

Dealing with the dilemma of flexibility versus robustness in the redevelopment of military brownfields

- A study on the role of the Dutch government in redevelopment processes

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“At the heart of every planning system lies the trade-off between flexibility and legal certainty. Every system has a bit of both” – (Buitelaar & Sorel, 2010, p. 983).

Colophon

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Executive summary

In recent years, many large areas lost their function because of budget cuts. Budget cuts relating to defence made sure that many military areas have become unnecessary. This has resulted in the emergence of abandoned military buildings and areas, the so called 'military brownfields'. The Dutch government is the current owner of many military brownfields and wants to bring them back into productive use. Since more private initiatives and less dominance of the government have led to institutional reflection, the question arises what role the government should play in the redevelopment of military brownfields. Therefore, the central research question was: *"What is the role of the Dutch government nowadays in redevelopment processes of military brownfields in different contexts?"*

Since military brownfields have several specific features that significantly influence the potential for redevelopment, there is focused on military brownfields in different contexts. The marine area in Doorn has a non-urban, forested context, in contrast to Hembrug terrain in Zaandam that has an extremely urbanised context. A qualitative approach was chosen to analyse the military brownfields. By means of policy analysis and semi-structured interviews, the role of the Dutch government was analysed. Several key stakeholders in the redevelopment process of these military brownfields, such as project managers and process managers, were interviewed.

The analysis showed that the Dutch government continues to play a major role in redevelopment processes of military brownfields. The uncertain future appears to affect the role of the government in redevelopment processes. At the beginning of the development of Hembrug, there was little interest from the market to redevelop the site, due to the economic recession. The government had to take a leading role in initiating the redevelopment of the Hembrug terrain. In Doorn, the government also takes a leading role by initiating the redevelopment process, even before the marines have left. Attempts are made by the government in order to avoid that the military area will be vacant (for a long time), by already initiating the redevelopment process.

In addition, the analysis showed that the further in the redevelopment process, more and more detailed steering instruments are used. An explanation for this is that the if the redevelopment is in a further phase, the qualities of the military brownfield are increasingly recognized. More and detailed steering instruments ensure these qualities. The new physical environment plan has so far not led to less steering on behalf of the government. However, the physical environment plan does provide more flexibility for authorities, but also for market parties. This reflects the changes in the Dutch planning system and the corresponding changing roles of actors in planning processes that is discussed in the literature. There is a shift from the government governing in one-way traffic in policy to a government that is (actively) developing together with others. For the Hembrug terrain, the market parties and for Doorn the citizens have an important role in the redevelopment process. The government remains to have a dominant role, but non-governmental actors have gained an increasingly important role in both redevelopment processes.

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1. Introduction

1.1 Budget cuts relating to defence

In the Netherlands, there are many large areas that have lost their function because of budget cuts and have changed into brownfields. The vacancy rates were the highest for real estate with an office, industrial or health function. Two thirds of the vacant real estate objects on January 1, 2016 were already empty a year earlier (CBS, 2017). Between 2014 and 2020, 3.5 million square metres of gross floor area (GFA) will become surplus (Rli, 2014). Over these years, 1.3 million square metres of military buildings will become surplus (Ministerie van Binnenlandse Zaken en Koninkrijksrelaties, 2013). Trends in military spending in the Netherlands show that the expenditure of the Dutch Ministry of Defence has been increasingly declining for decades. Also in other European NATO member countries, military spending has decreased over the last decades, under pressure from budget cuts (CBS, 2015). In 1954, the Netherlands has spent more than 6 percent of GDP on defence. Since then, this rate (gradually) decreased and in 2014 the expenditure was at its lowest level ever since. In that year, defence spending was barely above 1 percent (CBS, 2015). One of the consequences of the demilitarization is the emergence of abandoned military buildings and areas, the so called “military brownfields”. Many defence complexes like training areas; barracks, ammunition and mobilization complexes have become unnecessary (Hercik et al., 2014). To bring the abandoned and unused military brownfields back into productive use, these brownfields will be redeveloped and reallocated (Clark, 2009).

The regeneration of brownfield sites can offer development potentials, but is often accompanied by a certain amount of complexity (Rizzo et al., 2015). The re-use of brownfields usually requires the transformation and the removal of substantial quantities of materials, relating to the former use of the land. This is often accompanied by environmental problems caused by the army (Bagaeen & Clark, 2016). Furthermore, brownfield regeneration often involves different instruments and a large number of stakeholders. The various instruments have a different role in different contexts (Rizzo et al., 2015). The use of instruments in the redevelopment of military brownfields depends on the specific features of the military area (Hercik et al., 2014). It requires a proper strategy to involve stakeholders with divergent interests and complete the brownfield revitalization process. The involvement of stakeholders in all phases of the regeneration process of the brownfield development has been recognized as an important requirement in improving the acceptance of the decision-making process (Rizzo et al., 2015). A main challenge in brownfield development processes is to achieve successful collaboration between different sectors (the private sector, the public sector and civil society), as well as collaboration between various institutions (within the public sector) (Perić & Furundžić, 2013). The involvement of different instruments and different stakeholders makes that brownfield development has an increasingly challenging and complex nature from the decision-making point of view (Rizzo et al., 2015).

The Netherlands is known for its integrated and comprehensive land use planning and active land policy by local authorities. The financial crisis of 2008 has shown that this type of land policy is vulnerable to property market fluctuations (Buitelaar & Bregman, 2016). The spatial planning at a given moment is the product of continuing processes, which will bring even more

change (Needham, 1988). According to Buitelaar & Bregman (2016, p. 1284), planning culture can be seen as *“a set of informal institutions that guide, and are (re) produced through, decisions by government, private actors and citizens on the end and means of the development process”*. The planning culture is subject to processes of societal and institutional change (Hajer & Zonneveld, 2000). In recent years there has been a shift in planning processes in the Netherlands. More private initiatives and less dominance of the government have led to institutional reflection by the Dutch government and other stakeholders (Buitelaar, Lagendijk & Jacobs 2007). Instead of the previously called blueprint planning, there is an increasing interest in more flexible, incremental forms of planning. A more flexible, incremental form of development includes a changing, more facilitating role of the Dutch government by setting the frameworks in which development will take place. New incremental phased developments with a greater role for individual private initiatives are emerging. This rising type of development seems to be more profitable and less vulnerable. There are many experiments with this new type of planning in practice. When these new developments are institutionalized, this might lead to a shift in the Dutch planning system (Buitelaar & Bregman, 2016).

As indicated above, there is a dilemma between the traditional Dutch active land policy and more flexible forms of planning. The role of the Dutch government in society has been discussed. This is inextricably linked to the question of what role the government should play in redevelopment processes of military brownfields. This study examines the (changing) role of the government in the redevelopment of military brownfields. While the existing literature has concentrated on brownfields and brownfield developments, there is a lack of literature about military brownfields. Only few authors have been interested in military brownfields so far. The available literature on military development has been very limited compared to the amount of investment in these types of developments. The literature about military land redevelopment has been cross disciplinary and is published in the fields of economics, science, warfare, real estate and politics, but only to limited amount in spatial planning (Bagaeen, 2006). This thesis can contribute to providing literature about military land redevelopment in the field of spatial planning. As indicated above, literature about military brownfields in the field of planning is lacking. Therefore, there is a demand for literature on military brownfields, since the redevelopment of abandoned military brownfields is a current issue in the Netherlands and in other NATO countries, due to budget cuts in defence. Furthermore, an analysis will be made in of land policy choices regarding the development of military brownfields. It can provide more insight in the application of more flexible forms of land policy. Land use instruments play a major role in setting frameworks for development of the physical environment.

1.2 Aim, research question & sub-questions

1.2.1 Recommendation for similar military brownfields

This study is chosen to focus on the redevelopment of military areas. In the redevelopment of military areas, the role of the government plays an important role in setting the policy frameworks for the desired development. Many military areas will be redeveloped and sold by the Dutch government, due to cuts in the budgets of defence. For example, the marine

area in Doorn is expected to be released in 2022. For that area, the Dutch government has yet to decide the level of steering and is already exploring the desired directions for redevelopment. Based on this, the following aim of the research is formulated:

“To provide a recommendation for similar redevelopment practices of military brownfields owned by the Dutch government”

1.2.2 The role of the Dutch government

This results in the following central research question:

“What is the role of the Dutch government nowadays in redevelopment processes of military brownfields in different contexts?”

The central research question consists of several components. The first component of the research question is *what is the role of the Dutch government nowadays*. In order to identify the role of the Dutch government nowadays and place it in the proper context, it is important to look at the changing role of the Dutch government in recent decades. The changing role distribution of actors in planning processes and the shift in policy and legislation will be addressed in chapter 3. The role of the Dutch government and other involved actors in redevelopment practices will be analysed in chapter 5.

The second part of the research question focuses on *in redevelopment processes of military brownfields in different contexts*. This part of the research question focuses on processes in which military brownfields will be redeveloped. The redevelopment process of similar military brownfields in different contexts will be analysed. This will be addressed in chapter 4.

1.2.3 Placing the role of the Dutch government in a specific context

In order to structure this thesis, sub-questions are derived from the central research question and will help to answer it. The sub-questions are related to the several components of the central research question. A distinction is made between theoretical and empirical sub-questions. The following sub-questions are formulated:

1. *Which shift in planning processes is taking place in the Netherlands?*

The first sub-question is a theoretical sub-question and addresses the shift in planning processes in the Netherlands. The shift in planning processes that takes place in the Netherlands and is extensively discussed in the literature. This shift is accompanied by a changing role distribution of the actors in the planning processes. In addressing the roles of the actors, there will be a special focus on the changing role of the Dutch government in planning processes. In addition, the spatial policy will be described in this sub-question. By addressing the shift in Dutch planning processes, a link can be made between the changing role of the government as discussed in the literature and the role of the Dutch government in the redevelopment practice.

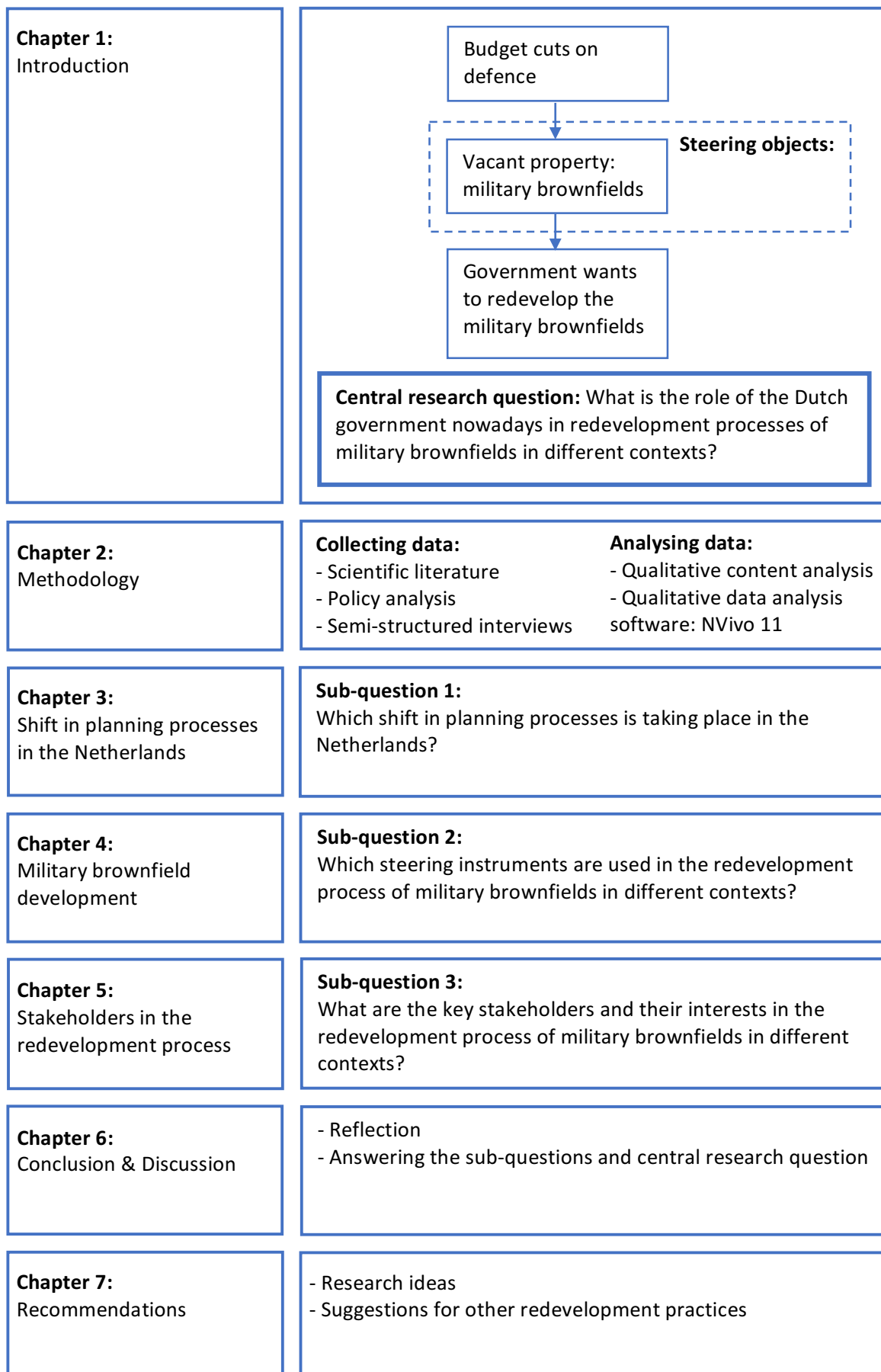
2. *Which steering instruments are used in the redevelopment process of military brownfields in different contexts?*

The second sub-question contains both theoretical and empirical elements. First, the theoretical part will provide a definition of (military) brownfields, as described in the scientific literature. Subsequently, an analysis will be made of military brownfields in practice. It concerns similar military brownfields in different contexts: a military brownfield in a non-urban, forested context and a military brownfield in an urban context. For the redevelopment practices, several steering instruments are used. Steering instruments are policy instruments used by the government to achieve specific policy goals. This sub-question focuses on the steering instruments in the redevelopment of military brownfields.

3. *What are the key stakeholders and their interests in the redevelopment process of military brownfields in different contexts?*

The third sub-question focuses on the different key stakeholders and their interests in the redevelopment process of military brownfields. This sub-question contains both theoretical and empirical elements. First, a definition of the stakeholder concept will be given. Subsequently, since many stakeholders are involved in redevelopment practice, the most important stakeholders in the redevelopment of military brownfields in different contexts will be addressed. These stakeholders will be asked for their roles in the redevelopment process, their interests and the interaction between them. In this way, the role of the Dutch government in redevelopment processes becomes visible.

Figure 1: Schematic representation of the structure of this thesis



2. Methodology

By looking at the several components of the central research question, it was possible to determine which methodology was used to answer the central research question: *“What is the role of the Dutch government nowadays in redevelopment processes of military brownfields in different contexts?”*. This central research question can be answered by answering the sub-questions. Various data sources will be used for this research. The chosen methods depend on the sub-questions. The goal is to show why and how the chosen methods will contribute in answering the sub-questions.

2.1 The role of the Dutch government in planning processes

In order to find out what the role of the Dutch government in redevelopment processes of military brownfields is, the general role of the Dutch government in planning processes will be examined first to place the role in the broader context. For this purpose, the following sub-question will be answered: *“Which shift in planning processes is taking place in the Netherlands?”* The goal of this sub-question is to determine the role of the Dutch government in spatial planning processes.

A shift in planning processes also implies a changing role of the Dutch government in planning processes. To analyse the role of the Dutch government, it is of importance to know how the role of the Dutch government in planning processes has developed in the last decades. This way, the role of the Dutch government can be placed in the proper context. In order to answer this sub-question, a qualitative research strategy will be used in order to understand the development of the role of the Dutch government in the last decades. In order to analyse the shift in planning processes and the role of the Dutch government, scientific literature will be used. While searching for scientific literature, the focus will be on trends of actors in planning processes in the Netherlands. By analysing different actors in the redevelopment processes, (shifting) positions of these actors can be recognized. The changing role of the Dutch government and the introduction of citizen participation in planning processes are extensively be discussed in the literature and will be described in this chapter. Special attention is being paid on literature in the period from the financial crisis up to the current day. During that period, many (military) areas were released due to budget cuts.

In addition to literature study, policy analysis will be used to analyse the legal framework and guidelines in terms of governmental involvement in planning processes. Land policy of the last decades and current land policy on the national scale will be analysed by doing exploratory qualitative content analysis. There will be a focus on the Spatial Planning Act (including the land-use plan) and the Environment and Planning Act (including the physical environment plan). The Spatial Planning Act includes the current legislation on the spatial planning in the Netherlands. This law will be replaced by the Environment and Planning Act in 2009. The Environment and Planning Act combines legislation and rules for the environment, housing, infrastructure, nature and water and thus regulates the management and development of the living environment. With the Environment and Planning Act, the system of spatial rules will be fully revised. Both legislations will therefore be of great importance in determining the spatial frameworks for planning processes in general and the redevelopment of military

brownfields specifically. Qualitative content analysis makes interpretation of these laws possible. For the content analysis, key aspects of the Spatial Planning Act and the Environment and Planning Act will be highlighted and addressed in this sub-chapter. It is important to first get a grip on these Acts and to understand what types of laws the Spatial Planning Act and the Environment and Planning Act are, before the connection between this legislation and the effects of this legislation on the policy for military brownfield development can be considered in the next chapter.

2.2 Military brownfield development

To analyse the role of the government in the redevelopment of military brownfields, there should also be focused on the regional and local scale in addition to the national scale. In this way, a context-specific analysis of the military brownfields can be made. The question what role the Dutch government has and should have in redevelopment processes of military brownfields is inextricably linked to the question which steering instruments are used by the Dutch government in these redevelopment processes. Because each military brownfield is unique and has its specific features, two military brownfields in different contexts will be highlighted. The sub-question that is central to this, is: *“Which steering instruments are used in the redevelopment process of military brownfields in different contexts?”* The goal of this sub-question is to determine the steering instruments used by the Dutch government in the redevelopment of military brownfields.

Firstly, a definition of the concept of (military) brownfields will be given, according to the scientific literature. Secondly, an analysis of military brownfields in Dutch practice will be made. The steering instruments that influence the development process of the military brownfields are addressed in this chapter. A comparative case study will be used in order to make a detailed analysis for the redevelopment process of two military brownfields. A comparative case study makes it possible to determine and seek explanations for similarities and differences in the redevelopment process of the different military brownfields. Military brownfields may differ in the context they are in. A military brownfield can be either in a green, forested context or can be in an urban context. To look at whether the role of the government will vary depending on the context of the military brownfield, the emphasis will be on similar military brownfields in different contexts. In order to investigate the role of the government in the redevelopment of military brownfields in different contexts, a military brownfield in a green context and a military brownfield in an urban context will be examined. For this reason, two military brownfields in the Netherlands have been selected. The selected military brownfields both have in common that they are military brownfields of about the same size that will be redeveloped. An important difference between the cases is the context they are in. One military brownfield has a green, forested context and the other military brownfield has an urban context. An example of a military brownfield in a green context is the marine area located in Doorn. The marine area is situated within the ecological main structure of the Netherlands. The surrounding area has a high landscape quality (Rijksvastgoedbedrijf *et al.*, 2016). The marine area is located in Doorn, a village in the province of Utrecht. Doorn has 10.067 residents (Gemeente Utrechtse Heuvelrug, 2017). The marine area in Doorn is a relatively large location for the municipality of Utrechtse Heuvelrug (Rijksvastgoedbedrijf *et al.*, 2016). An example of a military brownfield in an urban context is Hembrug, located in

Zaandam. Hembrug is very close to Amsterdam. Hembrug is an important spatial link in the ZaanIJ program and in the Vision North Sea channel area 2040. ZaanIJ is a contiguous urban area along the water of Zaanstad and Amsterdam (Gemeente Zaanstad, 2014).

Formal documents on these cases will be studied in order to gain detailed insight in the redevelopment processes. Furthermore, semi-structured interviews will be used. In the interviews will be asked for several important aspects of this sub-question, among others the redevelopment process, the context of the military brownfield and the spatial framework for development. The several research steps for conducting and analysing the interviews will be discussed in the next section.

2.3 Stakeholders in the redevelopment process

Since the course of military brownfield development and the associated steering instruments are largely determined by the stakeholders in the development process, the several involved stakeholders will also need be addressed. This leads to the following sub-question: “What are the key stakeholders and their interests in the redevelopment process of military brownfields in different contexts?” The goal of this research step is to determine which stakeholders are involved, the interaction between the stakeholders, their roles and their interests.

A qualitative research strategy will be used to understand the perspective of actors and the behaviour of these actors. In order to identify and address the interests of the stakeholders, the stakeholders must be identified. The snowball effect will be used to find out which people are involved in the redevelopment process. In order to achieve an as complete as possible picture of all the involved stakeholders, different key stakeholders will be approached for an interview (Appendix II). By interviewing the most important stakeholders, information can be obtained and an answer to the sub-question can be provided. Interviews will help to reveal the ‘how’ and ‘why’ of development strategies of the stakeholders during the redevelopment process. Also, it makes it possible to determine the position of the stakeholders in the redevelopment process. In this way, a detailed analysis can be made about the interaction between the stakeholders and their roles and interests.

To provide an answer and obtain information, qualitative interviews will be used. The type of interview will be semi-structured, by using a list of questions or specific topics to be covered during the interviews (Appendix I). For this type of interview the interviewee has a great deal of margin in how to reply. It is possible to provide room for new input from the respondents and discuss subjects that are not part of this list of questions or specific topics. Semi-structured interviews are therefore a useful method by providing flexibility and the opportunity to discuss subjects that the researcher did not take into account, but which may be important for the research.

The various stakeholders are approached by e-mail or personally. The interviews will be conducted face-to-face. Every interviewee will be asked if they agree with an audio recording being made of the interview. In this way, there cannot only be focus on *what* the respondents say, but also be highly alert to the *way* that they say it and not be distracted by writing down notes. If the respondent does agree with recording the interview, the interview will be

recorded and transcribed afterwards. If the respondent disagrees with recording the interview, notes will be made during the interview and the answers will be elaborated as soon as possible afterwards. Subsequently, after conducting the interviews with the key stakeholders, the data will be analysed. Transcribing the interviews makes a detailed analysis of the interview possible by identifying the key themes and to become aware of similarities and differences between the several stakeholders in the redevelopment process. Transcriptions of the interviews are available upon request. After transcribing the interviews, the qualitative data obtained from the interviews will be analysed using computer software (CAQDAS: computer-assisted qualitative data analysis). The interviews will be encoded by using the qualitative data analysis software NVivo11. Information obtained from the interviews can be structured and categorized by using NVivo11. There will be started by open coding, where nodes will be created to identify categories of words or sentences and allocate them into a code. Also, specific sub nodes will be added under the more general nodes to create hierarchy in the nodes. The codes will be placed next to the typed interviews to get a clear picture of when and how long the respondent talked about a particular topic in the interview. The codes and corresponding memos can be found in Appendix III.

3. Shift in planning processes in the Netherlands

The Dutch planning system and the role of the Dutch government in planning processes will be examined first to place this role in the broader context. Subsequently a link can be made to the role of the Dutch government in redevelopment processes of military brownfields. Therefore, the first sub-question is: *“Which shift in planning processes is taking place in the Netherlands?”*

“Whether a land-use plan provides material legal certainty depends on how the roles of planning law and, more generally, institutions are viewed” – (Buitelaar & Sorel, 2010, p. 983).

Firstly, the shift in Dutch planning system in recent years will be described. Then, the corresponding changing role distribution of the actors in planning processes will be analysed. Thereafter, the current and future legislation will be addressed, which will have its impact on planning practices and therefore also on the redevelopment of military brownfields.

3.1 Shift in the Dutch planning system

3.1.1 Admission planning

An important feature of the Dutch planning system is its institutional comprehensiveness (Hajer & Zonneveld, 2000), active land policy and integration. According to the ‘EU Compendium on spatial planning systems and policies’, Dutch planning system belongs to the ‘comprehensive integrated’ approach. In this approach, spatial planning is conducted in a highly systematic way with a formal hierarchy of plans and large public investments in the implementation of those plans. Urban land development, including both greenfield and brownfield development, was carried out at a relatively large scale in the Netherlands for many decades (Buitelaar & Bregman, 2016). The late nineteenth century was the beginning of large-scale developments. The government became actively involved in regulating the extension of the fast-growing cities. The twentieth century was a century in which a large number of rules and procedures emerged, since the society became convinced of the need of planning the scarce space (Van der Cammen & De Klerk, 2003). The 1901 Housing Act is the first national law in the Netherlands that describes the spatial planning (Van Rooy, 2011). The desire for admission planning (*toelatingsplanologie*), in which the government has a role of leadership, increased in the Netherlands and was most prominent in the 1950s to 1980s. Needham (2003) describes this form of spatial planning as a form of planning in which a public authority makes a spatial plan that shows the most desired development for the area (*structuurplan*) or in which the area has a specific function (*bestemmingsplan*). In this thought, governments point in advance where specific functions are desirable in an area (Van Rooy, 2011). These spatial plans can be seen as blueprints or frameworks and the realization of these developments is left to other parties, such as project developers and individuals (Needham, 2003). The central government has a determining role in the planning process in this form of planning and is responsible for formulating policy objectives and legislation. Municipalities are in charge of policy implementation.

The tradition of this form of planning has been undisputed for decades. It was even a

significant part of Dutch (planning) system. This is not surprisingly since it holds spatial developments that are not desirable. Thus, it protects citizens and vulnerable functions against undesired developments. Furthermore, the procedures facilitate the legal security. The downside of this form of planning is its static character and thus does not meet the high social dynamics of the network society (Dammers et al., 2004).

3.1.2 Spatial development policy

“It is argued that changes both in the societal context and in the institutional context of planning have reduced the power of the Dutch system of planning” (Hajer & Zonneveld, 2000, p. 338-339).

The in the previous section described form of planning, admission planning, sets limits and requirements for spatial developments. Since the beginning of the 21st century another form of planning, spatial development policy (*ontwikkelingsplanologie*), made its appearance. According to Dammers et al. (2004), this form of planning is *“an area-oriented policy practice that responds to the expected social dynamics, connects the different spatial needs in a new way, based on active participation of stakeholders and with a focus on the actual implementation”* (Dammers et al., 2004, p. 7). More private initiatives and less dominance of the government have led to institutional reflection by the Dutch government and other stakeholders. This development has led to several measures taken by the Dutch government to strengthen the position of local governments (Buitelaar, Lagendijk & Jacobs 2007). The ‘Nota Ruimte’ was one of the first steps to this form of spatial planning, as opposed to admission planning. The by the government dominated plans made room for public frameworks. In this form of planning, the government provides frameworks for investments which makes initiatives of the local government, the market and the civil society possible (Dammers et al., 2004).

Admission planning and spatial development policy are complementary rather than mutually exclusive. In both forms of planning, the government reviews spatial plans. A key feature of spatial development policy is a government that is actively developing together with others. Public authorities may collaborate with others in realizing plans and possibly also in making plans. One consequence is that municipalities are increasingly working together with private parties (Brouwer, 2014).

3.1.3 Initiative planning

Initiative planning (*uitnodigingsplanologie*) can be seen as complementary to the concepts of admission planning and spatial development policy as described above. This form of planning follows on from spatial development policy and is substantively situated, according to the literature, between admission planning and development planning (Van Rooy, 2011). The government sets the frameworks and strives to invite public and private parties to invest in an area (Buitelaar et al., 2012). According to Van Rooy (2011) in this form of planning, public authorities determine the outlines where spatial changes are needed to ensure the spatial quality in the long-term. Unlike spatial development policy, the governments present themselves, within the frameworks, as inviting and facilitating towards public and private parties in spatial development processes. Instead of active land policy, governments fulfil

in this form of planning a networking role. In this form of planning, public and private actors, other than the traditional parties that used to steer spatial developments, will take initiatives for regional development. Spatial developments are in this way more likely to occur based on demand (Buitelaar et al., 2012).

3.2 Changing role of actors

Changes in the Dutch planning system is accompanied by changing roles of actors involved in planning processes. A shift from government to governance has taken place in recent decades.

3.2.1 From government to governance

As indicated above, there is a long tradition of extensive governmental involvement in spatial planning in the Netherlands. However, the traditional division of roles between the government and the market parties and citizens has become under increasing pressure. The spatial planning domain in which governmental organizations must operate has become increasingly complex due to among others the improved information access, globalization, individualization processes and empowerment. *“Moreover, the position of planning within local, regional and national governments has weakened because of ongoing globalization, government’s reduced position in land management and shrinking public funds”* (Boonstra & Boelens, 2011, p. 101).

According to Koppenjan & Klein (2004), the use of hierarchy as an organizational principle is no longer as the way it was. The model of the ‘lonely organization’ that determines policy in isolation is outdated. Van Buuren & Edelenbos (2008) claim that unilateral coordination of the government, also known as ‘government’, has reached its limits. Governing changes from one-way traffic in policy from government to society, to policies implemented by a network of private, social and public organizations (Van Buuren & Edelenbos, 2008). Governmental organizations have to deal with different interest groups for example citizens, target groups, advisory bodies and experts (Koppenjan & Klijn, 2004). The state-society relation has been redefined, often referred to as a shift from government to governance, *“a relative decline in the state’s direct management and sponsorship of social and economic projects, and an analogous engagement of quasi- and non-state actors in a range of public-private partnerships and networks”* (Louw et al., 2003, p. 357). In general, the term governance is associated with a change in the nature of the government (Treib *et al.*, 2007). Governance has become an important concept in policy-oriented debates. Also, scientific governance debates cover a wide range of governance. Governance as a theoretical concept has arisen because the role of the government in society has been discussed. This is inextricably linked to the question what role the government should play in redevelopment processes.

Dimensions of governance

However, the shift ‘from government to governance’ represents an oversimplification. Different forms of governance can in most cases be placed somewhere between these two extremes, rather than at the extreme poles.

“Instead of regarding governance changes as one-dimensional shifts, they now appear

as a consequence of complex and variable relations between political processes, institutional structures and policy content” – (Lange et al., 2013, p. 410).

Based on the literature, different perspectives on steering can be distinguished, ranging from “full state intervention” to “self-governance” (Jessop, 1998) (Driessen *et al.*, 2012) (Van Meerkerk *et al.*, 2013). The several so-called modes of governance will help to expose the variety of steering debates that goes beyond the government-governance division. All modes of governance differ from each other based on three aspects:

1. *Politics*

The politics dimension includes the process side of governance. This dimension refers to the different (governmental and non-governmental) actors and the extent to which they may or may not be involved in the steering process (Treib *et al.*, 2007). It addresses which actors have control, power and responsibility about achieving the (spatial planning) goals (Lange et al., 2013, p. 409).

2. *Polity*

The polity dimension includes the structural side of governance, also known as the institutional ‘rules of the game’ that shapes the way in which the various actors interact. This includes the mutual relationships, the cooperation and the degree of openness of the steering process (Lange et al., 2013, p. 409).

3. *Policy*

The policy dimension includes the content of governance. This dimension refers to policy formulation and implementation (Lange et al., 2013, p. 409). This includes the instruments used to steer and used for achieving (spatial planning) goals (Treib *et al.*, 2007).

Modes of governance

The modes differ in the roles of the involved actors and the relations between the government, market and civil society. Each mode of governance represents another way to manage the actors on complex planning purposes, such as the redevelopment of military brownfields. The modes of governance and the associated dimensions are described as follows:

1. *Centralized governance*

Within this mode of governance, the central government takes the lead and the market and civil society are the receivers of the government’s incentives. This mode is a classic form of top down control, in which governments are the only actors with influence in decision-making (Driessen *et al.*, 2012, p. 148). Government-based arrangements in this mode of governance are hierarchical and top-down (Swyngedouw, 2005). Stakeholder autonomy is determined by the principle agency. The rules of interaction are formal rules (rule of law, fixed and clear procedures). The most important instruments are legislations, permits, norms and standards. There is a primacy of generic, expert knowledge (Lange *et al.*, 2013).

2. *Decentralized governance*

This governance mode is similar to the centralized governance mode, except that instead of the central government, the regional/local governments take the lead

(Driessen *et al.*, 2012, p. 148). Similar to the centralized governance mode, the most important rules of interaction are formal rules (rule of law, fixed and clear procedures). There is a primacy of generic expert knowledge and room for content, time and place-specific knowledge (Lange *et al.*, 2013).

3. *Public-private governance*

Within this governance mode, cooperation is mainly between the government and market actors (profit and non-profit) to fulfil a policy function and to achieve the common goals (Börzel & Risse, 2005). The government sets the frameworks. The most important rules of interaction are formal and informal exchange rules. There is a dominance of content, time- and place-specific knowledge, both expert as lay knowledge (Lange *et al.*, 2013).

4. *Interactive governance*

Within this mode, multiple actors are the initiating actors, such as governments, the private sectors and the civil society. There are equal roles for all network partners (Driessen *et al.*, 2012, p. 148). This mode of governance has similar to the public-private governance mode, a mix of formal and informal rules and tools, but with the emphasis on the informal rules and tools compared to the public-private governance mode. Both experts and lay knowledge in networks are addressed in this mode of governance. The emphasis is on integrated and time- and place-specific knowledge (Lange *et al.*, 2013).

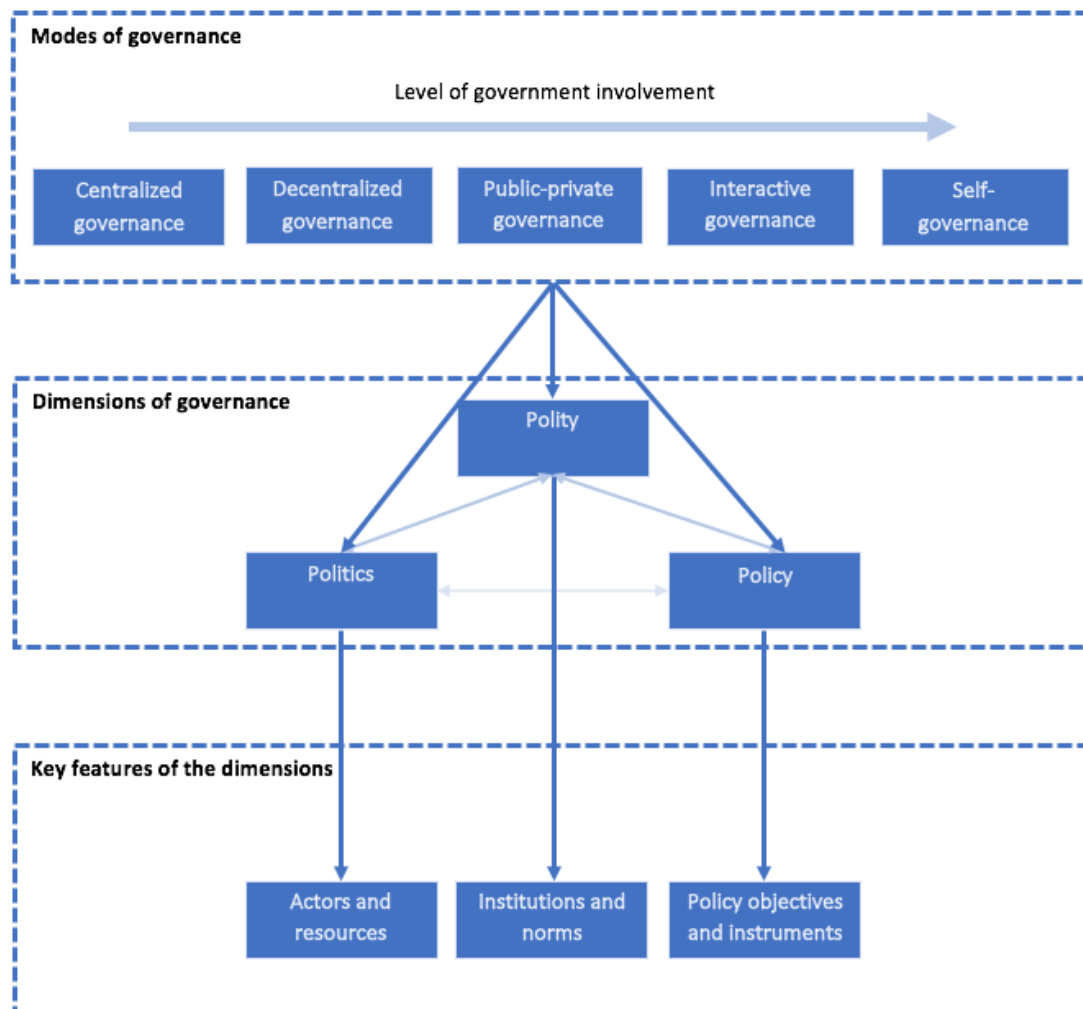
5. *Self-governance*

Within this mode the governance arrangements are primarily made in the private domain. Market actors and civil society have far-reaching autonomy and are able to initiate new approaches (Driessen *et al.*, 2012, p. 148). Self-governance or self-organization includes initiatives that originate from the society itself. These citizens are mostly independent of government procedures (Boonstra & Boelens, 2011). There are only some regulations by the central government (Meerkerk *et al.*, 2013).

The rules of interaction are informal rules. There is a dominance of content, time- and place specific knowledge. Both expert as lay (citizens) knowledge are addressed in this mode of governance. The most important instruments are voluntary instruments, private contracts, entitlements and reporting (Lange *et al.*, 2013).

A framework has been created to conceptualize the modes and dimensions of governance (figure 2).

Figure 2: Modes and dimensions of governance



Source: Lange et al. (2013)

3.2.2 Emergence of the participating society/changing role of citizens

Parallel with the withdrawing of the government, society has gained a greater role in policymaking and implementation, a shift that has given rise to the participatory society. An increasing participation of non-governmental actors tends to encourage a more noticeable multi-level character of governance processes. Different attempts have been made in the Netherlands to involve citizens in spatial development processes (Boonstra & Boelens, 2011). There is a development going on from passive towards active citizenship in the establishment of public policy (Van Buuren & Edelenbos, 2008). Citizen participation enables citizens to influence public policy. Generally, three periods of citizen participation in Dutch planning can be distinguished. The first period was during the period 1970-1980. This period is characterized by a strong emphasis on participation as a means to involve citizens more in policy. The role of participation during the seventies can be seen as a means of democratizing decision-making and creating support within existing administrative relations (Coenen et al., 2001). This first period is characterized by involvement of citizens after the (most important) decisions have been taken (Houwelingen et al., 2014). The second period of citizen participation was during the period 1980-1990. For the entire period, developments were

dominated by the question how to engage participation in legislation. Participation became a more formal tool in addition to existing advisory bodies. Participation was legally established and regarded as a formal instrument for better decision-making during this period (Coenen et al., 2001). During this period, citizens were involved in policymaking at the earliest possible stage (Houwelingen et al., 2014). The third period of citizen participation is the post-1990 period. The undesirable side effects of participation are becoming increasingly clear and participation was seen more often as a problem. Also, participation took place later on in the decision-making process. Participation was being reviewed. During this period, the position of participation was reconsidered in relation to new forms of citizen involvement. Remarkably during this period is that interactive policymaking as alternative to participation was created. Interactive policymaking is the extension of participation and can be seen as a further attempt to give citizens influence (Coenen et al., 2001). Governments respond to the call for participation by experimenting in various ways with interactive decision-making processes (Van Buuren & Edelenbos, 2008). These various forms are more proactive forms of citizen involvement and selected groups of citizens that could contribute to policymaking (Coenen et al., 2001). The creation of interactions can result in achieving interesting solutions in the cooperation. Citizens bring their own knowledge into these processes. This is necessary, in addition to the knowledge and expertise of relevant experts and authorities, to achieve effective and legitimate outcomes. Several resources are spread across a number of actors and temporary active collaborations are established to address issues and solve problems (Van Buuren & Edelenbos, 2008).

According to Van Buuren & Edelenbos (2008) there appears to be a transition from where citizens and interest groups responded primarily to policy proposals, to a participating society where they actively participate in the development and implementation of policy and projects. However, research also indicates that governments do not simply leave it to this trend. Interactive projects and citizen initiatives often clearly stress the tension between a more horizontal way of working and steering and the usual top down and vertical steering that governments have followed for decades (Van Buuren & Edelenbos, 2008).

3.3 Change in policy and legislation

Both changes in Dutch planning system and the corresponding changing roles of actors have also led to a change in policy and legislation. The legislation is essential in addressing the role of the government and other actors in planning processes.

“Those details caused plans to become outdated, rather rapidly” – (Buitelaar & Sorel, 2010, p. 987).

3.3.1 Spatial Planning Act

The most important law on spatial planning in the Netherlands is the Spatial Planning Act (Wro). On 1 July 2008, the Wro replaced the old spatial planning act (WRO) and came into effect. The Wro consists of several instruments and procedures in order to regulate the spatial structure of the Netherlands. The municipality council establishes one or more structural visions for the purpose of proper spatial planning for the entire territory of the municipality,

in which the main elements of the spatial policy to be implemented by the municipality are included. Also, the municipality council establishes one or more land-use plans for the entire territory of the municipality. The land-use plan includes rules regarding the use of the land and the existing buildings (Overheid.nl, 2017). According to Buitelaar & Sorel (2010) the land-use plan has multiple functions. It includes legally binding rules for the area and thus provides in a legal base for the government, citizens and the businesses (the safeguarding function). Also, it encourages desired land use and discourages undesired land use (the steering function). The land-use plans are rather detailed. The local authorities have steering capacity by having the authority to revise, adjust or divert from an existing land-use plan. The land-use plan offers a high degree of (legal) certainty for authorities. However, the large number of rules and procedures that have their origin in admission planning, do not meet the high social dynamics of the network society anymore. Land-use plans are reactive instead of pro-active (Buitelaar & Sorel, 2010). Also, the numerous laws and regulations in the field of the environment in the Netherlands cause a lot of complexity. This has led to the introduction of the new Environment and Planning Act ('*Omgevingswet*').

3.3.2 Environment and Planning Act

"The Act seeks to modernise, harmonise and simplify current rules" (MiW, 2017, p. 1)

On 17 June 2014, the Ministry for Infrastructure and Environment submitted the bill for the Environmental Planning Act to the Dutch parliament. The Act will enter into force in 2019 and will replace the Wro. Environmental law is currently spread over numerous laws. There are separate laws relating to among others spatial planning, water management, soil, infrastructure, noise and the preservation of historic buildings and sites. The several different laws each have their own procedures, planning processes and rules. This makes environmental law in its current form fragmented and complex. Also, the current legislation no longer reflects current and future developments. For example, the current rules do not take regional differences into account in order to meet the need for area-specific solutions (MiW, 2017).

The Environment and Planning Act seeks to make spatial policy more flexible and simple by merging the rules for spatial development and shortening procedures. The existing Crisis and Recovery Act ('*Crisis- en herstelwet*') already makes this possible, by speeding up the implementation of local and regional projects of national significance (Rijkswaterstaat et al., 2015). With the new Act, the government strives for a better coordination of the several rules for spatial planning, the environment and nature. This Environment and Planning Act integrates 26 existing laws of the physical environment. It will integrate the area-specific sections of the current laws and will combine them into one single Act with one consistent system of planning procedures and decision-making. Furthermore, the Environment and Planning Act takes regional differences into account and makes solutions specific for particular projects (MiW, 2017). The context dependency is more important since there are more general rules rather than detailed permits (Rijksoverheid, 2017). The central government gives more freedom to municipalities, provinces and the regional water authorities so they can adapt the general rules to the specific contexts and the local needs and objectives. The objective is more important than the means to get there. The attitude towards evaluating

plans changed from 'no unless' to 'yes, provided that'. The Environment and Planning Act provides scope in policymaking and the instruments to be used. Also, the Environment and Planning Act addresses involving stakeholders early on in the project-related decision-making process (MiW, 2017).

The Environment and Planning Act includes six instruments: the environmental strategy, the programme, decentralised regulations (physical environment plan, water board regulation and environmental regulation), general government regulations for activities within the physical environment, the environmental permit and the project decision. The physical environment plan (*omgevingsplan*) is an important instrument for (military brownfield) developments, because it will replace the current zoning and municipal regulations. The physical environment plan will eventually replace the current land-use plan. Where the land-use plan is about 'good spatial planning', the physical environment plan is about 'rules for the physical environment'. The most important change may be that all rules with a spatial component will be included in the physical environment plan (Rijksoverheid, 2017). The municipalities can integrate a much wider range of topics in the physical environment plan than in the land-use plan (MiW, 2017). These include rules for example on environment, water, trees, cultural heritage, advertising, welfare, waste, parking and events. At the moment, all those rules are spread across different land-use plans and different regulations. These rules will come together in the physical environment plan in one document. The aim of the physical environment plan is to better align the rules and to make clear to citizens and companies what rules an initiative must meet (Rijksoverheid, 2017).

The Crisis and Recovery Act provides the opportunity to create a land-use plan that is similar to the physical environment plan as instrument of the Environment and Planning Act. This land-use plan is under the heading of 'land-use plan with widened scope' and makes it possible to experiment with the possibilities that the physical environment plan will provide. The Ministry of Infrastructure and Environment has taken the initiative to launch pilots for the physical environment plan. In this way, several municipalities can already experiment with a land-use plan with a broader scope than the traditional land-use plan. By participating in the pilot, municipalities can already anticipate on the new Environment and Planning Act. The pilots are started to familiarize implementation practice before the introduction of the Environment and Planning Act. Furthermore, it provides the need of municipalities for more flexible regulation. The physical environment plan meets the wish of municipalities to develop in an organic way. For example, the phasing of the research and costs to the moment an initiative takes place. Also, the duration of the plan can be extended from ten to twenty years (Ministerie van Infrastructuur en Milieu, 2015). Furthermore, the physical environment plan will allow the local government more flexibility. Municipal authorities can customize the rules as deviation from the national norm. The municipalities are allowed to set different rules for different locations. The structure of the physical environment plan can be customised to a particular location (MiW, 2017). The current land-use plan and the future physical environment plan will determine the spatial frameworks for the redevelopment of military brownfields in the Netherlands.

3.4 Insights into the changing role of the government

The analysis of the scientific literature and legislation indicate that in recent years, there has been a shift in Dutch planning system. Admission planning, in which the Dutch government has a role of leadership and is responsible for formulating the policy objectives and legislation, has been undisputed for decades and was a significant part of Dutch planning system. However, the static character of this form of planning did not meet the high social dynamics of the network society anymore and spatial development policy made its appearance. In this form of planning there are more private initiatives and less dominance of the government. The state provides frameworks for investments and there is room for initiatives of the local government, the market and the civil society. Another form of planning, initiative planning, is complementary to the concepts of admission planning and spatial development policy. Instead of active land policy, governments fulfil in this form of planning a networking role.

The shift in the Dutch planning system is elaborated by analysing the changing roles of actors involved in planning processes. The traditional division of roles has become under increasing pressure. The state-society relation has been redefined, often referred to as a shift from government to governance. However, the governance literature indicates that this shift represents an oversimplification. Different forms of governance can in most cases be placed somewhere between these two extremes, rather than the government-governance division. The different forms of governance range from “full state intervention” to “self-governance”. All modes of governance differ from each other in three dimensions: politics (which actors play a role), polity (how do the different actors interact) and policy (which steering instruments are used). Parallel with the withdrawing government, society has gained a greater role in policymaking and implementation. The multi-level character of governance processes is encouraged by the increasing participation of non-governmental actors.

Changes in the Dutch planning system and the corresponding changing roles of actors have also led to a change in policy and legislation. Legislation is essential in addressing the role of the Dutch government and other actors in planning processes. The current large number of rules and procedures do not meet the high social dynamics of the network society anymore and cause a lot of complexity. This has led to the introduction of the new Environment and Planning Act, which will enter into force in 2019. The Environment and Planning Act seeks to make spatial policy more flexible and simple by merging the rules for spatial development and shorter procedures. The Environment and Planning Act includes six instruments, among other things the physical environment plan that will replace the current land-use plan. There are already several experiments with pilots of the physical environment plan.

4. Military brownfield development

After analysing the shift in planning processes on the national scale, there will be a focus on specific planning practices on the regional and local scale: the redevelopment of military brownfields. Several steering instruments are used by the Dutch government in the redevelopment of these brownfields. The sub-question that is central to this is: *“Which steering instruments are used in the redevelopment process of military brownfields in different contexts?”*

“Spatial processes reflect the social processes within them, and at the same time social processes are imprinted onto space through policy and administration” (Osman et al., 2015, p. 309).

The policy dimension of governance will be addressed. This dimension refers to the instruments used to steer and used for achieving (spatial planning) goals. The steering instruments have their impact on the redevelopment of military brownfields. Firstly, a definition of (military) brownfields will be given. Thereafter, two military brownfields and the instruments used to steer in the redevelopment of them are being considered.

4.1 (Military) brownfields

The issues regarding development of “brownfields” have become some of the biggest challenges for urban planners. The regeneration of these brownfields has become more common as a result of changing patterns of industry and development in many regions and since free developable land (the “greenfields”) has become more and more scarce (Kunc et al., 2014) (Pizzol, 2016). According to the original CLARINET2 definition, brownfield can be described as *“sites that have been affected by the former uses of the site and surrounding land; are derelict and underused; may have real or perceived contamination problems; are mainly in developed urban areas; and require intervention to bring them back to beneficial use”* (Clark, 2009, p. 182).

Contaminated land, derelict land and vacant land are key definitions in completing the concept of brownfields. Contaminated land is a *“wider category of land which, as a result of activities either previously or currently carried out on it, contains concentrations of contaminants that are high enough to be a hazard to health or the environment either in the current use of the site or if it is used for a different purpose”* (Alker et al., 2000, p. 57). Derelict land is *“land so damaged by industrial or other development that it is incapable of beneficial use without treatment”* (Alker et al., 2000, p. 58). Vacant land is *“land on which some previous productive use has ceased for a significant period of time”* (Alker et al., 2000, p. 58). These are terms that are associated with and related to the term brownfield.

Special types of brownfields are military brownfields, brownfields formed as a consequence of the departure of the military use: *“Social processes of demilitarization transform both the value of current space and its present administration. One consequence of these processes has been a huge increase in the amount of unused space, so-called brownfields”* (Osman et al., 2015, p. 309). Military brownfields have several specific features compared to other types

of brownfields. One of the most important features of military brownfields is the functional diversity of the buildings within sites. Buildings within the sites can be administrative buildings, residential buildings, warehouses for instance for storage of items such as weapons and garages. Another important feature of military brownfields is the location of the brownfield. Military brownfields are often situated either in the intra-urban area of municipalities or in their immediate proximity (Hercik, 2014). Driven by among others recessions, defence cuts, changes in military technology and geopolitics, property dedicated to national defence is being disposed of and redeveloped (Bagaeen & Clark, 2016).

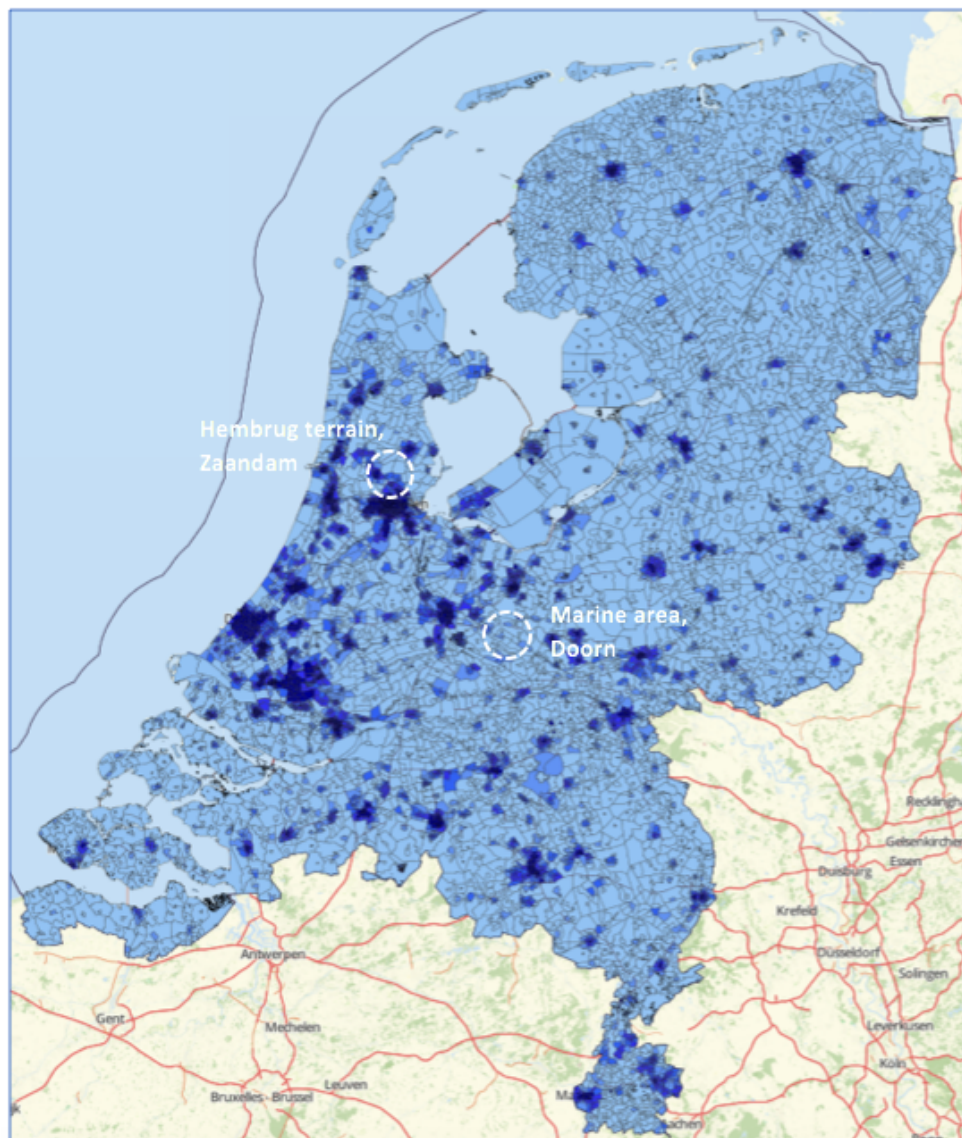
According to Cao & Guan (2007) brownfield redevelopment (or brownfield regeneration, brownfield reuse) is a strategy for dealing with brownfields and redeveloping them through measures to overcome obstacles to brownfield reuse (Cao & Guan, 2007, p. 128). After redevelopment, these areas may turn into residential areas, office blocks, recreation areas etc. (Cao & Guan, 2007). The redevelopment of former military bases is very case specific and depends on the specific features of the area, but also on the needs of the municipality and the visions of local political leaders or the (new) owners of the sites (Hercik, 2014). Brownfield areas may turn into residential areas, recreation areas and business areas (Cao & Guan, 2007). In many military brownfield development cases, the government is heavily involved in the process of transforming them into civilian use. This is due to the fact that in the case of most sites the government is the landowner (Bagaeen & Clark, 2016).

Military brownfields have several specific features which significantly influence the potential for redevelopment. There are general factors (at macro-scale level), associated with the political, economic or social climate. For example, legislative instruments at national or regional level, regeneration management instruments etc. There are location factors (at meso-scale level), such as the geographical location within the region, the economic potential and 'soft' factors, such as local political leadership, community involvement, etc. There are site-specific factors (at micro-scale level), such as the size of the brownfield, its previous use, the number of buildings and structures, the soil quality and extent of contamination, etc. (Hercik, 2014).

4.2 Military brownfields in practice

Two military brownfields due to processes of demilitarization in the Netherlands are the marine area in Doorn and Hembrug terrain in Zaandam (figure 3). These military brownfields are the focus of this research and will be discussed extensively. The Dutch government is the current landowner of these military brownfields and wants to redevelop both areas. This has led to a redevelopment process that is being initiated in both areas. As indicated above, both areas have several specific features that influence the redevelopment of the areas.

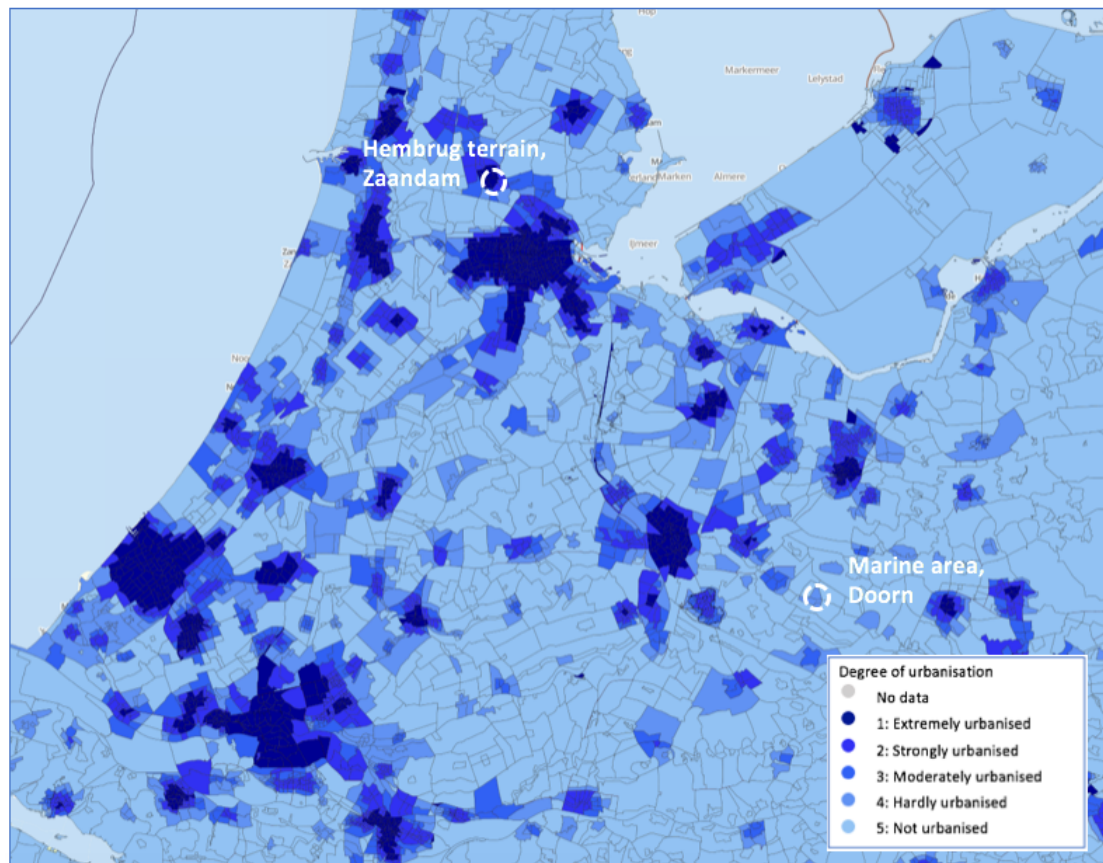
Figure 3: The military brownfields in the Netherlands in their (non-)urban context



Source: Spotzi.com (2016)

A feature in which the areas differ from each other is the context they are in. Figure 3 already indicates that the two military brownfields have a different context. According to Hercik (2014), military brownfields can be classified to their position. Military brownfields situated inside urban areas and those in extra-urban areas of municipalities can be identified. Figures 3 and 4 show the extent of urbanisation per neighbourhood in the Netherlands in 2016. A dataset of Statistics Netherlands (CBS) has been used to provide the data. Figure 3 and, in particular, figure 4 reflect that the marine area in Doorn and Hembrug terrain in Zaandam differ in the degree of urbanisation.

Figure 4: The degree of urbanisation of two military brownfields in the Netherlands



Source: Spotzi.com (2016)

As shown in figure 4, the military brownfields differ in the degree of urbanisation. Within this map, five different urbanisation categories are used: extremely urbanised, strongly urbanised, moderately urbanised, hardly urbanised and not urbanised. Hembrug terrain is located in Zaandam and has a score of 1. This means that Zaandam is extremely urbanised. This in contrast to the marine area in Doorn, which has a score of 4. This means that Doorn is hardly urbanised. These different contexts of the military areas influence the opportunities and obstacles for the redevelopment. Both military areas will be addressed individually.

4.2.1 Marine area, Doorn

Object

The Ministry of Defence has decided in 2012 to close the “Van Braam Houckgeestkazerne”. The marine area in Doorn is expected to be vacant in 2022, after the marines left to Vlissingen. Hence, the marine area will be redeveloped and will get a new function. The marine area is located within the municipality of Utrechtse Heuvelrug and the province of Utrecht. The area is located at the core of Doorn and is accessible by provincial roads. The area is currently part of the land-use plan “Buitengebied Doorn 2011”. The marine area in Doorn does have a hardly urbanised context, since it is located in a forested area (figure 5). The surrounding area has a high quality of the landscape. The marine area itself is 48 hectares, consisting of 23 hectares within the urbanized area and 25 hectares of forest (within the ecological main structure).

Figure 5: The green, forested context of the marine area in Doorn



Source: Rijksvastgoedbedrijf *et al.* (2016) & Google (2017)

The context of the marine area in Doorn is reflected in the interviews:

“There are, of course, more areas of this size. But in proportion to their location, this is very large. Whether such kind of area will be released in Amsterdam or in Doorn, that has a completely different impact” (Project manager, Central Government Real Estate Agency, 2017).

“Of course, you also have the problem: the municipality of Utrechtse Heuvelrug, Doorn, where is it again?” (Project manager, municipality of Utrechtse Heuvelrug, 2017).

“The quality of the environment is very high and the environmental impact is actually very low. We don’t have aircraft noise, noise taxes, which are present at Hembrug terrain” (Project manager, Central Government Real Estate Agency, 2017).

The interviews reflect that the green, forested surrounding area is of high quality. Due to its location and context, the site is not affected by obstacles for redevelopment, such as aircraft noise, where they have to deal with for the redevelopment of the Hembrug terrain. The context of the marine area has its implications for the municipal and provincial policies:

“For us it is important to participate in this development, because it is a major development. Certainly, in relation to the space there is. The space within the municipality” (Process manager, province of Utrecht, 2017).

“It is very large compared to Doorn. I think that is why it is so important” (Project manager, Central Government Real Estate Agency, 2017).

“We are not a developing municipality, we are a bit of a management municipality. So, these kinds of places, a somewhat larger sale and somewhat longer term, are exceptions” (Project manager, municipality of Utrechtse Heuvelrug, 2017).

The marine area in Doorn is a large area compared to its surroundings. The interviews have indicated that large-scale and long-term developments such as the redevelopment of the marine area do not take place very often within the municipality. The transformation of the marine area is therefore an important development for both the municipality of Utrechtse Heuvelrug and the province of Utrecht.

Instruments

What is remarkable in the redevelopment of the marine area in Doorn, it that the development process has already started, even before the site will be released (figure 6). The project manager of the Central Government Real Estate Agency indicated that it is special that the redevelopment process has begun so early. This early start of the redevelopment process has its advantages and disadvantages:

“The urgency lacks a bit” (Project manager participation process, Terra Incognita, 2017).

“The advantage is that if it's empty, everyone then realizes that something is going to happen” (Project manager, Central Government Real Estate Agency, 2017).

The interviews reflect that the early start of the redevelopment process has its impact on the (lack of) urgency. It is indicated that most people are more aware of this urgency if the area is already vacant. Despite the lack of urgency, the project leaders indicate that it is beneficial to start early with the redevelopment process:

“I also believe that it is a good thing to already think about it. If you see how many of these types of areas are declining...” (Project manager participation process, Terra Incognita, 2017).

“You lose a lot of qualities of the buildings at the moment you only start by then” (Project manager, Central Government Real Estate Agency, 2017).

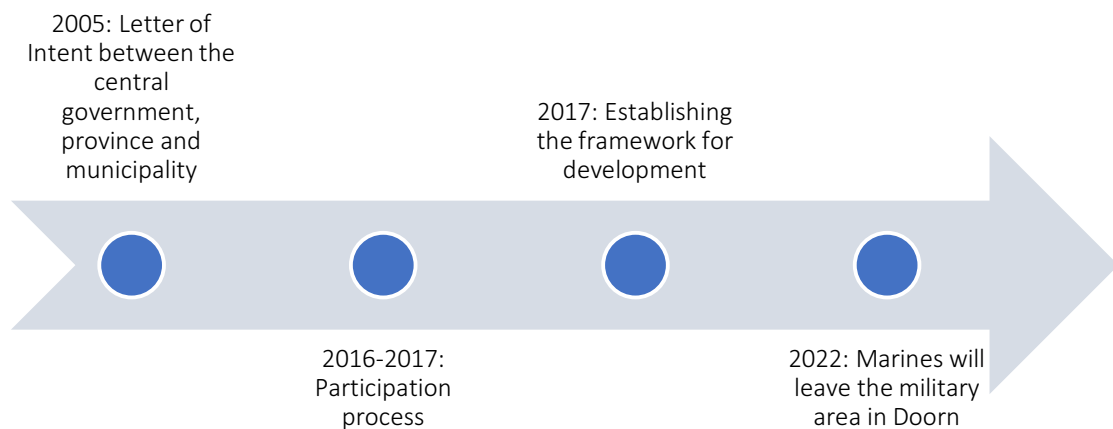
By starting the redevelopment process early, it is attempted to prevent the area from being vacant (for a long time). In this way is tried to ensure the qualities of the areas. Several analyses have been conducted in order to analyse the qualities of the area, but also to

determine the possible obstacles for redevelopment. These are analyses of the soil, the current land use, archaeology, cultural-historical value, the flora and fauna, noise and asbestos. The analyses revealed that there were a number of contaminants on the site. Some of these contaminants have already been removed, for example the removal of asbestos. Furthermore, the marine area has low air pollution due to military use. Also, soil research has been conducted. Further investigation must be carried out for some areas of the site that are pointed as locations where there is probably soil contamination (Rijksvastgoedbedrijf *et al.*, 2017). These analyses are the basis for the integral framework for development:

“The individual results of the sub-studies are integrated into a “pressure cooker” in the framework for development” (Project manager participation process, Terra Incognita, 2017).

The framework for development sets a number of conditions for the development. Among other things, the establishment of the framework for development is seen as one of the important steps to redevelopment of the area.

Figure 6: Important milestones in the redevelopment process in Doorn



Source: Own work

Framework for development

The Central Government Real Estate Agency, the municipality of Utrechtse Heuvelrug and the province of Utrecht have chosen to work with a framework for development. This framework for development can be seen as the guidance in the development process for the governments, market parties and the society. It determines the substantive direction, including a definition of the possible future, but is not a fully elaborated plan.

“A framework for development must allow space, but also sets frameworks for what is possible and is not possible” (Process manager, province of Utrecht, 2017).

Because it is not a fully elaborated plan, it provides space for the initiators and developers. The framework for development shows opportunities based on needs and is flexible as it can respond to future developments. The framework identifies the main qualities, especially at the structural level, but also indicates the undesirable functions that are excluded (Rijksvastgoedbedrijf et al., 2016). In addition to the input of the three governments, residents can also provide input for the framework for development. The process in which citizens are involved, starts with setting clear boundary conditions by the government:

“There are frameworks already, those are always there. You have to make them very clear. That is incredibly important” (Project manager participation process, Terra Incognita, 2017).

“I also find participation difficult when you remain abstract. It is also about legal certainty: what can I count on as a resident...” (Project manager, Central Government Real Estate Agency, 2017).

The process in which citizens are involved, provides advice to the governments. By formulating clear conditions for the process, attempts are being made to avoid unrealistic expectations on behalf of the citizens. The involvement of citizens will be further discussed in the following chapter in which the stakeholders are addressed. After establishing the framework for development, a number of steps will be taken.

Physical environment plan

The Central Government Real Estate Agency, the municipality of Utrechtse Heuvelrug and the province of Utrecht have agreed that the reallocation procedure for the municipality, province and water board will be implemented after the framework for development has been established. Also, a spatial plan will be developed after establishing the framework for development (Gemeente Utrechtse Heuvelrug *et al.*, 2016). The Environment and Planning Act is expected to be implemented by the time the area will be vacant, in 2022. As a consequence, a physical environment plan will be developed rather than a land-use plan to arrange the spatial planning. There have been exploratory conversations with the Ministry of Infrastructure and the Environment. Herein was discussed whether or not the marine area in Doorn might be a pilot for the physical environment plan. By being a pilot for the physical environment plan, there can be anticipated on the new Environment and Planning Act and experimented with a land-use plan with a wider scope. The project team has considered whether the marine area in Doorn would be a pilot for the physical environment plan. The project team has decided that they will, for the time being, not participate in this pilot for the physical environment plan. This is due to the fact that the project is still in an early phase and the project team is not yet working on the land-use plan for the area. The preliminary phase of the project and its consequences for participating in the pilot is also reflected in the interviews:

“The scenario discussions and participation meetings and how to move on got our full attention” (Project manager, municipality of Utrechtse Heuvelrug, 2017).

In addition, the interviews indicated that the project team wanted to decide carefully and did not want to surprise the community with the fact that they are participating in a pilot for the physical environment plan with its several potential consequences. They preferred making a very careful decision on how to shape the physical environment plan. According to the interviews, this will be reconsidered and discussed later on in the process.

“We still have debates on that and we have not made any statements yet about this in the project team, it is still left open” (Project manager, municipality of Utrechtse Heuvelrug, 2017).

In a later stage of the process, the project team would have a clearer picture of the content of the physical environment plan and the qualities of the area to have a more meaningful conversation about. The projects managers of the Central Government Real Estate Agency and the municipality of Utrechtse Heuvelrug indicate how they look at the intended flexibility of the physical environment plan:

“In the physical environment plan you can set as much as in the land-use plan. It is not that it should be abstract by definition” (Project manager, Central Government Real Estate Agency, 2017).

“In our culture, we are used to control things and detail them. And we find it difficult to work with those uncertainties” (Project manager, municipality of Utrechtse Heuvelrug, 2017).

The interview with the project manager of the Central Government Real Estate Agency showed that the physical environment plan provides the opportunity to provide flexibility, but that this does not have to be necessarily be the case. The physical environment plan also allows detailed steering. The project manager of the municipality of Utrechtse Heuvelrug indicates the municipality is used to this detailed level of steering. The municipality finds it difficult to work with uncertainties, as possible downside of the flexibility, that the physical environment plan may entail.

4.2.2 Hembrug, Zaandam

Object

Hembrug is a former military production area and is a unique industrial landscape. From 1895, firearms, artillery and ammunition for the Dutch army were produced at Hembrug. In 2000, the Ministry of Defence left Hembrug and in 2003 the ammunition producer Eurometaal closed its doors. From 2014, for the first time in history, the area is open to public. Hembrug terrain has a size of 42.5 hectares, consisting of 15 hectares of forest and 7.3 hectares of built area. Hembrug has 100 historical buildings, of which 51 monuments. Approximately 38.5 hectares will be available for sale.

Hembrug terrain is located within the municipality of Zaanstad and within the province of North Holland. The former military area has an urban context, located within the metropolitan

area of Amsterdam, on the North Sea channel between Zaandam and Amsterdam (figure 7).

Figure 7: The urban context of Hembrug area in Zaandam



Source: Biedboek (2017) & Google (2017)

The urban context of Hembrug is reflected in the interviews:

“Hembrug has several benefits. That is to say the location. It is located right next to Amsterdam. Whereas Amsterdam is just full now, it’s the first place that can overflow” (Project manager, Central Government Real Estate Agency, 2017).

“The development, certainly the development seen here in the area, within the metropolitan region of Amsterdam, would go much faster. And thus, Hembrug’s development would go much faster and would become much more promising” (Co project manager, Central Government Real Estate Agency, 2017).

“You can hardly find something like that anywhere in the Netherlands. That profile attracts people; attracts market parties. People want to do something with it, want to be part of it” (Project manager, Central Government Real Estate Agency, 2017).

As indicated the context of Hembrug terrain in Zaandam has several advantages. The interviews have shown that a major advantage of the site is the location, located next to Amsterdam. Hembrug terrain is located in the metropolitan region of Amsterdam. The

development is accelerating within this region compared to other regions in the Netherlands. Furthermore, Hembrug has a number of features that makes the site unique. The most clear example of this is the unique cultural history of the buildings. Over a period of 110 years, there are different types of buildings in different styles. Also, many buildings on the site have a monumental status. However, the interviews show that the urban context and the location of Hembrug besides bringing benefits, also have brought several disadvantages:

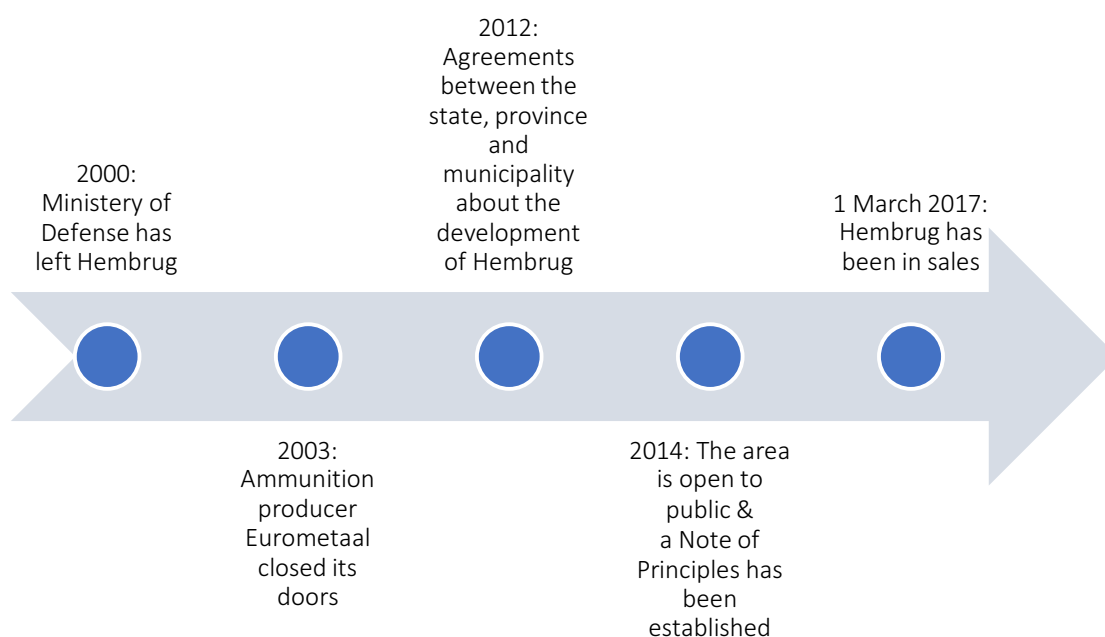
“Hembrug is located right in the harbour. There is heavy industry around it with a lot of noise and environmental impact. Schiphol contour... and so many spatial planning problems” (Project manager, Central Government Real Estate Agency, 2017).

The interviews have shown that there are many obstacles for the redevelopment, due to the location and the urban context of the area. Examples of these obstacles are security and noise contours due to the surrounding heavy industry and Amsterdam Airport Schiphol. In addition to these obstacles due to the location and urban context, the area itself also contains features that may impede the redevelopment. As definitions of related terms were given, Hembrug is an ultimate example of contaminated land. A major obstacle for the redevelopment task is the high level of pollution that occurs in the area. This pollution is due to the activities of defence. This pollution concerns both regular contamination and contamination with mustard gas. The various security and noise contours and the contamination problems make the intended transformation of the area even more complex.

Instruments

The Dutch government, the province of North Holland and the municipality of Zaanstad have jointly directed to the redevelopment of the area. The first step of the development of the area was initiated in 2011. The project agency, a collaboration between the Central Government Real Estate Agency, the municipality of Zaanstad and the province of North Holland has been founded to actively work on the redevelopment. Given the complexity of Hembrug, the Central Government Real Estate Agency has conducted many preliminary investigations in order to provide insight in the obstacles for development. The many investigations and analyses have resulted in a large number of documents. There were several important steps in the redevelopment of the complex military area (figure 8)

Figure 8: Important milestones in the redevelopment process in Zaandam



Source: Own work

Framework agreement

For the redevelopment of the marine area, a framework agreement has been established in 2012. Several efforts have been made for years to make this possible. A very important impulse was that the Ministry of Housing, Spatial Planning and the Environment (*VROM*) did allocate 4 million euros to the municipality of Zaanstad to grant subsidies, which enabled the municipalities to make the monuments wind and waterproof. Furthermore, the Ministry of Defence allocated 10 million euros for the pollution of the area. These have been important financial impulses. In the framework agreement is mentioned that the Central Government Real Estate Agency, the municipality of Zaanstad and the province of North Holland will collaborate for the redevelopment of Hembrug within their respective roles. The three parties will settle the agreement administratively to provide a sufficient basis for the Central Government Real Estate Agency for the redevelopment.

The framework agreement contains a number of goals for the redevelopment of the area. The first goal is return Hembrug to the city and region. Hembrug terrain will be redeveloped by the Central Government Real Estate Agency into a busy, mixed and sustainable area with a high public value. Hembrug is one of the largest and most significant redevelopment projects in the Netherlands. It offers space for (creative) business in the manufacturing industry, small-scale (office) companies, craft studios and workshops, events and recreation and catering industry. The market parties will seek opportunities for realizing a lively environment. The Central Government Real Estate Agency, the municipality of Zaanstad and the province of North-Holland highly value the economic and social significance that the area may have for the region.

The first development phase will consist of the development of the sub-areas that are forming the entrance to the area, areas that are easiest to make public accessible and most buildings and monuments.

A second goal is soil pollution functional and innovative remediation and sustainable use of the subsoil. The Central Government Real Estate Agency will, as developer of the area, tackling the contamination. Ten million euros were available concerning the Soil Protection Act (*Wet bodembescherming*) on behalf of the Ministry of Infrastructure and the Environment and ten million euros on behalf of the Ministry of Defence for the purpose-oriented soil remediation. The measures are innovative, effective and functional. The municipality participates in a function-oriented approach to soil remediation.

To make optimal use of cultural and qualities of the environment is the third formulated goal in the framework agreement. For the redevelopment of Hembrug, the preservation and enhancement of the unique qualities of nature and cultural and economic qualities are very important. There are fifteen principles of the visual quality plan (*beeldkwaliteitplan*) are adopted as a guideline. The current policy frameworks and planning frameworks apply to the area.

A fourth goal for the redevelopment of Hembrug terrain is that monuments get a new life. The current (bad) state of many monuments also determines the urgency of redevelopment. Monuments will be preserved and reused wherever possible. The monuments play a role in the further development of the area. Monuments for which no direct function has been found will be maintained as much as possible.

The fifth formulated goal is to make the present nature of the area publicly accessible. Hembrug has a large number of hectares of valuable nature. An example of this is the forest that dates back to the twenties of the last century. This forest can be made accessible for the first time to visitors. It is expected that free access for visitors would require a level of soil contamination that would affect the quality, which would lose both the qualities of nature and the recreational attraction. A challenge is to make the forest as accessible as far as possible, but maintain the forest and its values at the same time.

As the sixth and last goal has been formulated to make the Hembrug terrain publicly accessible. The municipality of Zaanstad and the province of North Holland play a supporting role in making Hembrug accessible and in the development of Hembrug as a new location. The ambition is to improve the accessibility of the area, while at the same time the pressure of car traffic will be limited. The Central Government Real Estate Agency, the municipality of Zaanstad and the province of North Holland see a great opportunity in water transport. As Hembrug develops, an increase in traffic pressure may occur. Also, other solutions may be sought to deal with traffic pressure (Gemeente Zaanstad et al., 2012).

According to the interviews, the above-mentioned goals that are formulated in the agreement framework are broadly defined goals. The goals were jointly devised by the Central Government Real Estate Agency, the municipality of Zaanstad and the province of North

Holland. Subsequently, the parties jointly gave an interpretation to these goals by discussing the definitions and meanings of them. By giving an interpretation to these goals, it becomes increasingly sharp and more concrete. This partly results in the physical environment plan and partly in the anterior agreement.

Visual quality plan

A cultural-historical analysis is done to prepare the framework for development. The cultural-historical analysis and visual quality plan form the spatial basis for development. The cultural-historical analysis “Cultural-Historical Analysis Hembrug terrain” is conducted to describe and appreciate the qualities and values of the Hembrug terrain. The large number of buildings, the (green) structures and other objects give the area authenticity and cultural-historical value and provide opportunities for redevelopment of the area.

After the cultural-historical analysis, a visual quality plan “Visual quality plan Hembrug terrain” has been drawn up that goes one step further than the cultural-historical analysis. The visual quality plan identifies fifteen (urban planning, landscape, building, spatial and programmatic) principles and design guidelines. The principles of the visual quality plan are:

- Strengthening the unique green qualities
- To densify within the cultural historical framework
- Restoration of the monumental front
- Adding a new era of time
- Maintaining monuments as much as possible
- Sharper boundary of the property
- More coherence in accessibility
- More connection with the environment
- Variation of nine development units
- Strengthening the contact with water
- Build on existing architecture
- Parking spaces within the units
- Public space as connection
- Development based on sustainability (Rijksvastgoed- en ontwikkelbedrijf *et al.*, 2011).

Area passports

A cultural historic analysis and a visual quality plan are fixed components in the development of areas like Hembrug. In addition, a series of area passports has been formed for the redevelopment of the Hembrug terrain to preserve the qualities of the military industrial site. The area passports are starting points for the physical environment plan. In order to develop the area to a residential and working area, existing buildings will be renovated and re-identified, buildings will be built and public spaces will be (re)developed. The area passports show what is allowed in different sub-areas at Hembrug. Each sub-area has been identified in terms of transformation of monuments and existing buildings, new buildings (including elements as building height and sight lines) and the design of the public space. The area passports provide the spatial quality frameworks. For each sub-area, the preconditions for new construction and criteria for architecture, spatial planning and the public space are set. The construction and renovation will have to be in line with the historical identity of the

area. Furthermore, the area passports indicate how the redevelopment of buildings and public space might and sometimes even how it should be. The area passports make conversations about the quality possible at an early stage which is continued in all stages of the plans. They make the development space for the future owner clear. A supervisor will test initiatives from market parties to those area passports (Gemeente Zaanstad, 2015).

Physical environment plan

The Central Government Real Estate Agency and the municipality of Zaanstad agreed that a spatial framework for Hembrug should be established. The absence of a land-use plan resulted in the fact that there has never been a spatial framework for the area. At the beginning of the development, a spatial framework had to be considered. During this period, a new development took place with the announcement of the new Environment and Planning Act. The Ministry of Infrastructure and the Environment was planning to change the land-use plan into a new instrument: the physical environment plan. As already indicated in chapter 3, the Ministry of Infrastructure and the Environment has indicated that it would like to experiment with this physical environment plan. Since then several municipalities are already experimenting with the physical environment plan anticipating the new Environmental and Planning Act, using the Crisis and Recovery Act. The municipality of Zaanstad and the Central Government Real Estate Agency have decided to participate in this pilot:

“Not only because we find it a very interesting tool, but also because we need it for this area” (Process manager, municipality of Zaanstad, 2017).

Both the municipality of Zaanstad and the Central Government Real Estate Agency were open to experiment with the physical environment plan. The physical environment plan concerns the whole Hembrug terrain. The Note of Principles focuses on substantive choices for the redevelopment of Hembrug and sets the basis for the implementation of the draft version of the physical environment plan. It will be established by the municipality of Zaanstad in consultation with stakeholders of the area. The municipality of Zaanstad and the Central Government Real Estate Agency agreed that the Central Government Real Estate Agency would also look into it, guide and think along with the municipality. To establish a physical environment plan, the Central Government Real Estate Agency and the municipality had to start from scratch. Interviews with involved project and process managers have shown that the beginning of the process to establish a land-use plan was quite in line with the beginning of the process to come to a land-use plan. However, there were also some difficulties in establishing a physical environment plan compared to a regular land-use plan:

“You can of course not work on the automatic pilot. It is different. You really work with another system. So, the entire layout of the document is different. Therefore, it automatically takes more time and we need expertise that we do not always have” (Process manager, municipality of Zaanstad, 2017).

“The physical environment plan is a very complex spatial planning concept... it has become a rather extensive document. Pretty complicated to understand how to get started” (Project manager, Central Government Real Estate Agency, 2017).

“That proved to be difficult, because it was a whole new construct” (Co project manager, Central Government Real Estate Agency, 2017).

“It is difficult for many parties to do it. Also for ourselves. You do a lot of research later in the process we usually do in the front. That’s also really different from a traditional land-use plan” (Process manager, municipality of Zaanstad, 2017).

Nevertheless, there were several reasons for choosing a physical environment plan instead of a land-use plan. An important reason for making use of the physical environment plan was the period in which the development process was at that moment. It was a period of financial crisis at the beginning of the redevelopment process.

“We do not know in what direction this area will develop eventually. We are looking for a spatial framework that gives us some degree of flexibility to the future” (Co project manager, municipality of Zaanstad, 2017).

According to the interviews, the expectation was that the large area would certainly not develop quickly because of the financial crisis. The physical environment plan provides a certain degree of flexibility to the future. The physical environment plan makes it, in contrast to the land-use plan, possible to look at a twenty-year period instead of a ten-year period. The physical environment plan implies that Hembrug will be developed in a flexible, phased and incremental way. A feature of this form of development is that there is no master plan or blueprint. The development of the area is incrementally addressed from the demand from the market and the chances that occur. In a physical environment plan, the functions will not be set to a specific location. This is in contrast to a land-use plan in which is included where the specific functions, such as housing and business will be. By providing flexibility for future, unexpected development, the physical environment plan fits the organic, incremental development. The physical environment plan has a broader scope than the traditional land-use plan and the frameworks for development are more flexible (ZNSTD, 2014). The physical environment plan also aims to speed up the decision-making with regard to projects within the physical environment. Interviews show how the physical environment plan has made the redevelopment process faster and more flexible so far:

“Well, flexibility certainly. In the end, we will get a framework, which will certainly provide space for us to fully implement that flexibility” (Co project manager, Central Government Real Estate Agency, 2017).

“When it comes to speed, I think we’ve done twice as long as an average land-use plan process. That is really a point of attention” (Co project manager, Central Government Real Estate Agency, 2017).

However, the intended flexibility can also cause uncertainty:

“You also notice that developers having trouble, because they also want to know what they are up to” (Process manager, municipality of Zaanstad, 2017).

The intended increasing speeding up of the planning processes has not yet been achieved. Even more, the opposite seems to be true. The process of setting up a physical environment plan seems to take twice as long as setting up a land-use plan. An explanation for this can be found in the fact that establishing a physical environment plan is accompanied by a new method the involved parties are not used to yet. In particular the municipality that was used to setting up the ‘regular’ land-use plan has to get used to the process of establishing the physical environment plan. However, the pilot for the physical environment plan does already bring the intended flexibility to the future. Although the flexibility can cause more uncertainty, it will also facilitate new developments and the chances that occur. The specific locations of the functions can be left open. In addition, the time component will also provide flexibility, by not already decide in advance when something needs to be done and when another area will be up next. Furthermore, the interviews reflect that despite providing flexibility in the physical environment plan, the government still steers a lot:

“You leave the completion in time and function open. But we have steered very much on quality” (Process manager, municipality of Zaanstad, 2017).

“We now know pretty well what direction the site is likely to develop; the product is becoming more and more specific. We also increasingly recognize the qualities of the area” (Co project manager, Central Government Real Estate Agency).

“Because development has continued over time and increasingly comes, you are also increasingly sharpened in formulating your starting points and principles. That’s something we certainly see” (Co project manager, Central Government Real Estate Agency, 2017).

The phase of the redevelopment process at the Hembrug terrain is related to the degree of detail of the steering instruments. The first design of the physical environment plan is ready and will be released in September 2017. The board will establish the physical environment plan in early 2018. One interviewee has indicated that if a physical environment plan would have been made in a shorter period, it would have been a much more abstract plan and that elaborations should have been made afterwards. The interviews show that the further the project is in the redevelopment process, the more specific the steering instruments will be.

4.3 Insights into the used steering instruments

There was a focus on specific planning practices: the redevelopment of military brownfields. According to Clark (2009, p. 182), brownfields can be described as: sites that have been affected by the former uses of the site and surrounding land; are derelict and underused, may have real or perceived contamination problems, are mainly in developed urban areas and require intervention to bring them back to beneficial use. Military brownfields are a special type of brownfields, formed as a consequence of the departure of the army. The Dutch

government is the owner of many military brownfields and wants to redevelop them. Several steering instruments are used by the Dutch government in the redevelopment of military brownfields. This addresses the policy dimension of governance that refers to the instruments used to steer and used for achieving (spatial planning) goals. The steering instruments have their impact on the redevelopment of military brownfields. The redevelopment of brownfields is very case specific and depends on the specific features of the brownfield.

Two examples of military brownfields where the government initiates redevelopment are the marine area in Doorn and Hembrug terrain in Zaandam. The marine area located in Doorn is a military brownfield in a non-urban, forested context. The area will only be released in 2022, but the government has already initiated the redevelopment process. The redevelopment process of Doorn is still in an early phase, resulting in the fact that only few steering instruments have been used so far on behalf of the government. The process of establishing a framework for development is still in progress. The spatial plan (in the form of a land-use plan or a physical environment plan) has not yet been discussed. However, the project manager of the municipality of Utrechtse Heuvelrug indicates that the municipality is used to a detailed level of steering and finds it difficult to work with uncertainties.

In contrast to the marine area in Doorn, the Hembrug terrain in Zaandam has an extremely urbanised context. The location within the metropolitan area of Amsterdam can provide many opportunities for the redevelopment. However, this urban context also brings obstacles for the redevelopment of the area, such as security and noise contours due to the surrounding industry and Schiphol Amsterdam Airport. It has become clear that in addition to the context, the specific features of the area itself (such as the presence of monuments on the area and soil pollution) influence the development and the number of analyses.

Besides, Hembrug is in a further phase of redevelopment. A large number of instruments is used with an increasing level of detail in these instruments, compared to the marine area in Doorn. For example, the area passports show what is allowed in different sub-areas at the Hembrug terrain, in terms of monuments, existing and new buildings and the design of the public space. The analysis reflects that the phase of the redevelopment process is related to the number of instruments and the level of detail in these instruments. Because the redevelopment of the Hembrug terrain has continued over time, the several involved key stakeholders were very much aware of the qualities of the area. This has led to increasingly sharpened principles for the redevelopment of the area in Zaandam.

In addition, based on the analysis of Hembrug, it can be concluded that the pilot for the physical environment plan has played an important role in the redevelopment. What appears from the interviews is that flexibility to the future is provided through the time and place components of the physical environment plan. These components make it possible to facilitate new developments and chances that occur. Despite this provided flexibility, the authorities still steer a lot in detail on qualities of the area. In addition, the interviews show that because the involved parties still have to get used to the procedures of the instrument, the intended acceleration of the process by the physical environment plan cannot be met yet.

5. Stakeholders in the redevelopment process

Since the course of military brownfield development and the used steering instruments is determined by the stakeholders, the various key stakeholders involved in redevelopment processes will need to be addressed. Therefore, the third sub-question is: *“What are the key stakeholders and their interests in the redevelopment process of military brownfields in different contexts?”*.

“The nature of a certain planning culture depends on a government’s desired amount of steering with regard to private interests, in order to reach certain objectives”
(Buitelaar & Sorel, 2010, p. 985).

There will be a focus on the politics and polity dimensions of governance. The politics dimension relates to the different actors and the extent to which they may be involved in the steering process. The polity dimension includes the mutual relationships between the actors and their cooperation. First a definition of stakeholders and brownfield redevelopment will be given. Thereafter, an analysis of the various involved actors, their roles and the interaction between them in the redevelopment of the military brownfields will be made.

5.1 Stakeholders in brownfield development

In redevelopment processes, a large number of stakeholders are involved, each with its own interests. According to Freeman & McVea (2001) stakeholders can be defined as: *“any group or individual who is affected by or can affect the achievement of an organization’s objectives”*. The involvement of stakeholders in the redevelopment process of brownfields has been recognised as an essential condition towards improving the acceptance of the decision-making process (Rizzo *et al.*, 2015). However, the large number of involved stakeholders with different interests makes the redevelopment process even more complex. Each stakeholder looks at the possibilities and complications of the redevelopment of military brownfields in his or her own way. According to Koppenjan & Klijn (2004, p. 7) *“Participants not only have different perceptions, objectives and interests, but they also come from different organizations, administrative levels and networks”*.

According to Rizzo *et al.* (2015) it is of importance to identify all the involved stakeholders in the decision-making process. Once the stakeholders have been identified, it is essential to determine their roles, their interests and their power resources. Also, the relationships between them is essential in understanding the direction of planning processes. They represent the converging or conflicting interests between the involved actors and reflect the way in which they are organized (Nuisl & Heinrichs, 2011).

A stakeholder analysis can be made of all stakeholders involved in the brownfield redevelopment of the marine area in Doorn and Hembrug in Zaandam. The purpose of a stakeholder analyses is to map the parties or persons who are involved in the project plans.

5.2 Marine area, Doorn

There are three key stakeholders involved in the redevelopment process of the marine area in Doorn: the Central Government Real Estate Agency, the province of Utrecht and the municipality of Utrechtse Heuvelrug.

Project organisation

The project organisation consists of a project board and a project team. The project board meets four times a year. The project board will decide, in accordance of the formal decision-making bodies of each of the parties with their own internal procedures. The Central Government Real Estate Agency, the municipality of Utrechtse Heuvelrug and the province of Utrecht are presented in the project board (Rijksvastgoedbedrijf *et al.*, 2016).

The project board will:

- Determine the plan of action
- Determine the communication and participation plan
- Cope with initiatives of parties during the process
- Determine the frameworks for scenarios
- Determine the environmental stakeholder analysis
- Determine the framework for development
- Determine the several analyses, as elements of the framework for development, such as (among others) research into: soil, mobility, archaeology, flora and fauna, the market and location (Rijksvastgoedbedrijf *et al.*, 2016).

Similar to the project board, the Central Government Real Estate Agency, the municipality of Utrechtse Heuvelrug and the province of Utrecht are represented in the project team. Members of the project team are responsible for the creation of a framework for development. The Central Government Real Estate Agency has a leading role in the process, since the project manager of the Central Government Real Estate Agency is also the project manager of the project team. All members of the project team have an active role in providing concrete products. The project team meets in a number of sessions every two to three weeks where a number of topics are discussed. The project team has the mandate to outsource assignments to external parties within the financial and substantive frameworks provided by the project board (Rijksvastgoedbedrijf *et al.*, 2016). In the project team are discussions on if the authorities do what they have agreed with or that that they deviate from the process.

The Central Government Real Estate Agency, the province of Utrecht and the municipality of Utrechtse Heuvelrug will jointly explore how the marine area in Doorn will be redeveloped. A letter of intent was signed in July 2015 between these three authorities as a basis of cooperation. The letter of intent is a binding agreement in which the different actors agree on their collective goal. In this letter of intent, agreements have been made regarding the purpose of the letter of intent, the cooperation, the process, the project organization, costs, dispute resolution, amendments and additions and the duration and the end of the contract. The purpose of the letter of intent is to facilitate the redevelopment of the area in good cooperation. The Central Government Real Estate Agency, the municipality of Utrechtse Heuvelrug and the province of Utrecht will jointly explore how the parties wish to work together in the redevelopment process of the marine area in Doorn. In the letter of intent,

the parties have agreed on the communication plan and the citizen participation plan. The three key stakeholders have agreed on their collective goal in the letter of intent and work together on this task from their and each other's responsibilities, interests, powers and position. In this letter of intent is among other things included that the Central Government Real Estate Agency takes financially the largest part into account. If there are special requirements for participation or substantive investigations, there will be consultations with the municipality and the province regarding any contribution. The letter of intent is the starting point for the framework for development. The letter of intent is also a starting point for a cooperation agreement, which will be addressed in a later stage of the development process, focusing on realization and execution. Subsequently, these stakeholders make a plan of action.

Central Government Real Estate Agency

The Central Government Real Estate Agency is the current owner of the marine area in Doorn. The Central Government Real Estate Agency has decided to strengthen policy guidance on real estate. In this context, the Central Government Real Estate Agency and the provinces have investigated how the ambitions of the "Multiannual Program Infrastructure, Space and Transport Areas Agendas" and other policy goals can be linked to government property, including the task of the sale of the area. The central government had a chance to announce their interest in the beginning of 2016. The central government decided not to make use of this procedure and decided not to buy the area. With this decision, the national internal reallocation procedure has been closed. After the departure of the marines, the Ministry of Defence will transfer the management of the area on the basis of the sales procedure, via the Central Government Real Estate Agency to the new owner (Rijksvastgoedbedrijf *et al.*, 2016).

The Central Government Real Estate Agency has several roles in the redevelopment process according to the plan of action. The Central Government Real Estate Agency has a leading role in the redevelopment of the marine area and in the process of establishing a framework for development. The Central Government Real Estate Agency is responsible for the sale of the area. As owner of the area it plays a decisive role in the sales strategy. This decisive role of the Central Government Real Estate Agency is also reflected in the interviews:

"Talking about steering. Of course, you have the land ownership and that makes it very easy to define requirements that market parties should take into account in their bid and what you make agreements about" (Process manager, Province of Utrecht, 2017).

The Central Government Real Estate Company can, as the current owner of the marine area, determine the requirements for the sale of the area. Despite the decisive role as owner, the Central Government Real Estate Agency aims to reallocate redundant state property in cooperation with other governments. The Central Government Real Estate Agency will work together with the municipality and the province for the redevelopment of the marine area.

Municipality of Utrechtse Heuvelrug

The municipality of Utrechtse Heuvelrug has an important role in the redevelopment process. The municipality has the opportunity to make use of the reallocation procedure. The municipality will decide whether or not to use the preferred position to purchase (parts of) the area. The municipality can buy the marine area before the area will be in public sale. The municipality has to make a decision on this after determining the framework for development (Rijksvastgoedbedrijf *et al.*).

The municipality of Utrechtse Heuvelrug has indicated that it wanted to start early with the redevelopment process. This resulted in the fact that the redevelopment process has started before the marines have left the area. In this way, the municipality prevents the area from being vacant (for a long time).

The three governments agreed on the fact to make use of (citizen) participation in the redevelopment process. This participation process would be arranged according to the way the municipality used to do it. The starting point for this was the municipal policy document regarding citizen participation. This document describes that the broad societal tendency of more society and less government ensures that the municipality wants to make increasingly use of participation. Involvement of all stakeholders in an earlier stage of the process, within the right (clearly communicated) boundary conditions and the use of contemporary (digital) communication tools facilitate the participation process. The content of this policy document already has been applied to several other projects within the municipality of Utrechtse Heuvelrug (Gemeente Utrechtse Heuvelrug, 2013).

Before the participation process in preparing a draft version of the participation plan, the question arose whether the municipality should give specific preconditions or not. According to the project manager of the municipality of Utrechtse Heuvelrug there were a lot of discussions on this subject within the municipality. Several colleagues said that the municipality must set specific requirements. In contrast, there were other colleagues who said the participation process must be conducted as openly as possible. This discussion point came up in the interview with the project leader on behalf of the municipality:

“The question was: does the city council in particular, but this also applies to the province and the central government, wanted to give preconditions or not” (Interview project manager, municipality of Utrechtse Heuvelrug, 2017).

The discussion within the municipality resulted in two conditions on behalf of the municipality. A first condition is that research must be carried out on whether a school can be established on the area. The second condition is that research must be carried out on whether the sports hall can remain on the area. Furthermore, there is a residential vision that provides in the housing needs within the municipality. This residential vision for the entire area of the municipality of Utrechtse Heuvelrug should be taken into account. In this residential vision, it is described that a certain number of houses are being built within the municipality. In the framework for development, that remains to be established, there are likely to be specific

housing requirements for the marine area (Interview project manager, municipality of Utrechtse Heuvelrug, 2017).

In addition to the municipal requirements in the redevelopment process, the municipality is also responsible for setting the spatial frameworks for development of the marine area. The governing bodies of the municipality of Utrechtse Heuvelrug, the Board of Mayor and Aldermen and the city council have a public-law responsibility for good spatial planning. The city council will eventually determine the required physical environment plan. The college of mayors & councillors will grant licenses according to the Wabo-procedure (Rijksvastgoedbedrijf *et al.*, 2016).

Province of Utrecht

Similar to the central government and the municipality of Utrechtse Heuvelrug, the province has the opportunity to make use of the reallocation procedure. It will decide whether or not to purchase the area. The province has to make a decision on this after determining the framework for development:

“I think we won’t make use of the reallocation procedure, because in that sense this is a location you can leave it to the market” (Process manager, Province of Utrecht, 2017).

The interview with the process manager on behalf of the province of Utrecht has shown that the province will probably not make use of this reallocation procedure. Besides, the province of Utrecht was asked to collaborate on the redevelopment by the Central Government Real Estate Agency as current owner of the area. There was initially some doubt whether the province of Utrecht would participate in the redevelopment process. Also, the province had already chosen in which areas they would participate. However, the province decided to participate in the redevelopment process:

“It is such a big place at such a location and there are many interests for the province: mobility, green, nature, housing... These were the arguments for the province to eventually participate” (Project manager, Central Government Real Estate Agency, 2017).

“There are a number of provincial interests that are part of the area, but also transcending the area. To ensure those interests, we would like to join in the redevelopment process” (Process manager, Province of Utrecht, 2017).

The province of Utrecht has eventually chosen to play an active role in the redevelopment process. The province of Utrecht considers the redevelopment process of the marine area as a major and important task, because of the scale and size of the area and since there are many provincial policy goals and interests. The province of Utrecht has a general responsibility for proper spatial planning and has appointed provincial interests in the Provincial Spatial Structural Vision 2013-2028 and rules in the Provincial Spatial Regulation 2013. The province has interests in the field of mobility, the ecological main structure, cultural history,

archaeology and the housing task. There are no specific requirements for the redevelopment of the area on behalf of the province. The province of Utrecht considers the area as a chance. The province aims to steer in particular on the new function of the area. The province of Utrecht prefers the realization of houses on the area. According to the interview with the province of Utrecht, the marine area in Doorn is a unique opportunity to contribute to this challenge. However, the province of Utrecht has a significantly less important role than the Central Government Real Estate Agency and the municipality of Utrechtse Heuvelrug:

“The Central Government Real Estate Agency and the municipality obviously have a much more direct role. The Central Government Real Estate Agency, however, is the owner and the municipality as the more regulating government that establishes the land-use plan. As a province, we are a little in between” (Process manager, Province of Utrecht, 2017).

There is an integral area development program within the province of Utrecht. This program is an extra financial stimulus and ensures that additional money is available if integral value can be created. The program made it possible for the province of Utrecht to contribute in the costs. After establishing the framework for development, the central question is how the province will stay involved in the development process.

Citizens

“Moreover, at the institutional level, the awareness of the importance of an effective stakeholder involvement led to the promotion of public participation at brownfields and contaminated sites” (Rizzo et al., 2015, p. 438).

In addition to the authorities, citizens are also involved in the redevelopment process of the marine area in Doorn. Public participation and citizen involvement are encouraged in this process. The Central Government Real Estate Agency, the municipality of Utrechtse Heuvelrug and the province of Utrecht have chosen for a participatory approach for the redevelopment. This implies that the authorities work in close consultation with all stakeholders, especially with the residents of the municipality of Utrechtse Heuvelrug. The interviews reflect the first experiences with the participation process:

“The Central Government Real Estate Agency was not used to make use of participation that often... or not at all. It will be” (Project manager, municipality of Utrechtse Heuvelrug, 2017).

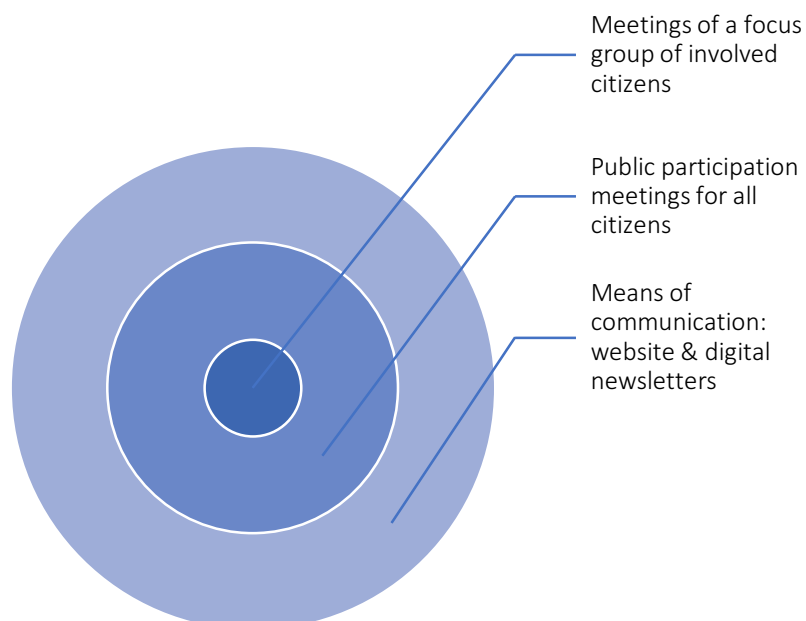
“So that was filled in that way as we go quite far here with the participation. That has also resulted in the necessary discussions in the project team” (Project manager, municipality of Utrechtse Heuvelrug, 2017).

“They also indicated that a motion was adopted in the city council that this should be a paragon of participation, this process. So that it would be very important. We did agree on that, actually nothing but good” (Project manager, Central Government Real Estate Agency, 2017).

Since 2015, the Central Government Real Estate Agency, the municipality of Utrechtse Heuvelrug and the province of Utrecht have spent 1.5 years to start the participation process. After jointly establishing the plan of action, the three governments started the selection process to get external support for the participation process. There were many consultations about the format of this selection process. Because of the size of the marine area, several agencies were invited for conversations to exchange thoughts. The selection was made by the three authorities, resulting in a selection of four agencies. The agencies were selected on quality and how they would set up the participation process. Three agencies were asked to submit a plan of action and to make a quotation. Subsequently these agencies could explain their plan of action in discussions with the governments. Also, some specific requirements were technically and legally verified. Eventually one agency, Terra Incognita, was selected. The Central Government Real Estate Agency, the municipality of Utrechtse Heuvelrug and the province of Utrecht agreed that this agency had the best understanding of what they wanted. Terra Incognita had to make a final plan of action, including a participation plan, that would be determined by the council. The participation plan was an important milestone and the starting point for the participation process. This participation plan will be elaborated and fine-tuned later on in the process in consultation with the authorities. In 2016 the authorities and the agency agreed upon the role of the agency. Terra Incognita will be responsible for the participation process and will be leading the participation process on behalf of the three authorities (Interview project manager, municipality of Utrechtse Heuvelrug, 2017).

There has been made use of different forms of citizen engagement in the redevelopment process of the marine area in Doorn. The citizens can be categorized in different levels of citizen involvement in the redevelopment process in Doorn, from intensive to extensive, and in various forms (figure 9).

Figure 9: Levels of citizen involvement in the redevelopment process of the marine area in Doorn



Source: Own work

At the beginning of the participation process, citizens could indicate in what way they wanted to participate in the redevelopment process. The most involved citizens in the redevelopment process are the citizens who are part of the focus group. Citizens could sign up to be part of this focus group. According to Rizzo *et al.*, (2015), focus groups are used to collect information from a limited number of members of a clearly defined target group. *“They are composed of six to twelve stakeholders who are similar in one or more aspects and are guided by a facilitator through a discussion focussing on several related topics in order to gather information about the opinions and expertise of group members in a comfortable environment”* (Rizzo *et al.*, 2015, p. 440). Terra Incognita has formulated in advance not to work with more than approximately twelve people in this focus group. Based on the candidates who signed up, Terra Incognita eventually selected a group of fourteen citizens. The selected people form a representative sample of those involved in the redevelopment process of the marina area in Doorn.

The selected people come together in workshops that last for several hours. The selected citizens participate actively in the team and provide input for the framework for development (figure 10). The team members do not make decisions, but they prepare the public workshops, together with the public authorities and Terra Incognita. The team actively collaborates in teamwork (Terra Incognita, 2017).

The following rules apply to this team of involved citizens:

- Each participant is fully aware of the content and not just from an interest;
- A participant in this team commits himself to the process and spending time on the process, out of commitment and because he/she is interested;
- A participant can have a professional background, but operates on the basis of a target group;
- A participant does not necessarily commit to the content. He or she may have a different opinion
- Members of the team cannot be replaced during the process without consulting Terra Incognita (Terra Incognita, 2017).

Figure 10 & 11: Concentrated working groups & a public participation meeting



Source: Own pictures

Besides meetings of the small group of involved citizens, public participation meetings for all citizens are organized. During these public meetings, all residents can share their ideas on the redevelopment of the area (figure 11). Furthermore, citizens are provided with information by means of communication such as the website and digital newsletters.

The authorities strive to achieve a transparent information process and contemporary participation process, aimed at residents, stakeholders and potential entrepreneurs who have ideas about the future of the marine area and actively want to think along with the governments. According to the participation plan the participation process is a contemporary participation process *“which increases support and retrieves ideas from a broad group of interested and relevant stakeholders”* (Gemeente Utrechtse Heuvelrug et al., 2016, p. 2).

According to the project manager of the participation process, there are a number of benefits for involving citizens in the redevelopment process:

“Citizens and interest groups have an opinion that will come to you sooner or later”
(Project manager participation process, Terra Incognita, 2017).

“The moment you make a plan with support, it also has execution power” (Project manager participation process, Terra Incognita, 2017).

The project manager of the participation process has indicated that the acceptance of the decision-making process can be increased among the citizens whose opposition could otherwise interfere within the redevelopment.

5.3 Hembrug, Zaandam

There are three key stakeholders in the redevelopment process of the Hembrug terrain in Zaandam: the Central Government Real Estate Agency, the municipality of Zaanstad and the province of North Holland. Each actor has its own role in the redevelopment process. They work together for successful redevelopment of the area.

Project organisation

Similar to the marine area in Doorn, a project board and a project team were set up for the redevelopment of the Hembrug terrain in Zaandam. The Central Government Real Estate Agency, the municipality of Zaanstad and the province of North Holland are represented in the project board as well as in the project team.

The project board takes the binding decisions. The project team was formed in 2012 to redevelop the Hembrug terrain. The three authorities have settled appointments administratively in a framework agreement in 2012. In this way, they will ensure that the development of Hembrug will get off the ground and get started. Within this framework is formulated what the different responsibilities and roles of the Central Government Real Estate Agency, the municipality of Zaanstad and the province of North Holland in the redevelopment process are. The division of roles is also reflected in the interviews:

“The Central Government Real Estate Agency as executive agency. The municipality has a supporting role, but also to arrange the spatial planning. The province has a role in which it particularly arranges subsidies to develop the site slowly but surely possible”
(Project manager, Central Government Real Estate Agency, 2017).

Central Government Real Estate Agency

The Central Government Real Estate Agency has a very important and decisive role in the redevelopment process as the current owner of the Hembrug terrain. It is responsible for the redevelopment and exploitation of the area. According to the framework agreement, the Central Government Real Estate Agency has several roles in the redevelopment process. It aims to develop and rehabilitate the entire area as developer of it and has initiated the development. The Central Government Real Estate Agency is the (financial) risk bearer of the development and ensures risk management. The Central Government Real Estate Agency is responsible for implementing the substantive objectives and appoints and directs a project director for this purpose. Also, the Central Government Real Estate Agency carries out the function-oriented soil remediation and the remediation of defence-related materials. For example, it has removed the mustard gas that was present in the soil. Besides, the Central Government Real Estate Agency focuses on the public space. Additionally, several market parties indicated that they were interested in renting a building on Hembrug terrain. The Central Government Real Estate Agency has subsequently taken action and has renovated several (monumental) buildings on the terrain to make these buildings available for tenants. This development was based on the demand from the market (Gemeente Zaanstad et al., 2012).

There is an intensive cooperation between the Central Government Real Estate Agency and the municipality of Zaanstad. The Central Government Real Estate Agency and the municipality of Zaanstad are working on an anterior agreement to arrange the costs of development and make quality agreements. In addition, both parties are working on establishing the physical environment plan.

Municipality of Zaanstad

The municipality of Zaanstad is also an important stakeholder in the redevelopment of the Hembrug terrain. The municipality of Zaanstad was very interested in participating in the redevelopment of Hembrug terrain and realised that they also would benefit from the redevelopment.

According to the framework agreement, the municipality has several roles in the redevelopment process. The municipality of Zaanstad is not the landowner and not a risk bearing developer, but has a more facilitating role in the process. The municipality is responsible for timely setting the legal, spatial frameworks to enable the development of the area, and the necessary investigations and costs associated with establishing the spatial frameworks. The municipality of Zaanstad is committed to facilitating and accelerating this redevelopment by making timely the required public-law decisions. The municipality will establish the physical environment plan. In setting the legal and spatial frameworks, the municipality of Zaanstad collaborates closely with the Central Government Real Estate Agency to ensure that the spatial planning fits into the development that these parties aim for. The municipality contributes to the planning costs for the redevelopment by providing a contribution up to 250,000 euros per year for twenty years (Gemeente Zaanstad et al., 2012).

The municipality creates a first main sewer to the area for the first phase of development. Besides, the Central Government Real Estate Agency, the municipality of Zaanstad and the province of North Holland consider the infrastructural access of the area as very important for the development and have not waited for a developer to arrange this. The municipality has made a commitment in providing the infrastructural access of the area. The municipality provides a roundabout on the provincial road to improve the accessibility of the area. In addition, the municipality will take care of a square for the boat connections including the associated facilities and costs.

The municipality of Zaanstad participates in a responsible function-oriented approach to soil remediation with optimizations. The municipality of Zaanstad will transfer the 10 million euros for bottlenecks regarding the Soil Protection Act on behalf of the Ministry of Infrastructure and the Environment – after being transferred to the municipality – as soon as possible to the Central Government Real Estate Agency.

In particular there is a lot of interaction between the Central Government Real Estate Agency and the municipality. Among other things the municipality of Zaanstad is working on an anterior agreement with the Central Government Real Estate Agency to arrange the costs and make quality agreements. This intensive collaboration is also reflected in the interviews:

“That cooperation is very intensive, but also successful. I think it could be an example of how you can work together as different governments” (Process manager, municipality of Zaanstad, 2017).

However, sometimes there is a discussion about the details:

“You always find a way to make an agreement, for the goal that you jointly determined” (Process manager, municipality of Zaanstad, 2017).

The Central Government Real Estate Agency and the municipality of Zaanstad sometimes have a different opinion in the details. Nevertheless, there is a successful cooperation by the jointly (pre-)established goals.

Province of North Holland

The province of North Holland also has a role in the redevelopment process, although it has a less active role compared to the Central Government Real Estate Agency and the municipality of Zaanstad. The province of North Holland has a formal role in the physical environment plan process as a legal partner. The province will be actively involved in the project in the start-up phase (approximately 5 years).

“The province has a slightly different role. They are a little at a distance” (Process manager, municipality of Zaanstad, 2017).

The province of North Holland has a general responsibility for proper spatial planning. According to the framework agreement, the province played an important role in arranging subsidies for the development of Hembrug. These are subsidies for monuments and possibly other existing new subsidy arrangements that may apply, provided that these applications have been submitted timely and in accordance with the rules (Gemeente Zaanstad et al., 2012).

The province of North Holland is committed to enable and accelerate the redevelopment by making timely the required public-law decisions. The province is committed to make appropriate arrangements regarding business and office space at the Hembrug terrain.

Also, the province is committed to contribute to the planning costs of the project for five years. The reservation of 85,000 euros before 2012 has already been made. The province is also committed to provide this financial contribution for the years after 2012 (Gemeente Zaanstad et al., 2012).

The province is working to explore the possibilities for a fast public transport connection on water, together with the municipality of Zaanstad and the Central Government Real Estate Agency and the Amsterdam Transport Region. If this is not feasible, the province will request the Amsterdam Transport Region to investigate alternatives.

Market parties

The development of the area was addressed incrementally based on demand from the market and the chances that occurred.

“There were entrepreneurs who wanted to rent and to start. They are really interesting tenants. I think that was a great incentive” (Processmanager, Municipality of Zaanstad, 2017).

The initiatives came from the market since several initiators were interested in renting a building on the Hembrug terrain. Hembrug terrain keeps developing itself with regards to the several events, the catering industry and the creative industry. This has resulted in the fact that the former military area has grown into a creative site where about 30 creative entrepreneurs are located. The Central Government Real Estate Agency hires several buildings to interested parties until the sale of the area. The Central Government Real Estate Agency ensured that the building shell was completed, wind and waterproof. The tenants had to take care of the completion of the buildings. In return for the investments they make, the renters had a first right to buy their building. According to the interview with the project manager of the Central Government Real Estate Agency, in order to rent a building, the initiators had to meet a few requirements. However, these were not strict requirements. A first criterion was to provide for a public contribution to the Hembrug terrain. It had to be publicly accessible to people. The Central Government Real Estate Agency had a preference for something lively, such as a showroom or catering facility. A second criterion was that the market party had to be related to the creative industry, for example designers, design stores, etc. Furthermore, some form of interaction or connection between the initiators was appreciated. An example of this is an initiator that sells products from another initiator. Several examples of such constructions can be found on the terrain. In this way, the parties strengthen each other and interact with each other.

5.4 Insights into the stakeholder involvement

The course of military brownfield development and the used steering instruments is determined by the stakeholders involved in the redevelopment process. According to Freeman & McVea (2001) stakeholders can be defined as any group or individual who is affected by or can affect the achievement of an organization's objectives. The politics and polity dimensions were both addressed in the analysis of the cases. The politics dimension relates to the different actors and the extent to which they may be involved in the steering process. The polity dimension includes the mutual relationships between the actors and their cooperation.

Brownfield development is often associated with a large number of stakeholders. This is accompanied by a lot of complexity, since all these stakeholders often have different perceptions, objectives and interests. However, it emphasized the importance to identify all the involved stakeholders in the decision-making process and to determine their roles, interests and power resources.

The cases have given empirical insight into the stakeholder involvement in the redevelopment process of the military brownfields in different contexts. The Central Government Real Estate Agency, the municipality and the province are the key stakeholders in both redevelopment processes. In both cases, the Central Government Real Estate Agency has a very important role in the redevelopment process, as the owner of the area. The municipality has its municipal interests and is in particular important for setting the spatial frameworks for development. The province has its provincial interests and provides subsidies, but has a

significantly less important role than the Central Government Real Estate Agency and the municipality in the redevelopment process. There is a lot of interaction between the various levels of government in the redevelopment processes, and in particular between the Central Government Real Estate Agency and the municipality.

Remarkably in the redevelopment process of the marine area in Doorn is the involvement of citizens. There are different levels of citizen participation in the participation process. Citizens affect the requirements for the redevelopment. They work within the frameworks set by the different governments. The involvement of citizens is seen as a successful contribution to the redevelopment process due to the increased support and reducing procedures afterwards. Remarkably for the Hembrug terrain, are the market parties that influence the course and success of the redevelopment. This is also seen as a successful contribution and as an incentive for the redevelopment. This reflects that although in both redevelopment processes the governments continue to play an important role, there is an increasing involvement of non-state actors in the redevelopment processes.

6. Conclusion & Discussion

The question that was central to this research is: *“What is the role of the Dutch government nowadays in redevelopment processes of military brownfields in different contexts?”* Firstly, a reflection on the chosen methodology to answer this question will be provided. Then answers will be given to the sub-questions. Based on these answers, it is possible to provide an answer to the central research-question. Subsequently, the contribution to the scientific literature and the public debate will be addressed.

Limitations

As governments seek a suitable way for the redevelopment of military brownfields in specific contexts, in this research I have been looking for the most suitable research methodology. However, the conducted research may raise a number of questions and discussion points about the chosen methodology and approach. In quantitative research, the concepts of reliability and validity are used to assess the quality of the research. As an alternative way of measuring the reliability and validity, many scholars propose the concept of trustworthiness to assess qualitative research. Aspects of trustworthiness will be explained and will be applied to the methodology used for this research.

In order to meet the credibility (internal validity) of the findings of the study, the line of reasoning within the research must be performed correctly. The absence of an interview with the province of North Holland, as stakeholders in the redevelopment of the Hembrug terrain, reduces the credibility of the study. However, there is tried to overcome this problem to obtain the necessary information from policy documents and by obtaining additional information from interviews with other stakeholders. Respondent validation has been used to meet the credibility standards. This has been done by presenting several findings and conclusions on the roles of the actors in the redevelopment process and the degree of steering to the interviewees. In this way, it was attempted to correctly understand the role of the Dutch government in the redevelopment of military brownfields. Furthermore, triangulation, the use of two or more sources of data in order to check the results, is used for this study. This study combines policy analysis, project documents and semi-structured interviews with key stakeholders. In this way, there is tried to gain a good understanding and get a detailed picture of the redevelopment process of the marine area in Doorn and Hembrug terrain in Zaandam.

As discussed in the methodology chapter, it was chosen to make use of a comparative case study. The choice made regarding the research design has resulted in a better understanding of the role of the Dutch government in the redevelopment process of military brownfields. Exploring meanings, motives and perceptions are more important in qualitative case studies than the transferability (external validity). Yet, the choice for this research design has thus the disadvantage that the obtained results are difficult to transfer to other contexts. This implies that the results of the research are not fully applicable to other cases. The collected data for both case studies can thus not fully be generalized to other military brownfields. However, these cases may be taken into account in the redevelopment of similar type of cases.

In order to be able to meet the third quality criterion dependability (reliability), it must be

checked whether the research is repeatable. The dependability is taken into account by the detailed description of the research steps. Also, the dependability is taken into account by describing the procedure for the interviews, recording the interviews and transcribing them. This will provide completeness and accuracy of documents. The transcriptions of the interviews can be obtained from the researcher to make it possible to repeat the research. The difficulty of this research is the time bonding aspect. If the same research will be carried in a number of years, it may be that there are other results (because the role of the government in planning processes could change again in the coming years).

An analysis of the role of the government is very person-dependent, which may reduce the confirmability (objectivity) of the results. However, during my internship at the Central Government Real Estate Agency, I had the opportunity to attend several participation meetings and meetings of the project team for the redevelopment of the marine area in Doorn. Also, as a work visit of the Central Government Real Estate Agency, I had the possibility to attend a presentation and a guided tour at the Hembrug terrain (Appendix IV). Besides, interviews are conducted with several different key actors in the redevelopment process. Multiple sides of the story were exposed and room was left for new topics the respondents came up with. In this way, is attempted to achieve an objective as possible image of the stakeholder involvement in the redevelopment process.

Shift in planning processes in the Netherlands

The first sub-question: *“Which shift in planning processes is taking place in the Netherlands?”* was answered by analysing scientific literature and doing a policy analysis. The role of the Dutch government in planning processes has changed in recent years. Admission planning, in which the Dutch government has a role of leadership and is responsible for formulating the policy objectives and legislation, has been undisputed for decades and was a significant part of Dutch planning system. However, other forms of planning, spatial development policy and initiative planning, made their appearance. In these forms, there is more room for private initiatives and less dominance of the government.

Parallel with the withdrawing government, society has gained a greater role in policymaking and implementation. The state-society relation has been redefined, often referred to as a shift from government to governance. Scientific governance debates cover a wide range of modes of governance, ranging from “full state intervention” to “self-governance”. All modes of governance differ from each other in three dimensions: politics (which actors play a role), polity (how do the different actors interact) and policy (which steering instruments are used).

Both changes in Dutch planning system and the corresponding changing roles of actors in planning processes are associated with a change in policy and legislation. The current large number of rules and procedures do not meet the high social dynamics of the network society anymore and cause a lot of complexity. This has led to the new Environment and Planning Act, that will enter into force in 2019. The Act seeks to make spatial policy more flexible and simple by merging the rules for spatial development and shorter procedures. An important instrument is the physical environment plan, which is already experimented with by several municipalities.

Military brownfield development

The second sub-question: *“Which steering instruments are used in the redevelopment process of military brownfields in different contexts?”* was answered by doing a policy analysis and by semi-structured interviews. The government is the owner of many military brownfields and uses several steering instruments in the redevelopment process. This addresses the policy dimension of governance that refers to the instruments to steer and to achieve goals.

The redevelopment of (military) brownfields is very case specific and depends on the specific features of the brownfield. The marine area located in Doorn is a military brownfield in a non-urban, forested context. The redevelopment process of Doorn is still in an early phase of redevelopment, since the area will be released in 2022. This results in the fact that only few steering instruments have been used so far on behalf of the government. In contrast to the marine area in Doorn, the Hembrug terrain in Zaandam has an extremely urbanised context. This urban context entails various benefits for redevelopment, but also brings more obstacles and additional difficulties in the redevelopment process, such as security and noise contours due to its surroundings. In addition to the context, the specific features of the area itself (such as soil pollution) influence the development and number of analyses.

Besides, Hembrug is already in a further phase of the redevelopment. A large number of instruments is used with an increasing level of detail in these instruments, compared to Doorn. Because the development has continued over time, the several involved key stakeholders were very much aware of the qualities of the area. This has led to increasingly sharpened principles for the redevelopment of the area.

In addition, based on the analysis of Hembrug, it can be concluded that the pilot for the physical environment plan has played an important role in the redevelopment process. Flexibility to the future is provided by the time and place components of the physical environment plan. These components make it possible to facilitate new developments and chances that occur. Despite this flexibility, the authorities continue to steer a lot in detail on qualities of the area. Furthermore, because the involved parties still have to get used to the procedures of the instrument, the intended acceleration of the process by the physical environment plan cannot be met yet.

Stakeholders in the redevelopment process

The third sub-question: *“What are the key stakeholders and their interests in the redevelopment process of military brownfields in different contexts?”* was answered by doing a policy analysis and by conducting semi-structured interviews with the most important stakeholders. The politics and polity dimensions were both addressed, by describing the different involved actors and their interaction in the redevelopment process.

The cases have given empirical insight into the stakeholder involvement in the redevelopment process of the marine area in Doorn and the Hembrug terrain in Zaandam. The governments took a leading role in both redevelopment processes by initiating the redevelopment of the military brownfields. The Central Government Real Estate Agency has a major role in the

redevelopment as the current owner of both areas. The municipality has its municipal interests and is in particular important for establishing the spatial frameworks for the development of both areas. Although the province has its provincial interests and is important in providing the subsidies, it has a significantly less important role than the other authorities in the redevelopment processes. This is especially evident in Zaandam by more interaction and more intensive cooperation between the Central Government Real Estate Agency and the municipality.

A central aspect in the redevelopment process of the marine area in Doorn is the participation of citizens in different ways. The citizens work within the frameworks set by the governments. The involvement of citizens is seen as a successful contribution to the redevelopment process due to the increased support and reducing procedures afterwards. In the redevelopment of the Hembrug terrain, the market plays an important role in addition to the various governments. The tenants of several buildings on the site have ensured that the former military area was no longer vacant and that the site became lively again. This is seen as a successful contribution and as an incentive for the redevelopment. This reflects that although in both redevelopment processes the governments continue to have a major role, there is an increasing involvement of non-governmental actors in the redevelopment processes.

The role of the Dutch government in redevelopment processes of military brownfields

Based on answering the different sub-questions, an answer can be provided for the central research-question: *“What is the role of the Dutch government nowadays in redevelopment processes of military brownfields in different contexts?”*. The analysis shows that the Dutch government continues to play a major role in redevelopment processes of military brownfields in different contexts. The demand from the market and the uncertain future appear to affect this role of the Dutch government in redevelopment processes. The government initiated the redevelopment of the Hembrug terrain, by a lack of interest from the market by that time and by an uncertain prospect. Also in the redevelopment process of the marine area in Doorn, the government has a leading role. For this military area, the government is already initiating the redevelopment process even before defence has left. This is done to prevent the area from being vacant (for a longer period of time). In particular the central government and the municipality remain important, the Central Government Real Estate Agency as owner and the municipality by setting the spatial frameworks to enable the redevelopment.

Besides, the analysis showed that the steering instruments on behalf of the government become more detailed as the redevelopment process continues and as the qualities of the military brownfield are increasingly recognized. More and more detailed steering instruments ensure these qualities. The physical environment plan as new legislation has so far not led to less steering on behalf of the government. However, the physical environment plan does provide more flexibility to the future with room for new developments. It provides flexibility for the governments, but also for the market. This reflects the emergence of other, more flexible forms of planning that respond to the social dynamics, as discussed in the literature. The shift from the government governing in one-way traffic in policy to a government that is (actively) developing with other actors in the planning process has become visible in both

redevelopment processes. For the redevelopment of the Hembrug terrain, market parties contribute to (the success of) the development of the area. For the redevelopment of the marine area in Doorn, the government is working intensively with the citizens. This reflects that the government remains dominant in both processes, but the role of non-governmental actors in redevelopment practices has become increasingly important.

Literature on (military) brownfields

While the existing literature concentrates on brownfields and brownfield developments, there is a lack of literature about military brownfields. Only few authors have been interested in military brownfields so far. Especially in the field of spatial planning, there is only a limited amount of published literature. Therefore, attempts have been made to provide more insight in military brownfield redevelopment processes. This thesis has slightly contributed in providing literature about the course of the redevelopment of military brownfields and the role of the government in the redevelopment of them. Furthermore, by analysing the role of the Dutch government in the redevelopment of brownfields, the scientific governance debate is addressed.

Institutional reflection on the role of the government

In addition to the scientific discussion on governance, governance has also become an important concept in policy-oriented debates. The role of the government in society has been discussed. In this study, this is linked to the role of the Dutch government in a specific example of the complex planning practice: the redevelopment of military brownfields. The improved insight into this steering discussion is particularly valuable for the redevelopment of military brownfields given the large number of stakeholders involved and the large amount of investments in these types of developments. However, it is also relevant to reflect on the role of the government and other non-governmental actors in the broader context of planning practices. By addressing the government's role and the governmental instruments used to steer, it contributes to a better understanding of the current steering discussion that addresses the state-society relation. In current planning practices, it is important to take this discussion and the related more flexible forms of planning with increasing involvement of non-governmental stakeholders into account.

7. Recommendations

Based on this study, a number of research ideas and suggestions for other redevelopment practices can be made.

Research ideas

In order to further analyse the role of the Dutch government in redevelopment processes of brownfields, a specific suggestion for further research can be proposed. Although the results of this study are specific to military brownfields, they also provide conclusions which can be applied to other brownfields where budgets cuts have taken place. It would be interesting to find out if the results of this research also apply to other types of brownfields of which the government is the owner. This may include vacant real estate, such as former schools, hospitals and harbours as potential research objects. Further research is required to see if this research can also be applied to other research objects owned by the government. In this way, the role of the government can be placed in a broader context.

Suggestions for other redevelopment practices

In addition to recommendations for further research, recommendations for other development practices can be made. The aim of this research was to provide a recommendation for similar redevelopment practices of military brownfields owner by the Dutch government. In future redevelopments, it is important to be aware of the new legislation and its consequences for the redevelopment. The Environment and Planning Act, including its instrument the physical environment plan, is intended to speed up and facilitate the planning process. However, interviews with those involved in the pilot physical environment plan have shown that it seems like the physical environment plan has led to the opposite. The physical environment plan indeed increases the intended flexibility. However, it seems that planning processes are delayed rather than accelerated by the introduction of the physical environment plan. It is important to keep this in mind in future redevelopment processes and to take this into account in the planning. Yet this will decrease in the longer term as one becomes more used to the new instrument.

Also, a recommendation can be made concerning the involvement of citizens in redevelopments. From the interview with the project manager of the participation process emerged that it is in particular important to consider in advance how the citizens can best be approached. The demography may vary per municipality and herewith the way to best reach these people. It is of added value to consider what resources should be used to reach people. Various resources may be newspapers, flyers, road signs and digital means of communication such as e-mail, Facebook, Instagram and Twitter. This can contribute to an even better involvement of citizens and to increase the success of the participation process.

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Appendices

Appendix I: Topic list

Introduction

- Introduction of the research
- Explaining the structure of the interview
- Check whether or not the respondent is ok if the interviews are recorded

1. What was your role in the redevelopment process?

Sub-question 2: Steering instruments

2. What was the reason to come into action to redevelop the military area?
3. What was the development strategy?
4. On which basis has the development strategy been chosen?
5. What kind of instruments has been used?
6. What is your vision on these instruments?
7. How will the area be sold?
8. In what respect is the area unique or comparable to other military brownfields?

Sub-question 3: Stakeholders and their roles and interests

9. What were the roles of the several involved stakeholders in the redevelopment process?
10. Why are the several stakeholders involved in the redevelopment process?
11. How is/was the cooperation during the redevelopment process?

Sub-question 1: Shift in planning processes in the Netherlands

12. To what extent is the new Environment and Planning Act already taken into account in the redevelopment process?

Closure

- Asking if there is anything else that is not addressed in the interview, but that the respondent would like to discuss
- Thanking the respondent for the interview
- Asking for other key stakeholders and their contact details in the redevelopment process

Appendix II: List of participants semi-structured interviews

Function & organization	Date
Marine Area, Doorn	
Project manager, Municipality of Utrechtse Heuvelrug	24-05-2017
Program manager, Province of Utrecht	02-06-2017
Project manager, Central Government Real Estate Agency	08-06-2017
Project manager participation process & Landscape architect, Terra Incognita	31-07-2017
Hembrug area, Zaandam	
Project manager, Central Government Real Estate Agency	15-05-2017
Process manager, Municipality of Zaanstad	03-07-2017
Co project manager and responsible for pilot physical environment plan, Central Government Real Estate Agency	11-07-2017

Transcriptions

Transcriptions of the interviews are available upon request

Appendix III: Coding schedules interviews

Nodes & sub nodes	Memo
Actors <ul style="list-style-type: none"> - Role distribution - Interests 	The several actors involved in the process <ul style="list-style-type: none"> - The role distribution of the several key actors - The interests of the key actors in the redevelopment process
Context military area	The specific context of the military area
Development strategy	The strategy for redevelopment of the area
Spatial planning frameworks <ul style="list-style-type: none"> - Physical environment plan 	The spatial frameworks for redevelopment <ul style="list-style-type: none"> - The influence of the physical environment plan on the redevelopment process
Selection process <ul style="list-style-type: none"> - Selection process tenants - Selection process buyers 	The selection process for tenants and buyers of the military area <ul style="list-style-type: none"> - The selection process for tenants - The selection process for buyers
Reason for development	The reason for development of the area

Appendix IV: Work visit to Hembrug

Notes presentation and guided tour – Gerard Menkhorst (Central Government Real Estate Agency) - May 23, 2017

There was a work visit of (a department of) the Central Government Real Estate Company to the Hembrug terrain in Zaandam. A presentation was given by Gerard Menkhorst, the co project manager of the Central Government Real Estate Agency, about the development of the former military area (figure 12). Subsequently, a guided tour was provided on the area (figure 13).

“Zaandam benefits from Amsterdam, because of its beneficial location within the metropolitan area of Amsterdam”

Figure 12: Presentation at Hembrug terrain, Zaandam



Own picture

There was no market in 2011:

A. Crisis: no interest in the sale of the terrain

B. Risks to the market:

- Soil pollution
- Suspension of mustard gas
- There has never been a land-use plan for the area
- Derelict monuments

For these reasons, it is decided that the three authorities (Central Government Real Estate Agency, the municipality of Zaanstad and the province of North Holland) will initiate the

development of the area. The Central Government Real Estate Agency is operating for their own account. The three parties have signed an agreement in 2012.

Investments of the Central Government Real Estate Agency:

- Removing soil remediation and mustard gas to ensure that the area could be released
- Renovating the monuments (figure 13) and looking for options for rental
- Developing the public space

In this way, the Central Government Real Estate Agency has attempted to eliminate the excessive risks

Hembrug in 2017:

- 25 monuments are refurbished
- More than 30 tenants on the area
- Physical environment plan
- Working on the anterior agreement

Within the area there are many issues/constraints for a possible residential function: among others noise of the (provincial) roads, Schiphol contours

The pilot for the physical environment plan: provides the opportunity for a period of 20 years

Benefits:

- Organic development
- Innovative and experimental
- Legal certainty
- Flexibility: mix of housing and working were not possible with a regular land-use plan

Disadvantages:

- Complexity: requires extra time, research and costs

Due to interest from the market, things have changed: the emphasis changed from companies to housing as the new function of the area

There has begun with the renovation of properties and renting these properties.

Attracting tenants: via a real estate agent or indirectly

Requirements tenants:

- Providing for a public contribution to the Hembrug terrain
- Preference for combination of functions
- Fits the tone of the area

These were no strict requirements

The tenants wanted a first right of purchase, because of the risks they took and the investments they made. The Hembrug terrain is now on sale. The entire area will be on sale, except for the tenants' buildings where they have the first right to buy.

Several activities have been carried out (for example soil contamination). Subsidies are

given by the municipality of Zaanstad, on behalf of the province of North Holland

There are around 1000 documents with information about the area, because of the complexity of the area. These are documents on the soil, asbestos, the conditions of the buildings, etc.

Sale:

- No minimum bid
- Selection by the selection committee on quality (based on the development strategy)
- After selection on quality, selection on the bid (with a maximum of 5 market parties)
- Additional information

The sales process:

1. Qualification

- Experience requirements
- Communication
- Registration period/consortia formation

2. Selection

- Framework agreement
- Submitting on 1 September 2017
- Selection committee with the Chief Government Architect of the Netherlands
- Selection of max. 5 parties
- Decision in October

3. Bid

- Highest bid
- Total delivery of the area

The physical environment plan is a land-use plan with a broader scope. The main points are in the physical environment plan. Additional information can be obtained from other documents. The physical environment plan is officially not yet established. It will probably be established in January 2018.

Figure 13: Guided tour at Hembrug terrain, Zaandam



Own picture