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THE INVISIBLE HAND IN HOUSING: HOW LAND OWNERSHIP STEERS GREENFIELD HOUSING DEVELOPMENT

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Abstract

This thesis examined how actors' land positions influenced three large-scale greenfield housing development cases in the North of the Netherlands, from acquisition to implementation.

Actor-Network Theory (ANT) was employed to analyse the enrolled human and non-human actors and their employed strategies. The study employed a mixed methods approach on three cases with data from policy documents, five expert interviews and Kadaster land ownership records.

Findings reveal that actors acquired land and construction rights up to 20 years before planning. This shaped developments through location specific anticipatory behaviour, plan creation, construction claims and ownership clauses. Land-based alliances enabled select actors to bypass market competition, jumpstart or interrupt developments and steer programmes and spatial designs by leveraging the legally protected rights on property and self-realisation.

Future research should critically examine whether the power derived from land ownership should continue to influence and steer these decades-lasting housing developments through political and economic changes and how profits and burdens should be distributed.

Key words:

Land market, land ownership, greenfield development, housing, developers, North of the Netherlands.

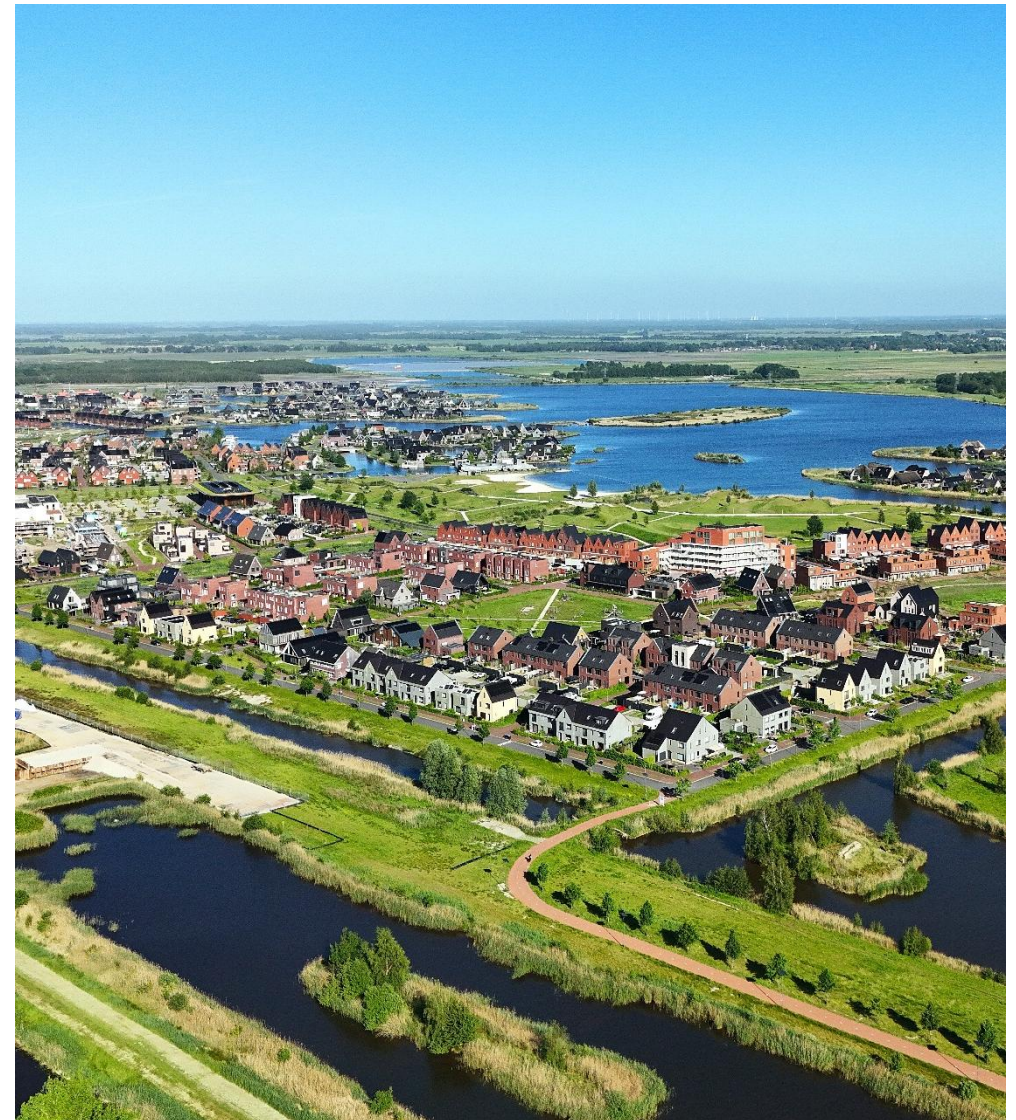


Figure 1 – Greenfield development Meerstad (van Engen & van der Werf, 2026)

Preface

In front of you is my thesis “The invisible hand in housing: How land ownership steers greenfield housing development”. This thesis is part of the Master program Society, Sustainability and Planning of the Faculty of Spatial Sciences at the Rijksuniversiteit Groningen. The goal of this thesis is to find out how land positions by different actors influence large-scale housing developments in the North of the Netherlands. The thesis has highlighted various methods which play a determining role in this process and what their impact is on how we live and shape our built environment.

During this thesis I was primarily supervised by Dr. Sara Özoğul, who I would like to thank for all her meaningful guidance and feedback, as well as being a continually reassuring factor that everything would be okay, even when I blew things out of proportion again. Additionally, I would like to thank my second supervisor Prof. dr. ir. George de Kam for his helpful and in-depth insights and enthusiasm in my research.

Besides this I would like to thank the team at the Kadaster for providing me with a research internship and helping me collect such valuable and unique data in a helpful and open setting. Lastly, I would like to thank the experts for providing me with the time and space to interview them about projects that, in some cases, occurred over 20 years ago.

I hope you enjoy reading my thesis and will gladly tell you even more about it.

- *Jan Friso van der Werf*

Groningen, 29th of June 2026

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1 Introduction and problem definition

In 2022 the investigative journalism site Follow The Money headlined an article: “Major project developers are seizing their chance in the housing crisis”. The article proclaims that the Dutch land market is not transparent and does not function effectively according to the independent market regulator, The Netherlands Authority for Consumers and Markets, and that developers are making significant financial gains from this situation (Tokmetzis et al., 2022). In a subsequent article by Investico, a similar group of developers and their actions to promote their interests in four major greenfield locations with different levels of government are addressed (Voogt, 2022). Both articles, and others like it, demonstrate a renewed interest in the role of landownership by different actors and the way in which they influence the biggest spatial challenge in The Netherlands, the housing shortage.

The subject and has clearly been noticed by planners, researchers and practitioners alike, and even though landownership has received more attention over time, it still tends to fly under the radar as one of the factors in dealing with the housing shortage. The literature that does address landownership in housing, like Buitelaar et al. (2024) on the case of Rijnenburg, widens the scope to encompass broader discussions and focuses less on the direct impact on housing. Buitelaar & Bregman (2016) do provide an early overview of the situation after the financial crisis of 2008 and its effects on the tightly coupled systems of land uses, actors and financial resources. They describe how *“the few and large parties that were dominant in land development before the crisis, (local authorities, large property developers and housing associations) benefitted greatly from*

pre-crisis practices and would like to resume those as soon as possible”. Shahab et al. (2020) describe how some municipalities still hold rich portfolios of public land spread across their cities, with the explicit goal of large-scale housing developments. Yet they also point out that as a result from the financial crisis some municipalities have switched their active land policy to a passive one and started to focus more on densification. Meijer & Jonkman (2020) confirm these claims by earmarking it an institutional change in municipal policy with two in-depth cases. They demonstrate the trend on densification and remaining in control of the process. Yet at the same time noting that a more long-term vision for housing was developed by other actors, trying to return the focus to the large-scale developments on greenfield sites outside of cities, like before the financial crisis. This also is demonstrated by the in-depth case analysis of the Rijnenburg site by Buitelaar et al. (2024). Here the process is outlined in which developers, and housing associations unite in their actions to reencouraging the development of the site since 2016.

Literature like this place an emphasis on the way municipal policy has changed because of the impact of the financial crisis. In addition, they might show the different tactics and strategies employed by actors involved in these processes. However, less attention is given to the consequences of this landownership, the institutional changes and its practical impact on the development process of housing in greenfield areas. Also not unexpected is that a lot of literature has focused on projects or areas in or near the Randstad since, like Tokmetzis et al. (2022) and Voogt (2022) point out, this is the area where the interests of many actors converge.

Because of this, less attention is given to large-scale projects in areas like the North of The Netherlands. Yet it is precisely these areas which might demonstrate the differences in landownership and their influence on the process of greenfield development. Even before the financial crisis large-scale developments were planned in this area, either in line with national policy at the time or due to local actors acquiring land with the intention of having it developed in the future. Now that the housing shortage has risen to such a point that these areas are being developed, they can provide an opportunity to study the timeline and process that has led to this point and see how different actors, their land positions and actions have influenced these developments. Because, unlike their counterparts in the rest of the country, the municipalities and cities in this part of the country are often dependent on only one or maybe a couple major development projects for housing development. They cannot pick and choose locations and associated actors if they do not agree or like each other. The fact that they are so dependent on each other means that they will have to work together, which might more clearly highlight how different actors leave their mark on the project.

1.1 Societal relevance

The articles by Tokmetzis et al. (2022) and Voogt (2022) are clear examples of calls on the government to take stronger action in resolving the housing shortage. These calls are not new, since this spatial challenge has been on the public agenda for quite a while and has been one of the major subjects over the past elections, demonstrating its impact on society. This has led to a discourse which increasingly focuses on the role of the central government to take the lead in dealing with this shortage. This resulted in the temporary reinstatement of the Ministry of Housing and Spatial Planning (VRO), from 2024 to 2026, and a law to strengthen the control on housing (*Wet Versterking regie volkshuisvesting*), which is expected become in effect in July 2026 (Ministerie van BZK, 2026).

Yet this discourse simplifies the actual situation and negates real factors like landownership. They reenforce the idea that the government can and will take control, while it is in actuality dependent on the willingness of different actors whether these developments take place. Although the three main landowning actors, as outlined by Buitelaar & Bregman (2016), do all voice their willingness to solve the housing shortage, their ways of reaching that goal are very different. This has the potential to manifest in different types of spatial planning choices which can affect affordability, density, social or owner-occupier housing and more. This can lead to a misalignment between what is expected from the government and what might actually happen. Researching how landownership impacts housing development can provide an increased understanding of the decisions made and who has, or has not (entirely), the power to influence the outcomes.

1.2 Scientific and planning relevance

Attention is often directed at unique parts of Dutch planning, or those which are most visible and seemingly have a direct impact on how we can live. This is demonstrated by the large amount of literature surrounding Dutch land policy, which is often seen as an important and unique part of our built environment and a major source of inspiration to outsiders (Meijer & Jonkman, 2020). Or to which type of development should take place, whether it be a matter of urban sprawl, higher density (like discussed by Claassens, Koomen and Rouwendal, 2020). Other times, attention is directed at the participation component of plans and how important it is that as many actors of all types can have a voice and are heard (Carton et al., 2026).

And yet all these overlook or minimize an important and legally well protected element: land ownership. It has the potential to be a determining factor which influences how and where housing development takes place, depending how the involved actors work together. Jonkman, Meijer and Hartmann, (2022) point out the need to investigate this, stating that: “understanding how land for housing is provided and how coordination between stakeholders takes place both through land policy and more informal collaboration can help alleviate the conditions for housing development”. Additionally, Meijer and Buitelaar (2023) call for a “better understanding of developer behaviour and the motives behind drivers for development”.

Especially a “broader theoretical scope that has a greater awareness of social networks and institutions could be of help” in understanding how the built environment takes shape. They point out the need of understanding a localised, ‘tacit’ knowledge of relevant people, ways of working, and institutions is often crucial in being able to operate successfully within the production process (Meijer and Buitelaar, 2023).

The scientific relevance of this thesis is to contribute to if and how land ownership of different actors influences housing development. For planners in particular this can explain how and why cities expand in certain directions and why ‘we’ built and live in the locations that we do. It sheds light on the different dynamics and actors within the planning landscape and which choices they make and why. This can lead to a better understanding of the choices made by or for these actors in anticipating what to do, instead of narrowing their motivations down to, for example financial gain.

1.3 Research goal and questions

Greenfield housing development processes take a long time and involve many different actors at different stages of the process. Since these are also influenced by external factors, like the markets, politics or climate change, the plans are often subject to change. Yet which individual or organisation owns the land and where these developments take place might pose to be an even greater factor, due to the legal framework surrounding land ownership and the right for self-realisation. This forces government bodies to work together with landowners to develop plans on those areas. This complicates the idea that the central government can just take control and force solutions, since the dialogue with landowners leaves space for negotiation, which can influence the final form of these plans. Whereas existing literature seems to focus on the institutional setting, less attention is directed to the practical effects of land ownership on the development process of these greenfield locations.

This research, therefore, aims to contribute to an overall understanding of how housing development plans in greenfield sites are influenced by the land ownership of different actors. Guiding this research is the main research question:

How do development actors' land positions and strategies influence the process of greenfield housing development in the North of the Netherlands?

To answer this main research question, several sub questions require answering. These are split up into three groups:

Actor identification and land positions

The first aims to gain oversight into the different actors involved in the projects, in comparison to the literature, and to determine the role their land positions have within the project via the following question:

"Who are the key development actors involved in greenfield housing development in the North of the Netherlands, and what land positions do they hold?"

Land strategies and their evolution

Secondly, a look at the underlying intentions and motivations of these actors and their positions take place, guided by the following question:

"What land strategies do different development actors pursue, and how have these strategies changed over time?"

Influence on development processes and housing outcomes

Finally, the impact of these actors, their land position and motivations on the development of this type of project is analysed through the final question:

"To what extent and in what ways do development actors' land positions and strategies influence the process of greenfield housing development and the type of housing produced (e.g., tenure, density, dwelling type, and price segment)?"

2 Theory

The aim of this theoretical framework is to provide a comprehensive insight on the factors that influence the development process of housing in the Netherlands. By examining the evolvement of the land market, through the introduction of neo-liberal elements, followed by a review of Actor-Network Theory and likely actors and strategies which can be encountered in this process, it establishes a background from which to answer the main research question.

2.1 Planning and the neoliberal turn in the Netherlands

When analysing the development process in the Netherlands, we must take a step back to examine the context. The Netherlands has always had a rich planning tradition which has continually changed through time. One change, the neoliberal turn in planning which took place before 2000, would thoroughly transform the housing development sector and shape it into what we know it as today. It had a lasting impact on several underlying structures, like the land market.

Tasan-Kok and Baeten (2012, p.7) note that globally, “neo-liberalisation and market-friendly policies have been affecting the way cities develop and function since the late 1970’s”. Baeten (2011, p. 26) does point out that this should not be seen as if it is running on autopilot or guided by some invisible hand. Instead, it is more of a state of mind and approach of looking at and doing things (Baeten 2011, p. 25). It is something that exists alongside other policies.

Those policies are then built upon and moulded to suit its own purpose. Its impact and ideas follow similar directions but are context dependent (Baeten, 2011).

The turn in planning in the Netherlands was seen as a reorganisation of the welfare state toward a kind of social investment state. This meant that the government would focus on activating civil and business society by cautiously introducing elements of the market approach, thus reforming civil services (Boelens, 2010). This fits with the broader turn to neo-liberalism, which according to Swyngedouw et al. (2002, pp. 547–549), refers to the ways that socioeconomic regulations shift away from “distributive policies, welfare considerations, and direct service provision towards more market-oriented and market-dependent approaches aimed at pursuing economic growth and competitive restructuring”. These can take the form of indirect promotion of entrepreneurship, particularly via selective deregulation’ and public–private partnerships (Swyngedouw et al. 2002, p.547).

One result from this change was that from the 1990’s onwards, housing marketisation would become a core policy in the Netherlands (Ronald & Dol, 2011). This was accompanied during the same time by rapidly advancing deregulation. This would facilitate greater production and finance for housing for sale, as well as rapid increases in both the demand for, and the prices of, owner-occupied homes (Ronald & Dol, 2011 p.95). This increase was an overall policy goal and was stimulated with several home-purchase subsidies (Ronald & Dol, 2011 p.97).

Following from these changes, a strong increase in the demand for owner occupied housing occurred (van der Krabben and Jacobs, 2013). This was followed by the publication of the Fourth Memorandum on Spatial Planning Extra (VINEX) by the national government. This outlined how, among other things, housing would be developed across the country. Starting with these new VINEX locations, beginning since the 1990's, new development locations would no longer consist of social housing, but of owner-occupied housing (Priemus & Louw, 2003 p. 372). Housing development was also restricted to those locations, as one of the intentions of the policy was to create a deliberate scarcity of housing land. It was expected that this would increase prices, which would allow for greater profits from land development. These profits would then allow the municipalities to pay for higher quality services (van der Krabben & Jacobs, 2013 p. 780). This made the development of residential areas commercially attractive for private developers and property investors (Priemus & Louw, 2003 p. 372). Even more, since the land in the designated areas was still mainly agricultural at the time that the VINEX plan was published, investments in those lands offered low risk and high potential gains for commercial developers (Levkovich et al., 2018). This resulted in "an increased 'awareness' of the value of landed property, on the part of agricultural landowners, commercial developers and municipalities. As a result, "the costs of acquiring agricultural land for residential development [...] increased sharply" (van der Krabben & Jacobs, 2013 p. 780).

This caused a shift in the way housing development was handled. For a long time, municipalities could acquire agricultural land relatively cheaply. One reason for this was the low market value of the land due to the, typically, large share of social housing. Another was that landowners were not really aware of the real market value of their property and did not try to increase prices (van der Krabben & Jacobs, 2013 p. 777).

2.2 A different land market

A new reality, following this commercialisation of the land market, came into being. Commercial developers started the trend of acquiring strategically placed plots of land, at an early stage. These would have a high probability of being the site for a future development (Priemus & Louw, 2003 p. 372). By buying this land, developers would be ensured of acquiring building rights if a development came to fruition. Undertaking these types of actions would ensure the continuity of their (construction) company (Priemus & Louw, 2003 p. 376). This is because, in Dutch planning law, the owner of the land has the right to develop it themselves (Levkovich et al., 2018), which is a result from the self-development right (*zelfrealisatierecht*). This right allows the owner to develop a location themselves if they are deemed to possess sufficient knowledge, experience, money, and land (Bregman et al., 2023 p. 126). For this, the developer does not necessarily need to own the land, it can also first, or only, purchase the rights from the original owner (Bregman et al., 2023 p. 125).

Both municipalities and commercial developers preferred an integrated development of VINEX locations, instead of a plot-by-plot basis. As a result, a building claim model (*bouwclaim*) came into existence. This entails the sale of land bought by commercial developers to the municipality, with a claim on the construction rights of that land. The number of houses that they would be allowed to develop would depend on the amount of land they sold (van der Krabben & Jacobs, 2013 p. 780). In addition to the original municipal led development processes and the new form using bouwclaims, joint ventures and concessions gained in prevalence (Priemus & Louw, 2003 p. 375), further following the neo-liberalisation trend.

2.3 Analysing the development process through Actor-network Theory

Analysing how all the different plans, lands, organisations and others affect each other, involves analysing both the organisations and the connections between them.

One of the ways to investigate this combination is by using the Actor-Network theory (ANT) put forth by, among others, Latour (1996). Rydin (2012, p. 26) note its use in a growing body of work to understand urban development and broader urban change, which makes it a valuable analysis tool. They add to this by stating that it can “offer an analytic edge over existing planning theories that only engage with the material and natural world through the values and communicative action of social actors” (Rydin, 2012, p 24.).

The two most important components in ANT are the “actor” and the “network”. Tait & Jensen (2007) stress that networks are not stable systems of links and nodes, but a metaphor for changeable associations and connections between actors and objects. Similarly, actors are not necessarily human actors, but anything that serves to alter sets of relations or create new relations. Latour (1996, p. 373) describes this as the connections that arise in-between actors, or actants. An actant can be anything, provided it is granted to be the source of an action, causing alterations to a set of relations. The method follows how any given actant becomes strategic through the number of connections it commands, and how it loses its importance when losing its connections. Each network is then made up out of these actants, causing the network to expand by binding more explanatory resources who can function as actants themselves. This is an important part of ANT, as there is no inside or outside to the network. A cause, factor or series of co-occurrences simply extends the network further. Every network is surrounded by its own frame of reference, creating an explanatory framework through its actants (Latour, 1996, p. 376).

This results into a network which is not bound by a local or global view. It allows us to think of a global entity – a highly connected one – which nevertheless remains continuously local (Latour, 1996, p. 372). Latour (1996, p.379) continues by addressing that a network is not a set thing, but a recording of the moves and movement of a thing, as it is about the act of tracing these moves. In later work, this is elaborated upon by the belief that ANT provides an understanding of the dynamic ways relationships between actants are forged, negotiated and maintained (Latour 2005, as cited in Rydin, 2012, p. 25).

Grabowski and Mathiassen (2013) reiterate this by stating that “the focus of ANT is on how processes consist of [...] networks in which diverse interests emerge, come together and eventually fall apart over time”. These processes have been termed as “translations” (Latour, 1986 and Callon, 1986, as cited in Tait & Jensen, 2007). The process of translation in a real estate context is defined by Grabowski and Mathiassen (2013 p. 141) as “a process attempting to achieve alignment of interests or ordering effects”. Tait & Jensen (2007) define the phases of this process in an urban development context as problematisation, interessement, enrolment and mobilization. Depending on how a process is analysed, these can provide guidance on where a network is in any given process.

An arguably more important part to this process of translation is pointed out by Latour (1987, as cited in Mifsud, 2014, p. 4). He notes that in the process, when human and nonhuman entities assemble and connect, they change each other to form nodes. Mifsud (2014, p. 4) adds to that at each connection, one entity works upon another to change it into becoming a part of a network. This means that the more similar entities an actor can align, the bigger an actor can become. This leads to the idea that actors can be seen as a sum of other smaller actors. These ‘ordering struggles’ by actors can result in them becoming stabilized, represented by a ‘black-box’ (Mifsud, 2014, p. 4). Ward (2018, p. 251) describes this concept as a single actor representing a network of actants who have “agglomerated to achieve an objective”. Yet she stresses that “a black box is only maintained if the interests of actants continue to align”.

Mifsud (2014, p. 4) points out that in the process, network elements are converted to “immutable mobiles” due to them being defined and ascribed roles. They act at a distance and are only visible within a particular network of relations, functioning as delegates of other

networks (Mifsud 2014, p. 4). Latour (1987, as cited in Tait & Jensen, 2007) notes the importance of “immutable mobiles” due to its ability to carry sets of relations from one place to another. They are also referred to as “intermediaries”, which Callon (1990 as cited in Tait & Jensen, 2007, p. 113) states can take the form of “any object which orders and forms the network” and identifies four main types: texts, technical objects, embodied practices and money. Tait & Jensen (2007) expand these with documents, plans, books and professionalized practices. According to Tait & Jensen (2007), these intermediaries are the medium by which actor-networks are composed. Mifsud (2014, p. 4) adds that these connect the actors to the network and provide a way through which actors communicate with one another, thus translating their intentions into other actors. Rydin (2012) provides evidence of this, noting how planning policy documents play an important role in mediating and defining relationships between planners.

Boelens however, critiques this type of actant or intermediary. He notes that it is “difficult to assign a comparable proactive value within planning to non-human’s [...] as to conscious, possibly negotiating human subject. Especially since these intermediaries or non-human actants do not actually sit at negotiating planning tables themselves” (Boelens, 2010, p. 39). Latour acknowledges this and adds that “indeed things don’t speak on their own, but always through something or someone else” (Latour 2005, as cited in Boelens, 2010, p. 39.). It should then be recognized that these types of actants are always created, guided or shaped by other actants within the network. Söderström (2017) sees this as a quality of ANT, stating how “urban studies have become much more sensitive to how cities are shaped by strategically connected, spatially distributed and ontologically

variegated entities such as maps, figures, travelling consultants, ideologies, models, technologies, and materials”.

In addition to the actants and their connections, Ward (2018) points out that structures within these networks exist and that they are “created and held in place by the relationships established between human and non-human actants”. According to Steen et al. (2006, p. 306), these relationships can cause certain actants to act as one, making it difficult “to think them apart”. They continue by stating that structures can be seen as relatively durable alliances between human and non-human actors working together (Steen et al. 2006, p. 306). However, Ward also points out that these structures can change due to the actions of an individual actant (2018, p. 251).

Ward (2018) also notes that it is important to recognise that these relationships, in the context of the development process can be influenced by outside factors. She notes that “economic, cultural, legal and political structures influence actions throughout the development process and therefore have the ability to cause disruption”. She finds that developers often set up sub-networks to overcome these challenges, which allows “interests of actors to be aligned or re-aligned so that solutions can be punctualised into the core actor–network”. Whittle & Spicer (2008, p. 7) however also note that networks are prone to break down or (re)develop over time, which is due to the renegotiations between actants, reiterating their dynamic nature. Recognizing these temporary relationships may help explain how urban development are influenced by actants who (dis-) enrol themselves from a network.

Like Boelens (2010) has already pointed out, ANT is not without critiques. He notes the critiques aimed at assuming a *tabula rasa* at the start of any Actor-Network. Whereas ANT prides itself on being embedded in context through its actants and connections, it ignores this in the beginning. An answer to this provided by both Ward (2018) and Mifsud (2014 p. 5). The latter points out that the “explanation is found within the network itself, surrounding itself with its own frame of reference, its own definition of growth, of referring, of framing, of explaining”. It would be pointless to include all context relating to every single actant, without it being relevant to the rest of the network that is being examined. Ward (2018) adds to this that during the problematisation phase of the translation process, actors suggest that a problem can be solved, provided they pass an obligatory passage point. Thus, this passage point is the point of access into a network from where a network can be assembled.

Another critique levelled at ANT by Boelens (2010) is the fact that it is very descriptive, only providing a way on “how they work, not on how we can make them better and under which conditions”. This descriptive characteristic is in line with critique coming from, among others, Whittle & Spicer (2008) regarding its use in addressing changes at the macro level. The focus on connections between actants can, and often must, include highly detailed connections. This makes it less useful to describe broad changes in any discipline, yet for this research makes it a good fit for analysing particular cases.

2.4 Actants and their behaviour within the network

With an outline of ANT, attention is directed to the actants and intermediaries which have a high likelihood of appearing in the network. Some, like planning policy documents and several legal structures have already been pointed out. Buitelaar & Bregman (2016) also identify local authorities, large property developers and housing associations as the dominant parties in the development process before the financial crisis of 2008, with a desire to return to those practises as soon as possible. Their return and continued influence has been noted by Buitelaar et al. (2024) in their case study of the greenfield development Rijnenburg near Utrecht in the Netherlands.

Analysing actors within the planning process, Meijer and Buitelaar (2023) note the crucial role of developers. They explore the diversity among their actant type in the field and identify eight different typologies, as seen in figure 2. These types operate in different combinations of the land development process, which Meijer and Buitelaar (2023) identify as:

- land acquisition,
- development,
- construction and
- ownership.

The different developer types involve themselves in the process with a combination that matches their profile, which Meijer and Buitelaar (2023) have identified as the vertical (dis)integration strategies

associated with the land development process. They also identify some notable strategies used by the developers.

The “land owning developer” for example acquires land positions at an early stage to ensure a seat at the table. Others like the “integrated land developer” and “developer builder” also do so, but with the added focus on a production output guarantee. Others like the “land-owning developer-investor”, do so not for the production side, even going so far as cutting this part out of their development chain, but to guarantee a desirable end product which matches their investment portfolio.

Although their paper focuses on developers, the last type is also applicable to housing associations. As end users of social housing, they will be included in similar phases. Yet how they do so is also dependent on which submarkets of the land market, as outlined by De Kam (2012 p. 52), they engage with:

- construction ready land, land zoned for housing which has already undergone several technical alterations
- raw construction land, land designated for housing without preparations for development
- potential construction land, land that potentially can become raw construction land

For this, they are often reliant on municipal support (De Kam 2012). Even more so since the Housing Act of 2015 introduced re-regulation of social housing with a particular focus on social and spatial implications (van Gent & Hochstenbach, 2019). However, recognising these different types within the Actor-Network can provide a better understanding of their motivations and strategies used in each context.

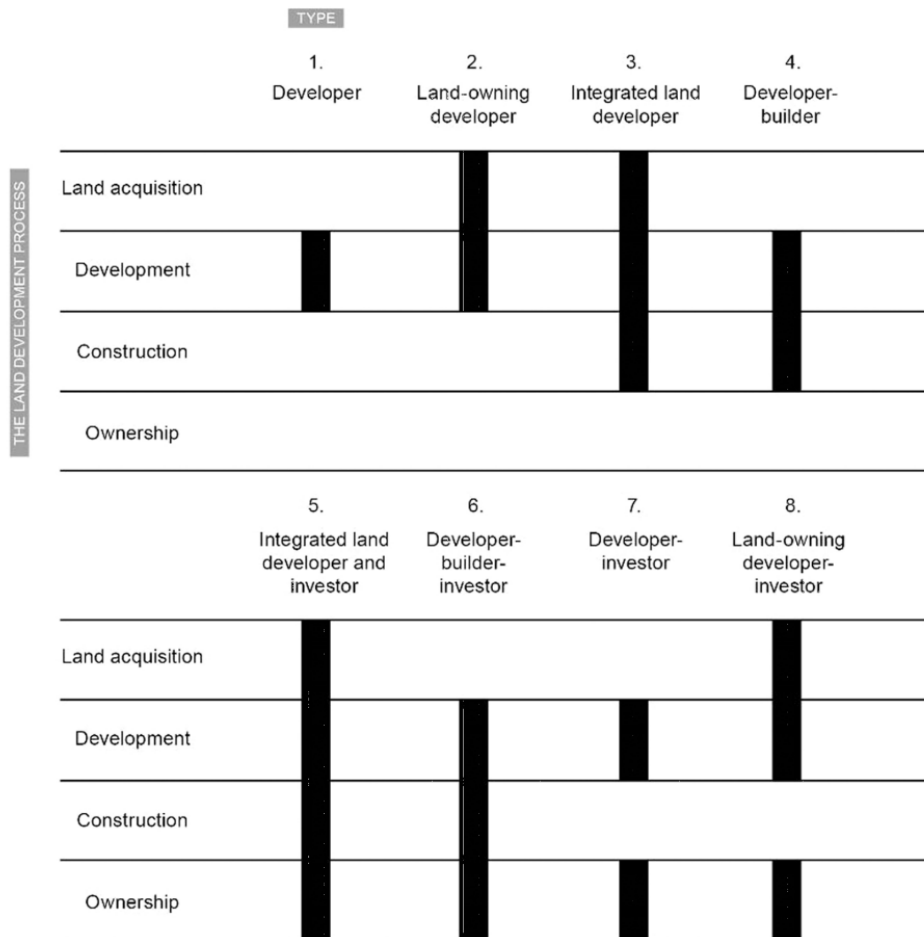


Figure 2 – Vertical integration strategies of real estate developers (Meijer and Buitelaar 2024)

Shahab et al. (2020) provide another look at an actor type within the development process, the municipalities. Their land policy plays a key role in the provision of housing and describes the interventions in the allocation and distribution of land (Shahab et al. 2020). Hartmann and Spit (2015) consider these as one of the reasons for the effectiveness and efficiency of the Dutch planning system. According to Meijer and Jonkman (2020) this is in due part to the tradition of active involvement with these tools in the land market. Both Hartmann and Spit (2015) and Bregman et al. (2023, p. 125) classify land policies into “active” and “passive” categories.

However, in their case-study, Meijer and Jonkman (2020) also remark the increased use of “situational” land policy. Shahab et al. (2020) notes that “the choice of policy instruments often depends on the strategies that municipal planners adopt”. They also note that they often fall within the broad categories of “active” and “passive” (Shahab et al. 2020). To solve this, they create four ideal-typical strategies of active, passive, reactive, and protective land policies. These are defined in the following and can also be seen in figure 3:

- reactive land policy, which fits fatalism, is demand-driven and describes the lack of active engagement of local authorities in the land market. It only reacts to demands from developers who want to develop a site on a project-base.
- passive land policy, which fits hierarchism, is supply-driven and concerns the use of hierarchical instruments, such as land readjustment, in implementing land-use plans. It offers building land to the land market and developers but does not actively implement such projects (Hartmann and Spit 2015);
- active land policy, which fits with individualism, is revenue-driven and describes active involvement of local authorities in the land market and land-use plan implementation. A municipality buys land, develops, and sells it (often in collaboration with real estate developers);
- protective land policy, which fits egalitarianism, is welfare-driven and associates with collective approaches towards land policies; It aims to increase public welfare by counteracting various types of market failures that lead to distortions or undesirable effects – such as undersupply of affordable housing or land consumption at the expense of nature or landscape.

With these rationalities underpinning land policy, Shahab et al. (2020) creates a framework to explore the different strategies and behaviours used by municipalities.

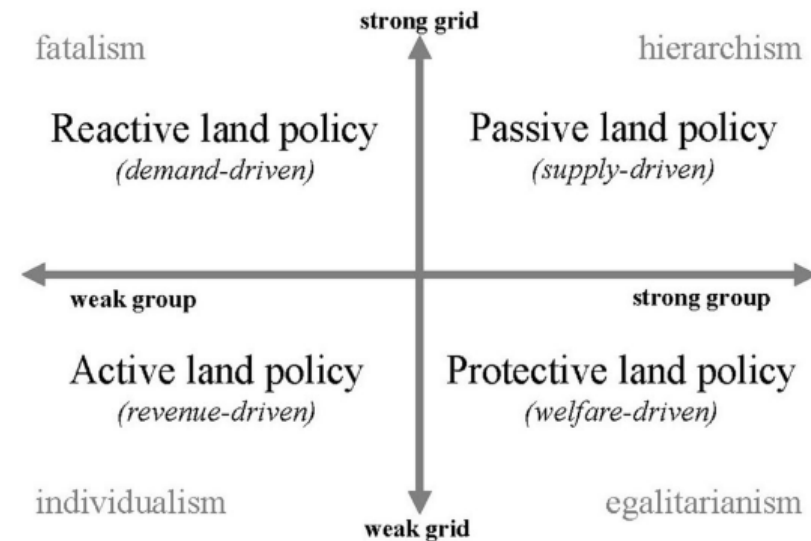


Figure 3 - Cultural Theory and land policies (Shahab et al., 2020)

Lastly Buitelaar et al. (2024) provide more context on actions taken by actors and their overarching strategies used within the development process in the case of Rijnenburg, near Utrecht. Aiming to change the zoning in the polder, the authors describe the actors as “institutional entrepreneurs”. They observe the resourcefulness and timing of the developers specifically, to employ different strategies, as seen in table 1. Buitelaar et al. (2024) note that the developers do not “stay put and passively await rules to be imposed upon them. Instead, they proactively seek to (co)produce new rules or change existing rules to their advantage”. Combining these strategies to change the zoning of a location, with the different end goals outlined by Meijer and Buitelaar (2023), can provide a framework to analyse the behaviour and underlying goals of any encountered actor.

Table 1 - Operationalization of institutional entrepreneurship strategies Buitelaar et al. (2024)

<i>Strategy</i>	<i>Definition</i>	<i>Recipient</i>	<i>Examples</i>
<i>Framing</i>	The deliberate usage of frames to give meaning to a given—often contested—phenomenon, which can relate to the analysis of the problem, or a call to action.	Public or policy discourse	Statement by a developer: “The government is doing everything it can to reduce the housing shortage.”
<i>Collaborating</i>	Involving other stakeholders in order to facilitate the implementation of the proposed solution	Actors with a similar interest	Real estate developers getting together to establish a joint strategy to change an alderman’s view
<i>Lobbying</i>	Trying to get actors with political power on one’s side	Actors with a public interest (regulators)	A developer interacting/meeting with city councilors to propose changing the land-use plan
<i>Negotiating</i>	Trying to come to an agreement with another party to reach consensus.	Actors with a dissimilar interest	A developer reaching out to and negotiating with a farmer to buy land for housing development

2.5 Conceptual model

The outline of the changes to the land market and development process in the Netherlands before the financial crisis create a background to analyse why certain actors undertook actions at an early stage. Recognising that these changes have created or transformed both human and non-human actor in their role in the development process also requires analysing them in the process. This ties back to the main research question and allows the analysis of the actors, their land positions, strategies and overall influence on the development process.

Actor-Network Theory provides a useful lens since it recognises the importance and possible influence of both actor categories and enables the tracing of their involvement through time. Combined with the aforementioned actors that might appear within the network and examples of non-human actors, it also provides a starting point on who and what to look for. In addition, its flexible character allows it to reflect the dynamic nature of the development process. Since different actors are added or removed from a context, it can create a more accurate picture of reality.

In addition to this lens, several actors, tactics and behaviours are found based on the various literature. Although some focus on specific types of actors and their behaviours, they can still be applied more broadly. This is due to their outline of different phases in the process, general descriptions of behaviour and motives. These can be applied to other encountered actors within the process since they are likely to behave on similar lines.

These concepts are translated into the conceptual model, as seen in figure 4. It recognises that any activity takes place within the economic, cultural, legal and political structures as outlined by Ward (2018). Within those, Actor-Networks can take shape. These can consist of developers as described by Buitelaar & Bregman (2016). These can behave in accordance with strategies and motives as described by Shahab et al. (2020), Meijer and Buitelaar (2024) and Buitelaar et al. (2024). The actors engage with the various legal agreements as pointed out by Priemus & Louw (2003) and Krabben & Jacobs (2013). Lastly, land has a physical component in each case as stated by Buitelaar et al. (2024). This actor-network has the potential to influence the occurring type of housing development. However, circumstances in that process can also alter the actor-network, indicated by the red arrow, noting a dynamic and cyclical process. This model provided the background on how to research these processes in the context of the main research question.

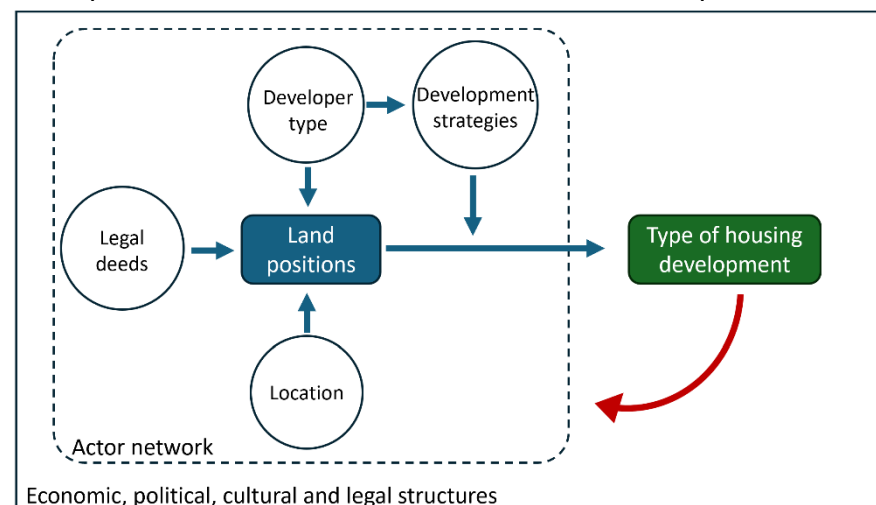


Figure 4 - Conceptual model (author)

3 Research methodology

Provided with a lens to analyse the development process, attention is directed at data collection. Due to the dynamic and multifaceted character, a mixed methods approach was deemed most fitting. This provided insights into the involved actors, their land positions, employed strategies and how the combination impacted greenfield housing development.

3.1 Data collection and analysis

To answer the main research question, three exemplary large-scale greenfield development cases in the North of the Netherlands, as seen in figures 5,6 and 7, have been analysed. All three can be classed as large-scale developments since they meet the minimum of 3500 housing units to be developed. This results in a level of complexity due to the number of variables involved (Rijksoverheid, 2026). This attracts the three main actors as described by Buitelaar & Bregman (2016), to developing the area. Development projects in the Netherlands tend to take a long time to get started (Ministerie van BZK, 2025), which means that plans are often changed, postponed or cancelled over time (Conijn et al., 2024). Since these cases are in actual stages of development, it provided an opportunity to analyse the development process over time. Lastly, the North of the Netherlands has been the focus area of the research. There are not many large-scale developments project in this area. Thus, unlike their counterparts in the rest of the country, the municipalities and cities in this part of the country are often dependent on only one or perhaps a couple development projects of similar size for housing development.

They cannot pick and choose other locations and associated actors if they do not agree or dislike each other. The fact that actors are so dependent on each other means that they will have to work together, which might more clearly highlight how different actors leave their mark on the project.



Figure 5 - Project location Zuidlanden (author)



Figure 6 - Project location Suikerzijde (author)



Figure 7 - Project location Meerstad (author)

3.1.2 Operationalisation of concepts

The operationalisation table, see in table 2, has been guiding the research. This provided identifiers to define, measure and answer the research questions. From this, several concepts emerged which have been defined within the context of this research and its use in the data collection and analysis.

The first sub question contains two concepts that need explaining: development actors and land positions. Development actors, or actors, follow a similar description as that of Buitelaar & Bregman (2016). They are seen as organisations, consortiums or companies with a public task or entrepreneurial motivation who are a key stakeholder and actively take part in the planning and development of housing in a project. However, like Steen et al. (2006) and Ward (2018) have pointed out, these can also consist of sub-networks which can act as black-boxed represented by a single actor. Their stake comes from their land positions, their substantial financial involvement and or their role in determining the result of the development. This can be done through planning permissions or their stipulations on what housing development should take place, like in the case of housing associations. A land position is defined as a single or combination of plots of land owned by an actor and is demarcated by administrative borders which fall within the project area. In this context a land position is seen as a key actor due to the attributed self-realisation right as described by Bregman et al. (2023 p. 126).

The second sub question contains the concept of land strategies used in the development process. This concept is used to demarcate the motivations and actions by different actors in the development process of their land positions. This can include the ways actors acquire lands and their intended goals.

The last sub question introduces the possible influence of the previous questions on the development process. This is seen as the impact that actors, actants, intermediaries, land positions and used strategies either directly or indirectly have (had) on the planning and development process.

Table 2 - research operationalisation (author)

Concept	Dimension	Measurement	Method
Actors	➤ Type	Government/housing association/commercial/individual	Kadaster – Document analysis – interviews
Land positions	➤ Location	Place within plan boundaries Plot identifier Significance of position within plan boundaries	Kadaster Kadaster Kadaster – Document analysis – interviews
	➤ Ownership	Government/housing association/commercial/individual	Kadaster – Document analysis – interviews
Strategies	➤ Location	Place within plan boundaries	Kadaster – Document analysis – interviews
	➤ Amount	Amount of land ownership and changes over	Kadaster
	➤ Duration of ownership	Time	Kadaster
	➤ Motives	Reasoning for acquiring Desired intent of land position Actor behaviour with land holdings	Document analysis – interviews
Impact/ influence	➤ Type of housing		
	○ Tenure	Owner-occupied/Social rent/commercial rent	Kadaster – Document analysis – interviews
	○ Density	Low/medium/High	Kadaster – Document analysis – interviews
	○ Typology	Apartment/Row-house/semi-detached/detached/	Kadaster – Document analysis – interviews
	○ Price segment	owner-occupied or rent	Kadaster – Document analysis – interviews
	➤ Financial implications	Level of acceptable investments and or profits	Interviews
	➤ Planning process	Ease of planning process	Interviews
	➤ negotiations	Amount, ease, involved actors	Interviews

3.1.3 Data collection, processing and analysis

Several methods have been used in the exemplary cases to answer the research questions. These different methods and the resulting ways of analysing the collected data are discussed here.

Plan and policy documents

Dutch authorities publish a lot of policy related documents when developing a spatial plan. These inform on the intended development, involved actors, planned duration of the project and more. Additionally, municipal councils discuss the progress and decision-making process of projects and formulate further documents. Analysing these provided a base level of knowledge on the cases and left room to be further supplemented by other steps of the research process. Documents created by or in name of the municipality or subsequent development consortia have been taken as a primary source. These include but are not limited to; masterplans, development frameworks, housing visions, exploitation calculations, progress reports and design plans.

These have been selected and analysed on their mentioning of keywords on the exemplary cases and mentions of land holdings, actors, development progress, timeline or financial changes. From there a selection was made whether the info provided new insights into a case fitting with one of the sub questions. Additionally, this data was used as a base level of knowledge about the cases and to demarcate the plan boundaries of the exemplary cases through its development. These boundaries have been used for a GIS based demarcation on the Kadaster data.

Kadaster data of exemplary cases

Part of the data collection process took place at a part-time research internship at The Netherlands' Cadastre, Land Registry and Mapping Agency, or Kadaster in Zwolle and remotely. They collect and register administrative and spatial data on property and the rights involved, thus protecting legal certainty (Kadaster, 2022). They have generously allowed data collection to take place at their research department under the supervision and guidance of their data specialists. In this way trustworthy and accurate data about different plots of land, their historical ownership and land-use have been collected and analysed whilst under the supervising eyes of their specialists.

The Kadaster data contains details relating to every plot of land in the Netherlands. Using time snapshots of the cases and plotting them in GIS as seen in figure 8, based on the boundaries from the document analysis, insights into the actors and their land positions has been constructed. In total, four snapshots combining the sites have been analysed: 2005, 2010, 2026 and a mutation snapshot, showing how each plot changed through time. Each contains approximately 750, 825, 4860 and 13000 plots respectively. As it was not possible to analyse all, only those that were indicated to possibly show relevant landownership in the other methods have been thoroughly researched. These plots contain identifiers which allowed the analysing of the accompanying ownership deeds in the BRK-system (Basis Registratie Kadaster). These deeds have been analysed for the identifiers like actors, land positions, length of ownership and strategies. These are collected in their general form in the appendix.

These have been recorded in a separate file, providing an overview of which plot was owned under which name, actor typology, time duration, date and reason of sale, if and which tactics were used in acquiring it, and an identifier to trace the deed which contained this information. As most deeds contain large numbers of plots swapping owner simultaneously, not all were noted in this document. Instead, new GIS maps were created which showed the plots and their location within the plan boundaries. This allowed for traceable methods to analysis which actor held which land positions within the plan boundaries. The deeds themselves contain highly sensitive data and have therefore not left the Kadaster.

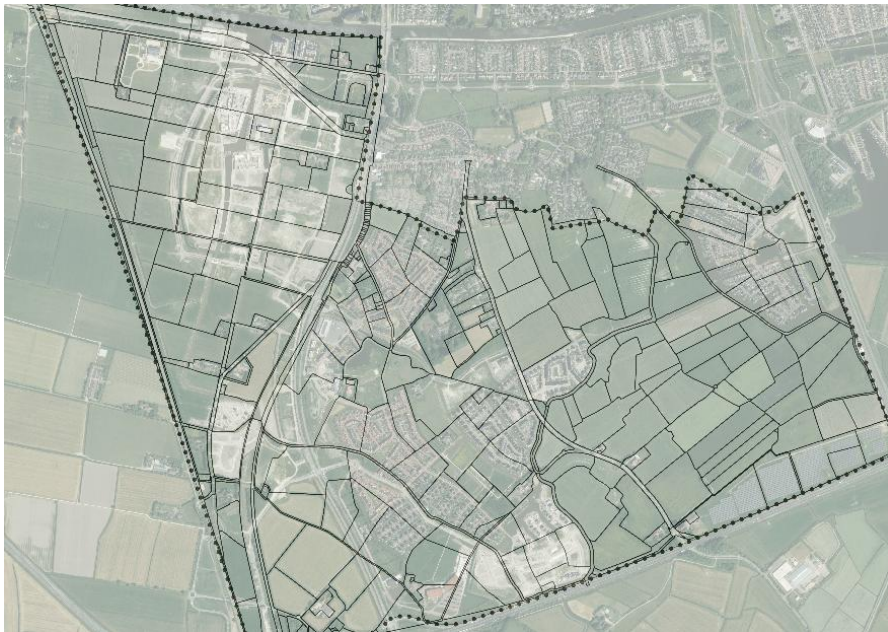


Figure 8 - Kadaster land ownership records visualised (Kadaster, 2026. edited by author)

Semi-structured interviews

The previous methods created an overview of the developments of the exemplary cases through time and the possible motivations of actors involved based on timing or published plans. It was deemed beneficial to add a level of nuance through semi-structured interviews. This way, actors in the cases are questioned about the process they were involved in, their goals and motivations in the process over time, which considerations and discussions took place and how this impacted the planning process. The previous two methods ensure that the researcher is well, or in some cases better and in more detail, informed about the exemplary cases. From here semi-structured interviews guided the conversations to the various gaps in knowledge still required and provided ample opportunity for the interviewee to add information or provide opposing insights. The interviewees were contacted around March and April and the interviews took place in May.

Because of this a selected number of experts, as seen in table 3, were interviewed. As will become clear in the following chapters, practically all land in each case is now owned by the respective municipality. Therefore, it was not seen as beneficial to track down individuals within organisations who had owned land at a previous date. Instead, interviews focused on individuals who could provide both broad and specific information about the project and process in the context of the main research question. For this, project directors of the cases were deemed to be most useful. Due to the long timespans, those directors who had spent both a long time on the project and guided it through rough patches in the 'early days' of the developments have been interviewed. They would be most clearly able to recount what land ownership had on their respective projects.

In addition, land acquisition experts of both municipalities were contacted to provide in-depth context on the process and the multiple actors they encounter. However, despite repeated attempts only the expert of the municipality of Groningen was available. Lastly, experts from two housing associations who, as will be discussed in an upcoming chapter, are involved in the Suikerzijde were interviewed. Since document and Kadaster data had shown that this was the only real involvement of this actor type in the cases it was deemed worthwhile to ascertain why it was the case, especially since they had no land holdings in the project.

Table 3 - Expert interviews (author)

Organisation	Function	Referenced in text
Municipality of Groningen	Land acquisition expert	Land acquisition expert
Municipality of Groningen	Current Project director Suikerzijde (2018 - onwards) Project director Meerstad (2008 - 2016)	Project director Groningen (as it is the same person)
Municipality of Leeuwarden	Project director Zuidlanden (2006 - 2018)	Project director Zuidlanden
Nijestee	Developer Suikerzijde	Developer Suikerzijde
Patrimonium	Manager Real estate	Manager Real estate

3.2 Confidentiality, data management and AI

During data collection, attention has been directed at matters of confidentiality, data management and AI use. These are discussed based on the different methods.

The document analysis phase made use of public documents and plans, which can all be found on publicly accessible websites. This created no notable confidentiality issues.

The Kadaster data, however, was highly sensitive. Even though an overview of current landownership, if collected, is publicly available for purchase, irresponsible distribution could undermine an actor's market position. More pressingly however, were the current and past ownership deeds which lie underneath and are not publicly available. These contain data on all those involved of the sale and purchase of a plot of land. This data often consisted of full legal identification, age, place of birth, place of residence, price of sale as well as possibly sensitive clauses made between those involved. Because of this, data collection and analysis have been conducted in a part-time research internship at the research team of the Kadaster in Zwolle. Here data could be accessed and collected using their hardware and within a team who can provide insights on how to accurately interpret and handle the data.

From here all explored datasets were stripped of personal and/or, to the research, unnecessary data. This left only publicly available or anonymised information in generic categories. These were translated to separate Excel and Qgis files. The Excel file contains a general overview of actors, the land they held and during which time, if applicable a generic description on special clauses and an identifier

linking them back to the original ownership deeds and plots. These have been used to provide the backbone and overview of the involved actors and their land positions, as well as the actions actors undertook to acquire land. The land positions have been plotted in a Qgis file for illustration purposes only. Both files were shared and checked by both the research supervision and manager of the Kadaster before transferal to the researcher's storage.

Lastly, five involved actors were interviewed. Due to their public character and function they cannot be fully anonymised but have still been given generic identifiers. The transcripts have been edited to only keep relevant and anonymous data to the research. The participants were provided with a consent form, which is added in the appendix. This outlined how data would be handled and how their contributions were to be used. They were also presented with the opportunity to review and edit the transcript, if necessary, although none made use of this. Collected data was stored on a password encrypted laptop, with raw interview data stored on the protected RUG drive requiring both password and 2FA sign-in. Kadaster data was stored on their own provided and protected hardware and only transferred to the personal hardware after approval of their staff.

Two AI-powered tools were used to assist in the research. First, the Habrok HPCC of the RUG was used to make interview transcripts on the locally run Whisper model which is compliant with GDPR and RUG Privacy regulations. Secondly, the Le chat tool by Mistral using a RUG provided licence was used for some grammar and spelling check as well as shortening and restructuring paragraphs. No data was uploaded to a AI tool, and none were used to analyse or process any.

4 Data collection results

In this chapter the results from the data collection are discussed. These are based on the document analysis, Kadaster data and interview conducted and collected in the context of the three exemplary cases.



Figure 9 - Project location Zuidlanden (author)

4.1 Exemplary cases

The results are structured along the sub questions and are preceded by a short overview of the exemplary cases, as it provides the necessary context to interpret the answers to each sub question.

4.1.1 Zuidlanden

The development site of the Zuidlanden, as seen in figure 9, is located to the south of the city of Leeuwarden. This location had already been on the radar for some years to be developed, until the decision was officially adopted in the Development plan Leeuwarden-Zuid 2000 (Projectbureau De Zuidlanden, 2003). However, the municipality already started discussion with market actors about the development of the site in 1999 (Segeren, 2007). The original plan called for 6500 housing units to be developed over 20 years, with a large part being developed after 2009 as it was expected that a part of the new ring road would be finished by then (Projectbureau De Zuidlanden, 2003).

Up until 2009 “city landscapes” would be developed in the centre and east, seen in the circles in the orange and green area of figure 10. After 2009, higher density developments were scheduled in the western part of the project area. Zuidlanden was intended to provide housing to middle- and high-end-income households, as the municipality hoped to attract more of these to the city. As a result, only 10% was allocated to the “cheaper segment” (Projectbureau De Zuidlanden, 2003). In 2008 the project was impacted by the economic crisis which brought the already slow start, due to tough planning procedures, to a crawl (Rekenkamer Leeuwarden, 2012).

This resulted in a change in the development, with large parts of the project being delayed or revised and targets being lowered to 70 housing units per year for the period up to 2017 (Rekenkamer Leeuwarden, 2015). Part of the revision meant a flexible development style and typology, which no longer asked for the envisioned standardized housing typologies. From here focus remained on finishing the “city landscapes” that were already started (Rekenkamer Leeuwarden, 2012). It wasn’t until about 2021 that new plans were finished to develop new subprojects (Gemeente Leeuwarden, 2021). Since then, the housing shortage has substantially increased and calls within the municipality grew to develop these subprojects faster (Gemeente Leeuwarden, 2021) and to increase the density and amount of housing, in addition to adding more affordable housing Gemeente Leeuwarden (2024). The project timeline and process of land acquisition is showcased in figure 11.



Figure 10 - Masterplan Zuidlanden (Gemeente Leeuwarden, 2011)

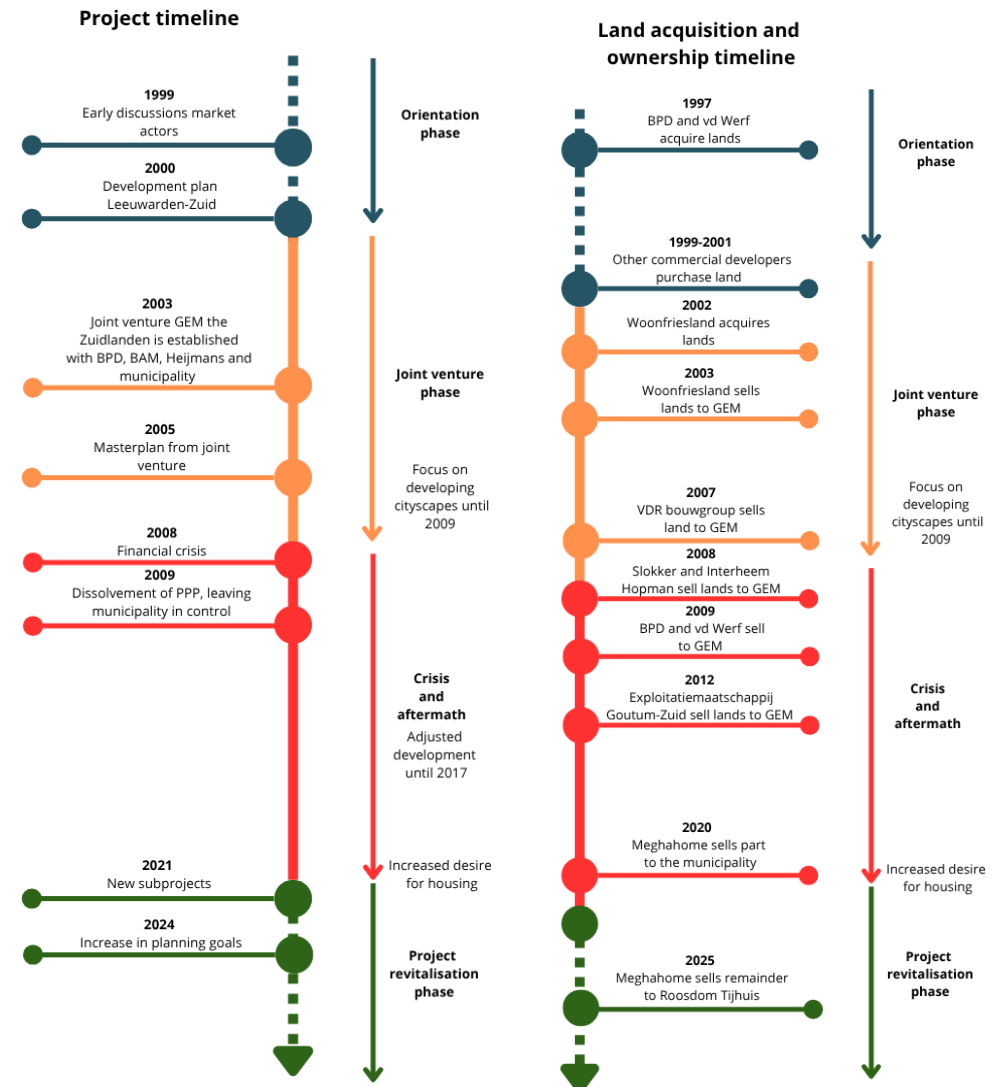


Figure 11 - Zuidlanden project and ownership timeline (author)

4.1.2 Suikerzijde

The Suikerzijde is a combination of a former factory plant with large adjacent fields to the west of the inner city, squeezed between neighbourhoods and the village of Hoogkerk, as seen in figure 12 and the project timeline in figure 13.

It differs from the other cases, as when it was acquired in 2009, it was not immediately zoned for a specific use. This resulted in it being assigned as a hub for temporary functions (Gemeente Groningen, 2009). In 2011 it was determined that the city had enough locations for regular programs like housing and offices, for a period of 15 years, which meant that the location could be an experimental space for new events, innovative business activity, energy, student housing and local initiatives (Gemeente Groningen, 2011c, 2013a). During this time, the need for more traditional functions was so low that it was even considered as a location for the Floriade (Gemeente Groningen, 2012). This idea failed, and the location was finally earmarked as an events ground (Gemeente Groningen, 2014). These initiatives have, for the most part, influenced the old factory grounds near the inner city, not the adjacent empty fields.

A paradigm shift occurred in 2016 when the adjacent fields or “achterterrein” was considered as a location for medium- to long-term housing development, from 2020 onwards. The results from the economic crisis had started to subside and an increased demand for housing became a renewed item on the agenda (Gemeente Groningen, 2016). From here multiple plans were made which saw an ever-increasing amount of housing zoned on the entire site. In 2017 a plan proposed a ‘conservative’ estimate of 2500 housing units, with higher estimates gearing towards 4000 (Gemeente

Groningen, 2017c). These early plans had similar spatial design as other suburban neighbourhoods with low density, detached and semi-detached housing in a green setting (Gemeente Groningen, 2017b).

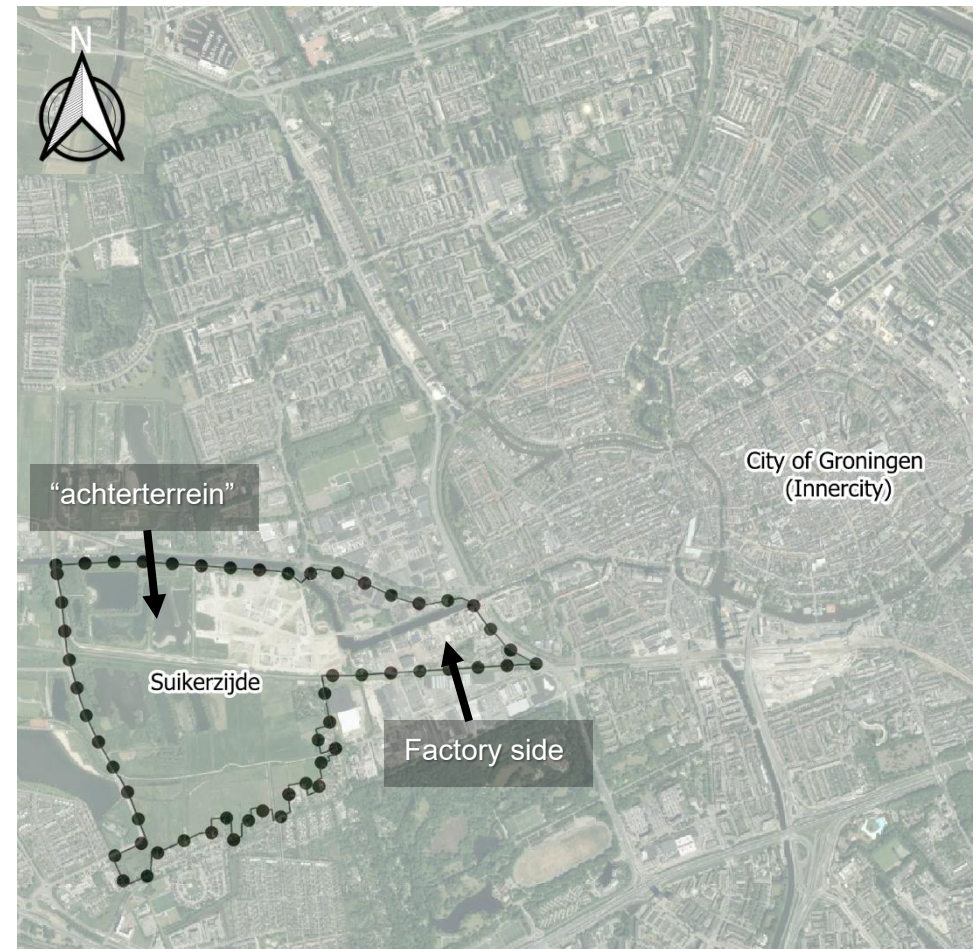


Figure 12 - Project location Suikerzijde

However, the plans quickly took a turn since in 2018 the plans stated that the overheated housing market had impacted the city and the site should provide housing in a higher density for up to 2000-4000 housing units (Gemeente Groningen, 2018a), with a maximum alternative of ca. 5000 housing units being discussed (Rho adviseurs, 2018). From here the low density suburban spatial composition was transformed to mimic the higher density 'stadswijken' found within the older neighbourhoods surrounding the inner-city. This further developed in 2020 and 2021 where the maximum alternative was now considered the goal amount, clearly demonstrating the necessity for housing on this location (Gemeente Groningen, 2020, 2021a). Of these, a minimum of 20% should be social housing, with space for more should it be necessary. These figures are constantly shifting, as the website is already stating that 5500 housing units are to be developed on the site (De Suikerzijde, n.d.).

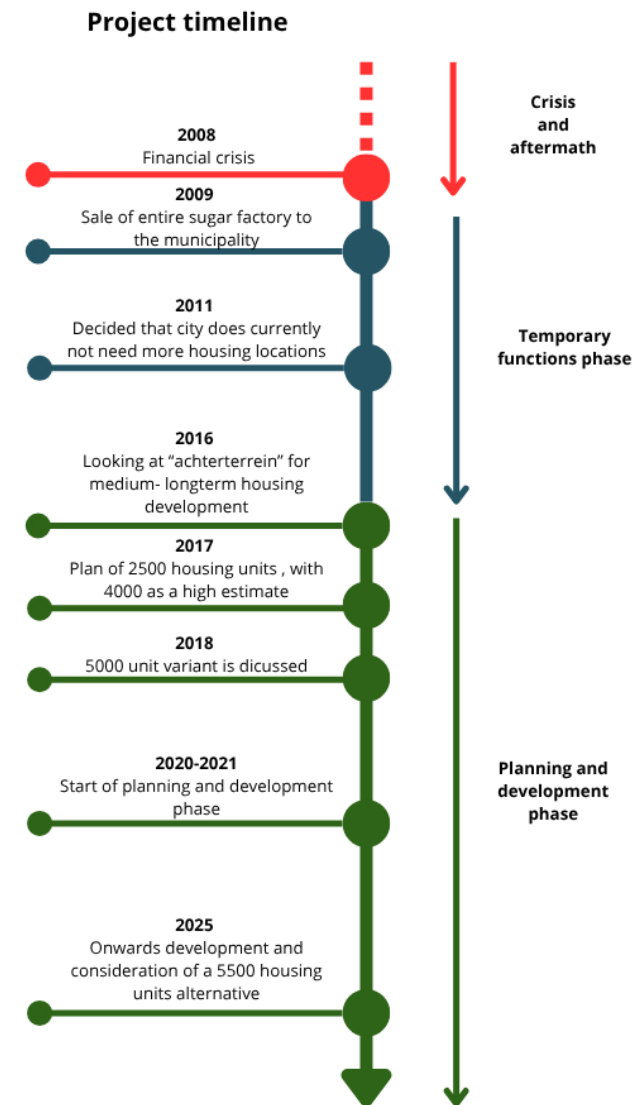


Figure 13 - Suikerzijde project and ownership timeline

4.1.3 Meerstad

The area which would become Meerstad in its various forms is located to the east of the city of Groningen, as seen in figure 14, with some of the first ideas and plans dating back to 1995 (Gemeente Groningen, 2013b). Once it became clear that the city would expand in this direction, several actors unified into a PPP joint venture to develop the site de Jonge and Schaap (2006). Together they created the masterplan in 2005 which outlined the development of 10.000 housing units. These would provide middle- and high-end housing around an artificial lake with plenty of green spaces (Ministerie van LNV, 2005). The following years were characterized by further land acquisitions, plan making and the development of the artificial lake (2005-2006), after which adjacent neighbourhoods would be developed (Projectbureau Meerstad, 2005).



Figure 14 - Meerstad Masterplan (Ministerie LNV, 2005)

Just like De Zuidlanden the project was impacted by the economic crisis in 2008, which resulted in a decrease of the originally projected number of houses (Dienst Landelijk Gebied, 2009). Although the project still retained a high priority, the effects of the crisis could not be ignored. In the period from 2009 to 2011 this resulted in a change to the plan, which caused the project to be cut up into four zones, as seen in figure 15, with the focus remaining on the central part around the lake. At the same time overall goal amount was adjusted to 6500 and yearly production goals were adjusted from ca. 400 to ca. 100 houses (Gemeente Groningen, 2011a). In the following years the municipality of Groningen took full control and developed only smaller parts within Meerstad-Midden and the focus shifted to developing the most important infrastructure first, giving less priority to other components Gemeente Groningen (2013b).

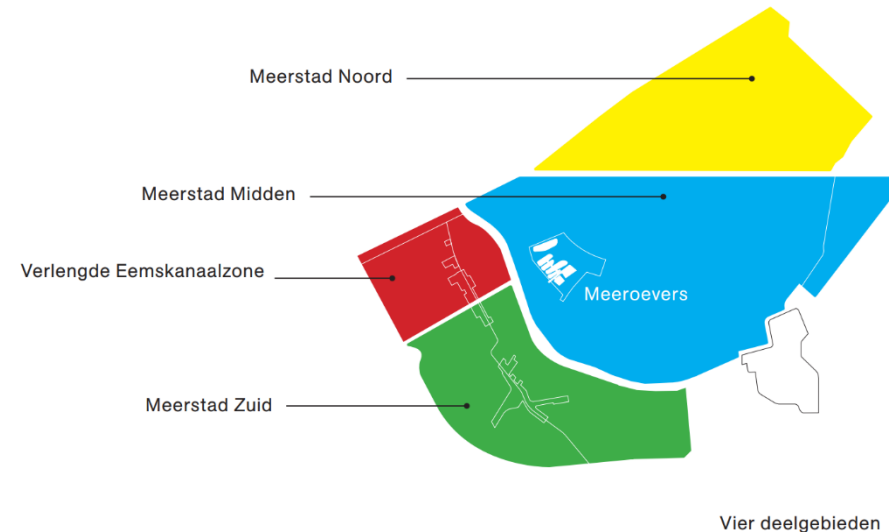


Figure 15 - Four sub-areas Meerstad (Bureau Meerstad, 2011)

This continued to influence the plans and location, with continued space for organic and different forms of developments within the plan boundary (Bureau Meerstad, 2017). The connection with the city in the Verlengde Eemskanaalzone became its own project in 2017 even though it was not yet deemed necessary to be developed (Gemeente Groningen, 2018b).

However, in the same year a similar switch to that of Suikerzijde occurred in Meerstad, with plans to again increase the speed of developments and to introduce a minimum percentage of social- and middle-income housing (Bureau Meerstad, 2017). This continued to pick up pace when, in 2021 when it only contained about 1000 homes, it was decided that Meerstad should contain around 7000-8000 housing units. At the same time De Eemskanaalzone, or Eems, was now increasingly seen as the next step, with space for 2000 housing units, instead of an earlier 1500 (Bureau Meerstad, 2017, 2021). These developments continued in 2022 when plans were created for the Eems zone. In addition, Meerstad Noord was removed from the plan and Meerstad Zuid, although still in the plans, was placed on the back foot, receiving little attention. The original number of 10.000 housing units was reinstated, with a greater emphasis on social- and middle-income housing, although the realisation of these goals were still pending on the financial consequences, with most to be developed in the Eems (Bureau Meerstad, 2022, 2025). Figure 16 shows the project timeline of Meerstad as a whole and figures 17 and 18 shows the acquisition process of the Meerstad-Midden and Eems respectively.

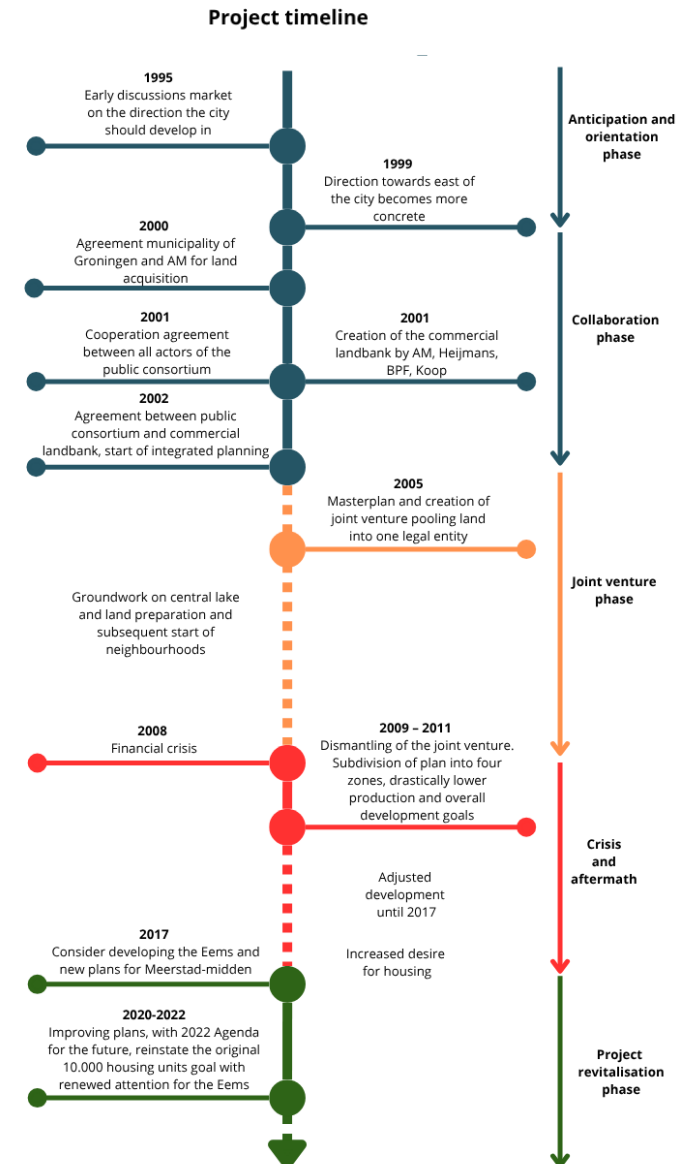


Figure 16 - Meerstad project timeline (author)

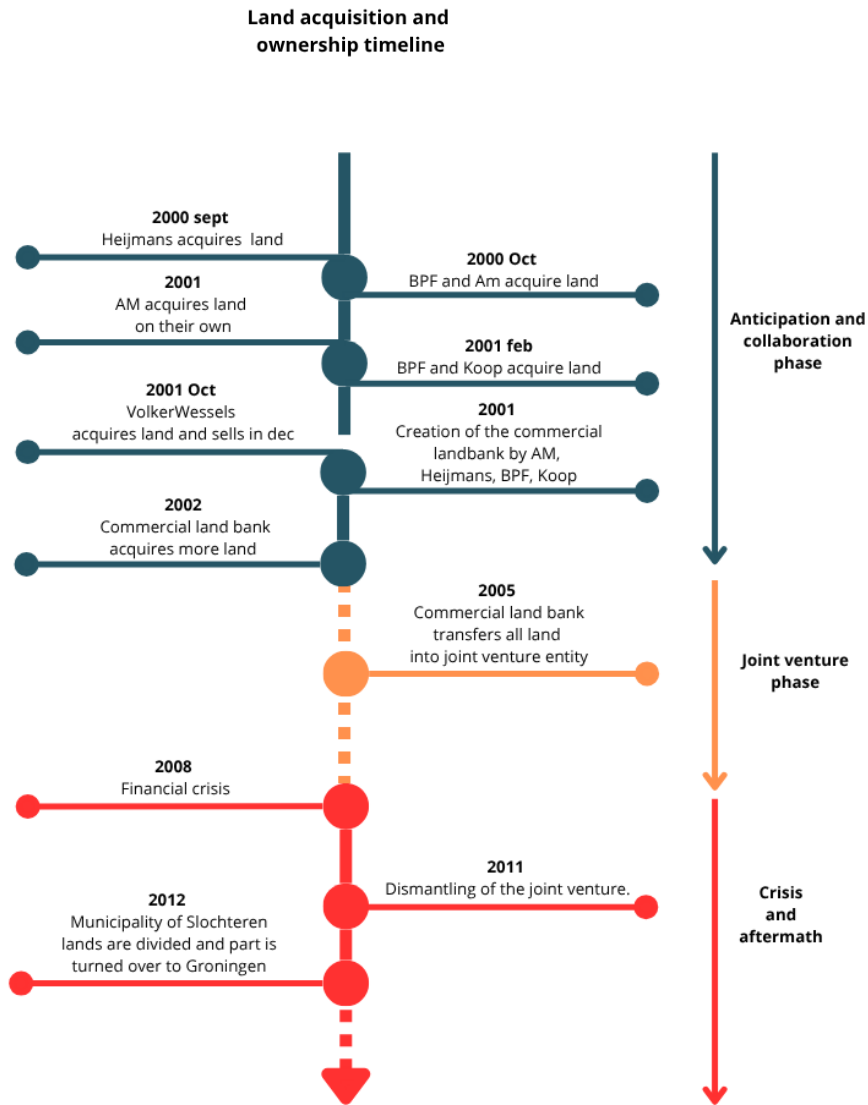


Figure 17 - Meerstad-Midden ownership timeline (author)

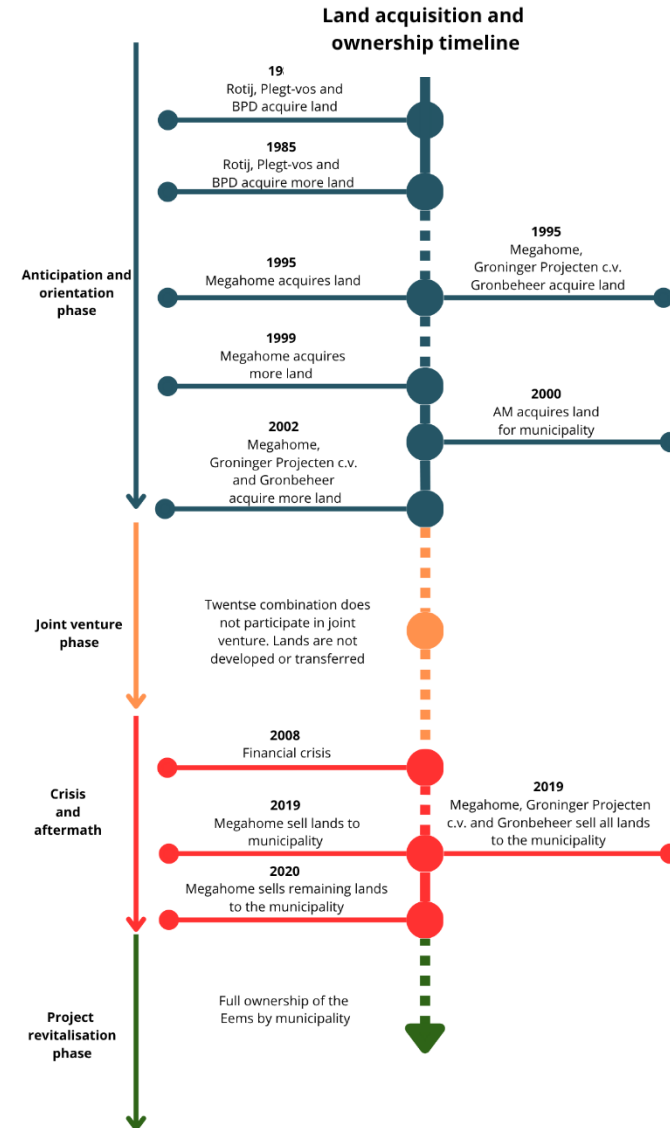


Figure 18 - Meerstad-Eems ownership timeline (author)

4.2 Key actor identification and land positions

This part focuses on the first research question:

Who are the key development actors involved in greenfield housing development in the North of the Netherlands, and what land positions do they hold?

Here different organisations found in each case based on their typology are discussed as well as the land positions they held and the strategies they employed in acquiring and developing them.

4.2.1 Typology of development actors

Across the different locations a variation of actors was found, as seen in table 4, all broadly fitting the categories of local authorities, large property developers and housing associations as defined by Buitelaar & Bregman (2016). Their involvement is discussed per human based organisation and visualised in Actor-Networks within a case context in figures 21, 22 and 23. These contain the largest number of enrolled actors at a certain time in each case.

Housing corporations

The housing associations stand out, insofar that they had a far smaller impact than expected. In the Zuidlanden and Meerstad this can be attributed to the type of development taking place which catered mostly to middle- and high-end housing. (Ministerie van LNV 2005, Projectbureau De Zuidlanden, 2003). In the Zuidlanden Woonfriesland was found to be involved for about a year, so that they could sell the land they held in the project. Since the Suikerzijde places a bigger emphasis on social housing (Gemeente Groningen, 2022), two housing associations, Patrimonium and Nijestee, are involved in the development of the area. Yet most of the actual

decision making is done by the municipality. According to the Project director Groningen this is due to their role as landowner, developer and planning authority.

Patrimonium and Nijestee are still development actors, having a say in the Suikerzijde on the type of housing and spatial planning despite not owning land. This is due to changes around the regulations of housing corporations. In the interview the Manager Real Estate added that these were introduced around the financial crisis and mean that they can only own land that gets developed within five years. This is seen as a large risk, resulting in a cautious approach. As a result, the housing associations mostly depend on the municipality to provide them with construction ready land like in the Suikerzijde.

The Suikerzijde developer adds that the high development costs in Meerstad create difficulty in joining that project. Even though a political desire exists to add more social housing in the area, “*social housing does not pay and only cost more*”. Because of this, the project should first; become more profitable, or the municipality should provide more financial support. Both add the developer Suikerzijde and manager real estate add that neither had pursued an active land acquisition strategy in the past. Most opportunities were created by redevelopment of their existing locations, like in the brownfield development of Stadshavens, or in tagging along with either the municipality or commercial developers.

Commercial developers

The commercial developers are the largest group of actors involved in the cases. A distinction is made between those who had an active involvement in the development process, thus creating plans, contributing physical and financial resources, and those within the that wanted to become involved in some way, but didn't.

The nationally operating commercial actors, operating in the Zuidlanden and Meerstad, like AM, BAM, BPD, BPF, Heijmans, Koop/Geveke can be categorised as key development actors that fall into the first category. Of these; BAM, Heijmans and Koop/Geveke are integrated construction companies, with their own development department. AM and BPD are mostly developers, focusing on the sale of housing, although BPD also has does renting. BPF is a pension fund focusing on generating revenue from their investments in housing for rent.

The second category is found in the Zuidlanden and consists of smaller developers. According to the project director Zuidlanden, these held land positions within the plan boundaries but were not part of the joint venture. Their involvement extended only to the sale of their land to the municipality or in the case of Megahome, an attempt to develop alongside it. These consist further of Slokker, Friso, Noppert, Hopman interheem, VDR bouwgroep and Exploitatiemaatschappij Goutum-Zuid. Vd Werf falls in between, since they owned land together with BPD in a 50/50 split, yet according to the project director Zuidlanden it was BPD that did all the real negotiating and developing.

Separate attention should be directed at the collection of 'Twentse bouwers' or the Twentse combination. This is a collective of construction companies from the Twente area, who are found around Meerstad, who got involved in the initial planning and development phase. During the process they indicated that they were not the type of actor to "carry" a project like this and only wanted to be involved if something happened on their land, placing them on the backseat (van Rooy et al., 2006 (Dienst Landelijke Gebied, 2008).

This collective acted both together and independently. In this context, based on Kadaster data, they are made up of Megahome, Roosdom Tijhuis, Plegt-vos and Droste Bouwgroep. They also together held a stake in development collectives Rotij, Groninger Projecten C.V. and Gronbeheer. According to the Masterplan 2005, this also included Timmerhuis Projecten and Groothuis Woningbouw (Projectbureau Meerstad, 2005), however these were not found in Kadaster data.

Local authorities

The local authorities are the most significant actors within the cases. According to both project directors, they initiated the projects and plans, where responsible for the overall financing and controlled by far the most land, although in various forms. The municipalities of Leeuwarden and Groningen took the lead in their respective cases. Although Meerstad also partly fell within the boundaries of the municipality of Slochteren, Groningen was in overall control due to its larger number of resources, making Slochteren the junior partner (Gemeente Groningen, 2013b).

Besides the municipalities, the development of Meerstad also included the Province of Groningen, waterboard Hunze en Aa's, the ministry of LNV (agriculture, nature and fishery) and Dienst Landelijk Gebied (DLG). The project was intended as a great combination of housing, water management and improving all forms of green quality (Ministerie van LNV, 2005). Together the other public actors mostly contributed knowledge, operational skills and resources to the project (de Jonge and Schaap (2006). This also meant that the waterboard, ministry and their implementation service DLG were mostly involved in the realisation of the green and blue infrastructure. According to the project director Groningen the Province meanwhile took on a balancing role between similar developments taking place in the area, like another housing development, Blauwestad seen in figure 19. This division of focus was also a cause for the slow start of Meerstad, as seen in figure 20. Without a clear direction, and the desire to have Blauwestad underway first so that they would not compete due to their similar design, Meerstad could not take shape. He continues that this also resulted in a public secret that the city would expand into the direction it did, which was all the motivation commercial actors needed to start acquiring land.



Figure 19 - Blauwestad (Aerovista Luchtfotografie, 2023)



Figure 20 - Meerstad (Boertjens & Bureau Meerstad, n.d.)

Table 4 - Involved organisations per case (based on: Projectbureau De Zuidlanden, 2003, Projectbureau Meerstad, 2005, Gemeente Groningen, 2022, Kadaster, 2026 and project director Zuidlanden)

	Zuidlanden	Suikerzijde	Meerstad
Housing association	None in a clear developer role Woonfriesland only as a landowner for a year	Patrimonium, Nijestee	None in a clear developer role
Commercial developers	BAM, BPD, Heijmans, Megahome, Slokker, Roosdom Tijhuis, Friso, Noppert, vd Werf, Hopman interheem, VDR bouwgroep, Exploitiemaatschappij Goutum-Zuid	Dura Vermeer, as developer partner of a specific zone not as land owner.	AM, BPF, BPD, Hanzevast, Heijmans, Koop/Geveke, VolkerWessels, Rotij, Megahome, Roosdom Tijhuis Plegt-vos, Droste Bouwgroep Timmerhuis Projecten, Groothuis Woningbouw, Groninger Projecten c.v., Gronbeheer
Municipality	Municipality of Leeuwarden	Municipality of Groningen	Municipality of Groningen Municipality of Slochteren
Others	None	None	Province of Groningen, waterboard Hunze en Aa's, the ministry of LNV (agriculture, nature and fishery) and Dienst Landelijk Gebied (DLG).

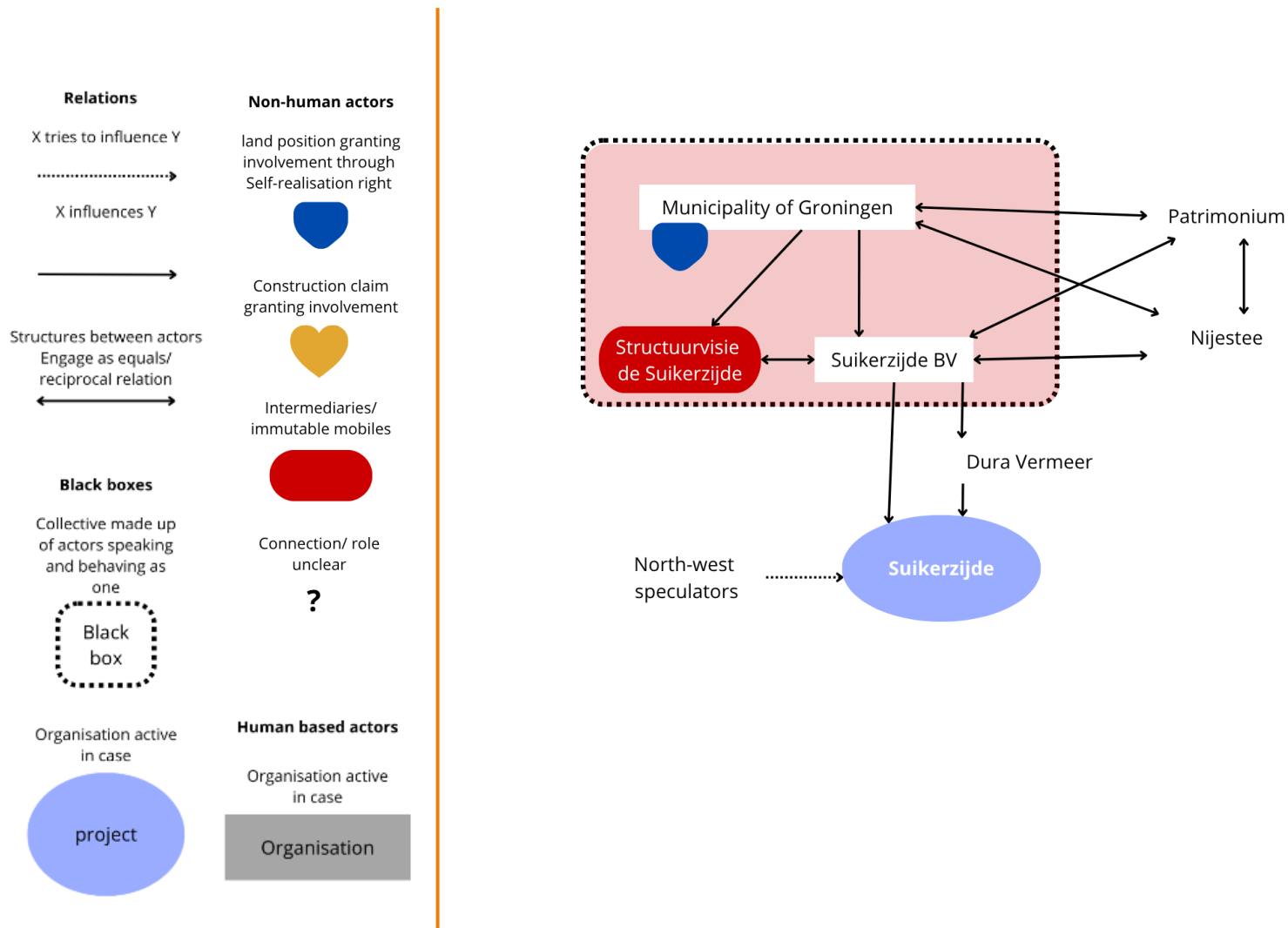


Figure 21 - Actor-Network Suikerzijde (author)

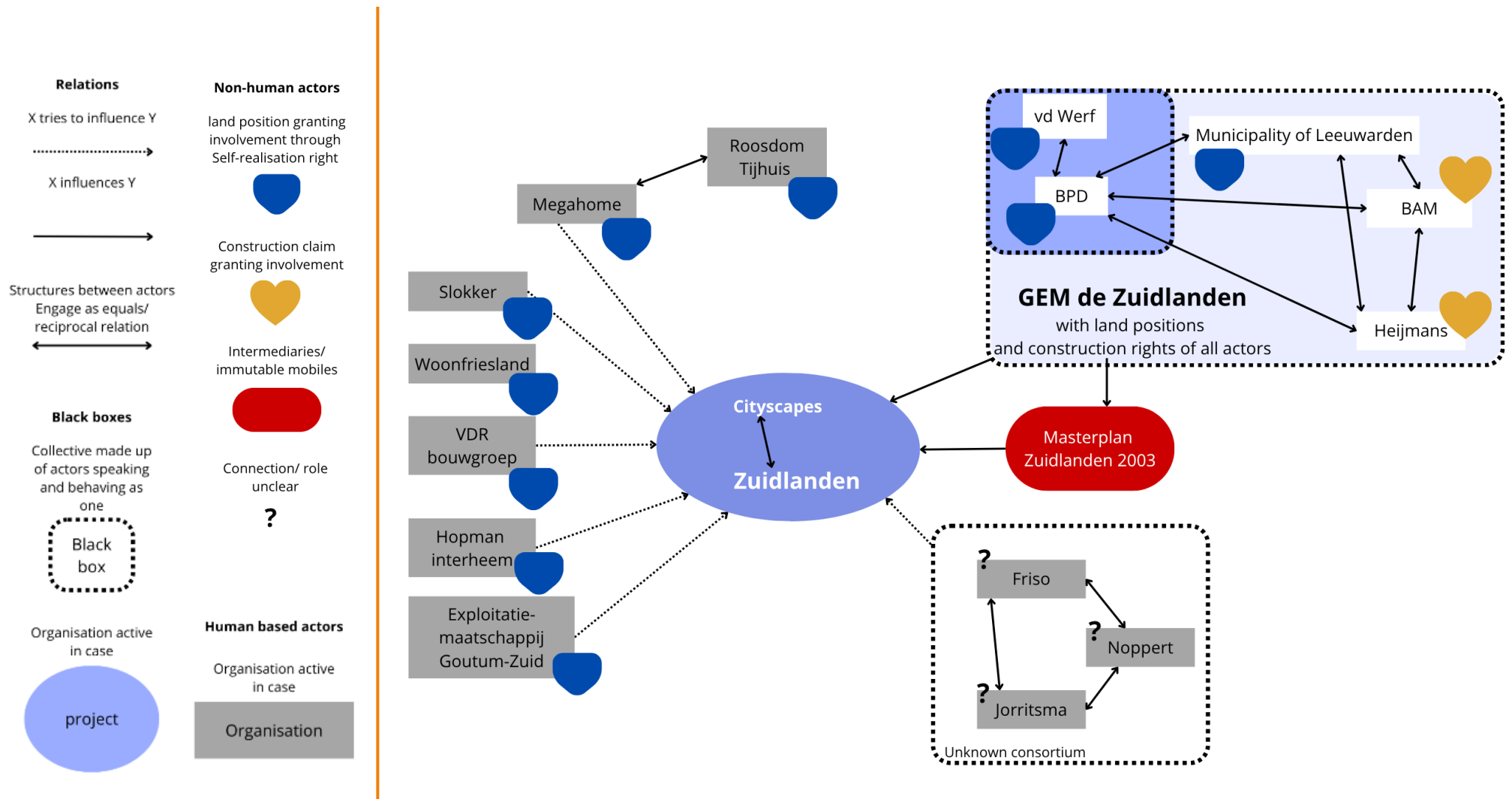


Figure 22 - Actor-Network Zuidlanden (author)

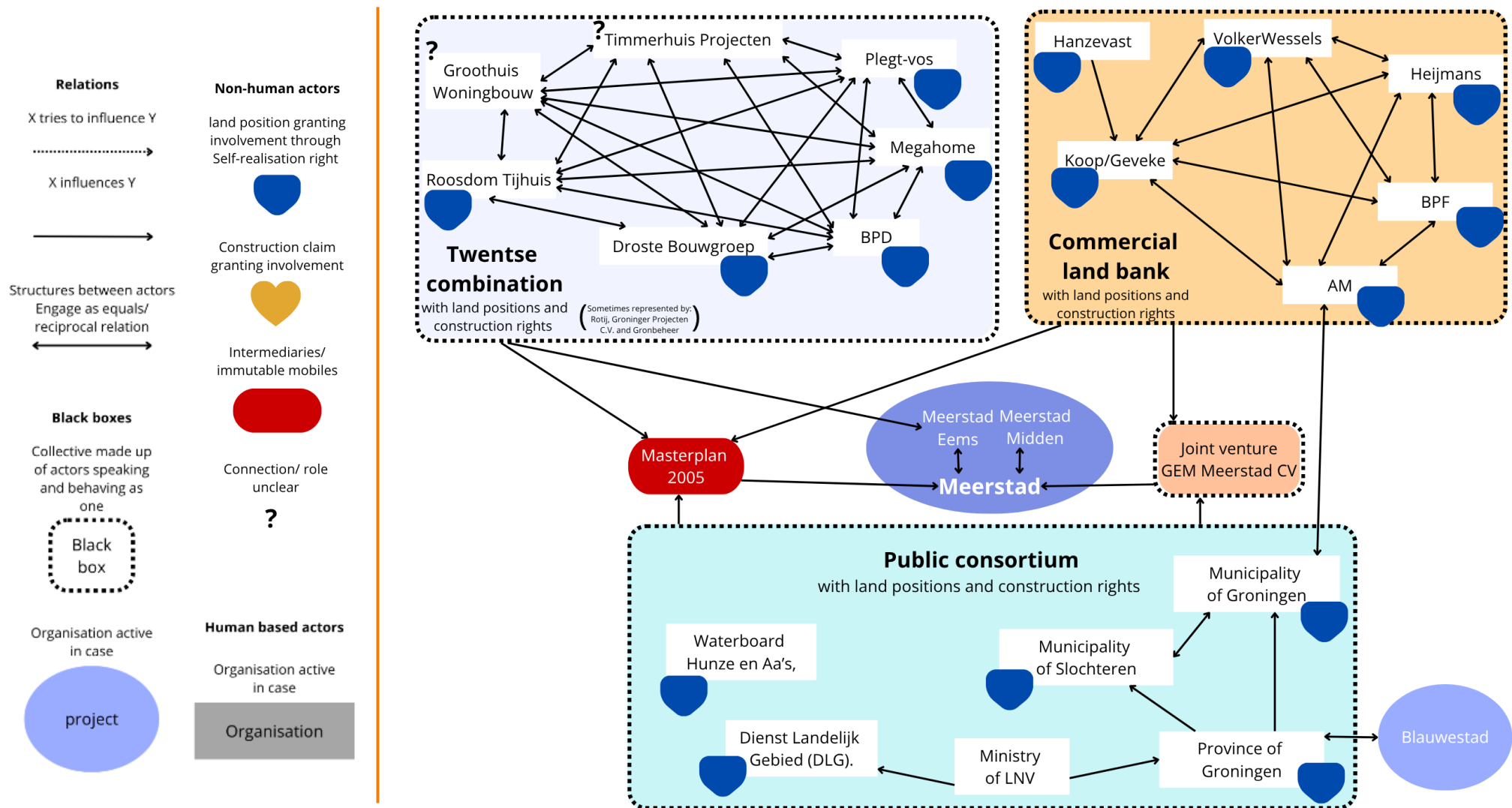


Figure 23 - Actor-Network Meerstad (author)

4.2.2 Different actors and their land positions through time

The land positions of each actor within the cases have changed significantly over time. Based on Kadaster data and several documents an overall picture has been created. However, due to the large number of plots at each site and their change through time, it is not possible to analyse all. In the Zuidlanden and Meerstad the changes resulted in the municipalities ending up owning practically all land within the plan boundaries. Because of this, only that which was at some point owned by other relevant actors is shown.

Analysis of land owned by the 'commercial landbank' in Meerstad, proved difficult. With the merging of that entity during the PPP, it became hard to trace which original actor had contributed the land to the entity in the first place. Since the research in Meerstad focuses on Meerstad-Midden and the Eems, and since only these locations have seen development, only that land has been further analysed and mapped. The other actors have been found owning land in the other parts of the project which have not been mapped or have been categorised as 'Grondbank Meerstad unknowns'.

Additionally, the lands of Megahome deserve scrutiny. They made use of convoluted and complicated organisation structures containing multiple legal entities. This, combined with their bankruptcy, made tracing their original acquisition dates difficult. The dates included in this research are those found in the ownership deeds. Yet a high likelihood exists that they have been acquired at a different date. They are still included since they held significant land within the Zuidlanden and Meerstad.

Suikerzijde

The Suikerzijde, which owes its name to the former sugar factory, was sold in its entirety directly to the municipality of Groningen. As a result, they were and still are the major land-owning actor on the site since its acquisition in 2009 (Gemeente Groningen, 2009), as seen in figure 24. It is important to note that the wholesale acquisition of the site was only possible due to financial crisis. If the decision to sell the site had come earlier, a high likelihood exists that it would have been bought up in smaller plots by commercial developers according to the project director Groningen. Yet due to the financial crisis only the municipality was left a serious contender to acquire the location. After this initial purchase, they acquired additional plots in the southern area. Some minor plots in the north-eastern, seen in orange in figure 24, have since been purchased by speculators, yet according to the project director Groningen they play no part in the development at this time. Since Kadaster data does not make it obvious who is or isn't a speculator these have not been analysed further.

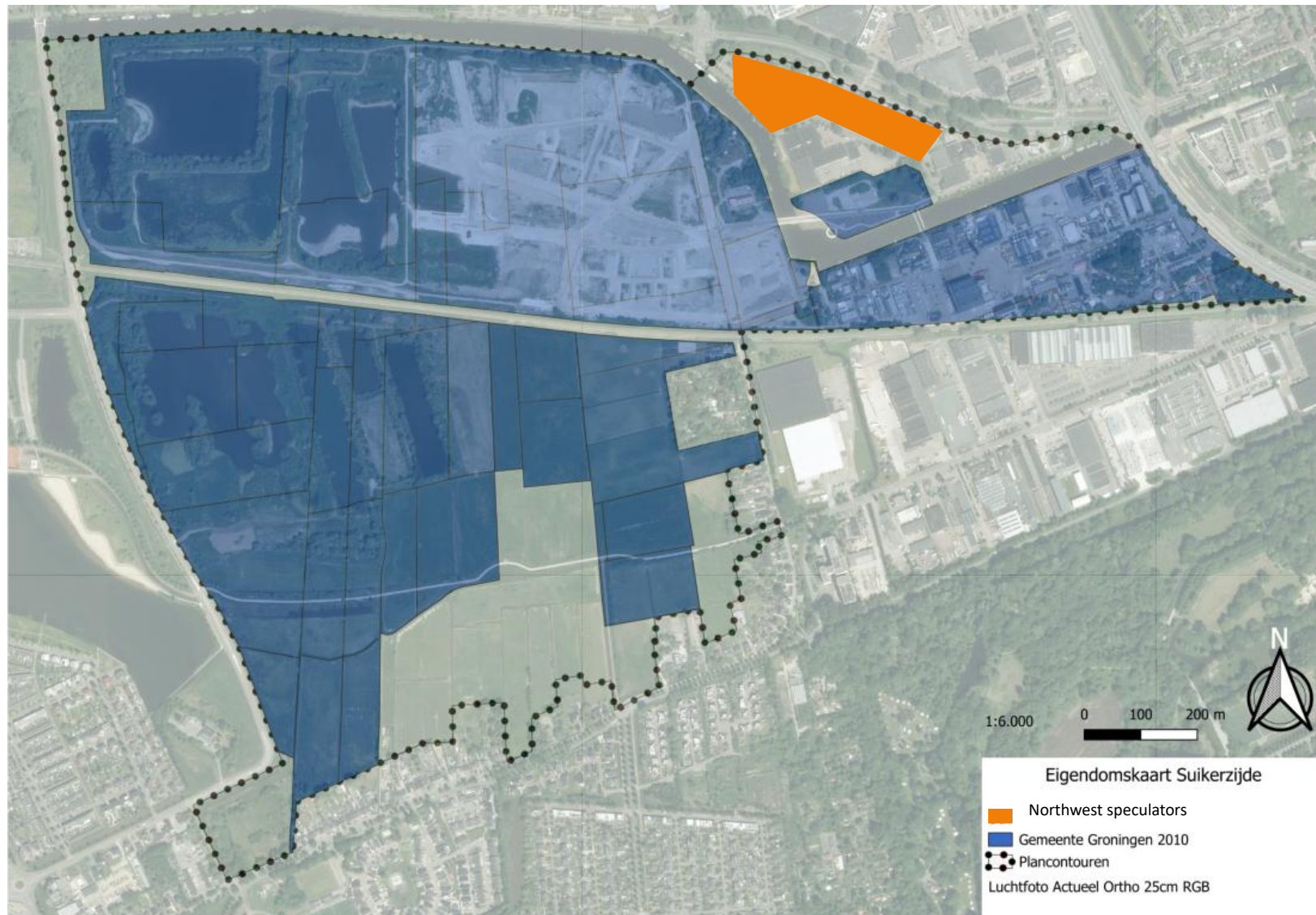


Figure 24 - Land ownership in Suikerzijde (Kadaster, 2026, edited by author)

Meerstad

The actors and the distribution of their land positions is more dynamic in both Meerstad and the Zuidlanden. Meerstad started as a Public Private Partnership, with on the public side the aforementioned actors. Attention is directed at the municipality of Groningen and Slochteren since they would be the practical leaders of the housing development, yet their collective will be referred to as the public consortium.

In line with the PPP and due to budget constraints, a collaboration started around 2000 with developer AM, who was invited to acquire land together with the municipality of Groningen (de Graaf, 2009). Sometime later BPF Bouwinvest, a pension fund, was also invited and joined this collective, yet AM remained in the lead (de Jonge and Schaap, 2006). Already before these collaborations, two other market actors' groups recognized the potential of the area through policy documents and had started acquiring lands of their own from 1999 onwards. The first where Heijmans, Koop and VolkerWessel although the latter quickly pulled out due to higher-than-expected initial investment costs (de Jonge and Schaap, 2006). The second were various companies from the Twente area which operated separately or sometimes together in the Meerstad-Eems area and are referred to as the Twentse combination, seen in figure 25.

Recognizing the activity of these other market actors AM, BPF, Heijmans and Koop unified their lands into a communal landbank, the Grondbank Meerstad Groningen Beheer CV (de Jonge and Schaap, 2006), thereby shifting how the land was controlled. This will be referred to as the 'commercial landbank' and their holdings are plotted in figure 26.

From here the public consortium, the commercial landbank and the Twentse combination signed a cooperation agreement in 2002, which resulted in a masterplan in 2003 (Ministerie van LNV, 2005). All these developments fit within the greater idea of a PPP as risks and knowledge could be spread around. To aid the development, a joint-venture entity was founded in 2005, which will be referred to as GEM Meerstad. This legal vehicle could expedite the process and as a result the commercial landbank and the public consortium all pooled their land holdings into this entity, thereby sharing legal ownership and again shifting how land was controlled (de Jonge and Schaap, 2006). Some changes occurred when Koop's involvement was passed down to their subsidiary, Geveke, and was later taken over by Hanzevast in 2007 (Ministerie van LNV, 2007).

The Twentse combination did not partake in this practise as they disagreed on the spatial program, did not want to contribute to overhead plan costs and saw the practice as a major financial risk, keeping their land positions in their own control (de Jonge and Schaap, 2006, van Rooy et al., 2006). This behaviour caused them to be seen as free-riders and resulted in a change in phasing. This meant that their land, as seen in figure 25, was to be developed later (van Rooy et al., 2006, Dienst Landelijke Gebied, 2008).

Regardless, the GEM Meerstad continued to purchase land in the plan area up as a new collective. This practise continued up until 2011, when the financial crisis impacted the project. From that point on, the municipality of Groningen took complete control of GEM Meerstad, with the other public and commercial actors stepping back or having their roles changed. For the commercial actors it meant accepting a construction claim of 500 housing units (with 140 in social housing) each. Additionally, they singed away between €20 – €40 million in further production rights (Gemeente Groningen, 2011a).

For the Twentse combination it had less impact, as their land holdings were still in their possession. Although Megahome had gone into bankruptcy which would severely undercut the potential of the locations where they owned land. According to both Kadaster data and land acquisition expert this would not change until 2019 when all land in the Eems was sold to the municipality. A similar situation would occur with the lands held by the municipality of Slochteren who, due to a dependence on expertise and finances from the municipality of Groningen, had always been the junior partner in the project (Gemeente Groningen, 2011a). The transfer of lands started in 2013 and finalized in 2018 when the municipality of Slochteren unified with neighbouring municipalities and the borders were adjusted to allow the entire project area to fall within the boundaries of the municipality of Groningen.



Figure 25 - Land ownership in Meerstad-Eems (Kadaster, 2026, edited by author)



Figure 26 - Land ownership in Meerstad-Midden (Kadaster, 2026, edited by author)

Zuidlanden

Initially only the municipality and BPD were developing landowners within the project area, for which they needed help from other market actors for the development and construction. This was found in Heijmans and BAM who although, according to the project director Zuidlanden did not own land, did bring in financial means and operational knowledge. These actors combined into a PPP and started a joint venture vehicle called the GEM De Zuidlanden (Gemeente Leeuwarden, 2011). Together they developed a masterplan for the site, which was approved in 2005 (Segeren, 2007). With the GEM De Zuidlanden, more land was purchased and development of the cityscapes started on land already owned by the municipality.

Land surrounding those cityscapes, in the east and south-east, was scheduled for later development and was already bought up by local market actors, as seen in figure 27, hoping to be involved when the time came (Segeren, 2007, Kadaster, 2026).

A portion in the south was owned by housing association Woonfriesland. However, instead of staying involved in the development for the planned 10% of social housing, the land was transferred in a deal with the municipality. In return they acquired land within the city, which fit better with the portfolio of the housing corporation (Segeren, 2007).

As the economic crisis made itself felt, several changes would occur, starting with BPD's contribution to the project. In 2009 they indicated a desire to leave the PPP, citing bad market conditions according to the project director Zuidlanden. This matched with municipal sentiment, as it was believed their partners in the PPP were slow and dragging their feet. Meanwhile several local developers, although not owning any land, had been petitioning the council that they could do a better job. As a result of these circumstances the PPP was dissolved, the municipality took full responsibility and ownership of all the land. From this point BPD would only partake as a development partner on the lands they brought into the project and Heijmans and BAM would be involved through construction claims and a consultation model on where and how they could be best used (Gemeente Leeuwarden, 2011).



Figure 27 - Land ownership in Zuidlanden (Kadaster, 2026, edited by author)

4.3 Land strategies and their evolution

This part focuses on the second research question:

What land strategies do different development actors pursue, and how have these strategies changed over time?

4.3.1 Typology of land strategies

Across the cases, several employed strategies have been found. These can be summarised as the following:

1. Anticipation behaviour
2. Locations choice
3. Forms of collaborating
4. Exercising control

Anticipation behaviour

Across the cases a form of anticipatory behaviour was found in both the commercial developers and municipalities. For the latter this was demonstrated most clearly in Meerstad. The project director Groningen notes a desire to acquire land at an early stage to prevent price surges, which might negatively impact the project. As a result, they brought in AM and BPF to acquire land for them. It was also observed in Suikerzijde, since the land was bought in anticipation of future plans, one of which being housing (Gemeente Groningen, 2009). For the commercial developers it was noted in the Zuidlanden and in the different zones within Meerstad. In both cases commercial actors started acquiring land when the plans were being discussed in the municipal councils or in informal networks, as seen in Kadaster data and pointed out by project director Zuidlanden.

Choosing locations

Based on interviews with the project directors, it becomes clear that the locations of the land acquired by commercial actors was not unintentional. In the Zuidlanden, they sought to buy land which had a both a high likelihood to be planned for housing and developed soon. The project director Zuidlanden points towards that of Slokker, which lay right in the middle of the project area, or the northern part of the Exploitiemaatschappij Goutum-Zuid, directly against the existing neighbourhood.

In Meerstad-Midden and Eems a different type of mentality is noted. According to the project director Groningen, the Twentse combination believed that the city of Groningen would expand like an onion, adding layers at a time. Instead of buying land in the Meerstad-Midden, they chose to acquire land in the Eems and Meerstad-Zuid. Believing that the city would first add neighbourhoods against the city, instead of starting new from scratch in the middle of a field.

According to the project director Groningen, this ran contrary to the believes held by the public consortium who wanted a self-standing cityscape, detached from the city. The actors in the 'commercial landbank' followed this sentiment and acquired land in this area (Meerstad-Midden and -Noord). In addition, they recognised early on that the project would be developed as a PPP. This meant that it didn't matter what was to be planned on the land they bought, nature or housing, since it would be pooled together and divided anyway. Since this was done on the ratio of land pooled in, the amount mattered most.

Forms of collaborating

The PPP's are the most obvious form, occurring in the Zuidlanden and Meerstad, fitting with the mentality and political wind of the time. However, collaboration between actors is also noted. BPD as a developer had no construction branch. To make sure they could develop the land they owned in the Zuidlanden, they teamed up with vd Werf, a local construction company according to both Kadaster data and the project director Zuidlanden. He also adds that a similar collaboration took place between construction companies Noppert, Friso and Jorritsma to act as one actor, however no clear connection of this can be found within policy documents or Kadaster land deeds.

In Meerstad the collaboration between the actors in the 'commercial landbank' and the Twentse combination is noted. These pooled together, based on similar commercial and development interests. Recognising that when banded together they could have a higher likelihood of succeeding then on their own (van Rooy et al., 2006, Dienst Landelijke Gebied, 2008).

The public actors also had clear forms of collaborating. Recognising the resources of Groningen, and their own lack, Slochteren was willing to let Groningen take the lead in Meerstad. On a broader scale, the other public authorities banded together to make sure all necessary knowledge and resources would be available (Ministerie van LNV, 2005).

Finally, a new form of collaborating is noted in the Suikerzijde. With the municipality being in full control, Dura Vermeer, Patrimonium and Nijestee were selected to be development partners. The former was chosen in a public tender. The latter two based on a politic choice but also on their character and desired housing portfolio which fit with the

project. According to the project director Groningen, this left the municipality in full control, allowing them to pivot when necessary and not being stuck to a specific actor.

Exercising control

All actors are noted undertaking actions to exercising control over the project. For the commercial developers an important reason for acquiring land is the translation into construction claims, based on the self-realisation right, which comes with owning land zoned for housing. According to both project directors, this guarantees involvement in the project regardless of what happens and thus provides continuation for developers and construction companies. These construction claims occurred in the Zuidlanden and Meerstad when lands or financial resources were pooled in their respective joint-venture entities.

The project director Groningen also pointed out another way of staying in control: not pooling the land. This was done by the municipality in the Suikerzijde and the Twentse combination in the Eems part of Meerstad. In both cases they stay(ed) in charge without involvement of others.

Finally, a form of control is exercised in the legal deeds when acquiring land. Kadaster data shows a rich collection of chain clauses and overage payments. A distinction must be made between the sale of the legal and financial ownership. For example, a farmer might be the legal landowner, the economical ownership on the development rights have been sold to a developer. This serves to obscure who owns the rights and still allows continued use of the land by the farmer. This was encountered both in the Zuidlanden and Meerstad (Kadaster, 2026).

More troubling were clauses that prevented the legal owner, often farmers, from; changing anything about their property, discuss or engage the sale of anything with anyone, stop farming or acting against the interest of the developer/disturb the planning process, without the consent of the developer and under threat of legal and financial penalty (Kadaster, 2026). Some clauses went further, exercising control on farmers and the property sold by creating mortgage construction to the developer using everything in the sale as collateral, with the stipulation that the farmer would be paid back once planning permission was granted (Kadaster, 2026). Since many of these legal deeds had either long expiration dates, around 20 years, or in some cases, none at all, developers would remain in full control with little to fear from the farmer. A list containing examples of these clauses can be found in a random anonymous order in the appendix.

4.3.2 Changes over time

Due to the long timeframes of the projects, the behaviours changed accordingly. Once land was acquired, focus shifted to getting them developed. This resulted in a continuation of collaborating and trying to exercise control on the projects.

This was easy for those actors involved in the planning phase. They worked on developing the masterplans in Meerstad and the Zuidlanden; working out the spatial plan, typologies, density, number of houses, price ranges and other details. According to the project director Zuidlanden others, like Megahome in the Zuidlanden, would plan their own initiatives which complimented the existing plans in hopes of developing their land. In Meerstad this according to the project director Groningen, resulted in the Twentse combination petitioning the municipality to develop their lands first, following their own development vision.

However, during the financial crisis these strategies shifted. The lack of market demand caused the commercial actors in the Zuidlanden and Meerstad to reconsider their involvement (Gemeente Leeuwarden, 2011, Gemeente Groningen, 2011a). They shifted their priorities across the country and saw less potential and more risk in these projects. At the same time, the municipalities wanted to increase control since they noted the shift in their commercial partners. This resulted in the commercial partners negotiating their way out of the joint-ventures and the municipalities gaining full control of the entire project. (Rekenkamer Leeuwarden, 2012, Gemeente Groningen, 2011a). This also resulted in changes in both plans, with some parts cut up and postponed until later notice. Overall production goals were lowered and focus shifted smaller batches and involving more local companies as they sought to continue the developments. (Rekenkamer Leeuwarden, 2015, Bureau Meerstad, 2011, Gemeente Groningen, 2013b). Only when the market conditions improved did municipalities cautiously change their behaviour again. This time with a renewed focus on earlier development goals, while staying in full control.

4.4 Influence on development process and housing outcomes

This part focuses on the third research question:

To what extent and in what ways do development actors' land positions and strategies influence the process of greenfield housing development and the type of housing produced?

4.4.1 Development process influences

The overall development process of the different cases was impacted by the land positions of different actors, these can be grouped into four categories: direct influence, integrated development, flexibility and financial implications.

Make or break developments

Across the cases, land ownership dictated if and where developments could happen. In the Suikerzijde this meant that the municipality could decide what to do with the land with little outside interference. In the Zuidlanden the municipality together with BPD controlled most land, allowing them to decide where to start and what to develop. The land held by Slokker and Woonfriesland lay in the middle and south of the first phase, yet according to the project director Zuidlanden, due to their willingness to sell it caused no disruptions.

In Meerstad however, it resulted in no development taking place on the land held by the Twentse combination. Their objection to being involved in the joint venture created difficulty. According to the project director Groningen, it allowed them to lean back and either wait for a favourable plan on their land and exercise their self-realisation right or, in case of an undesirable plan, to tell the government "Go ahead, try and expropriate me". This did not occur with lands held by other actors in the Meerstad-Midden area, because this was the area where development was scheduled to start anyways. Yet like in the other cases, it did give the actors a seat at the table during the development process; effectively eliminating market competition.

Fragmented and integrated development

The land positions created the opportunity for an integrated development in the Suikerzijde and on the lands of those actors involved in the PPP's. According to both project directors this was most clearly demonstrated in the formulation of shared or overarching masterplans. At the same time, those masterplans also included lands not in possession of the actors in the joint venture. In the Zuidlanden the consequences of this were minimal, according to the project director Zuidlanden. Megahome attempted to develop an adjacent piece to add onto the existing development, which failed when they filed for bankruptcy. Holdings by other developers in the eastern part of the site were, during the planning phase, found to be partly the home of several bird species. This prevented any development taking place.

In Meerstad-Eems, the fragmentation was more noticeable. The stance of the Twentse combination caused a split in how the area was to be developed. Even after the financial crisis, when attention was again directed at their holdings in the Eems, the municipality could not get started. This was in part due to chain clauses (*kettingbedingen*) introduced in some of the ownership deeds. Kadaster data and the land acquisition specialist highlight how these clauses prevented the sale of certain plots to anyone else, within a certain timeframe, lest the involved parties pay heavy fines. This combined with the conflicting stance of the Twentse combination and the bankruptcy procedure of Megahome was the reason that the land in that area could not switch hands until around 2019. It was only then, with the sale of all the Megahome holdings and their disengagement from the Twentse combination that an opportunity arose to again focus on developing the area.

(Lack of) flexibility

The Suikerzijde demonstrates the lack of flexibility due to land ownership. Their early acquisition of the site, according to the project director Groningen, allowed the municipality to exercise full control on the development and the temporary functions. Even when the shift to housing development was made, the full ownership of the site allowed shifts to the locations programming. This created a level of flexibility through time which was not found in the other cases.

In addition, the project director Groningen points out that this arrangement allows the municipality to choose their development and construction partners. As a result, they can work with selected partners for a manageable timeframe and number of homes. Should a partner prove to become difficult or change their desired involvement, like in Meerstad or the Zuidlanden, they are able to pivot. This seems to create both certainty and flexibility in the Suikerzijde.

This flexibility was not found in the other cases, due to the multitude of actors involved. Those who eventually translated their involvement into construction claims, tied themselves to the developments in the long run. According to both project directors, this was a desired consequence, as it was thought that it would create longevity and a level of certainty to the project, with guaranteed partners and production capability. This all changed however, when the financial crisis made its impact. Both project directors underline that commercial developers could not and would not support involvement in projects that became financially unattractive and would most likely take a long time to get started again. This left the municipalities, with their different set of tasks, to carry on the developments. Yet the commercial developers still held the construction claims, ensuring their involvement in the project and bypassing market dynamics.

‘Shared’ development burden and profits

Sharing the financial costs was one of the important reasons for PPP’s in the Zuidlanden and Meerstad. It was believed that the development process and acquisition of land, especially in Meerstad, by the municipality would both be slower and more expensive. Involving commercial actors could spread this burden and since the developments were aimed at middle and high-end housing, the costs would eventually be recovered. Yet due to the financial crisis, this financial burden returned to the municipalities. With a significant amount bankrolled in preparation and early development costs and with none of the anticipated returns in sight, the municipalities were still left to pay the long-term costs they had hoped to avoid.

4.4.2 Housing outcomes

The influence of land positions also had a noticeable impact on the actual housing that could be developed. These are not categorised in specific detail but instead show a path dependency.

Typology, density and number of housing units

Influence of land on housing is best described as the type of housing used in a plan like (semi-) detached or row housing and apartments, was observed in the different plans. The Zuidlanden and Meerstad were planned as middle- and high-end housing, with only a low percentage of the total number assigned to social housing. This resulted in more (semi-) detached or row housing than apartments (Projectbureau De Zuidlanden, 2003, Segeren 2007).

In the Suikerzijde, initial plans called for the development of suburban green neighbourhoods in the “achterterrein” of the area (Gemeente Groningen, 2017a). These would have consisted of a similar typology. However, the rapidly increasing desire for more housing resulted in a change the plans. The target amount more than doubled from the initial 2500 to the current 5500, resulting in a typology change as well. The project director Groningen points out that a desire arose to create neighbourhoods that fit with the spatial composition of the city. Its proximity to the city centre, only 2,5 km, caused it to be designed more like the higher density apartment style housing block of the older neighbourhoods (Rho adviseurs, 2018). These changes were possible because all land in the project was owned by the municipality.

This level of flexibility did not exist in Meerstad or the Zuidlanden, since the project was designed for a specific user group and this was translated into the construction claims still held by the different developers. The stated target audience, combined with the numbers and typology agreed upon in the construction claims created a path dependency which was not likely to change, according to the land acquisition specialist. Additionally, the number of housing units was also impacted by the reluctance of the Twentse combination and due to the chain clauses found in some of the contracts in that area. The land acquisition specialist adds that these issues were only solved when Megahome’s bankruptcy causes a change in the deadlock, and the land could reasonably be acquired by the municipality.

Affordability

Depending who has a say, the plan economics seemed to have an impact on the amount of affordable housing. Especially in the Zuidlanden and Meerstad the historical costs of acquiring large swaths of land, seemed to be a lasting issue. The initial idea was that the sale of houses would cover the costs involved with the project. Due to the financial crisis and its impact, these revenues were postponed and are still far from being collected. According to the project director Zuidlanden, the municipalities have since then accepted and written off significant losses. Yet they still seem to have an impact. Since around 2017 both cases are under political pressure to increase the affordability and amount of social housing (Bureau Meerstad, 2021, Gemeente Leeuwarden, 2025). Yet policy documents from both municipalities seem to doubt (Bureau Meerstad, 2022) if, or outright state that this is a not possibility. The municipality of Leeuwarden even goes as far as stating that:

“Increasing the share of social housing would lead to a negative land development result in Zuidlanden/Middelsee. The financial setbacks [...] have meant that there is currently no financial room to increase the share of social housing” (Gemeente Leeuwarden, 2025).

The project directors doubt these statements. Instead, they believe that the idea that large-scale developments can pay for everything within the development is outdated. With higher spatial ambitions come greater costs, which cannot realistically be covered by these projects. For the Zuidlanden, the project director mentions the highway that partly runs through the plan. These costs have been covered by the expected returns from that case, even though it primarily serves to create better access to and from the city from the outside. When the expected returns did not materialise, the Zuidlanden was seen as financially lacking. This provides a skewed

reality of the financial solvability of the project and its ability to add more (social) housing, according to the project director Zuidlanden.

Both project directors also mention the long timespan of these projects. They point out that especially in Meerstad, but also in the Zuidlanden, land was initially acquired with the expectation of great financial gain. The economic environment at the time created a competitive market between commercial actors where it was seen as prudent to buy up as much land as possible as quickly as possible, with little regard for the costs, since housing prices would continue rising anyway. The subsequent involvement for the long term, exposed them to financial hardships they could and would never support in the long run. Both project directors stress that actors that are not created to carry those burdens, should not be placed into a position where it is expected that they do.

According to the project director Groningen, in the Suikerzijde these issues are now being pre-empted with a social spatial investment fund and a stronger control of outside involvement. For the later it means that commercial actors are now involved in more manageable timespans and assignments. This leaves the municipality in control, in case similar financial hardships reoccur.

Additionally, both project directors point towards the political decision making, which ultimately decides from which cashflow investments are paid. The decisions on which cashflows should stay within a project or pay for external parts, and which outside sources should contribute to a project decide whether a possibility exists for more socio-spatial investments. Overall, this means that no conclusive answer can be given to which extend the purchase of land positions by different actors impacted the overall affordability, only that it did.

5 Conclusion and discussion

This research was guided by the central research question:

How do development actors' land positions and strategies influence the process of greenfield housing development in the North of the Netherlands?

To answer this question, the research applied the Actor-Network Theory lens by Latour (1996) to analyse three cases on housing development in the North of the Netherlands. This lens helped to recognise, trace and connect the involved organisations as well as the non-human actors, like land positions, intermediaries and policy documents to other actors within the network.

It was found that the actors involved, their land positions and employed strategies influenced the greenfield housing development process in the three cases in the North of the Netherlands.

This was noted in all cases by the anticipatory behaviour on specifically chosen locations for 'potential construction land', as described by De Kam (2012, p. 52). All organisations employed approaches similar to the 'active land policy' by Shahab et al., (2020), with a revenue-driven and active involvement focus. Some actors acquired land positions up to 20 years before the planning phase of the development started. These guaranteed their involvement in the projects due to the self-realisation rights, if they so chose. This resulted in actors being able to make or break the development, which was demonstrated by the different strategies used by the actors. Some clearly matched with the strategies by Buitelaar et al. (2024); with lobbying in the Zuidlanden, collaborating in both joint ventures and negotiations in the land acquisition phases.

These strategies impacted all cases differently. For those actors involved, these strategies produced joint ventures in the Zuidlanden and Meerstad, creating integrated masterplans and bringing together willing actors to develop the cases under a clear vision.

In Meerstad, the land positions and strategies also created three power blocks whose stances shaped how Meerstad was to be developed: the Twentse combination, the commercial landbank and the public consortium. The actors in the commercial landbank and their willingness to continue acquiring land regardless of future function, although in part due to the promise of involvement in a possibly profitable endeavour, allowed the plan to quickly take shape. It pooled the necessary resources and, at least until the financial crisis, ensured the involvement of capable actors. In the Eems part of Meerstad however, development could not commence due to the withholding of involvement of the Twentse combination. This prevented and effectively stalled any development in that area, until the land was acquired by the municipality.

In the Zuidlanden a less drastic impact was noted. Although land was owned by actors outside of the joint venture, their willingness to either sell in exchange for construction claims or develop similarly minded projects allowed the project to continue. In the Suikerzijde, it meant that the municipality as the major landowner, was and can still control what development takes place and change the plans accordingly. This is most clearly demonstrated by their control on involved actors, their ability to shift from the temporary functions to housing and to significantly upscale those goal amounts. Overall, it was recognised that across the cases most actors were active in the phases outlined by Meijer and Buitelaar (2023) and for similar reasons, although with a major focus on the first three.

A further impact of the land positions, strategies and resulting joint ventures was also noted. The strategies employed by commercial actors fitting with their type, as outlined by Meijer and Buitelaar (2023), focused on trying to guarantee revenue generation and production output through their land positions. These strategies were facilitated by the neo-liberal policies encouraging a more market-oriented and market-dependent approach embodied in public–private partnerships, as described by Swyngedouw et al. (2002, p.547). It enabled commercial actors to quickly get involved if the future predictions were favourable, as was seen in the Zuidlanden and Meerstad. Yet their strategies also focused on minimising negative consequences created by economic downturn, as seen in their actions during the financial crisis. Both project directors stress that this makes them unsuitable for long term involvement, since they are not made for, and it is not in their interest to battle these challenges. Since these decades spanning projects, from acquisition to actual development, encountered outside structures, as outlined by Ward (2018), the burden returned to the public actors, who seems to be more suited to deal with these challenges. Contrary to Ward's (2018) findings, no sub-networks were set up to overcome these. Faced with economic hardship, alternatives mostly placed the burdens and responsibilities on the municipalities.

In these cases, the 'competitive restructuring' through public–private partnerships resulted in a path dependency with the involved actors, with commercial actors only actively involved if market conditions were favourable. The anticipation effects allowed them to circumvent market dynamics of later phases and guarantee their involvement, even though that ran counter to the original idea of a competitive market. Their influence through both ownership clauses and construction claims took away a level of flexibility in the development

process. On the one hand the construction claims could be seen as a benefit as they secured the involvement of construction capable actors. On the other, they also forced cooperation when interests did not align. Some ownership clauses prevented the sale of land where some of these rights were acquired under severe financial penalty. This in turn prevented the sale and development of locations, impacting development in those locations further.

With the joint ventures, the other structures described by Ward (2018) and Steen et al. (2006) also became visible. As multiple actors enrolled into the joint venture, it became difficult to think them apart. The structures that developed were set up as the relatively durable alliances, aligning with the ideas of Steen et al. (2006). Those alliances as Ward (2018) points out, also changed due to the actions of an individual actant, as in the case of the Eems. This aligns with Whittle & Spicer (2008) view that networks are prone to break down or (re)develop over time, which is due to the renegotiations between actants, reiterating their dynamic nature. This was again noted in the dynamics surrounding the joint ventures.

The joint ventures and power blocks also demonstrated the ordering struggles by actors, which resulted in several stabilized black-boxes. These were made up of human and non-human actors speaking as one, as long as their interests aligned, thereby behaving similarly as described by Ward (2018) and Mifsud (2014). The concept of immutable mobiles or intermediaries (Latour 1987, as cited in Tait & Jensen, 2007 and Callon, 1990 as cited in Tait & Jensen, 2007, p. 113) was also observed and proved useful in the cases. As different organisations started to behave as black-boxes, they produced masterplans and shared embodied practices, like working together or withholding involvement. These defined and personified how those in

the network would behave. However, here Boelens (2010) critique is also confirmed. The plans and especially the land positions, along with the ownership deeds or subsequent construction claims, did not behave as actors on their own. These were manipulated by other actors within the network, in the process of doing so also providing insights on how cities are shaped by the strategically connected entities, as pointed out by Söderström (2017).

The financial implications created by the land positions as employed strategies has also been noted. Although the research could not provide a clear answer, there is the possibility that the high costs paid for land within the Zuidlanden and Meerstad is still preventing more affordable housing. The believe at the time of the land acquisition phase, that housing prices would continue to rise, created a competitive market between commercial actors which also impacted public actor attitude. It was seen as prudent to acquire as much land as possible as quickly as possible, with little regard for the costs. This resulted in high upfront acquisitions costs which were not immediately covered, causing long-term financial pressure. When the financial crisis hit, this burden shifted to the municipalities, since the other actors negotiated their way out of the project. These had however paid for other public works with the expected returns from these projects which would no longer materialise. Depending on which source is used, it can mean that these historical costs are still pressuring the development and planning of these areas or at least have had a negative impact on the cases.

On a more abstract basis, the research findings confirm statements by Latour (1996), that an actor-network is not bound by a local or global view, instead it's highly connected in both. The change of global financial markets impacted the Dutch national housing market, which in turn impacted these three cases and the established networks engaging with them. This was additionally demonstrated by the different actors who, although operating nationally, were found to operate in the local setting, creating connections with others and trying to solve both micro and macro level challenges. It thereby also provided insights into the dynamic ways that relationships are forged between actors confirming statements by Latour (2005, as cited in Rydin, 2012, p. 25).

The ANT lens is also not without critique and that again echoes much of what Boelens (2010) points out regarding a *tabula rasa* at the start of an Actor-Network. Although Ward (2018) points towards an obligatory passage point, which during the research was taken as either the moment acquisition of land started or the developing of masterplans, this turned out to be insufficient. Both policy documents and expert interviews often looked beyond these moments for various reasons. In the interviews for example, attention was directed at other actors or events that took place earlier and elsewhere, as in the case with the Province interference of Meerstad due to Blauwestad.

Research implications

Overall, it can be concluded that the land held by actors and the strategies used to acquire and develop them has impacted the three cases in the North of the Netherlands. Due to its high barrier of entry, which is partly due to the required time commitment and financial and construction means, it allows a select type of actor to be involved and impact the developments program, progress and spatial design. The way land was acquired and developed acted as a hand from the past, impacting cases over 30 years after the original attainment.

It enabled actors to effectively jumpstart or interrupt any development through the well-entrenched legal framework surrounding landownership and self-realisation. As the implications are so great on the local project scale, as well as the national housing development level, the subject of land ownership should be a renewed focus of future research in different cases.

From an academic point of view, the research highlights how land for housing is provided and how coordination between stakeholders in (in)formal collaboration takes place, adding to our understanding of the development process. It also demonstrates the soft power held by land owning actors and how they respond to outside influences like economic downturn. They can, with different strategies and motives, continually impact developments, effectively bypassing market competition and shaping how a development takes place. These lessons are crucial in deciding which approaches are used in the Dutch context to combat the current housing crisis.

The ANT lens enables the recognition and tracing of these different human and non-human actors during the process. It clearly showcases how they enrol in or out of a network and the unique dynamics that occur when developing these types of projects.

On a practical level and considering the desire of the national government to retake control on housing development, now might also be the right time to evaluate how land ownership should be allowed to impact a development process. The analysis of these cases in this part of the country provides both valuable insights into the way the large-scale development processes are impacted by outside factors and by the behaviours and strategies of developer's land positions. Yet a critical look and future research should be directed at whether the power derived from land ownership should continue to influence and steer these decades-lasting housing developments through political and economic changes and how profits and burdens should be distributed.

Reflection

Overall, the research progressed smoothly. The accessibility of public documents and plans provided a strong initial background on each case. This basis, combined with a data rich and well supervised research internship at the Kadaster provided a valuable environment to collect well-grounded data serving as the backbone of the research. However, the volume of the data to be analysed was also noted. Because of this, focus turned to area's that the other methods had pointed out to be sites for possible actor's land positions.

In addition, challenges arose with lands held by Megahome and the commercial landbank. The use of multiple legal entities obscured the holdings of Megahome, providing an incomplete picture of when something was acquired. However, due to their prevalent role based on interviews, these were still included. The lands by the commercial landbank were also difficult to trace to specific actors, since a lot of land was acquired in other areas which were originally included in the Meerstad development (Meerstad -Noord and -Zuid). Since these transactions were grouped between several legal entities, and not all of those could be accessed by the researcher due to its archived status, a likely possibility exists that they were acquired at an earlier date. However, in line with the research scope and focus this was deemed as inconsequential as most influence came from the moment they acted as a commercial collective. The impact of the two interviewed two housing associations was minimal. Practically all their influence was granted through the municipality, and they had no active role as landowner in the projects or in the broader past. It might have been useful to dedicate that time to interviewing the commercial developers who as it turned out, could be contacted via the project directors. These could have provided more insights into the different strategies they employed, yet this was omitted due to time constraints.

Legitimacy

The data and results discussed in this research have been collected and analysed with the greatest care. Basing the research in documents published by municipalities or similar public authorities, Kadaster data and interviews involved experts like former and current project directors provides a high degree of credibility. Some matters could not be fully confirmed. The project director in the Zuidlanden recalled involvement of other landowners in the northern part, yet this could not be corroborated by Kadaster data and was thus omitted and deliberately kept vague. This was also done due to their supposed involvement being minor, selling the land they held relatively quickly.

The matter of affordability as a result of land ownership is another matter. In an informal talk with a plan economist of the municipality of Leeuwarden this was seen as a serious reason for the lack of social housing potential in the Zuidlanden, confirming statements from the documents. However, due to the context provided by the project directors, a more inconclusive stance was taken. This discussion, although fascinating, is beyond the scope of this research. Yet as it has the potential to impact these cases and others in a major way, it could be a valuable direction for follow up research.

6 References

- Aerovista Luchtfotografie. (2023). Aerial view of Blauwestad. In <https://www.shutterstock.com/>.
https://www.shutterstock.com/nl/image-photo/aerial-view-blauwestad-groningen-holland-blue-2344703035?dd_referrer=
- Baeten, G. (2011). Normalising Neoliberal Planning: The Case of Malmö, Sweden. *GeoJournal Library*, 102, 21–42.
https://doi.org/10.1007/978-90-481-8924-3_2
- Boelens, L. (2010). Theorizing Practice and Practising Theory: Outlines for an Actor-Relational-Approach in Planning. *Planning Theory*, 9(1), 28–62. <https://doi.org/10.1177/1473095209346499>
- Boertjens, K., & Bureau Meerstad. (n.d.). Meerstad, Groningen vanuit de lucht. In *gebiedsontwikkeling.nu*.
<https://www.gebiedsontwikkeling.nu/artikelen/meerstad-bij-groningen-is-de-pioniersfase-voorbij/>
- Bregman, A. G., Karens, J. J., & Bonthuis-Broekman, M. A. (2023). *Juridisch Handboek Gebiedsontwikkeling* (3rd ed.). Instituut voor Bouwrecht.
- Buitelaar, E., & Bregman, A. (2016). Dutch land development institutions in the face of crisis: trembling pillars in the planners' paradise. *European Planning Studies*, 24(7), 1281–1294.
<https://doi.org/10.1080/09654313.2016.1168785>
- Buitelaar, E., Lebbing, J., Pelzer, P., van den Hurk, M., & van Karnenbeek, L. (2024). Regulate or Be Regulated: The Institutional Entrepreneurship of Developers. *Planning Theory & Practice*, 25(5), 677–696. <https://doi.org/10.1080/14649357.2025.2456865>
- Bureau Meerstad. (2011). Meerstad ontwikkelstrategie. In *toekomstmeerstad.eu*. Bureau Meerstad.
<https://toekomstmeerstad.eu/app/uploads/2021/10/Ontwikkelstrategie-Meerstad-2011.pdf>
- Bureau Meerstad. (2017). Uitwerking II 2017 Ontwikkelstrategie Meerstad. In *toekomstmeerstad.eu*.
<https://toekomstmeerstad.eu/app/uploads/2021/10/Ontwikkelstrategie-Meerstad-Uitwerking-II-2017.pdf>
- Bureau Meerstad. (2021). Reactierapport Eemskanaalzone . In *gemeenteraad.groningen.nl*. Bureau Meerstad.
<https://gemeenteraad.groningen.nl/Documenten/Bijlage/Bijlage-1-reactierapport.pdf>
- Bureau Meerstad. (2022). Agenda voor de Toekomst Plangebied Meerstad. In *gemeenteraad.groningen.nl*. West 8 landscape & urban design architecture.
<https://gemeenteraad.groningen.nl/Documenten/Bijlage/Bijlage-1-Agenda-voor-de-Toekomst-A3.pdf>
- Bureau Meerstad. (2025). Presentatie Bewonersavond De Eems. In *toekomstmeerstad.eu*.
<https://toekomstmeerstad.eu/app/uploads/2025/11/251112-Bewonersavond-De-Eems-online.pdf>

Callon, M. (1990). Techno-economic Networks and Irreversibility. *The Sociological Review*, 38(1), 132–161.
<https://doi.org/10.1111/j.1467-954x.1990.tb03351.x>

Carton, L., Levelt, M., van Kann, F., Witte, P., Tempels, B., Willems, J., & Newton, C. (2026). Transitions in Planning – Challenges of the 21st Century for Dutch Spatial Planning Research and Education | Inplanning. In *Inplanning.eu*. InPlanning.
<https://www.inplanning.eu/publications/books/transitions-in-planning-challenges-of-the-21st-century-for-dutch-spatial-planning-research-and-education-1/>

Claassens, J., Koomen, E., & Rouwendal, J. (2020). Urban density and spatial planning: The unforeseen impacts of Dutch devolution. *PLOS ONE*, 15(10), e0240738.
<https://doi.org/10.1371/journal.pone.0240738>

Conijn, J., Heijndael, T., & Vrolijk, G. (2024). Rijksondersteuning gebiedsontwikkeling. In <https://www.volkshuisvestingnederland.nl>. Finance Ideas B.V.
<https://www.volkshuisvestingnederland.nl/site/binaries/site-content/collections/documents/2024/09/30/rapportage-rijksondersteuning-gebiedsontwikkeling/2024+09+04+-+Rapportage+Rijksondersteuning+gebiedsontwikkeling+def.pdf>

de Graaf, K. (2009). alleen ga je sneller samen kom je verder de toekomst van publiek private samenwerking bij gebiedsontwikkeling. In *am.nl*. https://www.am.nl/wp-content/uploads/2018/01/PPS_boek.pdf

de Jonge, H., & Schaap, C. D. (2006). Verslag Inzake grondverwerving Meerstad - Groningen. In *edepot.wur.nl*.
<https://edepot.wur.nl/118441>

de Kam, G. R. W. (2012). *Bouwgrond voor de volkshuisvesting – 10 jaar corporatiebeleid en een blik op de toekomst*. Nestats communicatie.

De Suikerzijde. (n.d.). *Wonen*. De Suikerzijde.
<https://desuikerzijde.nl/wonen>

Dienst Landelijk Gebied. (2009). Verantwoording Meerstad 2008. In *tweedekamer.nl*. Dienst Landelijk Gebied.
<https://www.tweedekamer.nl/downloads/document?id=2009D24039>

Dienst Landelijke Gebied. (2008). Verantwoording Meerstad 2007. In *zoek.officielebekendmakingen.nl*. Dienst Landelijk Gebied.
<https://zoek.officielebekendmakingen.nl/kst-30099-10-b3.pdf>

Gemeente Groningen. (2009). *Suiker Unie*. Raadsbrief aankoop Suiker Unie terrein kenmerk RO09.1936674.

Gemeente Groningen. (2011a). Meerstad: vernieuwd, verstandig en met vertrouwen vooruit. In *gemeenteraad.groningen.nl*. Gemeente Groningen.
<https://gemeenteraad.groningen.nl/Documenten/Raadsvoorstel/Meerstad-vernieuwd-verstandig-en-met-vertrouwen-vooruit.pdf>. Raadsbrief Kenmerk RO11.2872651 .

Gemeente Groningen. (2011b). Vervolg op “de Campagne.” In *gemeenteraad.groningen.nl*.
<https://gemeenteraad.groningen.nl/Documenten/Collegebrief/Suikerunie-startnotitie-De-Campagne.pdf>. Raadsbrief RO11.2670947.

Gemeente Groningen. (2012). Quicksan tijdelijke jongerenhuisvesting Suikerunieterrein. In *gemeenteraad.groningen.nl*.
<https://gemeenteraad.groningen.nl/Documenten/Collegebrief/Quicksan-tijdelijke-jongerenhuisvesting-Suikerunieterrein-1.pdf>. Kenmerk RO12.3406795.

Gemeente Groningen. (2013a). Toekomst van de Suikerfabriek. In *gemeenteraad.groningen.nl*.
<https://gemeenteraad.groningen.nl/Documenten/Collegebrief/Toekomst-van-de-Suikerfabriek-1.pdf>. Raadsbrief Kenmerk RO13.3653682.

Gemeente Groningen. (2013b). Vervolgproces project Meerstad. In *gemeenteraad.groningen.nl*.
<https://gemeenteraad.groningen.nl/Documenten/Collegebrief/Vervolgproces-project-Meerstad-1.pdf>. Raadsbrief Kenmerk RO13.3622577.

Gemeente Groningen. (2014). Stand van zaken tijdelijke activiteiten Suikerunie terrein. In *gemeenteraad.groningen.nl*.
<https://gemeenteraad.groningen.nl/Documenten/Collegebrief/Stand-van-zaken-tijdelijke-activiteiten-Suikerunieterrein.pdf>. Raadsbrief kenmerk 4714903.

Gemeente Groningen. (2016). Ontwikkelstrategie voormalig Suikerfabriekterrein. In *gemeenteraad.groningen.nl*.
<https://gemeenteraad.groningen.nl/Documenten/Raadsvoorstel/Ontwikkelstrategie-voormalig-suikerfabriekterrein-2.pdf>. Raadsvoorstel kenmerk 5970810 .

Gemeente Groningen. (2017a). NEW SUGAR DISTRICT INSPIRATIEDOCUMENT SUIKERFABRIEK TERREIN GRONINGEN. In *gemeenteraad.groningen.nl*.
<https://gemeenteraad.groningen.nl/Documenten/Bijlage/New-Sugar-District-D9-170831-1-Originele-plancontour-LQ-2.pdf>

Gemeente Groningen. (2017b). Uitvoeringsprogramma Suikerfabriek-terrein. In *gemeenteraad.groningen.nl*.
<https://gemeenteraad.groningen.nl/Documenten/Document/Uitvoeringsprogramma-Suikerfabriek-terrein-3.pdf>. Raadsbrief kenmerk 6566007.

Gemeente Groningen. (2018a). De Suikerfabriek een nieuw stadsdeel voor Groningen Structuurschets. In *gemeenteraad.groningen.nl*.
<https://gemeenteraad.groningen.nl/Documenten/Document/Bijlage-structuurschets-1.pdf>

Gemeente Groningen. (2018b). Stad aan het water Ontwikkelingsstrategie Eemskanaalzone Van Oosterhaven tot aan Meerstad. In *gemeenteraad.groningen.nl*.
<https://gemeenteraad.groningen.nl/Documenten/Document/Eemskanaal-Stad-aan-het-Water-LQ-2.pdf>

Gemeente Groningen. (2021). Organisatie gebiedsontwikkeling De Suikerzijde en Stadshavens procedure wensen en bedenkingen . In *gemeenteraad.groningen.nl*.

<https://gemeenteraad.groningen.nl/Documenten/Collegebrief/Organisatie-gebiedsontwikkeling-De-Suikerzijde-en-Stadshavens-wensen-en-bedenkingen.pdf>. Raadsbrief kenmerk 232233-2021.

Gemeente Groningen. (2022). Samenvatting plannen De Suikerzijde. In *gemeenteraad.groningen.nl*.

<https://gemeenteraad.groningen.nl/Documenten/Bijlage/Bijlage-4-Samenvatting-De-Suikerzijde.pdf>

Gemeente Leeuwarden. (2011). *Structuurvisie de Zuidlanden*. Gemeente Leeuwarden.

Gemeente Leeuwarden. (2021). *Ontwikkelkader Middelsee - de Werp*. Gemeente Leeuwarden.

Gemeente Leeuwarden. (2024). *Beleidsprogramma Wonen in de stad Deel A*. Gemeente Leeuwarden.

Gemeente Leeuwarden. (2025). *Raadsvoorstel Hercalculaties grondexploitaties 2025*. Gemeente Leeuwarden .

Grabowski, L. J., & Mathiassen, L. (2013). Real estate decision making as actor networks. *Journal of Corporate Real Estate*, 15(2), 136–149. <https://doi.org/10.1108/jcre-11-2012-0023>

Hartmann, T., & Spit, T. (2015). Dilemmas of involvement in land management – Comparing an active (Dutch) and a passive (German) approach. *Land Use Policy*, 42, 729–737. <https://doi.org/10.1016/j.landusepol.2014.10.004>

Jonkman, A., Meijer, R., & Hartmann, T. (2022). Land for housing: Quantitative targets and qualitative ambitions in Dutch housing development. *Land Use Policy*, 114, 105957.

<https://doi.org/10.1016/j.landusepol.2021.105957>

Kadaster. (2022, February 4). *About us - Kadaster.nl particulier*. Kadaster.nl. <https://www.kadaster.nl/about-us>

Kadaster. (2026). *Kadaster eigendomsdata* (J. F. van der Werf, Ed.). Kadaster. Data collected during the research internship at the Kadaster.

Latour, B. (1996). On actor-network theory: A few clarifications. *Soziale Welt*, 47(4), 369–381. <https://www.jstor.org/stable/40878163>

Latour, B. (2005). Reassembling the Social: an Introduction to Actor-Network-Theory. In *Oxford University Press eBooks*. Oxford University Press. <https://doi.org/10.1093/oso/9780199256044.001.0001>

Levkovich, O., Rouwendal, J., & Brugman, L. (2018). Spatial Planning and Segmentation of the Land Market: The Case of the Netherlands. *Land Economics*, 94(1), 137–154. <https://doi.org/10.3368/le.94.1.137>

Meijer, R., & Buitelaar, E. (2023a). What drives developers? Understanding vertical (dis)integration strategies in the land development process. *Land Use Policy*, 131(131). <https://doi.org/10.1016/j.landusepol.2023.106718>

Meijer, R., & Buitelaar, E. (2023b). What drives developers? Understanding vertical (dis)integration strategies in the land development process. *Land Use Policy*, 131(131). <https://doi.org/10.1016/j.landusepol.2023.106718>

Meijer, R., & Jonkman, A. (2020a). Land-policy instruments for densification: the Dutch quest for control. *Town Planning Review*, 91(3), 239–258. <https://doi.org/10.3828/tpr.2020.14>

Meijer, R., & Jonkman, A. (2020b). Land-policy instruments for densification: the Dutch quest for control. *Town Planning Review*, 91(3), 239–258. <https://doi.org/10.3828/tpr.2020.14>

Mifsud, D. (2014). Actor-Network Theory (ANT). *International Journal of Actor-Network Theory and Technological Innovation*, 6(1), 1–16. <https://doi.org/10.4018/ijantti.2014010101>

Ministerie van Landbouw, Natuur en Voedselkwaliteit. (2005). Factsheet Meerstad Achtergrondinformatie over het PPS-project Meerstad Groningen. In *edepot.wur.nl*. Ministerie van Landbouw, Natuur en Voedselkwaliteit. <https://edepot.wur.nl/118448>

Ministerie van Landbouw, Natuur en Voedselkwaliteit. (2007). Deelneming in de Grondexploitatie Maatschappij Meerstad (GEMM). In *tweedekamer.nl*. Ministerie van Landbouw, Natuur en Voedselkwaliteit. https://www.tweedekamer.nl/kamerstukken/brieven_regering/detail?id=2007Z00306&did=2007D00307

Ministerie voor Binnenlandse Zaken en Koninkrijksrelaties. (2025). *Versnellen woningbouwprocessen*. Volkshuisvestingnederland.nl; Rijksoverheid. <https://www.volkshuisvestingnederland.nl/onderwerpen/aanpak-woningnood/versnellen-woningbouw>

Ministerie voor Binnenlandse Zaken en Koninkrijksrelaties. (2026, March 24). *Tweede Kamer stemt in met novelle bij wet Versterking regie volkshuisvesting*. Volkshuisvestingnederland.nl; Rijksoverheid. <https://www.volkshuisvestingnederland.nl/actueel/nieuws/2026/03/24/tweede-kamer-stemt-in-met-novelle-bij-wet-versterking-regie-volkshuisvesting>

Priemus, H., & Louw, E. (2003). Changes in Dutch Land Policy: From Monopoly towards Competition in the Building Market. *Environment and Planning B: Planning and Design*, 30(3), 369–378. <https://doi.org/10.1068/b12982>

Projectbureau De Zuidlanden. (2003). *Masterplan De Zuidlanden Leeuwarden*. Bureau voor STEDEBOUW.

Projectbureau Meerstad. (2005). Masterplan Meerstad Groningen. In *toekomstmeerstad.eu/*. <https://toekomstmeerstad.eu/app/uploads/2021/10/Masterplan-Meerstad-2005.pdf>

Rekenkamer Leeuwarden. (2012). *Bouwen met Beleid*. Gemeente Leeuwarden.

Rekenkamer Leeuwarden. (2015). *Vaste grond*. Gemeente Leeuwarden.

Rho adviseurs. (2018). Suikerfabriekterrein Groningen Notitie Reikwijdte en detailniveau . In *gemeenteraad.groningen.nl*. <https://gemeenteraad.groningen.nl/Documenten/Document/Bijlage-Ruimte-Regie-Resultaat-1.pdf>

Rijksoverheid. (2026, April 20). *Afweegkader nationaal grootschalige woningbouwlocaties* | *Rijksoverheid.nl*. <https://www.rijksoverheid.nl/documenten/2026/04/20/afweegkadernationaalgrootschaligewoningbouwlocaties>

Ronald, R., & Dol, K. (2011). *Housing in the Netherlands before and after the global financial crisis*. 93–112. <https://doi.org/doi.org/10.4337/9781849805841.00011>

Rydin, Y. (2012). Using Actor–Network Theory to understand planning practice: Exploring relationships between actants in regulating low-carbon commercial development. *Planning Theory*, 12(1), 23–45. <https://doi.org/10.1177/1473095212455494>

Segeren, A. (2007). *De grondmarkt voor woningbouwlocaties belangen en strategieën van grondeigenaren*. Planbureau voor de Leefomgeving.

Shahab, S., Hartmann, T., & Jonkman, A. (2020). Strategies of municipal land policies: housing development in Germany, Belgium, and Netherlands. *European Planning Studies*, 29(6), 1132–1150. <https://doi.org/10.1080/09654313.2020.1817867>

Söderström, O. (2017). Analysing Urban Government at a Distance: With and Beyond Actor-Network Theory. *Springer EBooks*, 29–50. https://doi.org/10.1007/978-3-319-60462-6_2

Steen, J., Coopmans, C., & Whyte, J. (2006). Structure and agency? Actor-network theory and strategic organization. *Strategic Organization*, 4(3), 303–312. <https://doi.org/10.1177/1476127006067033>

Swyngedouw, E., Moulaert, F., & Rodriguez, A. (2002). Neoliberal Urbanization in Europe: Large-Scale Urban Development Projects and the New Urban Policy. *Antipode*, 34(3), 542–577. <https://doi.org/10.1111/1467-8330.00254>

Tait, M., & Jensen, O. B. (2007). Travelling Ideas, Power and Place: The Cases of Urban Villages and Business Improvement Districts. *International Planning Studies*, 12(2), 107–128. <https://doi.org/10.1080/13563470701453778>

Tasan-Kok, T., & Baeten, G. (2012). Contradictions of Neoliberal Planning. In *GeoJournal Library* (Vol. 102). Springer Netherlands. <https://doi.org/10.1007/978-90-481-8924-3>

Tokmetzis, D., Doodema, M., & du Saar, N. (2022, June 20). *Grote projectontwikkelaars slaan hun slag in de woningcrisis*. Follow the Money - Platform Voor Onderzoeksjournalistiek. <https://www.ftm.nl/artikelen/in-woningcrisis-staan-grootste-projectontwikkelaars-beste-voor?share=BVu8wKT8jQbB8U989kmxwxXJWob%2FKB9dl%2B3NkntpXzmmNcZQJfm8HByNTYr2bto%3D>

van der Krabben, E., & Jacobs, H. M. (2013). Public land development as a strategic tool for redevelopment: Reflections on the Dutch experience. *Land Use Policy*, 30(1), 774–783. <https://doi.org/10.1016/j.landusepol.2012.06.002>

van Engen, T., & van der Werf, J. F. (2026). *Greenfield development Meerstad*.

van Gent, W., & Hochstenbach, C. (2019). The neo-liberal politics and socio-spatial implications of Dutch post-crisis social housing policies. *International Journal of Housing Policy*, 20(1), 1–17.
<https://doi.org/10.1080/19491247.2019.1682234>

van Rooy, P., van Luin, A., & Dil, E. (2006). Nederland Boven Water praktijkboek gebiedsontwikkeling. In *nederlandbovenwater.nl*. Habiforum. <https://www.nederlandbovenwater.nl/wp-content/uploads/2018/06/praktijkboek-i-nlbw.pdf>

Voogt, F. (2022, June 21). *Het verlanglijstje van de bouwlobby* | *Investico Onderzoeksjournalisten*. Platform Investico Onderzoeksjournalisten. <https://www.platform-investico.nl/onderzoeken/het-verlanglijstje-van-de-bouwlobby>

Ward, E. (2018). An actor–network theory model of property development. *Journal of European Real Estate Research*, 11(2), 246–262. <https://doi.org/10.1108/jerer-06-2017-0022>

Whittle, A., & Spicer, A. (2008). Is Actor Network Theory Critique? *Organization Studies*, 29(4), 611–629.
<https://doi.org/10.1177/0170840607082223>

7 Appendix

1. Information sheet and consent form
2. Ownership data per case
3. Unique clauses found in ownership documents



Informatie document – Research Ethics Committee (REC)

Voor onderzoeksproject: MSc Thesis Grondeigendom in grootschalige gebiedsontwikkeling.

Omschrijving onderzoek

Hartelijk dank dat u de tijd heeft genomen om deel te nemen aan dit onderzoeksproject. In deze Masterthesis onderzoek ik de invloed van grondposities van verschillende spelers op grootschalige woningbouw gebiedsontwikkeling (buitenstedelijk 3000+ woningen). Hier kijk ik naar de locaties Zuidlanden, Suikerzijde en Meerstad+Eems.

Voor dit onderzoek verzamel ik bij het Kadaster eigendomshistorie en analyseer ik o.b.v. beleidsstukken en visies hoe plannen over de jaren zijn gevormd en of grondbezit van verschillende partijen daar invloed op heeft (gehad). Aangezien eigendomshistorie, met bijbehorende aktes, en beleidsdocumenten niet het volledige verhaal schetsen wens ik d.m.v. interviews extra data te verzamelen. Interviewvragen zijn opgebouwd aan de hand van bevindingen uit de andere twee onderzoeksmethoden.

Het uiteindelijke doel is om inzichtelijk te maken of grondeigendom van verschillende actoren in de betreffende gebiedsontwikkeling invloed heeft gehad op het project. Hierbij zoek ik specifiek naar:

- Verschillende typen actoren en waar deze grondposities hebben,
- Welke strategieën door deze actoren worden gebruikt en hoe die door de tijd zijn veranderd, en
- Wat de invloed van deze grondposities en strategieën is geweest op het project en proces. Denk hierbij aan klassieke indicatoren als typologie, dichtheid, koop/huur en bijbehorende prijsklasse, maar ook welk gedeelte van het plan wel/niet wordt ontwikkeld, wat daar plaats vindt en in welke mate een acteur de inhoud van het plan kan meebeslissen.

Vertrouwelijkheid en rechten van deelnemer(s):

- De interviews worden opgenomen en er worden aantekeningen gemaakt tijdens het interview.
- U hebt het recht om te vragen om de opname uit te zetten wanneer u dat wilt en u kunt het interview ook op elk gewenst moment beëindigen.
- Als u dat wilt, ontvangt u een kopie van de interviewnotities en krijgt u de mogelijkheid om correcties aan te brengen of te verzoeken om verwijdering van materiaal dat u niet wilt gebruiken.
- De informatie die u verstrekt, wordt vertrouwelijk bewaard in een wachtwoord beveiligde opslaglocatie van de RuG op een met een wachtwoord beveiligde computer.
- De gegevens kunnen ook worden gebruikt voor artikelen, boekhoofdstukken, gepubliceerd en ongepubliceerd werk en presentaties.
- Tenzij u hiervoor expliciet toestemming hebt gegeven, worden persoonlijke namen of andere informatie die u als informant zou kunnen identificeren, niet opgenomen in dit onderzoek of in toekomstige publicaties of rapporten die voortvloeien uit dit project. In plaats hiervan wordt uw aangeduid met een algemene functietitel + de naam van het project
- De docenten van de thesis hebben toegang tot de gegevens, maar zullen deze niet in detail bekijken.

Als deelnemer hebt u het recht om:

- deelname te weigeren;
- een specifieke vraag te weigeren;
- te vragen om de audiorecorder op elk gewenst moment uit te zetten;
- het interview op elk gewenst moment te beëindigen;
- u terug te trekken uit het onderzoek totdat het onderzoek is gepubliceerd;
- op elk gewenst moment tijdens deelname vragen over het onderzoek te stellen;
- te vragen om data te laten verwijderen die u niet wil laten gebruiken in rapporten van dit onderzoek.

Nogmaals, bedankt dat u de tijd hebt genomen om meer te weten te komen over dit onderzoeksproject. Ik sta tot uw beschikking voor eventuele vragen die u heeft. U kunt ook contact opnemen met de cursuscoördinator in geval van zorgen:

Faculty of Spatial Sciences
Master Society, Sustainability and Planning

Jan Friso van der Werf
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Consent form



university of
 groningen

Faculty of spatial
 sciences

Research ethics
 committee

Toestemming voor deelname – Research Ethics Committee (REC)

Voor onderzoeksproject: MSc Thesis Grondeigendom in grootschalige gebiedsontwikkeling.

1. Ik heb het informatieblad van dit huidige onderzoeksproject gelezen en begrepen.
2. Ik heb de gelegenheid gehad om over dit interview en onderzoek te praten. Ik ben tevreden met de antwoorden die ik heb gekregen.
3. Ik begrijp dat deelname aan dit interview vrijwillig is en dat ik het recht heb om me terug te trekken uit het onderzoek tot het moment dat het onderzoek is geaccepteerd voor presentatie en om te weigeren om individuele vragen in het interview te beantwoorden.
4. Ik begrijp dat mijn deelname aan dit onderzoek vertrouwelijk is. Zonder mijn voorafgaande toestemming zal geen materiaal dat mij zou kunnen identificeren worden gebruikt.
5. Ik begrijp dat deze gegevens mogelijk worden gebruikt in een presentatie voor medestudenten en begeleider(s).
6. Ik begrijp dat alle informatie die ik verstrek vertrouwelijk zal worden bewaard, in een met een wachtwoord beveiligde opslaglocatie van de RuG op een met een wachtwoord beveiligde computer.
7. Ik begrijp dat de beoordelende docent toegang heeft tot de gegevens, maar deze niet in detail zal bekijken.

Omcirkel JA of NEE bij elk van de volgende vragen:

Ik geef toestemming om mijn interview op te nemen

JA / NEE

Ik ga akkoord met een aanduiding van mijn bijdragen d.m.v.
een algemene functietitel + de naam van het project

JA / NEE

Indien nee:

Een pseudoniem i.o.m. onderzoeker mag worden gebruikt

JA / NEE

Schrijf hier het gekozen pseudoniem: _____

"Ik ga akkoord met deelname aan dit individuele interview en bevestig de ontvangst van een kopie van deze overeenkomst voor deelname en het informatieblad van het onderzoeksproject." Handtekening deelnemer & datum: _____ Faculty of Spatial Sciences Master Society, Sustainability and Planning Jan Friso van der Werf S6174752	Deelnemer
Vul de volgende informatie in. Het wordt alleen gebruikt als u een kopie van de interviewnotities wilt ontvangen, zodat u de mogelijkheid hebt om correcties aan te brengen. E-mailadres participant: _____	Deelnemer
"Ik ga akkoord met de voorwaarden die in het informatieblad zijn uiteengezet en ik zorg ervoor dat de belangen van de deelnemer niet worden geschaad tijdens dit onderzoek." Handtekening student & datum: _____	Student

Ownership data per case

Table - 5 Suikerzijde ownership data (Kadaster, 2026 edited by author)	
Suikerzijde developer	
Organisation	Time of ownership start
Gemeente Groningen	2010

Table - 6 Zuidlanden ownership data (Kadaster, 2026 edited by author)			
Zuidlanden Commercial developers			
Company	Time of ownership Start	End	Transfer to
Slokker	parts in dec. 2000 others in march 2002	2008	Municipality
WoonFriesland	2002	2003	Municipality
Megahome	unlikely yet; 2011/13	2020	Municipality
Megahome / Roosdom Tjhuis	unlikely yet; 2009	2025	Roosdom Tjhuis
Bouwfonds BV and Bouwbedrijf vd Werf	1997	2009	Municipality
Hopman interheem beheer	2000	2008	Municipality
Exploitatie maatschappij Goutum-Zuid	2000	2012	Municipality
Exploitatie maatschappij Goutum-Zuid	1999	2012	Municipality
VDR bouwgroep	2001	2007	Municipality

Table - 7 Meerstad-Eems ownership data (Kadaster, 2026 edited by author)			
Meerstad-Eems Commercial developers			
Company	Time of ownership Start	End	Transfer to
Megahome Groninger Projecten c.v. Gronbeheer	2002	2019	Municipality
Rotij/PV/BPD	1982 april 1985 feb	2020	Municipality
Megahome	1999 feb	2019	Municipality
Megahome Rotij	2006 jan 2009 june 2004 dec 2009 june	2020	Municipality
Groninger Projecten c.v. Gronbeheer Megahome	not clear yet megahome: 1995 then to Gronbeheerin dec 2011	2019	Municipality
Megahome	unlikely yet megahome: 2013	2020	Municipality
Amstelland ontwikkeling	2000 aug	2000 aug	Municipality (directly as part of the deal)
Amstelland ontwikkeling	2000 june	2000 june	

Table - 8 Meerstad-Midden ownership data (Kadaster, 2026 edited by author)			
Meerstad-Midden Commercial developers			
Company/consortium	Time of ownership Start	End	Transfer to
Gemeente Slochteren	Divers	2012 in merge with municipality	GEM and municipality of Groningen
Grondbank Meerstad Groningen C.V.	See below	2005	GEM
Land included in the Grondbank Meerstad Groningen CV before 2005:			
AM	Throughout 2001	2001 nov/dec	All transferred into the commercial Grondbank
BPF/koop tuchum/geveke	2001 feb	2001 dec	
Geveke	2002 mrch	2002 april	
VolkerWessels	2001 oct	2001 dec	
Heijmans	2001 sept	2001 dec	
BPF/AM	2000 oct	2001 dec	
Land bought by Grondbank meerstad groningen cv before merging in GEM	2002 divers	2005 in merge to GEM	

Unique clauses found in ownership document

Table - 9 Clauses found in ownership data (Kadaster, 2026 edited by author)
Overage payments / chain clauses in ownership deeds – across Meerstad and Zuidlanden - Anonymised and generalised
Overage payments / chain clause - several documents contain additional clause. Most can be summarised in the following: • to allow utilities to be developed • Seller will not interrupt planning process under threat of financial penalty • shifting responsibility for various legal liabilities like soil contamination or others
Unique clauses in random order
• Buyer will provide seller with a ready to build plot of land when the site is to be developed. Not following will result in financial penalty. • Mortgage construction on private owner to ensure control on the transaction of land, resulting in no possible sale, change or other to everything contained in the agreement without explicit approval of the companies. Mortgage based on all land and build up structures in the deal; set up between farmer as loaner of the money, based on his assets, to developers • an adjustment to border, in case of sale • confidentiality agreement for seller, enforced by legal/financial penalty • Sale of production rights, retaining legal ownership until area is rezoned • agreement could not be dissolved unless 20 years, since start date had passed, enforced by several legal/financial penalties • seller has right to purchase 2 parcels when site is ready for development for a lowered price • buyer could dissolve agreement on broad basis, including a lack of development rights • Original seller (farmer) had to continue using land until buyers planned to use it for development of the location. • Legal rights sale of the property was forbidden, always needed approval of buyer again under same penalties