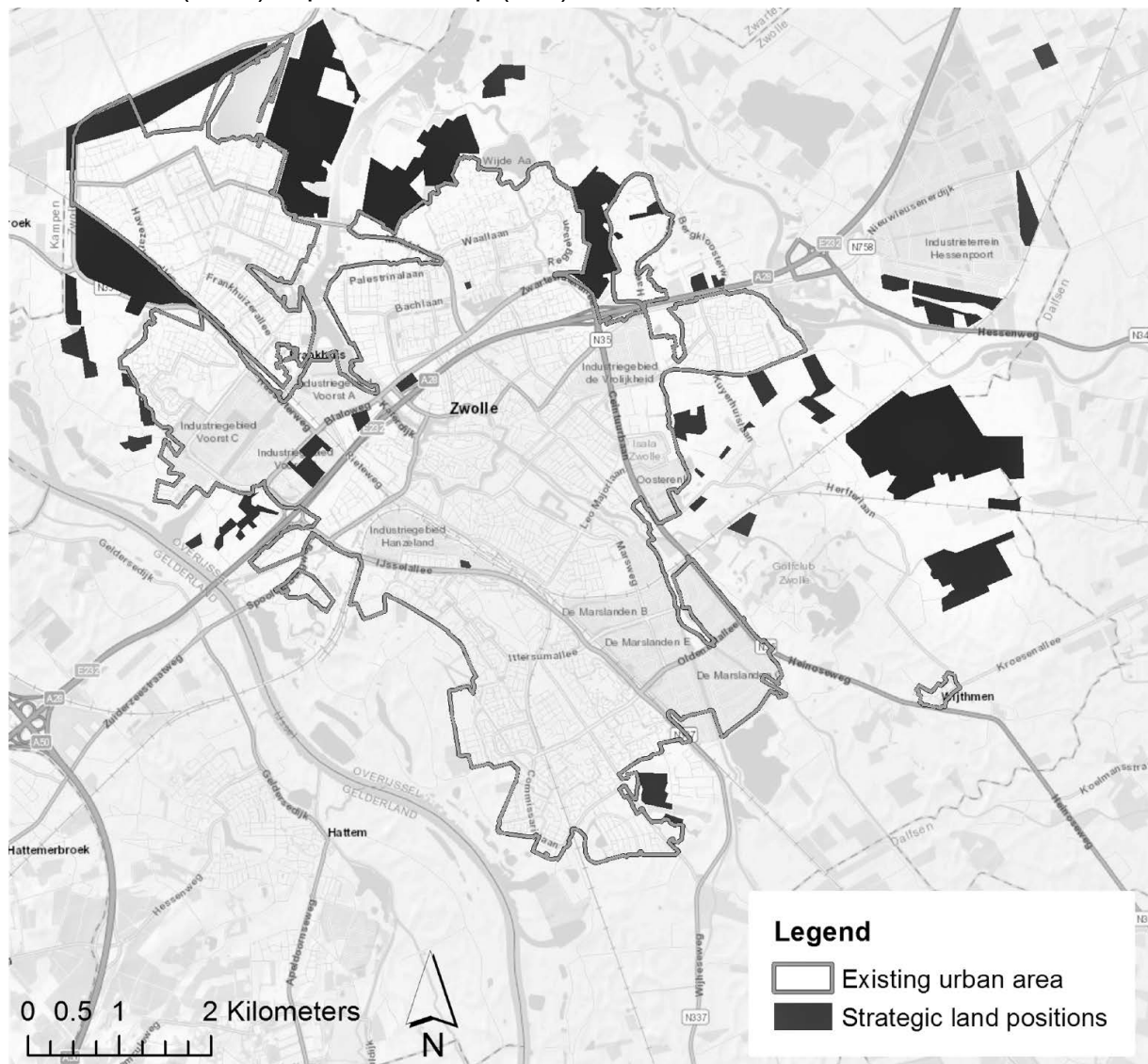
The municipality of Zwolle is less engaged in public land development than 's-Hertogenbosch. After severe financial losses as a result of the financial crisis, there is an increased awareness of the risks of public land development. As a result, the municipality has chosen to update the land policy document yearly, instead of once every four years, and the city council is more explicitly involved in operational decision-making.

The majority of developments in the municipality of Zwolle take place on locations where the municipality has no land ownership. The municipality has not acquired additional land recently:

In the past years we actually have bought hardly any or no land at all. [...] We already have enough land in possession to realise our housing construction objectives in the future (Interview Municipality of Zwolle, 2018).

The problem, however, is that 80-90% of this land is located outside the existing urban areas (as also shown in Figure 2), which creates a qualitative mismatch with the policy objective of housing development within existing urban areas.

Figure 2. Public land development locations and land ownership of municipality of Zwolle. Made by authors, data sources: Municipality of Zwolle (2016); Statistics Netherlands (2011); Openstreetmap (n.d.)



For the challenge of inner-urban housing development, the municipality of Zwolle intends to aid private developers as much as possible. To this end, in 2005, the municipality of Zwolle has set up a 'Concilium' where public, semi-public and private actors involved in land and housing development participate. These actors include social housing associations and private developers and investors that are active in the region. The Concilium is an association that jointly determines the qualitative and quantitative housing objectives in Zwolle. Confronted with the qualitative mismatch between landownership and focus of housing development, the municipality challenged the Concilium to come up with a plan. The Concilium drafted a document called 'Zwolle Modern Residential City' that outlines a vision of how to develop sufficient high-quality housing units with a sufficient amount of affordable housing. The result of this process is a joint proposal with five policy agendas and 25 concrete

measures to be implemented. This visionary document is a voluntary agreement on the intentions shared among all participating parties. The actors involved in the Concilium are challenged by the municipality to carry out the proposed goals in the nearby future.

The largest housing project in Zwolle is a large extension, started up in at the end of the 1990s, which is still in development. Multiple interviewees argue that demand for living in new and more suburban neighbourhoods in Zwolle will remain. The municipality, however, has not yet formulated plans for the development of a new suburban area. Several interviewees expect that the municipality will steer future suburban development towards the locations where the municipality already owns the land (Interviews municipality of Zwolle, 2018). This way, public land development can be applied, the municipality can take control over the development, and can secure cost recovery.

With a lack of land within existing urban areas owned by the municipality of Zwolle, the municipality finds itself dependent on real estate developers. Because of the focus on rendering private developers as much help as possible, the municipality tries to review a private sector development application promptly. In the so-called 'control room', which is an organizational unit with representatives from all the relevant policy sectors, private initiatives are assessed, and the municipality decides whether and under which conditions to cooperate. This helps to invite interested developers to propose a plan, which the municipality can respond to shortly after. This kind of clarity and transparency is appreciated by the developing partners in the city. The assessment of a proposed project within existing urban boundaries requires the municipality to have a vision for the specific area which will be affected by the proposed project. The lack of a clear vision for all parts of the city sometimes impedes the municipality in providing a swift and clear response.

At the same time, facilitating developments causes friction as the municipality is not able to steer the development and successfully implement all desired policy ambitions. When a plan is proposed, it is tempting to provide it with multiple demands regarding policy ambitions, which creates tension in the business case of the developer. The business case on these types of locations is already difficult, which is why the municipality of Zwolle in general gives: "a bit more freedom in terms of the preconditions and framework in which a development can be realised" (Interview municipality of Zwolle, 2018). As a result, it is impossible in this type of development strategy to force extra-legal municipal ambitions regarding, for instance, sustainability measures, because "ultimately, the real estate developer decides whether or not to apply these extra-legal ambitions" (Interview municipality of Zwolle, 2018).

The municipality of Zwolle applies a dual approach in terms of land policy governance. The primary focus is on 'actively aiding' developers to redevelop areas within existing urban areas. The 'Concilium' provides a useful platform at the scale of the entire municipality. This is a new approach in the context of land policy in the Netherlands. This way, the municipality obtains information regarding what different actors are able and willing to invest. At the same time, however, the voluntary character limits the effectiveness because the output is only visionary and intentional. Since in the end decisions about actual developments are locational, it is a challenge to translate the visionary and municipality-wide proposals into place-specific investments. Respondents have stressed the open structure of the Concilium, but also recognised the potential drawback that the historical involvement of a set of market actors may result in the exclusion of other interested market actors that are not (yet) involved in the Concilium.

In general, the primary approach can be characterised as process-oriented towards external partners, tempting them to develop housing at inner-urban locations. If developments from external partners within the urban boundaries fail, the municipality can develop publicly owned land outside urban boundaries.. In this way, public land development functions as a backup strategy to secure housing production, but this production will not add to achieving densification objectives.

6. Conclusion and discussion

The case studies revealed that the municipalities of 's-Hertogenbosch and Zwolle are applying different land policy strategies in order to implement densification objectives. The municipality of 's-Hertogenbosch focuses on a pragmatic approach in which public land development is the most important land policy strategy. The quest for control of the municipality of 's-Hertogenbosch is focused on acquiring land within the existing urban boundaries as part of a long-term land development strategy. An important financial driver for this policy approach is the successful development of residential areas in the last decades. The municipality of Zwolle uses a more process-oriented approach, by trying to tempt key private actors to develop locations within the existing urban boundaries. The use of the 'Concilium' is a clear example of this approach. Public land development is not excluded as a strategy. But, as a result of recent financial losses due to land development and the large areas of land in possession of the municipality, the municipality of Zwolle has recently not been willing to actively acquire land.

The land policy approach of the two municipalities towards densification is very different: with 's-Hertogenbosch focusing on the individual execution of public land development and Zwolle focusing on the external process of development. Therefore, 's-Hertogenbosch operates more internally oriented towards public land development, whereas Zwolle tempts real estate developers towards development in an externally

oriented approach. Based on the interviews, it seems that the approach in 's-Hertogenbosch stems from a successful history of public land development and the ability to develop and maintain a land bank of strategic locations that might be developed in the future. Zwolle, however, had to deal with severe financial losses as a result of the economic crisis, which led to caution towards public land development. The substantial size of the current land bank of Zwolle contributes to this caution. The paradoxical similarity between the municipalities is therefore that the land policy approach differs whereas both based the strategy to a large degree on the current land ownership.

Both municipalities prefer public land development, but only 's-Hertogenbosch is still able to develop their own land for the purpose of implementing densification objectives. The historical public land development strategy combined with financial prudence, allowed 's-Hertogenbosch to acquire locations within the existing urban boundaries that were not developed right away but are held as a strategic land bank. This strategy allows the municipality to have sufficient development locations within the existing urban area. The role of the former director as a 'gatekeeper' of the application of land policy instruments and financial prudence stands out. This was mentioned as the main reason why land policy in 's-Hertogenbosch has persisted through the financial crisis. Zwolle also preferred public land development in the past, but as a result of the financial deficit after the economic crisis, a more reserved attitude towards public land development was adopted. The innovative process approach with the Concilium therefore partly derives from necessity rather than preference.

Although the applied land policy instruments differ considerably between the municipalities, the underlying factors that influence the considerations are largely comparable:

- The current land ownership of the municipalities is the most important factor regarding the application of land policy instruments. 's-Hertogenbosch is in the position to operate pro-actively within existing urban areas because of the amount of acquired land for development in the past decades. Since such a strategic land bank within the existing urban areas is missing in Zwolle, a more facilitating and market-oriented approach is applied for densification.
- In both municipalities the land policy strategy can largely be explained with reference to their specific historical context. In the case of 's-Hertogenbosch this relates to a combination of pragmatism and financial prudence. The extent to which 's-Hertogenbosch seems to be capable to connect spatial planning and land policy allows them to follow a consistent strategy so that financial means are available for the implementation of planning objectives looking to the future, such as densification. This is a contradictory finding related to the general assumption that public land development primarily applies to greenfield

development. In the case of Zwolle, the economic and housing crisis can be viewed as an institutional change. The policy approach of a strong preference for public land development was left behind as a result of the suffered losses, and a new land policy instrument was put in place. Although the Concilium does not impact property rights directly, and therefore is not regarded a land policy instrument, it is intended to lay the groundwork for future developments.

- Both municipalities tried to find a strategy that allowed them to maximise their control over future developments. This quest for control is deeply rooted in both organizations. There is a strong belief that the municipality can better achieve the implementation of densification (and other) policy objectives when land is publicly owned, compared to developments where the land is owned by others.

The results of the case studies are based on two similar municipalities within the specific context of the Netherlands. The in-depth analysis showed that, although the available instruments are applied quite differently, common factors guide municipal land policy application. This is an important lesson, both for governments who are considering new land policy instruments to achieve specific spatial planning objectives as well as for governments who aim to use existing land policy instruments for the implementation of spatial planning policies. The fact that common factors determine the application of land policy instruments is an interesting first step in codifying local governments' behaviour. Further research on how local governments apply the available land policy instruments, both within the Netherlands and in other countries, is necessary to gain more insights. These insights are essential in order to understand how land policy instruments affect the implementation of spatial planning policies.

Literature

ADDISON, C., ZHANG, S., and COOMES, B. (2013), 'Smart Growth and Housing Affordability: A Review of Regulatory Mechanisms and Planning Practices', *Journal of Planning Literature*, 28, 215–257.

ALEXANDER, E.R. (2014), 'Land-property markets and planning: a special case', *Land Use Policy*, 41, 533-540.

ALTERMAN, R. (2009), *Can the 'unearned increment' in land values be harnessed to supply affordable housing?*, UN Habitat GNLT Conference, October 2009, Warsaw

BECKER, T. and HESSE, M., (2011), 'Siedlungsentwicklung und Wohnungswesen', in T. Chilla and C. Schulz (eds), *Raumordnung in Luxemburg: Aménagement du territoire au Luxembourg*, Luxembourg, éditions guy binsfeld, 78–95.

BONTJE, M. (2003), 'A "planner's paradise" lost? Past, present and future of Dutch national urbanization policy', *European Urban and Regional Studies*, 10, 135–151.

- BREHENY, M. (1997), Urban compaction feasible and acceptable?, *Cities*, 14, 209-217
- BROITMAN, D. and KOOMEN, E. (2015), 'Residential density change: densification and urban expansion', *Computers, Environment and Urban Systems*, 54, 32-46.
- BRUINSMA, F. and KOOMEN, E. (2018), *Ruimtelijke ordening in Nederland [Spatial planning in the Netherlands]*, Amsterdam, Vrije Universiteit
- BUITELAAR, E. (2010), 'Cracks in the myth: challenges to land policy in the Netherlands', *Tijdschrift voor Economische en Social Geografie*, 101, 349-356.
- BUITELAAR, E. and BREGMAN, A. (2016), 'Dutch land development institutions in the face of crisis: trembling pillars in the planners' paradise', *European Planning Studies*, 24, 1281-1294.
- BUITELAAR, E., GALLE, M. and SOREL, N. (2011), 'Plan-led planning systems in development-led practices: an empirical analyses into the (lack of) institutionalism of planning law', *Environment and Planning A*, 43, 928-941.
- BUITELAAR, E., LAGENDIJK, A. and JACOBS, W. (2007), 'A theory of institutional change: illustrated by Dutch city-provinces and Dutch land policy', *Environment and Planning A*, 39, 891-908.
- CBS (2018), Huizenprijzen op niveau van voor de crisis, <https://www.cbs.nl/nl-nl/nieuws/2018/36/huizenprijzen-op-niveau-van-voor-de-kredietcrisis>.
- CBS (2018a), Number of completed new residential units per year, 2000-2017, <http://statline.cbs.nl/Statweb/publication/?DM=SLNL&PA=81955NED&D1=1&D2=1&D3=0&D4=16,33,50,67,84,101&HDR=G1,T&STB=G2,G3&VW=T>, (accessed 1 October 2018).
- CECCARELLI, T., BAJOCCO, S., LUIGI PERINI, L. and LUCA SALVATI, L. (2014), 'Urbanisation and land take of high quality agricultural soils – exploring long term land use changes and land capability in northern Italy', *International Journal of Environmental Research*, 8, 181-192.
- CLAASSENS, J. and KOOMEN, E. (2017), 'Steden blijven verdichten' ['Cities continue to become more dense'], *ROm*, 35, 18-25.
- COUNCIL FOR FINANCIAL RELATIONS (2015), *Grond, Geld en Gemeenten: de betekenis en gevolgen van de gemeentelijke grondexploitaties voor de bestuurlijke en financiële verhoudingen [Land, Money and Municipalities: the meaning and consequences of the municipal land development for administrative and financial relations]*, The Hague, Council for Public Administration.
- DAVY, B. (2018), 'Bodenmarkt/Bodenpolitik', in H.H. Blotevogel, T. Döring, S. Grotefels, I. Helbrecht, J. Jessen and C. Schmidt (eds), *Handwörterbuch der Stadt- und Raumentwicklung*, Hannover, ARL, 267-278.

- DIERWECHTER, Y. (2014), 'The spaces that smart growth makes: sustainability, segregation, and residential change across Greater Seattle', *Urban Geography*, 35, 691-714.
- FALUDI, A., and VAN DER VALK, A. (1994), *Rule and order Dutch planning doctrine in the twentieth century*, Dordrecht, Kluwer Academic.
- GERBER, J.D. (2016), 'The managerial turn and municipal land-use planning in Switzerland – evidence from practice', *Planning, Theory and Practice*, 17, 192-209.
- GERBER, J.D., HENGSTERMANN, A. and VIALLO, F.X. (2018), 'Land policy: how to deal with scarcity of land', in J.D. Gerber, T. Hartmann and A. Hengstermann (eds), *Instruments of land policy: dealing with scarcity of land*, New York, Routledge.
- GERRING, J. (2007), *Case Study Research: Principles and Practices*, New York, Cambridge University Press.
- GIEZEN, M., BALIKCI, S. and ARUNDEL, R. (2018), Using remote sensing to analyse net land-use change from conflicting sustainability policies: the case of Amsterdam, *International Journal of Geo-Information*, 7, 1-13
- HARTMANN, T. and SPIT, T. (2015), 'Dilemmas of involvement in land management. Comparing an active (Dutch) approach and a passive (German) approach', *Land Use Policy*, 42, 729-737.
- HOLTSLAG-BROEKHOF, S. (2018), 'Urban land readjustment: necessary for effective urban renewal? Analysing the Dutch quest for new legislation', *Land Use Policy*, 77, 821-828.
- JANSSEN-JANSEN L., LLOYD, G., Peel, D. and VAN DER KRABBEN, E. (2012), *Planning in an environment without growth*, Den Haag, Raad voor de Leefomgeving en Infrastructuur.
- KNOEPFEL, P., CSIKOS, P., GERBER, J.D. and NAHRATH, S., (2012), 'Transformation der Rolle des Staates und der Grundeigentümer in städtischen Raumentwicklungsprozessen im Lichte der nachhaltigen Entwicklung', *PVS*, 53, 414–443.
- LEFCOE, G. (1977), 'When governments become land developers; notes on the public sector experience in the Netherlands and California', *California Law Review*, 51, 165-263
- LICHTENBERG, E., and DING, C. (2009), 'Local officials as land developers: Urban spatial expansion in China', *Journal of Urban Economics*, 66, 57–64.
- MATHUR, S. (2014), 'Impact of urban growth boundary on housing and land prices: evidence from King County, Washington', *Housing Studies*, 29, 128-148

MONK, S., WHITEHEAD, C., BURGESS, G. and TANG, C. (2013), *International review of land supply and planning systems*, Cambridge, Cambridge Centre for Housing and Planning Research

MUNICIPALITY OF 'S-HERTOGENBOSCH (2016), Housing agenda 2017/2018 [Woonagenda 2017/2018], https://www.s-hertogenbosch.nl/uploads/media/Bijlage_1_Woonagenda_2017-2018.pdf, (accessed 14 January 2019).

MUNICIPALITY OF 'S-HERTOGENBOSCH (2018), Annual report 2017 (attachment): explanation of land development per project [Jaarverslag 2017, toelichting grondbedrijf per project], https://s-hertogenbosch.jaarverslag-2017.nl/assets/docs/19_toelichting_per_project_bie_s.pdf, (accessed 14 January 2019).

MUNICIPALITY OF 'S-HERTOGENBOSCH (2018a), Land policy memorandum 2018 [Nota Grondbeleid 2018], https://s-hertogenbosch.raadsinformatie.nl/vergadering/453509#ai_3784800, (accessed 14 January 2019).

MUNICIPALITY OF ZWOLLE (2015), Information note on new forms of land policy [Informatienota grondbeleid nieuwe stijl], <https://ibabsonline.eu/Agenda.aspx?site=Zwolleandagenda&id=d8a6985a-0f28-4587-be0d-5e605d72a3a3&FoundIDs=>, (accessed 14 January 2019).

MUNICIPALITY OF ZWOLLE (2016), Current state of supply of land stock policy [Stand van zaken grondvoorraadbeleid], <https://ibabsonline.eu/Agenda.aspx?site=zwolle&agenda&id=e4cd241a-f463-426c-93fe-91fc994f44fe&FoundIDs=>, (accessed 14 January 2019).

MUNICIPALITY OF ZWOLLE (2017), Housing vision Zwolle: space for housing 2017-2027 [Woonvisie Zwolle: ruimte voor wonen 2017-2027], <https://www.zwolle.nl/sites/default/files/woonvisie-ruimte-voor-wonen-2017-2027.pdf>, (accessed 14 January 2019).

MUNICIPALITY OF ZWOLLE (2018), Annual report 2017: land policy paragraph [Jaarverslag 2017, paragraaf grondbeleid], <https://zwolle.jaarverslag-2017.nl/p14628/grondbeleid#popup-0ad37a7dc08844fcbc3434968d72ad1a>, (accessed 14 January 2019).

MUNOZ-GIELEN, D. (2011), Het verhalen van waardeestijging in stedelijke herstructurering, <http://www.urbsadvies.nl/attachments/VoorpaginaNLSamenvatting.pdf> (accessed 30 July 2018).

NEEDHAM, B. (1992), 'A theory of land prices when land is supplied publicly: the case of the Netherlands', *Urban Studies*, 29, 669-686.

NEEDHAM B. (1997), 'Land policy in the Netherlands', *Tijdschrift voor Economische en Sociale Geografie*, 88, 291-296.

NEEDHAM, B. (2014), *Dutch land-use planning. The principles and the practice*, London, Taylor and Francis Ltd.

NEPROM (2018), *Investeringsstrategie voor duurzame verstedelijking: hoe nu verder?* [Investment strategy for sustainable urban development: where to go from here?], <https://www.neprom.nl/nieuws/artikel.aspx?ID=1003>

NEUMAN, M. (2005), 'The compact city fallacy', *Journal of Planning Education and Research*, 25, 11-26.

OOI, J.T.L., SIRMANS, C.F. and TURNBULL, G.K. (2011), 'Government supply of land in a dual market', *Real Estate Economics*, 39, 167-184.

PLOEGMAKERS, H., VAN DER KRABBEN, E. and BUITELAAR, E. (2013), 'Understanding industrial land supply: how Dutch municipalities make decisions about supplying serviced building land', *Journal of Property Research*, 30, 324-344.

PRIEMUS, H. and LOUW, E. (2003), 'Changes in Dutch land policy: from monopoly toward competition in the building market', *Environment and Planning B*, 30, 369-378.

TENNEKES, J. (2018), 'Negotiated land use plans in the Netherlands: a central instrument in Dutch 'active' and 'passive' land policy', in J.D. Gerber, T. Hartmann and A. Hengstermann (eds), *Instruments of land policy: dealing with scarcity of land*, New York, Routledge.

TOUATI-MOREL, A. (2015), 'Hard and soft densification policies in the Paris city-region', *International Journal of Urban and Regional Research*, 39, 603-612.

VALTONEN, E., FALKENBACH H. and VAN DER KRABBEN, E. (2017), 'Risk management in public land development projects: comparative case study in Finland, and the Netherlands', *Land Use Policy*, 62, 246-257.

VAN DER CAMMEN, H. and DE KLERK, L. (2010). *Ruimtelijke ordening: Van grachtengordel tot Vinex-wijk*, Utrecht, Het Spectrum.

VAN DER KRABBEN, E. and JACOBS, H.M. (2013), 'Public land development as a strategic tool for redevelopment: reflections on the Dutch experience', *Land Use Policy*, 30, 774-783.

VAN DER KRABBEN, E. and NEEDHAM, B. (2008), 'Land readjustment for value capturing: a new planning tool for urban redevelopment', *Town Planning Review*, 79, 651-672.

VAN OOSTEN, T., WITTE, P. and HARTMANN, T. (2018), 'Active land policy in small municipalities in the Netherlands: "We don't do it, unless...."', *Land Use Policy*, 77, 829-836.

VERGNES, A., PELLISSIER, V., LEMPERIERE, G., ROLLARD, C. and CLERGEAU, P. (2014), 'Urban densification causes the decline of ground-dwelling arthropods', *Biodiversity and conservation*, 23, 1859-1877

VINING, A., and WEIMER, D. (2015), 'Policy Analysis', in J.D. Wright (eds), *International Encyclopedia of the Social and Behavioral Sciences (second edition)*, 18, 273–280.

WEBSTER, C.J. and LAI, L.W. (2003), *Property rights, planning and markets: managing spontaneous cities*, Cheltenham, Edward Elgar.

WESTERINK, J., HAASE, D., BAUER, A., RAVETZ, J., JARRIGE, F. and AALBERS, C. (2013), 'Dealing with Sustainability Trade-Offs of the Compact City in Peri-Urban Planning Across European City Regions', *European Planning Studies*, 21, 473–497.

YE, L., MANDPE, S. and MEYER, P.B. (2005), 'What is "Smart Growth" - Really?', *Journal of Planning Literature*, 19, 301-315