



A Roadmap Towards Stakeholder Engagement

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A Roadmap Towards Stakeholder Engagement

Improving the stakeholder engagement in complex projects by providing an interactive stakeholder engagement process guideline

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Preface

In front of you lies the research paper "A roadmap towards stakeholders engagement". This master thesis represents the final product of my final project for the Master Construction Management and Engineering (CME) at TU Eindhoven. I decided to do this research after seeing the many problems with external stakeholders during my different internships.

I started my study career at an University of Applied Sciences. There I completed my degree in various forms of collaboration in the built environment. During my bachelor's degree, I realized that I was not done with my studies, and I decided to deepen my knowledge at TU Eindhoven. After completing the pre-master, I was able to start my master, where I specifically chose to take most of the courses in project management.

I am grateful for all the insights and opportunities I was able to learn during my studies, internship and graduation. I would especially like to thank my two supervisors, Qi Han and Claudia Fecarotti, for their support, guidance, and good feedback throughout the process. And to my company supervisor, Xaief Ezechiëls, for the guidance and insight into the business. I could not have delivered the same level of quality without the help of my supervisors.

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I hope you all enjoy reading it!

Susan Donders

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Summary

The following graduation thesis *A roadmap towards stakeholder engagement* highlights the stakeholder engagement in complex projects. At the moment, there is no universal guide how the stakeholder engagement process should be performed in the complex projects of the municipality and companies' want to get more insight in what changes must be made. There has been a growing awareness of the importance of stakeholders and the need for the stakeholders to be involved in a project. However, not much literature focuses on when to engage the stakeholders and how these stakeholders can influence a project or how they want to be engaged in a project. Neither do they give a clear process of how the stakeholder engagement should go (Heravi et al., 2015) The topic of stakeholder engagement is a frequently discussed topic in project management. However, stakeholder disappointment is reported as one of the root problems for causing unsuccessful projects. (Eskerod et al., 2015) Therefore, the following research question is formulated: *What changes in the engagement of stakeholders can be made to improve the stakeholder engagement process in complex projects?*

The significance of this research is to improve the stakeholder engagement in complex projects by providing an interactive stakeholder engagement process guideline. In this research the focus is on the responsibility for stakeholder engagement of the client. The literature review provides a state-of-the-art overview of the necessity of stakeholder engagement and stakeholder theories. Stakeholder engagement is necessary in projects because ensuring early involvement of stakeholders can avoid or decrease the negative effects caused by stakeholders. Openness from the start, dialogue and actively engaging stakeholders can reduce the potential for conflict in later project phases (Nguyen et al., 2018). With the Environment and Planning Act being released, the necessity of stakeholder engagement becomes clearer, and companies are wondering how to engage and participate with the external stakeholders more. The Environment and Planning Act aims to broaden the engagement of external-primary and external-secondary and explicates the possibility of embedding the challenge right in the participation regulation. (Kwast, 2012) From literature the big difference between stakeholder engagement and stakeholder management is done, where there can be concluded that stakeholder engagement is more about relationship and influence and stakeholder management about the processes and organizations (Laurence Davidson, 2017).

From the literature review a theoretical framework was formed highlighting a general stakeholder engagement process. The theoretical framework was created with two purposes: to serve as input for the drafting the interview questions and to use it to later summarize and analyze the different case studies. The following activities have to be performed in order to get stakeholders engaged in the project according to the literature: 1. Identify and categorize the stakeholders, 2. Design a plan, 3. Conduct the decision-making process, 4. Conduct feedback and monitoring, 5. Manage the relationships, and 6. Keep stakeholders engaged throughout the entire construction process. The theoretical framework was used in the design of the methodology. Case studies were conducted in order to learn more about how stakeholder engagement is conducted in practice. Four different municipalities, who conducted complex projects were interviewed and analyzed to compare how the stakeholder

engagement process is conducted in complex projects. External stakeholders that were present in the projects were asked about their experience regarding stakeholder engagement.

Qualitative exploratory research was done to figure out how failure to implement stakeholder engagement can lead to project delays and mistakes. The case studies are done using the multiple case study approach. Cases are selected based on their complexity and project phase. Based on the interviews with the municipalities and the external stakeholders, it is concluded that all municipalities strive towards stakeholder engagement, but all municipalities have different ways of engaging the stakeholders. Results of the case studies show that external stakeholders do not agree with project teams stating it to be stakeholder management, but rather see the term stakeholder engagement to be used. They state that stakeholder management makes it seem like stakeholders are to be managed, whereas to them it is important that relationships are built and they are engaged, meaning the stakeholder theory should be defined as stakeholder engagement. Results from the case studies show that there is no clear stakeholder engagement process present currently. From literature and case studies a model with twelve main activities could be made which helps get support from the external stakeholders. This model was used to develop a roadmap in order to support the research in solving the problem statement.

The stakeholder engagement model for successful stakeholder engagement is divided into the project phases, as from research there can be concluded that the stakeholder engagement process depends on the project phase the project is in. An interactive stakeholder engagement process is developed showing different options for the engagement of the stakeholder. The most important result from this development is that the degree of engagement depends on how high the power and the impact is for the external stakeholders. When the degree of engagement is chosen correctly, stakeholders can be involved on time and feel engaged. The roadmap is validated by means of expert validation. Respondents were asked to what extent the roadmap would help them engage stakeholders more effectively. The result of the validation was that the respondents think that the roadmap is a good and useful guide that helps them to improve the process of stakeholder engagement. The research shows that currently there is no concrete process for executing stakeholder engagement, but that the demand to have a clearer process is present. The main contribution of this research was finding the gap between what is written about stakeholder engagement in literature and how stakeholder engagement is performed in practice to find what changes have to be made in the stakeholder engagement process. This research proposes an interactive roadmap which showcases the stakeholder engagement processes during the different project phases, to help improve the stakeholder engagement process in complex projects. The proposed roadmap helps consultants to guide the project team with the stakeholder engagement process. Meaning, the project team is forced to think about the way they will implement stakeholder engagement. From the results and validation, it can be concluded that this roadmap can help increase the process of engaging stakeholders and minimize the discontent of external stakeholders in a construction project by changing the way project teams consider stakeholder engagement. Depending on what construction contract is chosen, the contractor can be responsible for the stakeholder engagement in the earlier phases. Therefore, it is recommended that future research should expand the case studies to examine the role of a contractor in the stakeholder engagement process. As well as research how this model can be used in other sectors.

Samenvatting

De volgende afstudeerscriptie '*A roadmap towards stakeholder engagement*' legt focus op de betrokkenheid van stakeholders bij complexe projecten. Momenteel is er geen universele leidraad waarin wordt aangegeven hoe het stakeholder engagement proces dient te worden uitgevoerd bij complexe projecten van gemeenten. Bedrijven vragen om meer inzicht in de veranderingen die moeten worden doorgevoerd om het stakeholder engagement proces tot een succes te leiden. Er is een groeiend besef van het belang van de stakeholders in projecten en de behoefte van de stakeholders om betrokken te worden. Echter, er is weinig literatuur die ingaat op de wijze van betrokkenheid en hoeveel invloed stakeholders kunnen uitoefenen in een project, of hoe stakeholders betrokken willen worden in een project. Ook wordt er in de literatuur geen duidelijk proces gegeven dat aangeeft hoe stakeholder engagement dient te verlopen. (Heravi et al., 2015) Stakeholder engagement is een vaak benoemd onderwerp in projectmanagement. Echter, teleurstelling van stakeholders wordt gerapporteerd als een van de hoofdproblemen voor het veroorzaken van niet-succesvolle projecten. (Eskerod et al., 2015) Vanuit dit probleem is de volgende onderzoeksvraag geformuleerd: *Welke veranderingen in de betrokkenheid van stakeholders moeten worden doorgevoerd om het stakeholder engagement proces in complexe projecten te verbeteren?*

Vanuit de literatuur werd een theoretisch kader gevormd waarin een algemeen stakeholder engagement proces wordt belicht. Het theoretisch kader werd gecreëerd met twee doelen: om als input te dienen voor het opstellen van de interviewvragen, en om het theoretisch kader te gebruiken om de verschillende case studies later samen te vatten en te analyseren. Volgens de literatuur dienen de volgende activiteiten te worden uitgevoerd om stakeholders bij een project te betrekken: 1. Identificeer en categoriseer de stakeholders, 2. Ontwerp een plan, 3. Voer het besluitvormingsproces uit, 4. Houdt feedback en monitoring, 5. Manage de relaties, en 6. Houdt stakeholders betrokken gedurende het gehele bouwproces. Case studies waren uitgevoerd om meer te weten te komen over hoe stakeholder engagement in de praktijk wordt uitgevoerd. Vier verschillende gemeenten, die complexe projecten uitvoerden, werden geïnterviewd en geanalyseerd om te vergelijken hoe het stakeholder engagement proces te werk gaat. Externe stakeholders die bij de projecten aanwezig waren, werden gevraagd naar hun ervaringen.

Kwalitatief verkennend onderzoek werd gedaan om te achterhalen hoe het niet implementeren van stakeholder engagement kan leiden tot projectvertragingen en fouten. De case studies zijn gedaan met behulp van de multiple case study benadering. Cases zijn geselecteerd op basis van hun complexiteit en projectfase. Op basis van de interviews met de gemeenten en de externe stakeholders kan worden geconcludeerd dat alle gemeenten streven naar stakeholder engagement, maar dat gemeenten verschillende manieren hebben om de stakeholders te betrekken en dat het vaak nog lastig is. De resultaten van de casestudies laten zien dat externe stakeholders het er niet mee eens zijn dat projectteams het als stakeholdermanagement bestempelen, maar eerder de term stakeholderengagement gebruikt moet worden bij het praten over omgevingsmanagement. Zij geven aan dat stakeholder management het doet lijken alsof stakeholders moeten worden gemanaged, terwijl het voor hen belangrijk is dat relaties worden opgebouwd en zij worden betrokken, wat betekent dat de stakeholder theorie zou moeten worden gedefinieerd als stakeholder engagement. Resultaten van de case studies tonen aan dat er momenteel geen duidelijk

stakeholder engagement proces aanwezig is. Uit de literatuur en de case studies is een model met twaalf hoofdactiviteiten opgesteld dat helpt om draagvlak te krijgen bij de externe stakeholders. Dit model werd gebruikt om te komen tot een stappenplan ter ondersteuning van het onderzoek bij het oplossen van de probleemstelling.

Het stakeholder engagement model voor succesvolle stakeholder engagement is onderverdeeld in projectfasen, aangezien uit onderzoek kan worden geconcludeerd dat het stakeholder engagement proces afhankelijk is van de projectfase waarin het project zich bevindt. Een interactief stakeholder engagement proces is ontwikkeld dat verschillende opties laat zien voor het betrekken van de stakeholder. Het belangrijkste resultaat van deze ontwikkeling is dat de mate van engagement afhangt van hoe groot de macht en de impact is voor de externe stakeholders. Wanneer de mate van betrokkenheid juist wordt gekozen, kunnen stakeholders op tijd worden betrokken en zich betrokken voelen.

Het stappenplan is gevalideerd door middel van expertvalidatie. De respondenten werden gevraagd in welke mate het stappenplan hen zou helpen om de stakeholders effectiever te betrekken. Het resultaat van de validatie was dat de respondenten van mening zijn dat het stappenplan een goede en nuttige gids is die hen helpt het proces van betrokkenheid van stakeholders te verbeteren. Het onderzoek toont aan dat er momenteel geen concreet proces is voor het uitvoeren van stakeholder engagement, dus dat de vraag naar een duidelijker proces aanwezig is.

De belangrijkste bijdrage van dit onderzoek was het vinden van de kloof tussen wat er in de literatuur over stakeholder engagement wordt geschreven en hoe stakeholder engagement in de praktijk wordt uitgevoerd om te achterhalen welke veranderingen er in het stakeholder engagement proces moeten worden aangebracht. Dit onderzoek stelt een interactief stappenplan voor dat de stakeholder engagement processen tijdens de verschillende projectfasen laat zien, om het stakeholder engagement proces in complexe projecten te helpen verbeteren. Het voorgestelde stappenplan helpt consultants om het projectteam te begeleiden bij het stakeholder engagement proces. Dit betekent dat het projectteam gedwongen wordt om na te denken over de manier waarop zij stakeholder engagement zullen implementeren.

Uit de resultaten en de validatie kan worden geconcludeerd dat dit stappenplan kan helpen om het proces van stakeholderbetrokkenheid te verbeteren en de ontevredenheid van externe stakeholders in een bouwproject te minimaliseren door de manier te veranderen waarop projectteams stakeholderbetrokkenheid beschouwen. Afhankelijk van het gekozen bouwcontract, kan de aannemer verantwoordelijk zijn voor de stakeholderbetrokkenheid in de eerdere fasen. Daarom wordt aanbevolen dat toekomstig onderzoek de case studies uitbreidt om de rol van een aannemer in het stakeholder engagement proces te onderzoeken. En ook om te onderzoeken hoe dit model in andere sectoren kan worden gebruikt.

Abstract

One of the key factors in the success of a construction project is stakeholder satisfaction. Stakeholder engagement plays a critical role in achieving a successful project. Building stakeholder engagement takes time and effort and is therefore often neglected. Lack of stakeholder engagement can lead to time overruns and is one of the most common points of project failure. The Environment and Planning Act emphasizes the need for stakeholder engagement. To make a project successful, it is important that the stakeholder engagement process is structured. This study aims to improve the stakeholder engagement process in complex projects, using the requirements and process of the Environment and Planning Act as a guide. By providing an interactive guide to the process required to engage stakeholders in a construction project. The objective is achieved through case study research consisting of a literature study, exploratory case studies, interviews with external stakeholders and project teams, an analysis of stakeholder documents, and a cross-case analysis examining the differences between the cases and the theory presented in the literature. From the literature and the case studies, it can be concluded that there is no universal guide for stakeholder satisfaction. Furthermore, a stakeholder engagement process can help get stakeholders more engaged from the beginning of development. Based on the findings of the literature and case studies, a guide is proposed to improve the stakeholder engagement process. It is discussed with experts that this guide can help the project team develop a clear understanding of the different engagement theories. This means that the project team is forced to think about how they want to implement stakeholder engagement in their project. The guide can help improve the stakeholder engagement process and minimize external stakeholder dissatisfaction in projects.

KEYWORDS

Stakeholder engagement, complex projects, external stakeholders, construction industry, Omgevingswet

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Abbreviations

NIMBY	Not In My Backyard
PMBOK	Project Management Book of Knowledge
PMI	Project Management Institute
RWS	Rijkswaterstaat
SA	Stakeholder Analysis
SE	Stakeholder Engagement
SI	Stakeholder Involvement
SM	Stakeholder Management
SRM	Stakeholder Relationship Management
UAV	Uniform Administrative Conditions

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Chapter 1

Introduction

In this chapter, the motive for this research and the relevancy of the research will be presented. The first section of this introduction will introduce the subject of this research. This is followed by the problem statement, after which the objective, scope, relevancy and research questions are described to illustrate the goal of the research. The introduction concludes with a presentation of the research guide.

1.1 Introduction to the subject

The PMI (2017b, pg. 6) defines a project as “a temporary endeavor undertaken to create a unique product, service, or result.” In the field of construction and civil engineering, a project involves the process of assembling a building, infrastructure, or other civil engineering related constructions. (Laws, 2019)

To execute a project effectively and efficiently, project management is needed. In the book Project Management Body of Knowledge by PMI (2017b pg. 6), project management is defined as “the application of knowledge, skills, tools, and techniques to project activities to meet the project requirements.” Activities of project management include keeping the stakeholders satisfied and meeting their expectations. One of the core tasks of project management according to Eskerod et al. (2015) is to meet the stakeholders needs and expectations.

Complex projects deal with many different stakeholders and activities. Hagan et al. (2011) define complex projects by the interdependence and uncertainty. Those interdependence and uncertainties are created by for example, many different stakeholders with conflicting views, the number of organizational and operational interdependencies, the overlap of different phases of a construction project and the many different variations in the project. (Hagan et al., 2011)

It is impossible to implement a complex project without influencing the environment, whilst the environment has a large impact on complex projects in return. For example, with the nuisance and exhaust gases. But also, with the lack of information and its ambiguity (Aaltonen & Kujala, 2016). The development of a complex project often draws a lot of attention towards itself, due to many individuals and groups who can affect and/or are affected by the project. Those affecting or affected by complex projects are called stakeholders (Chan & Oppong, 2017). The most common definition used in papers for stakeholders is one by Freeman (1984):

Definition Stakeholders:

“Any group or individual who can affect or is affected by the achievement of the organization’s objective”

Stakeholders have different opinions, intentions and ideas, which can lead to conflicting interests. Because of this, projects might experience problems during the process of a project. (Atkin & Skitmore, 2008) These problems arise, to a large extent, due to ineffective communication and engagement between the different stakeholders and project teams. (Alqaisi, 2018) Together with stakeholder management, stakeholder engagement is presented in studies as a way to resolve these problems, whilst there is also a growing body of literature that states that a project's success greatly depends on the perception of its stakeholders. (Al-

Bayati et al., 2019) As Walker et al. (1997) state, “project management success is measured by criteria which means different things to different people depending upon their role within the project itself. we relate success to the perceptions and expectations of the client, project manager, designer, or contractor.” (Walker et al., 1997)

1.1.1 Stakeholder management in construction

A project consists of many complex activities that a project team must manage. One of these activities is managing stakeholders who have a certain interest or power in the project. (Rowlinson & Chueng, 2008) Stakeholder management is a critical aspect and key contributing factor to the success or failure of a project. (Amoatey & Hayibor, 2017) The most common definition of stakeholder management used in research is that of Freeman (1984). He defines stakeholder management in his book: Strategic management: A Stakeholder Approach.

Definition Stakeholder Management:

“A concept that refers to the necessity for an organization to manage the relationships with its specific stakeholder groups in an action-oriented way.”

Stakeholder engagement receives less attention in literature (Hamidu et al., 2014). Many times, literature even states it is about stakeholder management, when in fact it is more about the process of building a relationship, which is in line with stakeholder engagement. A definition of stakeholder engagement is given by Kivits and Sawang (2021):

Definition Stakeholder Engagement:

“The wide range of tools and practices an organization can use as mechanism for consent, control, cooperation, accountability, employee involvement, and participation, enhancing trust, enhancing fairness and corporate governance by involving stakeholders in its organizational activities.”

Collinge (2020) validates that stakeholder engagement is known as a key stage in the stakeholder management and stakeholder management consists of many engagement activities. PMI (2017a pg. 6) have divided the stakeholder management process into four steps, where it becomes clear that stakeholder engagement is a key pillar for the stakeholder management process:

1. Identifying Stakeholders - regularly identifying the stakeholders and reviewing the information about the interest and engagement on a project success.
2. Plan Stakeholder Engagement - developing approaches and a plan to involve stakeholders in the project based on what their preferences are.
3. Manage Stakeholder Engagement - communicating and working with the stakeholders together to build support.
4. Monitor Stakeholder Engagement - monitoring the stakeholder relationship and modifying the plans when necessary.

(PMI, 2017c pg. 18)

Figure 1 gives an overview of the four steps:

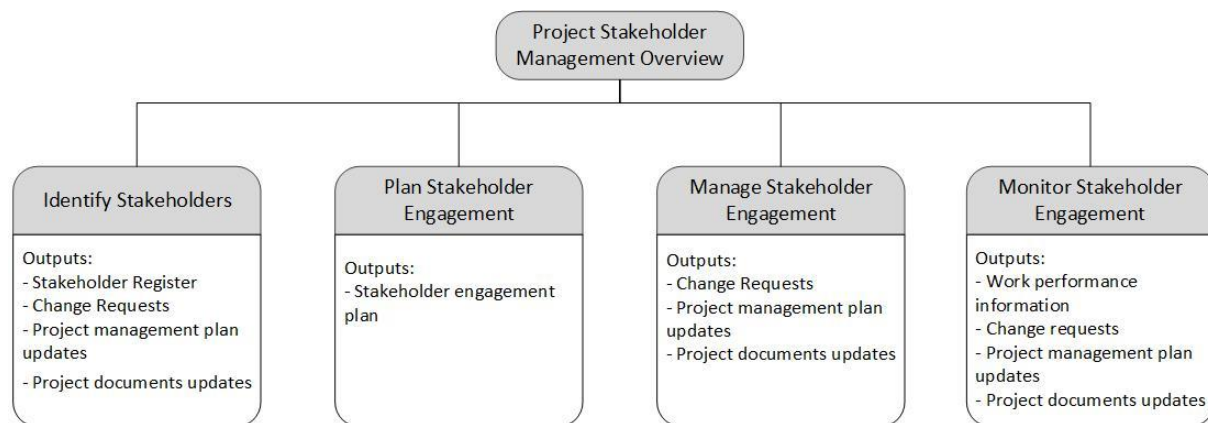


Figure 1 Project Stakeholder Management overview (adapted from Project Management Institute, 2017c)

1.1.2 Problems in stakeholder engagement

The issues of stakeholder engagement are displayed by the example of the “Algeria East-Way Highway Megaproject”. The highway was planned to be constructed and finished in 2009, but due to failed stakeholder engagement, the highway was delayed by five years. The stakeholders were engaged to late in the process resulting in the delay. (Zidane & Ekambaram, 2013) During the construction phase the external stakeholders were engaged but this meant that they were neglected in the vision, permit application and the contracting phase. This led to protests from the stakeholders, resulting in the stakeholders refusing to sell the properties. This resulted in a great loss of money and a great deal of additional time needed to fix the problem. NGO’s were also not satisfied with the way they were engaged in the project and stated to protest. Because of all these conflicts the project was halted for years. Zidane et al. (2015) believe that if the stakeholders would have been engaged earlier in the project, negotiation time would have been limited and the feeling of engagement would have been increased. (Zidane et al., 2015)

Building stakeholder engagement takes time and effort and is therefore often neglected. Baharuddin et al. (2013) highlight that neglecting to engage key stakeholders in the early stages is one of the common points of failure in projects. Some of the common problems that arise from stakeholder conflicts are poor communication, time overruns and reworks. (Baharuddin et al., 2013) In the article ‘top 10 main causes of project failure in 2021’ Lim (2021) highlight that inadequate poor communication with stakeholders is one of the leading causes of project failure, even stating that only 46 percent of project delivered receive high stakeholder satisfaction (Lim, 2021)

Complex projects often deal with problems when it comes to the engagement of external stakeholders, as is seen in the example above. External stakeholder groups are increasingly inclined to influence the implementation of facility development projects. This process can also be described by the acronym NIMBY, “not in my backyard” (Olander & Landin, 2008). Liu et al. (2018) define NIMBY as “public opposition to construction of certain public facilities in urban development.”

1.1.3 The necessity of stakeholder engagement highlighted by the Environment and Planning Act

In the Netherlands, the environmental management system is going to face a change. The system has traditionally been more of a top-down, government-centered system. (Gerrits et al., 2012) With the Environment and Planning Act, “de Omgevingswet”, the system will change towards a more facilitative governance, highlighting the importance of stakeholder engagement. (Ministerie van Binnenlandse Zaken en Koninkrijksrelaties, 2019)

The goal of the Environment and Planning Act can be divided into three parts. The aim is to promote early involvement of citizens in developments for the physical living environment to; 1. Increase the quality, 2. Increase the speed of decision making, and 3. Create more support for the decisions ultimately taken. (Boeve & Groothuijse, 2019)

These three goals highlight the necessity of stakeholder engagement early on in a project. As seen in Chapter 1.1.2 when stakeholders are not correctly engaged in a project, it can lead to decrease in quality, going over time in planning and decrease in support, where NIMBY becomes noticeable. The Netherlands tries to improve this by implementing the Environment and Planning Act. (VNG, 2020) The Environment and Planning Act can help municipalities and initiators to identify the stakeholders very early on in the development of a project and improve stakeholder relationships by engaging and participating with the stakeholders from the beginning. (Aan de slag met de Omgevingswet, 2019)

1.2 Problem definition

Over the years, internal and external stakeholders within a project have been frequently researched. (Storvan & Clarke, 2014) There has been a growing awareness of the importance of stakeholders and the need for the stakeholders to be involved in a project. However, not much literature focuses on when to engage the stakeholders and how these stakeholders can influence a project or how they want to be engaged in a project. Neither do they give a clear process of how the stakeholder engagement should go (Heravi et al., 2015) This is further backed by articles written in professional construction journals like CoBouw and Management Impact. (Boeve & Groothuijse, 2019; De Lint et al., 2018; Van Mierlo, 2021) The topic of stakeholder theory is a frequently discussed topic in project management. However, stakeholder disappointment is reported as one of the root problems for causing unsuccessful projects. (Eskerod et al., 2015)

Stakeholders are of great value during a construction project. It can be especially valuable to hear their opinions to speed up the decision making process, as well as identifying the stakeholders and engaging them in the planning and design of a complex project. Stakeholders will be more willing to contribute ideas and suggestions if they get a feeling of being engaged. The goal of performing stakeholder engagement is to prevent conflicting interests from arising. (Golder & Gawler, 2005) However, in many cases this goal is not met, and stakeholder engagement is neglected, resulting in resistance, delays, financial damage or even damage to the project team’s image. (De Lint et al., 2018; MUG, z.d)

The complexity and environmental influences of the projects mean that stakeholders are an important part in the construction process. In addition, the importance of stakeholder engagement in projects is highlighted by the Environment and Planning Act. Problems in the news about stakeholders protesting because they were not engaged in the project keep

coming even though stakeholders are often mentioned in literature to be important for a project success. At the moment, there is no universal guide how the stakeholder engagement process should be performed in the complex projects of the municipality and companies' want to get more insight in what changes must be made for stakeholder engagement to improve.

1.3 Research objective

The research objective is to improve the stakeholder engagement process while using the requirements and the processes of the Environment and Planning Act as a guide.

Research Objective

Improve the stakeholder engagement process in complex projects while using the requirements and process of the Environment and Planning Act as a guide.

The approach used to uncover the current situation of stakeholder engagement is divided into four parts. The theory of stakeholder engagement and the implementation of the Environment and Planning Act is researched in the literature study. After that, a case study is performed to observe how the stakeholder engagement process takes place in practice and uncover how it could be improved. In this case study, the theory from the literature is questioned. The third part of this research is to develop a roadmap which helps project teams and companies to improve their stakeholder engagement via a stakeholder engagement process. In the last part of this research, the conclusion and recommendations are given.

1.4 Research scope

Being limited to a period of six months, the scope of this research focuses solely on stakeholder engagement. The main components of this research are the literature study, case study, model and conclusion and recommendations. The following scope has been defined:

- The research will be conducted for Dutch complex projects. Dutch complex projects will be selected for the case studies;
- Case studies will solely be done with complex projects of municipalities;
- The focus of this research will be on the external stakeholders;
- The interviews will be conducted with the project manager (or if any; stakeholder manager(s)) and external stakeholders.
- The research uses the Environment and Planning Act as a guide to help in the project phase process, this means that there will be no specific stakeholder engagement process developed for the development phase of the Environment and Planning Act;

1.5 Relevancy of the research

In this part, the relevancy of the research is given. It is divided into two key categories. *Scientific relevance*, how the study increases the understanding of a process, and *societal relevance*, where the study directly helps society benefit from the research recommendations.

1.5.1 Scientific relevance

In literature about stakeholder theory, stakeholder engagement receives less attention (Hamidu et al., 2014). Greenwood (2007) observes in his study about stakeholder engagement that characteristics of stakeholders and organizations are broadly studied, but less emphasis is given to the engagement between the stakeholders and its project team. In particular between external stakeholders and project teams. Although much research cites strategies, almost none of these strategies are implemented in a tool to improve the stakeholder engagement process (Barro & Co, 2009; Freeman, 1984; Frooman, 1999). What is unclear is the nature of what influence external stakeholders have on a project and when they should be involved in the development for effective collaboration.

1.5.2 Societal relevance

Recently, news about unsatisfied stakeholders in construction presents a picture of the problem with stakeholder engagement (CBS News, 2021). With the implementation of the Environment and Planning Act, companies want to know what effect this will have on stakeholder engagement and how it can help the stakeholders to be more engaged from the beginning. This research provides new insights to better understand the gap between literature and practical cases about stakeholder engagement and presents a roadmap to improve the stakeholder engagement process.

1.6 Research question

The aim of this research is to improve the stakeholder engagement process in complex projects while using the requirements and process of the Environment and Planning Act as a guide. It is for this reason that this research sets out to answer the question:

Main research question

What changes in the engagement of stakeholders can be made to improve the stakeholder engagement process in complex projects?

To answer the main research question, sub-questions are formulated and placed in order. Figure 2 shows the process in which this report is set up to answer the questions.

Chapter 2 - Literature study

SQ1: What is considered stakeholder engagement, how is it implemented in stakeholder management?

SQ2: How are the stakeholders categorized based on their influence and impact in complex projects?

SQ3: What is the Environment and Planning Act and how can it help with stakeholder engagement?

Chapter 3 - Case study

SQ4: How is the stakeholder engagement process conducted in complex projects by the project team and what is the experience of external stakeholders regarding the stakeholder engagement?

Chapter 4 - Development

SQ5: How can the relevant stakeholder engagement activities and the process and requirements of the Environment and Planning Act be used to showcase the stakeholder engagement process?

Chapter 5 - Validation

Chapter 6 - Conclusion and recommendations

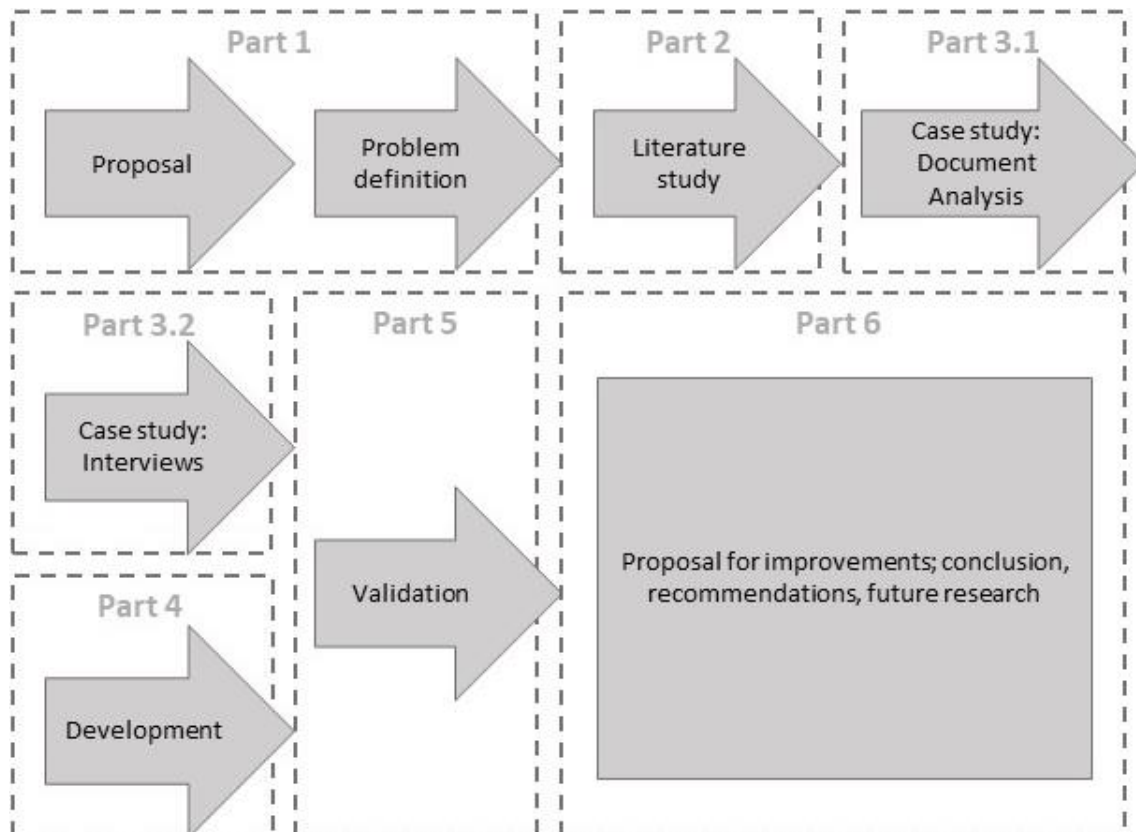


Figure 2 Illustration of the proposed research process

1.7 Reading guide

This research consists of different parts to give answers to the research question mentioned in Chapter 1.6. In Chapter 1, the problem and its background have been defined. The second part is the literature study, which gives theoretical insight into the subject of stakeholder engagement and how the Environment and Planning Act wants to improve this. From this a theoretical framework can be established, which will be used to conduct the interviews and the plan analysis. In the second part case studies are performed via interviews and plan analysis. To improve the issues presented in the case study and literature, a roadmap is presented which highlights the stakeholder engagement process. To make sure the roadmap is correct, it will be validated. The final part contains the conclusions and recommendations.

Chapter 2

Literature study

This chapter gives answer to the first three sub questions. The first step is to look at the meaning of a project. Also, where stakeholders and external stakeholders are defined. As well as the stakeholder management theory, the stakeholder engagement activities and the stakeholder's power and interests are researched. The Environment and Planning Act is researched to know how it can act as a guide to improve the stakeholder engagement. The method used for the literature review is primarily the snowball effect and via the use of keywords.

2.1 Project

The PMI (2017b, pg. 6) defines a project as “a temporary endeavor undertaken to create a unique product, service, or result.” In the field of construction and civil engineering, a project involves the process of assembling a building, infrastructure, or other civil engineering related constructions. (Laws, 2019)

A construction project can be divided into several phases. Figure 3 shows the traditional division into four main phases: program, planning, procurement and production. The program phase is where the client of the project has an idea and will analyze, with the help of experts, the conditions for its execution. The planning phase involves the construction of drawings according to the client's requirements. the parties sign the contract. In the last phase, in the production phase, the contractor executes the job. (Osipova, 2008)

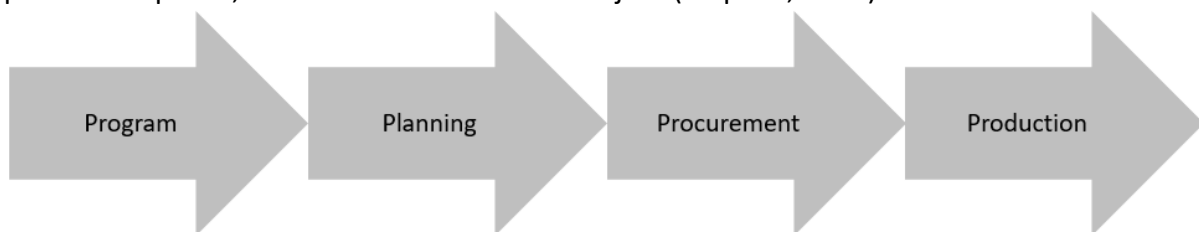


Figure 3 Phases of a project according to (Osipova, 2008)

However, in this research the Dutch project life cycle is used. Infrastructure projects in the Netherlands contain five main phases: *initiative, definition, contracting, construction, and operation & maintenance*. (RWS, 2019). To manage the stakeholders correctly and achieve a good project result, it is advised to involve the relevant stakeholder throughout most of the project life cycle.

Depending on the contract, the duties and responsibilities differ per project phase. In the Netherlands, a project starts with an initiation phase. In this phase, the client makes inquiries about the feasibility of the project. Partners and stakeholders are identified and engaged in the project as needed. The initiation phase is followed by the definition phase. In this phase, the Program of Requirements is created. Once the Program of Requirements is created, the next phase is the contract phase. In this phase, planning and design are completed and all requirements are gathered. The next phase is the construction phase. In this phase, the actual construction takes place. The final phase of a project is the maintenance phase. In a traditional

contract, the client is responsible for the first two phases and the contractor is responsible for the construction. (Luiten, 2012; Zuyd Professional, 2020)

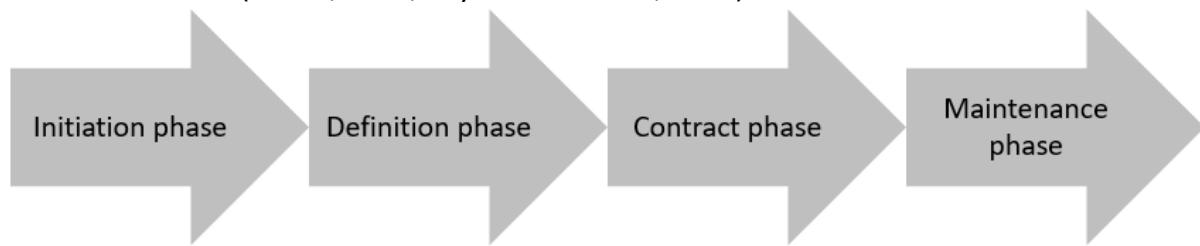


Figure 4 Phases according to (Luiten, 2012; Zuyd Professional, 2020)

To execute a project effectively and efficiently, project management is needed. In the book Project Management Body of Knowledge (PMBOK) by PMI (2017b), project management is defined as “the application of knowledge, skills, tools, and techniques to project activities to meet the project requirements.” One of the activities of project management is keeping the stakeholders satisfied and meeting their expectations.

2.2 Stakeholders

Smith (2000), gives a formal definition of stakeholders, namely “individuals and organizations who are actively involved in the project, or whose interest may be positively or negatively affected as a result of project execution or successful project completion.” However, the most used definition in studies is that of Freeman (1984 pg. 53), where the definition of stakeholder is given as:

Definition Stakeholders

“A stakeholder is any person or group that is affected by how an organization pursues its own goals.”

This also means that not only the people and groups the project organization wants to have a relationship with are seen as stakeholders, but also the ones with whom the project organization cannot avoid having a relationship with. An example of this are the residents around a project (Remme & De Waal, 2020).

Within the process of stakeholder engagement, a distinction can be made between external and internal stakeholders. Internal stakeholders are defined as stakeholders who are directly involved in an organization’s decision-making process. External stakeholders are those affected by the organization’s activities in a significant way (Ackermann & Eden, 2011). Internal stakeholders are mostly the people who have legal contractual agreements with the client. External stakeholders are the people who are directly or indirectly affected by the project. Examples of possible internal and external stakeholders is given in Figure 5.

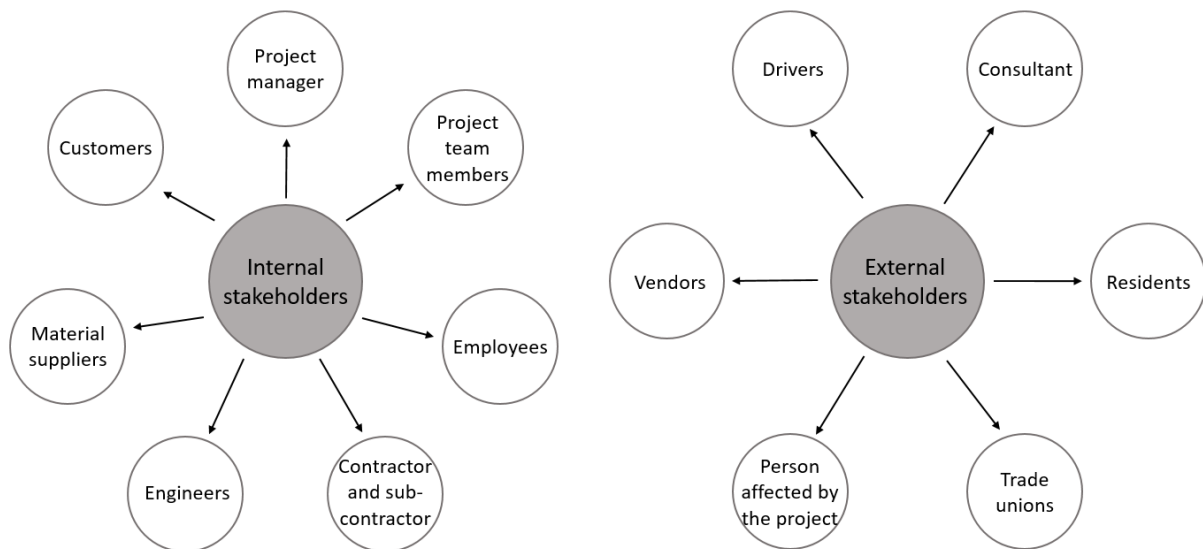


Figure 5 An example of a model for external and internal stakeholders (adapted from Mark-Herbert & Von Schantz, 2007)

Another distinction that can be made is between primary and secondary stakeholders. Primary stakeholders are defined by Clarkson (1995 pg. 106) as “one without those continuing participation the project cannot survive”. A project team and the primary stakeholders are greatly dependent on each other. Mitchell et al. (1997) state that primary stakeholders possess power that influences organizational decisions. Clarkson (1995 pg. 107) defines secondary stakeholders as “those who influence or affect or are influenced or affected by, the project, but they are not engaged in transaction with the organization and are not essential for its survival.” Here the project team is not dependent on the secondary stakeholders for their survival. However, the secondary stakeholders can cause significant disruption to the organization. As previously mentioned, internal stakeholders are those who have legal contractual agreements with the client, external stakeholders are those who do not have a legal contractual agreement with the client. This can be combined in a table, distinguishing the four different stakeholders.

Stakeholders involved often have an insufficient knowledge of the construction industry jargon, and thus experience difficulty with the engagement in the process. Because of this, stakeholders are often not involved. (Strovang & Clarke, 2014)

Table 1 Different types of stakeholders (adapted from Mitchell et al., 1997; Clarkson, 1995)

	Primary	Secondary
Internal	Dependent Contractual relationship	Independent Contractual relationship
External	Dependent Non contractual relationship	Independent Non contractual relationship

2.2 Stakeholder Management

In recent years, many researchers have considered stakeholder management as an important characteristic of construction projects (Wagh et al., 2020), resulting in stakeholder management becoming increasingly professionalized in practice. Management, in general, can be described as “the control and organization of something”. (Cambridge Dictionary, nb)

Acheampong et al. (2018) define stakeholder management as the dealings between the stakeholder and the organization. Other researchers describe project stakeholder management as “the process in which the organization enables the needs of stakeholders to identify, discuss, agree and contribute to active objectives of these ones.” (Freeman, 1984; Goodpaster, 1991; Logsdon & Wood, 2005) Olander and Landin (2008 pg. 557) define stakeholder management as “having the aim of maintaining the desired implementation of the project and avoiding unnecessary conflict and controversy with stakeholders.”

The most common definition of stakeholder management is given by Freeman (1984 pg. 53) in his book, *Strategic Management: A Stakeholder Approach*. In this book, he defines stakeholder management as:

Definition Stakeholder Management

A concept that refers to the necessity for an organization to manage the relationships with its specific stakeholder groups in an action-oriented way.

In Clarkson’s (1995) study to successful completion of construction projects, he states that for a construction to be successfully completed one has to meet the expectations of both internal and external stakeholders throughout the project life cycle.

Bourne (2005) conducted research about the effect of stakeholder management on construction projects. In her literature review she examined the stakeholder theory which led to the conclusion that the support of stakeholders is essential for project success. However, there was no clear means of identifying the right stakeholders for the right time of the project lifecycle. She concluded that in each phase of the project, identification and prioritization must occur. With the engagement and communication strategies adjusted to ensure that the needs and expectations of current key stakeholders were understood, managed and met.

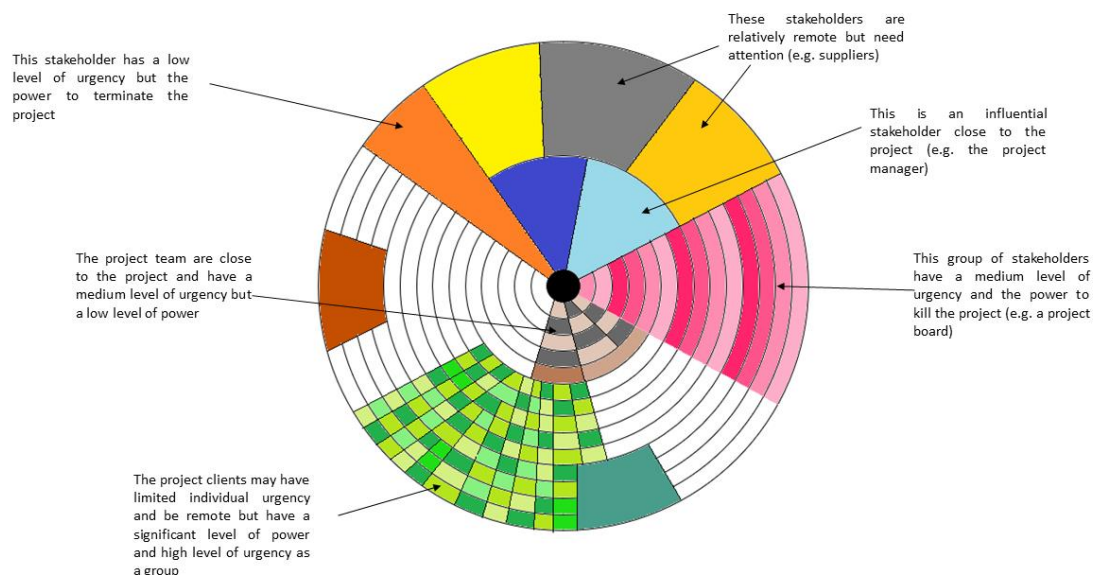


Figure 6 Stakeholder Circle (adapted from Bourne and Walker, 2006)

Key elements of the Stakeholder Circle are the: concentric circle lines, that indicate distance of the stakeholders from the project manager; patterns of stakeholder entities, that indicate their homogeneity; the size of the block, that indicates the scale and scope of influence; and

the radial depth, that indicates the degree of impact or power to stop the project. (Bourne & Walker, 2006)

Pacagnella Júnior et al. (2015) proposes four strategies to manage stakeholders when dealing with complex projects: collaborate, involve, monitor, and defend. (i) The collaboration strategy suggests that a project team should support stakeholders to prevent risks and gain support for the project. (ii) For the involvement strategy, they argue that a project team should show the advantages for the project to the stakeholders and encourage them to be engaged in the process. (iii) The monitor strategy suggests that the project team observe the stakeholders during a project and validate changes. (iv) In the defense strategy, the project team should be prepared to limit the negative effect that can come from stakeholders. (Nguyen et al., 2018; Pacagnella Júnior et al. 2015)

Nguyen et al. (2018) created a model that shows the four themes relating to project phases and project complexity. This is presented in Figure 7. The topics shown on the left- and right-hand sides of the figure are the reported strategies of stakeholder theory with complex projects. The characteristics are the project phases they researched and the five categories of complex projects according to the researchers. According to Nguyen et al. (2018) the five categories that define a complex project are: technical; organizational; goal; environmental and cultural; and information. Stakeholder analysis, stakeholder influence and stakeholder engagement include research into the level of stakeholder engagement and determining the degree of involvement and level of engagement. Different levels of stakeholder engagement require different use of collaboration and engagement. During a project, it is necessary to research the relationship between the level of stakeholder engagement and the relevant engagement strategies and activities. (Nguyen et al., 2018)

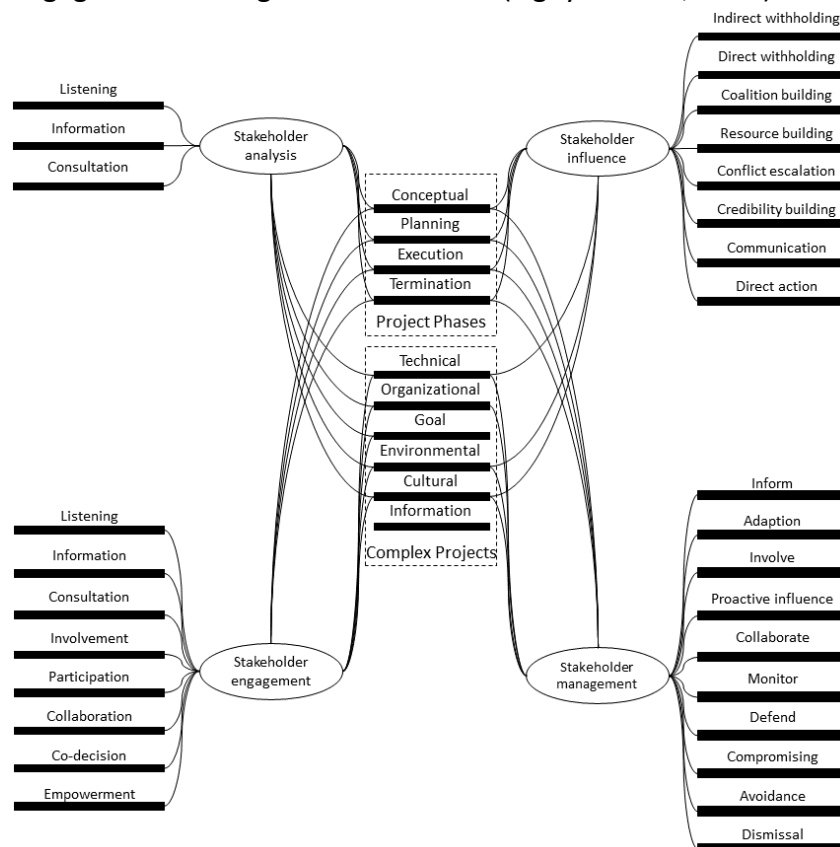


Figure 7 Complex projects and project phases with the stakeholder management strategies (adapted from Nguyen et al., 2018)

The study of Olander and Landin (2008) covers stakeholder management by doing two case studies. They compared the stakeholder management process of two railway development projects in Sweden, where they limited the study to the early stages of a project as this is when external stakeholders have, according to them, the strongest influence in a project.

The first project, a city tunnel project, had a 77% good satisfaction rate towards the project. This is a pretty high number considering most projects have a satisfaction rate of 46% as can be read in Chapter 1.1.2. This project got a 77% rate because one of the objectives stated by the project owners early on was acceptance of those affected by the project, they regarded stakeholder acceptance as one of the most important factors of getting a good outcome of the project. Olander (2006) states that for a project of this size it is notable that it has a positive image even a few years later. One of the reasons for this is that one of the critical success factors in the project was stakeholder acceptance and the project team set the musts for stakeholder communication to be:

- Open;
- Trustworthy;
- Cooperative;
- Respectful; and
- Informative.

The project also got stamped as successful by stakeholders because a team was developed that had the full responsibility to communicate with the stakeholders, meaning stakeholders had one communication platform to notify any concerns, complaints, or expectations.

In the second project, an opposite approach was used for stakeholder management. In this project, the management team limited the ambition to do nothing above what was required by the law concerning stakeholder management with railway projects. Olander and Landin (2008) give this as a perfect example of a project that has a negative influence due to focus on strict contractual demands. For this project, a delay of eight years was caused due to conflict with the local residents (Olander and Landin, 2008). Olander and Landin (2008) conclude that for a project to be successful, project managers should acknowledge the stakeholder management process, an objective of a project should be to communicate the aspects of a project and communicate and interact with stakeholders so their expectations and needs can be met.

In the study of Cleland and Ireland (2007) they state that when stakeholder management is done effectively, a stakeholder management plan should focus on the following:

- It should identify all groups and individuals that may be of influence or can be influenced by the project;
- It should determine the level of influence each stakeholder may have on the project;
- It should be able to identify and monitor relationships for triggers related to risks associated with stakeholders;
- Focus activities for managing stakeholders that conserve project resources and satisfy stakeholder needs;
- It should increase the projects' confidence, reduce stress, and lighten the workload of the project manager because there is a plan and stakeholders have been identified and people know how to manage them.

(Cleland & Ireland, 2007)

A stakeholder management plan is often referred to as a stakeholder engagement plan. (Sanghera, 2018) The result of the analysis of how to engage stakeholders, how to collaborate, how to communicate, and what the responsibilities are, is the stakeholder management plan. The stakeholder management plan includes activities to implement and facilitate stakeholder engagement in the project. (Sanghera, 2018)

To realize effective stakeholder engagement Eskerod and Jespen (2016) state that a carefully worked out plan is necessary. Planning the stakeholder management plan requires selecting strategies towards the stakeholder that reflects the needs and constraints of the project. Figure 8 provides an overview of the issues and decisions the project team needs to address for the stakeholder management plan.

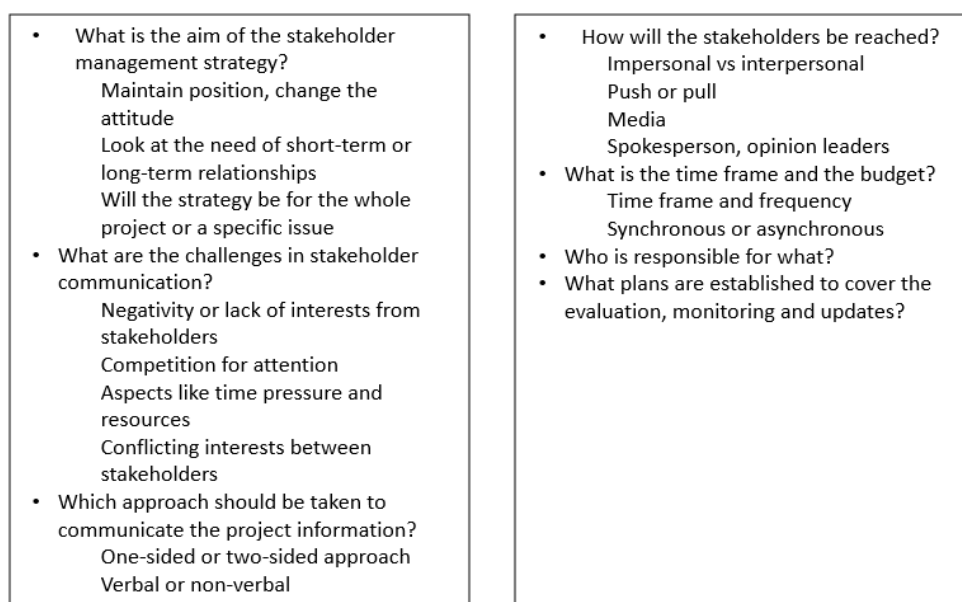


Figure 8 Issues to be addressed in the stakeholder management plan (comprised from literature read on stakeholder management plans (Cleland & Ireland, 2007; Eskerod and Jensen, 2016; Boreal-is, 2019; Yang et al., 2018)

2.4 Stakeholder Engagement

In literature about stakeholder theory, stakeholder engagement receives less attention (Hamidu et al., 2014). Greenwood (2007) observes in his study about stakeholder engagement that characteristics of stakeholders and organizations are broadly studied, but less emphasis is given to the engagement between the stakeholders and company as well as the actual stakeholder engagement process. As seen in previous chapters, Collinge (2020) also validates that stakeholder engagement is known as a key stage in the stakeholder management phase. Ensuring early involvement of stakeholders can avoid or decrease the negative effects caused by stakeholders. Openness from the start, dialogue and actively engaging stakeholders can reduce the potential for conflict in later project phases. (Nguyen et al., 2018)

There are many ways studied that can define stakeholder engagement. For example, Lerbinger (2006) defines stakeholder engagement as developing and maintaining the relationship between an organization and its stakeholders. Greenwood (2007) stated that stakeholder engagement is about involving stakeholders in organizational activities. Friedman & Miles (2002 pg. 152) define stakeholder engagement as “the process of effectively eliciting stakeholder’s views on their relationship with the organization.” Franklin (2020 pg. 2) defines

stakeholder engagement as “a strategic process of interacting with stakeholders to gather information about a shared interest, preferences, and the potential for joint action.” The most reliable definition is that of Kivits and Sawang (2021) that combines different studies, also from the ones mentioned above, to create a good definition of stakeholder engagement.

Definition Stakeholder Engagement

The wide range of tools and practices an organization can use as a mechanism for consent, control, cooperation, accountability, employee involvement and participation, enhancing trust, enhancing fairness and corporate governance by involving stakeholder in its organizational activities.”

Doyle and Stern (2006), in their book on marketing management and strategy, point out that stakeholder engagement should be a collaborative process in which no stakeholder group should go unnoticed or unaccounted for. Currently, many project teams interpret stakeholder engagement as a form of management in which project teams attempt to organize, structure, and sometimes manipulate relationships between stakeholders and the project team, particularly with external stakeholders. When this is the case, project teams often make decisions on their own and then inform stakeholders of that decision, leading to one-sided engagement. This can lead to stakeholders being dissatisfied with the way they have been engaged in the project. (Jeffery, 2009)

When looking for literature on stakeholder engagement, the term stakeholder participation has been frequently used. However, you can participate without being engaged. For example, during meetings, there is a difference between those who are sitting in the meeting and participating by showing up, and the ones who are adding to the conversation being engaged in the meeting. Engagement is a step beyond participation. (Brains on Fire, 2009) The Environment and Planning Act does, however, have the same meaning for engagement and participation in the way they describe their processes and requirements. For this purpose, stakeholder engagement and stakeholder participation are both researched. (Aan de slag met de Omgevingswet, 2020)

According to Arnstein (1969 pg. 24) participation is a means for "the redistribution of power that enables the have-not citizens ... to be deliberately included in the future". By actively involving "individuals and groups that are positively or negatively affected by a proposed project". Decision-makers often try to avoid, or fast track, the participatory process. This is because stakeholder engagement can be challenging to implement as it may lead to social disorder and conflict. It is argued that engagement provides a good opportunity to resolve conflicts through the engagement of project stakeholders, prioritizing their concerns and maximizing their mutual satisfaction. (Li et al., 2013)

One of the most important principles within a society that aims to be participatory is that citizens take more responsibility within the society. The participation ladder is a widely used tool in this context. There are many different researchers who have designed a participation ladder. Arnstein (1969) was the first one who applied insight in the different typologies of participation, as can be seen in Figure 9. This participation ladder maps out the power of the government and the role of the citizens, where each step indicates how much power citizens

have in the project process. It consists of eight treads, where the amount of power increases the higher on the ladder.

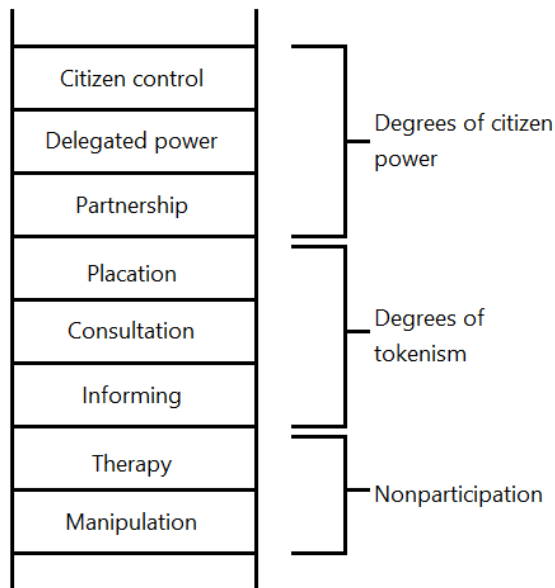


Figure 9 Participation ladder (adapted from Arnstein (1969))

The ladder of Arnstein (1969) has led to inspiration to the design of many other participation ladders. Edelenbos and Monnikhof (2001) have designed a participation ladder specifically for the Dutch situation, shown in Figure 10. However, in contrast to the model of Arnstein (1969), Edelenbos and Monnikhof (2001) have chosen to not include the threads of nonparticipation.

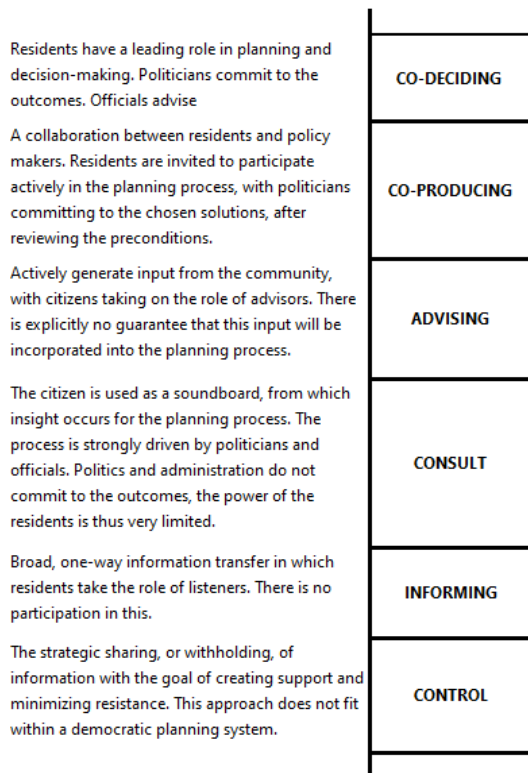


Figure 10 The Dutch take on the participation ladder (adapted from Edelenbos and Monnikhof (2001))

Another ladder is made by Friedman and Miles (2006), often used in health sectors, they use Arnstein's (1969) ladder to develop a model to analyze the degrees of quality of stakeholder

management and engagement practices. They highlight three suggested critical factors adapted from Strong et al. (2001), for stakeholder satisfaction: “timeliness of communication, honesty and completeness of information, and empathy and equity of treatment by managers” (Strong et al., 2001). It is comprised of twelve levels as can be seen in Figure 11. Although most stakeholders probably desire the involvement of step 8, it should be noted that the lower levels, step 1 to 3, of the ladder are mostly one-way communication through the provision of reports. These approaches, steps, can help meet the needs of stakeholders who do not wish to play a greater role in the project. Similarly, at the middle levels are certain stakeholders who may be satisfied with this limited form of engagement. It should not be assumed that all stakeholders wish to be engaged at the highest levels shown in the ladder. (Greenwood, 2007; Beach, 2009) Nonetheless from the study of Friedman and Miles (2006) it can be seen that they have not tested their model analytically, so it is not yet certain these are the levels of engagement.

	Stakeholder management tool and nature of response	Intention of engagement	Level of influence	Style of dialogue and associated examples
Degrees of stakeholder power	Proactive or responsive/trusting	12. Stakeholder control	Forming or agreeing to decisions	Multi-way dialogue, e.g. community projects
		11. Delegated power		Multi-way dialogue, e.g. board representation
		10. Partnership		Multi-way dialogue, e.g. joint ventures
		09. Collaboration		Multi-way dialogue, e.g. strategic alliances
Degrees of involvement	Responsive/neutral	08. Involvement	Having an influence on decisions	Multi-way dialogue, e.g. constructive dialogue
		07. Negotiation		Multi-way dialogue, e.g. reactive: bargaining
		06. Consultation		Two-way dialogue, e.g. questionnaires, interviews, focus groups, task forces, advisory panels
Degrees of tokenism	Autocratic/cynical	05. Placation	Being heard before a decision	Two-way dialogue, e.g. workshops
		04. Explaining		One-way dialogue, e.g. verified corporate social reports
		03. Informing		One-way dialogue, e.g. briefing sessions, leaflets, magazines, newsletters, green glossy social corporate reports, or other publications
		02. Therapy		
Non-participation		01. Manipulation	Knowledge about decisions	

Figure 11 Stakeholder Engagement ladder (adapted from Friedman and Miles, 2002)

By combining literature, strategies for stakeholder engagement can be determined. (Association for Project management et al., 2019; Gable & Shireman, 2005; Hamidu et al., 2014; Jeffery, 2009)

- Communicating

It is important to understand the stakeholders who the project will deal with. Engaging stakeholders should involve recognizing the influence of stakeholders, respecting their views, and interacting with the stakeholders.

- Being representative

Project managers should operate with an awareness of human feelings. Understanding the root cause for stakeholder behavior can help an organization to assess the way

they have to work together with the stakeholders. Engaging stakeholders that are not representative of the other groups of stakeholders could eventually invalidate the entire process of stakeholder engagement.

- Manage risks and be open

This also involves acknowledging imperfection. An organization should acknowledge they are not faultless. They should be open about the problems, openness fosters understanding and trust.

- Take responsibility

It is the responsibility of everyone involved in the project to understand their role and follow the right approach to engagement.

Stakeholder engagement is a process used for stakeholder management. The best example where this is shown is in Figure 11 the ladder of Friedman and Miles (2006). Here it is shown that there are different stakeholder management tools together with the intention of engagement. As has been mentioned previously, not every stakeholder needs to have the 12th step. Every stakeholder is different, and every stakeholder needs to be involved differently.

When looking at the difference between stakeholder management and stakeholder engagement there can be seen that both are extremely important for a project's success. And stakeholder management cannot be done without stakeholder engagement. As mentioned above in the previous chapter, stakeholder management is more a process defined by Freeman (1984 pg. 53) as "a concept that refers to the necessity for an organization to manage the relationships with its specific stakeholder groups in an action-oriented way". By contrast, stakeholder engagement is defined by Kivits and Sawang (2021) as "the wide range of tools and practices an organization can use as a mechanism for consent, control, cooperation, accountability, employee involvement and participation, enhancing trust, enhancing fairness and corporate governance by involving stakeholders in its organizational activities." Stakeholder engagement means working closely with the stakeholders, rather than communicating ideas like is done in stakeholder management. It is about bringing individuals and categorizing them together, rather than picking them off one by one like in stakeholder management. (Simjee, 2022) Thus, stakeholder engagement is more about relationship and influence, whereas stakeholder management is more about processes and organization. (Laurence Davidson, 2017). This is shown in Figure 12.

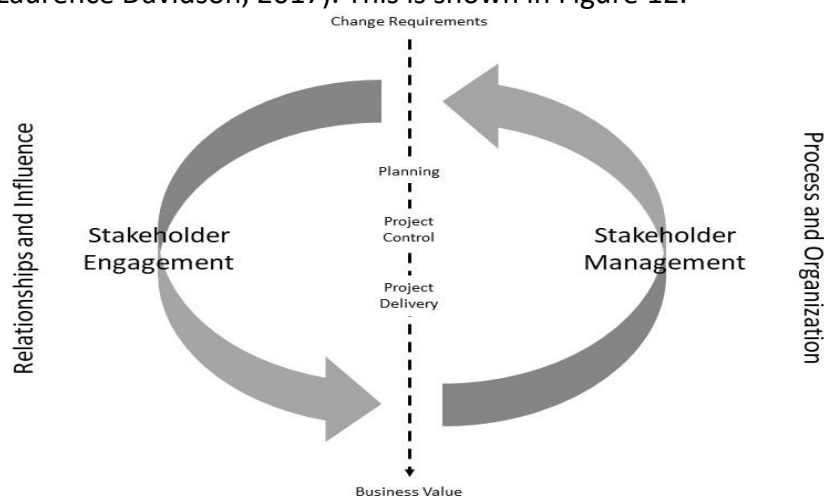


Figure 12 Stakeholder Engagement vs Stakeholder Management (adapted from Laurence Davidson, 2017)

2.5 Stakeholder Engagement in the Netherlands

Rijkswaterstaat (RWS), the executive agency of the Ministry of Infrastructure and Water Management in the Netherlands, sees stakeholder management as a part of environmental management. (RWS, 2012) Environmental management is seen as a facet of integral Project Management, RWS uses a “5-rollenmodel”, assuming the roles of a Project Manager, Contract Manager, Technical Manager, Stakeholder Manager and Manager Project Control. The environment manager acts public-oriented in this role model and this approach focuses on stakeholder management. Communication, Traffic Management and Conditioning. As can be seen in Figure 13. (RWS, 2009)

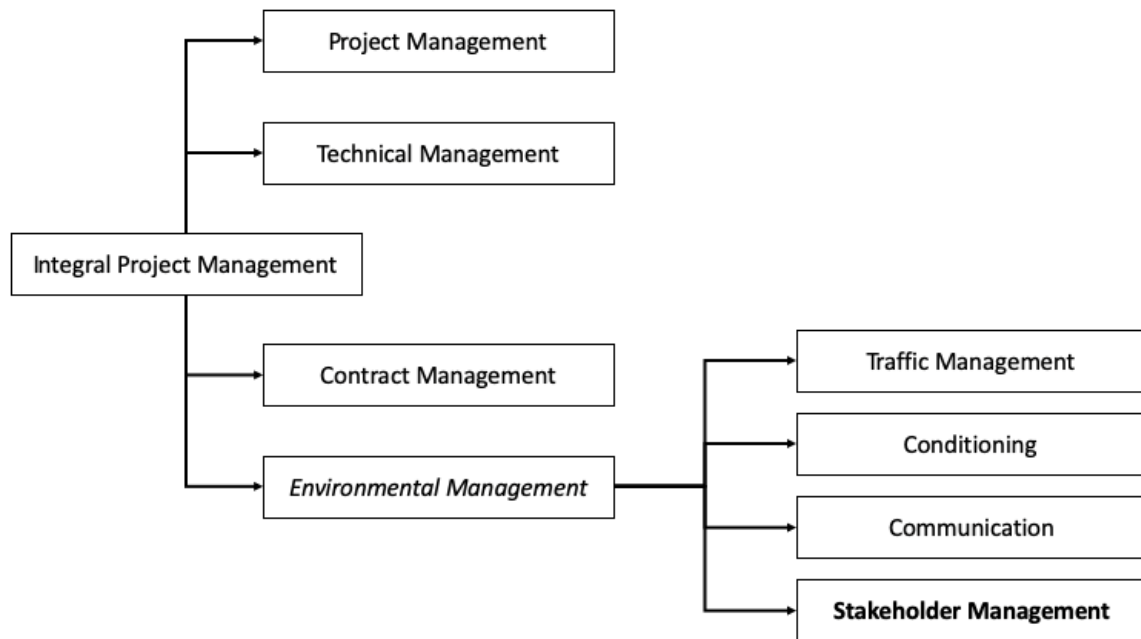


Figure 13 From integral project management to environmental management and stakeholder management (RWS, 2009)

The working method for construction projects is based on a classification of all activities and products of the project into 7 sub-processes, namely project management, project control, market, design engineering, conditioning, administrative decision-making, and public participation. These processes have led to a way of organizing and managing projects, which has been the norm for Rijkswaterstaat and many other government authorities: the Integral Project Management (IPM). The IPM is targeted at the management of the risks that arise from the various subprocesses. From this IPM-model a standard organization of a project has been made which can be seen in Figure 14. (RWS, 2012)

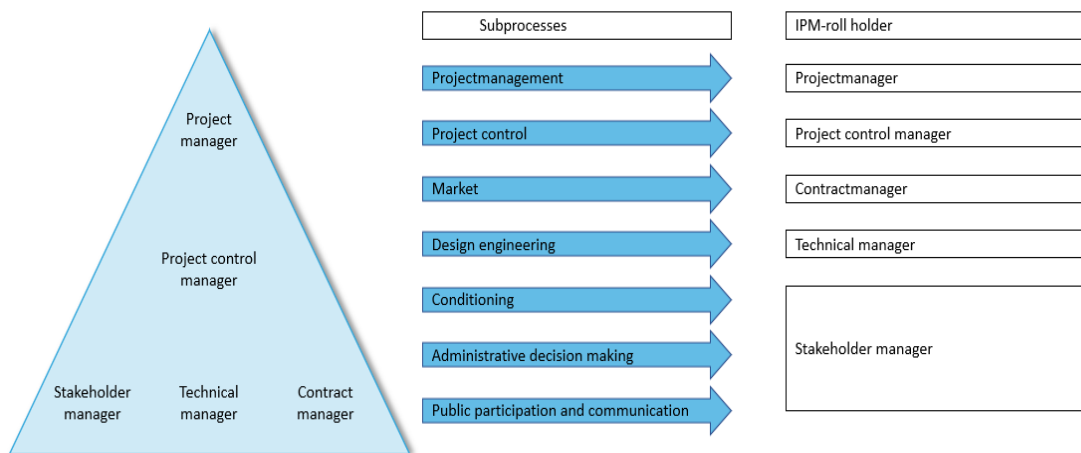


Figure 14 IPM-Model (adapted from Rijkswaterstaat, 2012)

In the Netherlands stakeholder manager is responsible for contact with the surrounding area to realize the project within the constraints of public and private law. In this context, the stakeholder manager is responsible for going through the various planning procedures, obtaining permits, moving cables and pipelines, property matters and environmental, archaeological and undetonated explosives studies. All this requires intensive contact and consultation at an official and administrative level. The interaction with the environment/stakeholders also plays an important role. (Wermer, 2012) Not much literature is written in the Netherlands about stakeholder engagement. The Environment and Planning Act it is the first where stakeholder engagement is referred to as a true necessity to make a project successful. It was often referred to as stakeholder management.

2.6 Power and Interest of external stakeholders

To analyze the influence of stakeholders, accordingly, only identifying them will not be enough. The power of stakeholders that could influence the project needs to be assessed to know how to engage the stakeholders and lead the project to success. (Olander, 2006)

Frooman (1999) touches upon the influence stakeholders can have in a project. Definitions of influence of stakeholders are different in many studies. Some definitions focus on the project dependencies on the stakeholders, some focus on the stakeholder's dependency on the project. Frooman (1999) uses the resource dependence theory to suggest that stakeholders can have one of four types of resource relationships with any given organization, which can be seen in Table 2.

Typology of stakeholder-project relationships (Frooman, 1999)			
		Is the stakeholder dependent on the project?	
		Yes	No
Is the project dependent on the stakeholders?	Yes	High interdependence	Stakeholder power
	No	Organization power	Low interdependence

Table 2 Typology of stakeholder – project relationships (adapted from Frooman, 1999)

When the project is more dependent on the stakeholder than the stakeholder is on the project, there is stakeholder power. When the stakeholder is dependent on the project, but the project is less dependent on the stakeholder, there is organizational power. Organizational

power is not much seen in construction projects; these projects are most of the time dependent on the stakeholder when it comes to requirements (Bammer, 2019). If both project and stakeholders are dependent on each other, as is seen for many construction projects, there is a high interdependence and the other way when stakeholder and project are both not dependent on each other there is a low interdependence.

A stakeholder theory that is often used by researchers is the study of Olander (2007). He gives a conceptual model of the stakeholder impact index. This index adapts three different theories of different studies to analyze and determine the influence and interests to manage external stakeholders in construction projects. In his study, he adapted the stakeholder impact/probability matrix of Johnson and Scholes (1999). Johnson and Scholes (1999) propose a stakeholder mapping technique to evaluate stakeholders' interests, as shown in Figure 15.

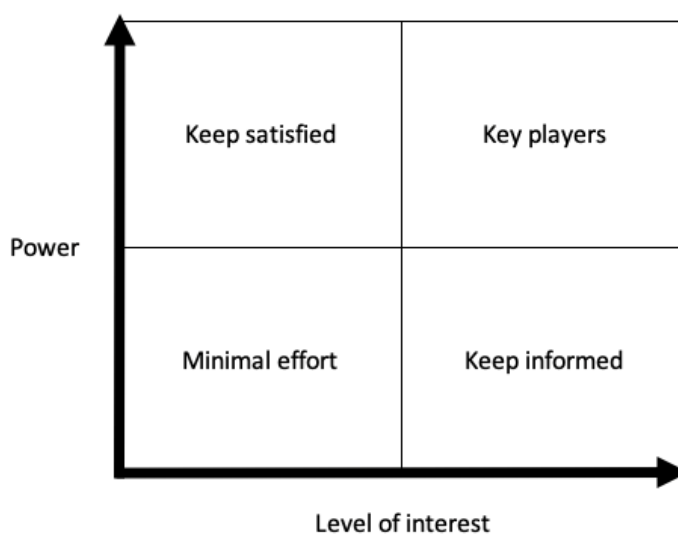


Figure 15 Power/Interest Matrix (adapted from Johnson and Scholes, 1999)

However, as Olander (2007) explains, it is hard to determine the power of a stakeholder on a scale, rather the impact each stakeholder has in a construction project should be determined. Therefore, he combined the interest-impact analysis of Ward and Chapman (2003) and the matrix of Bourne and Walker (2008). The matrix of Bourne and Walker (2008), the Vested interest Influence Impact (Vill), estimate the vested interest levels (v) and the influence impact levels (i) using a Likert scale from 5 – very high to 1 – very low. The Vill can then be calculated as follows:

$$\text{Vill} = \sqrt{(v \cdot i / 25)} \quad \text{Formula 1 (Bourne and Walker, 2008)}$$

Olander's (2007) stakeholder impact index introduces an assessment of the stakeholder attributes and position, together with the vested interest index forms the tool for complete stakeholder analysis. He combines the study of Bourne & Walker (2006) with the study of Mitchell et al. (1997b), where the attribute levels are based on stakeholder classes.

Mitchell et al. (1997b) divides stakeholders into seven different classes, among three different categories as is shown in Figure 16. The power, urgency, and legitimacy. Stakeholders can be identified by possessing one, two or three of the attributes: (i) the stakeholder's power to influence the project, (ii) the legitimacy of the stakeholder's relationship with the project, and

(iii) the urgency of the stakeholder's claim on the project. With this the project team determines how the stakeholders have influence on the project. Entities with no power, legitimacy, or urgency in relation to the project are not stakeholders.

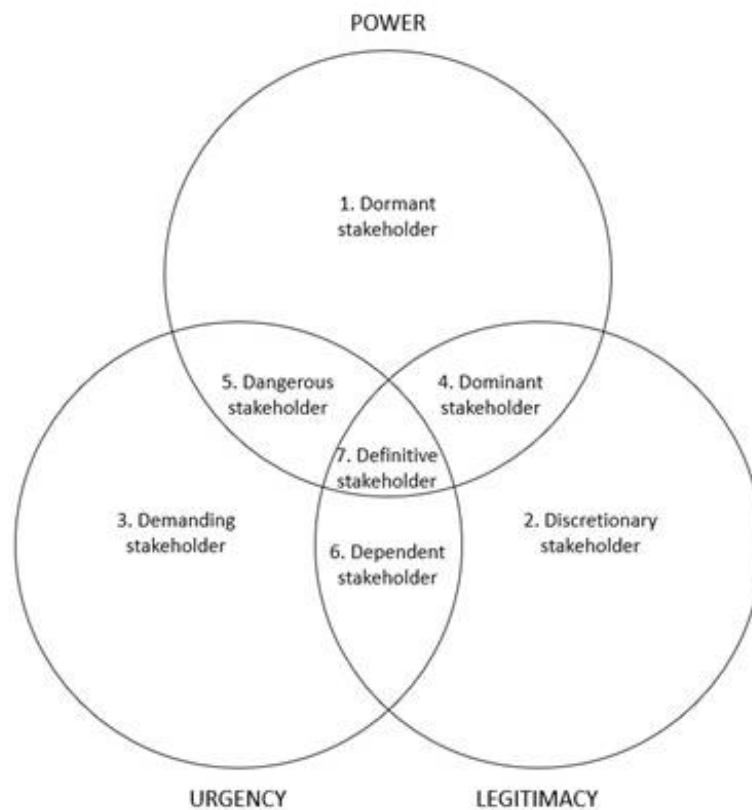


Figure 16 Influence of stakeholders by category (Mitchell et al., 1997)

By combining the above-mentioned studies, Olander (2007) proposes that project managers can evaluate a stakeholder impact index, the SII, as a function of an attribute (A), position value (Pos) and the vested interest matrix (Vill).

The stakeholder attribute is determined with the help of weighing the attributes (power, legitimacy, or urgency) between the weight of 0 and 1. Olander (2007) assesses the position value (Pos) as: active opposition (-1), passive opposition (-0.5), not committed (0), passive support (0.5) and active support (1). This result in a stakeholder impact index as:

$$SII = Vill * A * Pos \quad \text{Formula 2 (Olander, 2007)}$$

The project has a positive outcome of the project when the sum of the stakeholder impact is positive, if it is negative the stakeholder impact is unfavorable. (Olander, 2007)

Once the stakeholder analysis is done, it is also important to examine how the stakeholders practice their influence. To examine the stakeholders' influence, Nguyen et al. (2020) propose a theoretical framework. This framework includes three generic strategies to examine how stakeholders have an influence on the project: direct influence, lobbying and bolstering. Figure 17 shows this in a framework. Firstly, a stakeholder can put a direct influence on a project when they control important inputs. Secondly, stakeholders can indirectly influence a project by convincing other stakeholders to act via various forms of media for example. This is called

a lobbying strategy. Thirdly, the bolstering category consists of actions used to support other strategies.

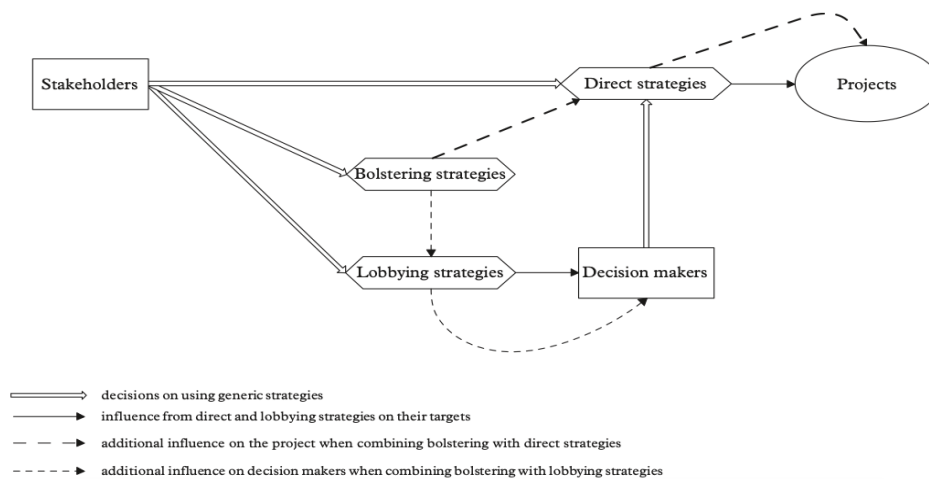


Figure 17 Stakeholder influence framework (Nguyen et al., 2020)

The influence of stakeholders has an effect on the decision-making process. Cascetta et al. (2015) state that in order to make rational decisions, a decision has to be consistent, comparative, aware, and flexible. Menkel-Meadow (2012) gives the definition of rational decision-making “as acting the best possible way considering the aims and constraints.”. With this, Cascetta et al. (2015) designed three different rational decision-making models: the strongly rational, the bounded rational, and the cognitive rational. They state that the decision-making process should be transparent and participated. The model they propose is based on three parallel processes: cognitive decision-making, stakeholder engagement and quantitative analysis. In their model, decisions are still rational but are generated by exploring different alternatives until there is a solution found that satisfies decision-makers and most stakeholders. Cascetta et al. (2015) model is shown in Figure 18.

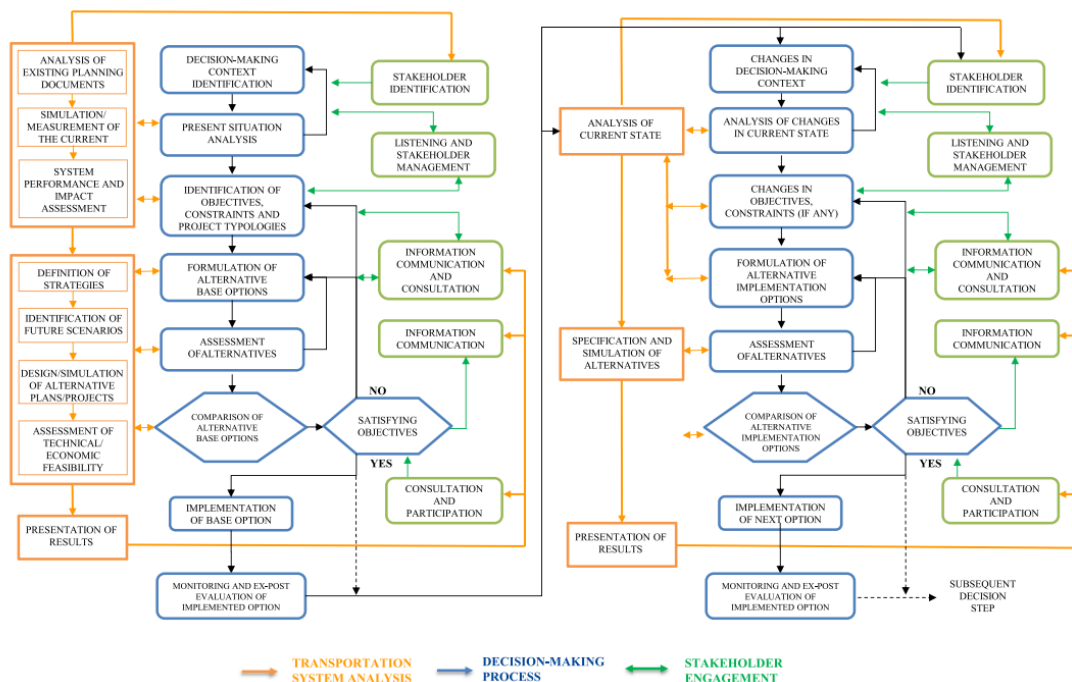


Figure 18 Schematic representation of the decision-making model (Cascetta et al., 2015)

2.7 Environment and Planning Act as a guide

Currently, the Netherlands has an Environment Law consisting of 4.700 articles, spread over 35 acts, 120 Order in Council (AMvB's) and 120 ministerial regulations for space, housing, infrastructure, environment, nature and water. Each of these articles has a specific general interest, principle, procedure and requirements to protect. These regulations are considered too complicated, even for those working with them in the professional field. Because of this, a review of the entire system of the Environment Law has been performed and new regulations have come forward. (de Graaf et al., 2015 p.5; Seminar Participatie W+B, 2020)

The above-mentioned regulation consists of the Environment and Planning Act (Omgevingswet); four Executive Orders (AMvB's); and the Environmental regulation (Omgevingsregeling). When the new regulation enters into force, the introduction and supplementation tracks will merge into the main track. The introduction track regulates the transition from existing to new legislation and regulations. This track also supplements the main track with some essential elements. The development of legislation and regulations in the supplement track is part of ongoing policy development in the areas of nature, soil, noise, and land ownership. Appendix 1 shows in which way the regulation of the old Environment Law is being renewed. (Omgevingsportaal, 2019)

Goal

The regulations of the Environment and Planning Act aims to go from protection of the physical living environment through a defensive approach of activities to a policy cycle where continuous care for the quality of the physical living environment is central and the room is created for development. This new approach is based on trust, whereby swift and effective actions can be taken if necessary. (Seminar Omgevingswet RWS and VNG, 2019)

The social objectives of the Environment and Planning Act are, with a view on sustainable development, to (a) achieve and maintain a safe and healthy physical living environment and good environmental quality, and (b) effectively manage, use and develop the physical living environment to fulfil societal functions. The regulations of the Environment and Planning Act leave room for the realization of activities by citizens and businesses and enables the realization of international, national, regional and local policy goals. (Seminar Participatie W+B, 2019)

With the Environment and Planning Act and its implementing regulations, the government is pursuing four improvement objectives:

1. To increase the clarity, predictability and ease of usage of the Environment and Planning Act;
2. To bring about a coherent approach to the physical living environment in policy, decision-making and regulations;
3. To increase the cope for administrative deliberation by enabling an active and flexible approach to achieving objectives for the physical living environment;
4. To speed up and improve decision-making on a project in the physical living environment.

Instruments of the Environment and Planning Act

The regulation knows six-core instruments:

1. The Environmental Vision (Omgevingsvisie), a coherent strategic plan about the physical living environment;
2. The Program (Programma), a package of policy intentions and measures serving to achieve and continue to meet environment values or objectives in the physical living environment;
3. Decentralized regulations (Decentrale Regelgeving), i.e., the municipal environment plan (Omgevingsplan), the waterboard by-laws (Waterschapsverordering) and the provincial environment byelaws (Omgevingsverordering), in which the local government lays down the general rules and licensing obligations for all areas;
4. General national regulations for activities in the physical living environment;
5. The Environmental Permit (Omgevingsvergunning), which enables an initiator to obtain permission for all activities he wishes to undertake through one single application made to one single service;
6. The Project Decision (Projectbesluit), a generic regulation for decision-making on the project with a public interest according to the “faster and better” approach.¹²

The structure of the Environment and Planning Act follows the policy cycle, shown in Figure 19. This figure shows which instruments administrative bodies have at their disposal in the various phases of the cycle. The quality of the physical environment is central to the policy cycle. The Act takes a much more integrated approach to the physical living environment than is possible under existing legislation by letting the different disciplines work together on the problems and plans. This leads to better coordination between the different disciplines. The government’s concern is to improve the physical living environment where it is deficient and to preserve qualities where they are up to standards. (Kwast, 2012)

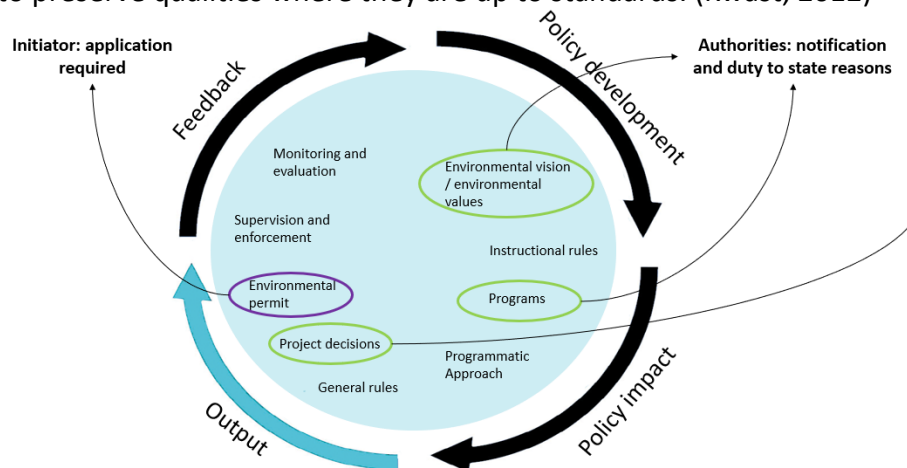


Figure 19 Policy Cycle Environment and Planning Act (adapted from Kwast, 2012)

Definition Environment and Planning Act

By summarizing the above-mentioned literature, a definition is made for this research:

¹ Kamerstukken 33 962 – 2013/2014 pg 8

² Factsheet ‘Omgevingswet, Ruimte voor ontwikkeling, waarborgen van kwaliteit’, Ministerie van Infrastructuur en Milieu, juni 2014, p. 2

“The Environment and Planning Act is a law that aims for integral responsibility and cooperation in carrying out the tasks. The focus is on achieving and maintaining a safe and healthy physical environment.”

This safe and healthy physical environment can be divided into themes. The themes are taken from the ‘Brabant Omgevingscan’, seen in Figure 20. The Brabantscan quickly gives a picture of the health and livability in a certain area. It shows what the strong points are, and what the problems are. It is therefore a tool for municipalities, inhabitants, professionals, and entrepreneurs to together improve the health and livability in the neighborhood, village, or municipality. It also helps to quickly scan the surrounding people living in the area. (Brabantscan, 2019)

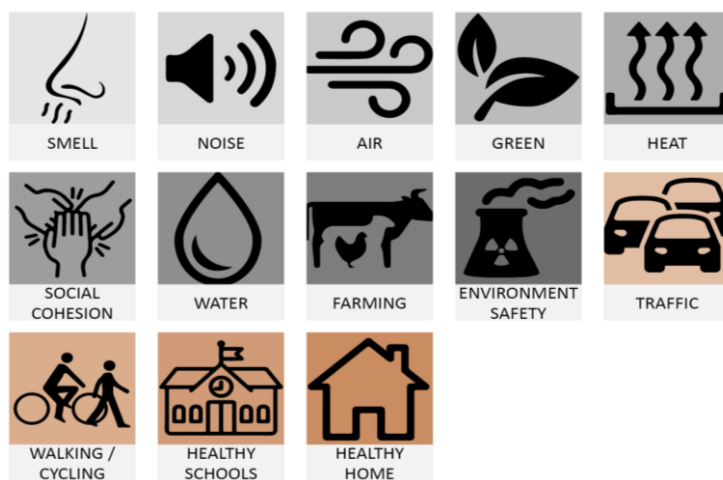


Figure 20 Themes essential for a safe and healthy physical environment (adapted from Brabantscan, 2019)

2.8 The necessity of stakeholder engagement in the Environment and Planning Act

In the spirit of the Environment and Planning Act, participation is a key pillar. With the introduction of the Environment and Planning Act, for the first time, participating on a large scale will become the central principle in policy formation, namely for the entire spatial domain at all levels of scale. This means municipalities, initiators, provinces, and others will have to start engaging stakeholders in the process of a construction project from the very beginning.

The Explanatory Memorandum to the Environment and Planning Act says the following:

"At the moment there is no coherent system of environmental law [...]. The laws also regulate the participation and involvement of citizens in projects in different ways. Active involvement, preferably at an early stage and for example according to the 'faster and better' approach, is highly desirable, especially for complex projects. Of the current laws, only the Tracé Act provides for this."³

The Environment and Planning Act aims to broaden the engagement of residents and other stakeholders and explicates the possibility of embedding the challenge right in the participation regulation.

³ Kamerstukken II, 2013/14, 33 962, nr. 3, p. 16.

Local governments will soon be required to create participation policies for the physical domain. This is included in the bill 'Strengthening participation at the decentralized level'.³ The purpose of this requirement is to increase the involvement of residents in the preparation, construction, and evaluation of policy by their municipality, province and water board. In practice, municipalities already work with all kinds of participation forms, also in the implementation of policy, including the challenge right. The aim of this amendment is for every municipal council to set out frameworks for participation in the participation ordinance, with the aim for clarity for both residents and municipalities on how they should be involved in each phase of the policy process. (Wetsvoorstel Raad van State, 2020)

Participation is customized. Therefore, the law does not prescribe how participation should take place. However, the Environmental Decree does contain rules to ensure participation. There is an obligation to justify the decision: the competent authority must indicate, when a decision is taken, how the local community was involved in the preparations and what action was taken as a result. (BZK, 2020)

The design of the participation and the desired outcomes can be written in a participation plan. A participation plan is a plan that clearly and unambiguously describes what a team wants to achieve with the help of participation and in what way which parties, at what time, will be involved in an issue, policy file, program or project. In addition, the plan indicates what contribution is required from the various parties and what will happen with that contribution in the process. (Ministerie van Infrastructuur en Waterstaat, 2020)

With the Environment and Planning Act participation will become a core task in projects from the very beginning till the very end of the plan. Stakeholder (environmental) managers will become crucial in engaging all stakeholders from the start with the requirements of the Environment and Planning Act, municipalities will get a more leading role and project managers will use a different control by having more process management. More external stakeholders will be involved in the stakeholder engagement process.

Working in the spirit of the Environment and Planning Act is a means of improving services to residents, businesses, and organizations. The Environment and Planning Act seeks transparency, an accelerated decision-making process, and good relations between the project team and the environment. This should be done not only in the policy phase, but also in all subsequent phases. (Gemeente Rheden, 2021)

2.9 Conclusion Literature Review

A project consists of many complex activities that must be managed. One of these activities is the management and engagement of the stakeholders involved in the project. A definition of stakeholder is given by Freeman (1984), who defines stakeholder as “any person or group that is affected by how an organization pursues its own goals.” Stakeholders can be distinguished between external and internal stakeholders, as well as between primary and secondary stakeholders. This leads to the conclusion that there are four different stakeholders: internal-primary, internal-secondary, external-primary and external-secondary.

The literature distinguishes between stakeholder engagement and stakeholder management where stakeholder engagement is shown to be more about relationship and influence, and the stakeholder management about process and organization. It should be noted that both are extremely important for a project's success. Stakeholder management cannot be done without stakeholder engagement and vice versa.

A large body of literature has been read in order to find the best fitting stakeholder theory and to find how stakeholder engagement is implemented in stakeholder management. This is shown in the theoretical framework of Chapter 2.10.

In the spirit of the Environment and Planning act, engagement is a necessity. The Environment and Planning Act can be defined as 'a law that aims for integral responsibility and cooperation in carrying out tasks. The focus is on achieving and maintaining a safe and healthy physical environment.' The Environment and Planning Act aims to broaden the engagement of external-primary and external-secondary and explicates the possibility of embedding the challenge right in the participation regulation.

With the Environment and Planning Act, participation will become a core task in projects from the very beginning till the very end. Stakeholder (environmental) managers will become crucial in engaging all stakeholders from the start with the requirements of the Environment and Planning Act, municipalities will get a more leading role and project managers will use a different control by having more process management. More people will be involved in the stakeholder engagement process.

The complexity and environmental influences of the projects mean that stakeholders are an important part in the construction process. In addition, the importance of stakeholder engagement in projects is highlighted by the Environment and Planning Act. At the moment, there is no universal guide how the stakeholder engagement process should be performed in the complex projects of the municipality and companies' want to get more insight in what changes must be made.

2.10 Theoretical framework

For this research, a theoretical framework was created to understand the process of stakeholder engagement. This framework has two purposes: 1. It serves as input for the case study research when the interview questions are prepared, 2. It is used as a base to reflect on the answers of the interviews and to analyze the documents. As the final outcome of the literature review an answer to the question of how project teams can manage and control the engagement of a variety of stakeholders in complex projects will be formed.

From the literature review, it is clear that stakeholder engagement is essential to a successful project. Stakeholders are defined in this report as "all people who are affected by or can affect a particular decision or action". Stakeholders can be distinguished between external and internal stakeholders, as well as between primary and secondary stakeholders. This leads to the conclusion that there are four different stakeholders: internal-primary, internal-secondary, external-primary and external-secondary. In the problem statement, it was already

mentioned that external stakeholders are important for a project. Therefore, this study examines the external-primary and external-secondary stakeholders to create development that can help engage stakeholders in the project.

Based on the literature read, a framework can be created on the process of stakeholder engagement. Most literature mentions the importance of identifying and categorizing the stakeholders. For this, the Environment and Planning Act suggests to first use an area scan such as that of BrabantScan (2019), after which the stakeholders can be grouped using the power-interest matrix of Olander (2007). Because these groups have different impacts on the project and will have a different say, it is advised to use the participation ladder.

The second step is to write a collaboration plan. This step fits perfectly with the requirements of the Environment and Planning Act as shown in the literature study (Aan de slag met de Omgevingswet, 2019), because it asks the initiators to determine in advance who they are going to involve and how they have/will involve stakeholders in the project. The stakeholder plan establishes common goals, how stakeholder will be treated, objectives, and project priorities. Approaches and methods will depend on the needs of each stakeholder, their current status in the project, and the overall context of the project.

Once the initiation phase processes are complete, the stakeholders and the project team should begin the decision-making process. To determine the requirements and design of the project. The first step in the decision-making process is often to identify the stakeholders' goals. Identification is best observed by asking all relevant stakeholders for their concerns and opinions. The second step in the decision-making process is to identify and measure the impact of the various decisions. The final step is to evaluate each option (Renn et al., 1993). To combine decision making with stakeholder engagement strategies, Cascetta et al.'s (2015) model is used. This model is based on three parallel processes: cognitive decision-making, stakeholder engagement, and quantitative analysis. Here, decisions are still rational, but are generated by exploring different alternatives until a solution is found that satisfies the project team and stakeholders.

Once the decision-making process is complete, the next step is to engage stakeholders throughout the process. This is done through feedback and monitoring. First, it is important to measure external stakeholders to see how they are responding to stakeholder engagement management. Second, feedback and monitoring should be conducted during the stakeholder engagement process. Conflicts between stakeholders and the project team should also be analyzed. It is important in feedback and monitoring that stakeholders are regularly analyzed for who they are, what influence they have, what their needs are, and what the relationship is between the project team and the other stakeholders. There is no framework in existence on how to monitor and evaluate stakeholder engagement. Usually this is done through forms, a method that has also been chosen for this research.

Finally, relationship management between stakeholders and the project team should be monitored regularly to keep stakeholders engaged and satisfied. This whole process is iterative.

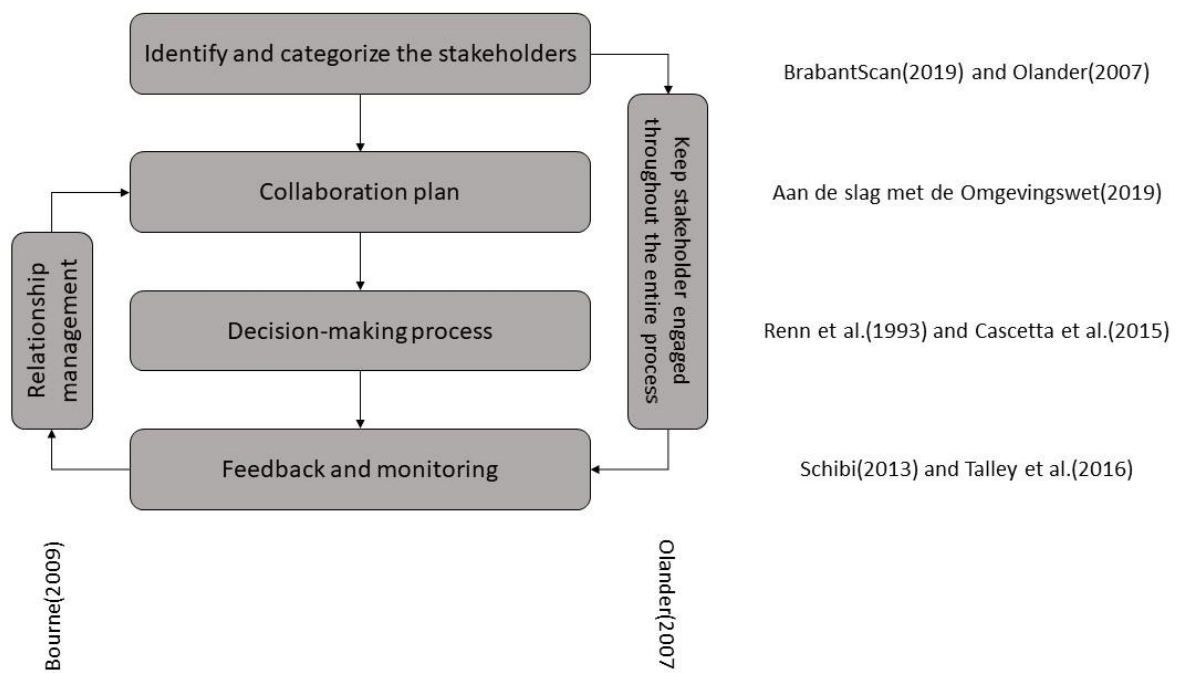


Figure 21 Theoretical framework generic stakeholder engagement process

Chapter 3

Methodology

This chapter explains how the research will be conducted. It also includes the method of data collection, the people who will be interviewed, and the justification for the case study. Finally, it explains how the data is prepared for analysis and how the analysis itself is done.

3.1 Structure of the research

Figure 22 provides an overview of the research process. In order to answer the research question, the research was divided into different parts: the literature review, theoretical framework, case study with interviews, development, validation and the conclusion. This research can be classified as qualitative research. The reason for the qualitative research is that it provides comprehensive findings from extensive, contextual, and generally unstructured, non-numerical data (Mason, 2017) by conducting interviews with the participant of the study in a natural setting (Cresswell, 2017).

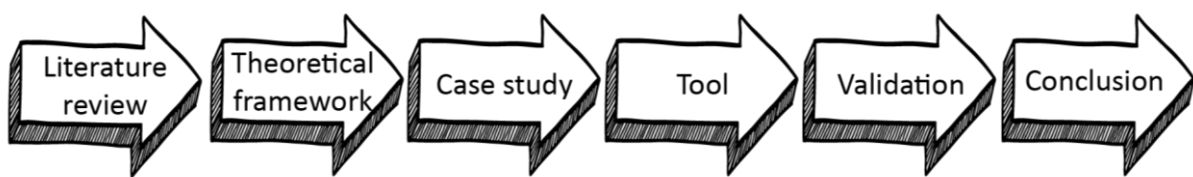


Figure 22 Research design

This research can be considered exploratory research, that is, research designed to investigate a problem that is not clearly defined. Case study research is primarily characterized by its focus on “how” and “why” questions (Myers & Thomas, 2015) and is appropriate for descriptive and exploratory studies (Ponelis, 2015). The research aims to provide recommendations to improve stakeholder engagement, using the Environment and Planning Act as a guide. This research combines literature studies with semi-structured interviews to develop a tool to improve stakeholder engagement.

3.1.1 Literature Study

Chapter 2 shows the literature study. The research was conducted with a focus on stakeholders, stakeholder management and stakeholder engagement with the aim of providing a theoretical framework by using existing theory on stakeholder management and engagement while using the Environment and Planning Act as a guide. This research focuses on external stakeholders. In this study, different strategies are discussed by different researchers to find a solution to improve stakeholder engagement in complex projects.

The literature review consists of three main components. The first part consists of the theory on stakeholder management and stakeholder engagement activities. The outcome of this part is a general process of how stakeholder engagement should be done according to the literature. The second part focuses on the power and interests of stakeholders. This looks at how stakeholders can exert influence and how to determine how much influence they have. The final part looks at the Environment and Planning Act and how it can guide stakeholder engagement. This part provides the final input for the theoretical framework. The framework is based on an interpretation of the research findings on how a project team can effectively engage stakeholders in complex projects.

3.1.2 Case study research cycle

The literature review provided basic information on how stakeholder engagement should be conducted. However, there is no information on how people in the Netherlands view stakeholder engagement in practice. To fill this research gap, a case study is needed. The aim of this case study is to find out how stakeholder engagement is performed by project teams and perceived by stakeholders.

The method used for this research is a case study. In a case study, a real-time phenomenon is explored in its real-world context. (Rashid et al., 2019) Case studies should be based on a comprehensive investigation of individuals, groups, or projects, in this research complex projects of municipalities, to explore the causes of underlying factors. (PressAcademia, 2018) Case study research follows a methodological path (CME guide, 2020). It is both a linear and iterative process and begins with planning to identify the research question. Next, the case studies are developed, and the way in which the case studies will be conducted is determined. Third, it is decided how the evidence for the case study will be collected, after which the evidence can be collected. Then the case study results can be analyzed. And finally, they can be reported on.

Prior to the study, the research question was formulated in a research proposal. During the study, adjustments were made based on the literature review and case study opportunities. The research questions were based on the gaps in the literature and knowledge gained from experts. The questions are divided into the different parts of the study. The first three questions are formulated in the literature review, the next sub-question deals with the case study, followed by the last sub-question that provides a solution to improve stakeholder engagement.

The case study design was created during the research. The research design is a "blueprint" for the research that addresses at least four issues: what questions to investigate; what data are relevant; what data to collect; and how to analyze the findings. (Yin & Campbell, 2008)

The first issue is what question to investigate. The case studies will answer one of the sub-questions of this research. This is the following research question: *how is the process of stakeholder engagement in complex projects conducted by the project team and what is the experience of external stakeholders with stakeholder engagement?*

To determine which case study method to use, the theory of Baxter and Jack (2010) is used. Baxter and Jack (2010) distinguish seven types of case studies, which are listed in Table 3. Based on the information in this table, the method is selected for this research.

Table 3 Types of case studies (adapted from Baxter and Jack, 2010)

Case Study Type	Definition
Explanatory	This type is used for questions that sought to explain the presumed causal links in real-life interventions that are too complex for the survey or experimental strategies.
Exploratory	This type is used to explore those situations in which the intervention being evaluated has no clear, single set of outcomes.

Descriptive	This type of case study is used to describe an intervention or phenomenon and the real-life context in which it occurred.
Multiple-case studies	A multiple case study enables the researcher to explore differences within and between cases. The goal is to replicate findings across cases. Because comparisons will be drawn, the cases must be chosen carefully so that the researcher can predict similar results across cases, or predict contrasting results based on theory.
Intrinsic	Researchers who have a genuine interest in the case should use this approach when the intent is to better understand the case.
Instrumental	Is used to accomplish something other than understanding a particular situation. The case is of secondary interest and rather plays a supportive role.
Collective	Collective case studies are similar in nature and description to multiple case studies.

This study uses the multiple case study approach. Comparisons are made between four different cases. Cases are selected to analyze how stakeholder engagement is currently conducted in complex projects. Each case has two or three different expertises that show how stakeholder engagement has been conducted and managed. The experts are divided into two groups: the project team and the external stakeholders. These experts are interviewed using semi-structured questions that can be found in the Appendix 3. In this multi-case study, the results cannot be generalized to all complex projects, but the results show the relationships between the variables.

Four cases are selected based on the following criteria:

- Project must be complex, meaning the project team had to manage multiple stakeholders with conflicting interests;
- The project must be implemented by the municipality;
- The project must be at least in the construction phase to know how stakeholders perceived the engagement; and
- Each project should have access to at least a project manager, external stakeholder and if any a stakeholder manager that was present during the initial phases.

Based on the above criteria, the municipalities have been contacted to collect the case study evidence. The potential interviewee received an email asking them to participate. If they agree, the interviewee was asked to submit the plans they used to determine stakeholder engagement so that a document analysis could be conducted. When the four cases were selected interviews were held, these interviews were semi-structured. The interviews were semi-structured to get the respondent to answer openly and flexibly, a more detailed reason why semi-structured interviews have been chosen is shown in Appendix 5. An interview guide was used during the interview. This is shown in Appendix 3. This is a list of questions formulated prior to the interview that identifies issues to be discussed during the interview. This ensures that the same topics are covered in all interviews so that a clear analysis of data is possible.

The main approach to the data analysis involved a detailed analysis of interview transcripts and documents regarding stakeholder engagement provided by the municipalities, to later compare the different cases and link it to the literature review done.

Analysis of documentation:

To analyze the documents regarding stakeholder engagement, an introduction was first given. This will paint a picture of the project and the stakeholder plan used for the project. The document analysis was done based on the theoretical framework of Chapter 2.10. Appendix 6 gives a more detailed construction of how this was performed by showing the different processes the document is analyzed on.

Analysis of the interviews:

To analyze the interviews, the interviews were transcribed, and the most important results were gathered. The analysis of the interviews was done based on the theoretical framework of Chapter 2.10. In Appendix 6 a detailed construction of what factors the interviews were analyzed on is given.

Cross-case analysis

To analyze the evidence from the case study, cross-case analysis was done. A cross-case analysis is a research method that helps with the comparison of similarities and differences of the stakeholder engagement activities and processes. It can help to narrow down the combination of factors that contributed to the case outcomes and understand the lessons learned. It can compare cases to find the best fitting solution and gather relevant information. The cross-case matrix can be seen in Appendix 15. This was done to generate general data and later identify the gap between literature and practice. The result of the data will show the following:

- How stakeholder engagement process is controlled and evaluated in the four cases;
- When, why, and how stakeholder engagement process was successful or improved;

First the generic stakeholder engagement process has been compared based on the theoretical framework shown in Chapter 2.10. In the iteration of the research process, literature and case studies combined showed more comparisons had to be made. Three comparisons were added, this is shown in Figure 23. The stakeholder engagement activities were compared based on the PMI(2017b) model which can be seen in Chapter 1.1.1. The project phases were based on the Dutch project phases in Chapter 2.1 and after discussion with the interviewees. The Environment and Planning Act was based on the regulations seen in Chapter 2.7.

The stakeholder engagement process will be compared: identifying the stakeholders; categorizing the stakeholders; stakeholder plan; decision-making process; relationship management; feedback and monitoring; and keeping stakeholders engaged throughout the entire process. The second comparison is on the stakeholder engagement activities: implementing a stakeholder engagement plan; involving stakeholders early in the activities; evaluating the stakeholder engagement process; and based on the last activity, adjust the plan. Because the stakeholder engagement process cannot be compared without looking at the different project phases that have been discussed in the literature review, the comparison will be on the different project phases, initiation; definition; contracting; and construction. Figure 23 shows how this comparison all bring together the results for this research. This chapter should answer how the stakeholder engagement process was conducted in complex projects as well as asking the external stakeholders about the stakeholder engagement activities.

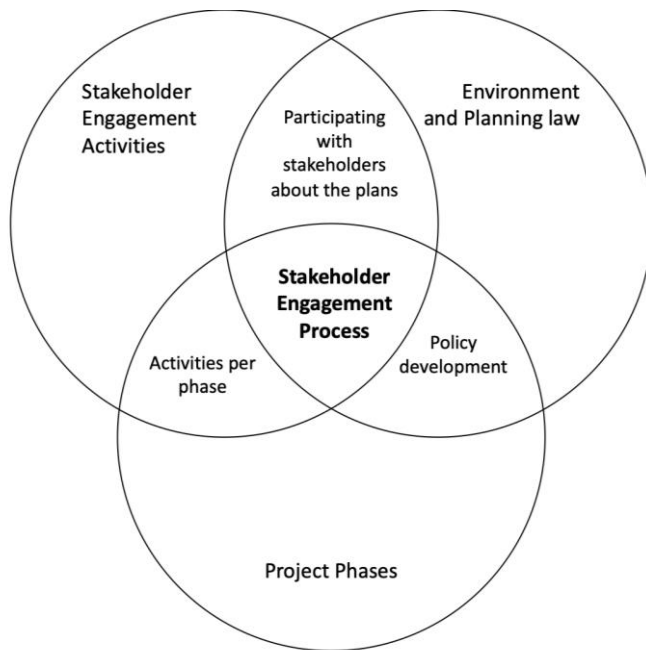


Figure 23 Comparison model case studies for the analysis

Once the results have been analyzed as mentioned above, they will be used for the report and reflection. The results will be used to make recommendations and promote the use of the development. Based on the report and the development, a contribution will be made to create recommendations to improve stakeholder engagement in complex projects.

3.1.3 Development

The interactive development will be made in order to support this research in solving the problem statement. The development will be an interactive guideline showing stakeholder engagement activities that will support the stakeholder engagement process in the form of a roadmap. The information from the literature study and the case study research will be combined to create the solution tool.

3.1.4 Validation

It is important to evaluate the roadmap before it can be used in practice, to prevent errors and apply improvements. Furthermore, it is important for the conclusion and recommendations of this report that the answer to the problem statement is accurate. Expert interviews are used as a way to validate the roadmap. For this research, an expert is defined as one who has experience in the field of stakeholder management.

3.1.5 Conclusion

In the conclusion the answer to the main research question is answered. A conclusion, recommendations, reflection, and limitation are given about the research process and the main research question. This part concludes the entire research project.

Chapter 4

Case studies

As mentioned in the methodology, in this study multiple-cases are analyzed. Four cases from municipalities will give answer to the question: *How is the stakeholder engagement process conducted in complex projects by the project team and what is the experience of external stakeholders regarding the stakeholder engagement?* The four municipalities and external stakeholders are kept anonymous, but all have dealt with complex projects. In this chapter the conclusions from the document analysis and interviews per phase will first be explained. These document analysis and interview analysis are based of the theoretical framework, see Appendix 6. After which comparisons will be made on the basis of the four categories, that were based of the literature study, which have been further explained in Chapter 3.1.2. Lastly, a conclusion is given.

4.1 Project A

4.1.1 Case description

Project A is a project commissioned by a municipality. This municipality is in the process of creating a high-quality public transportation link through the city. The municipality is working to improve the flow of public transportation. A construction team contract is being used for the project. In Dutch, this is called a “bouwteam”. In a bouwteam, an association of contractors and/or subcontractors is formed early in the design process to develop the design, to perform civil engineering and work preparation, and construct the building under the direction of the lead designer. The parties involved in the team have an equal position. A characteristic of a Bouwteam is that the key partners in construction are involved in the design phase. (Molier, 1999) This project is currently in the construction phase. This report shows the most important results from the interview and document analyses done for Project A. Appendix 7 shows a more detailed transcription of Project A, where results are divided based on the theoretical framework from Chapter 2.10.

Organizational structure

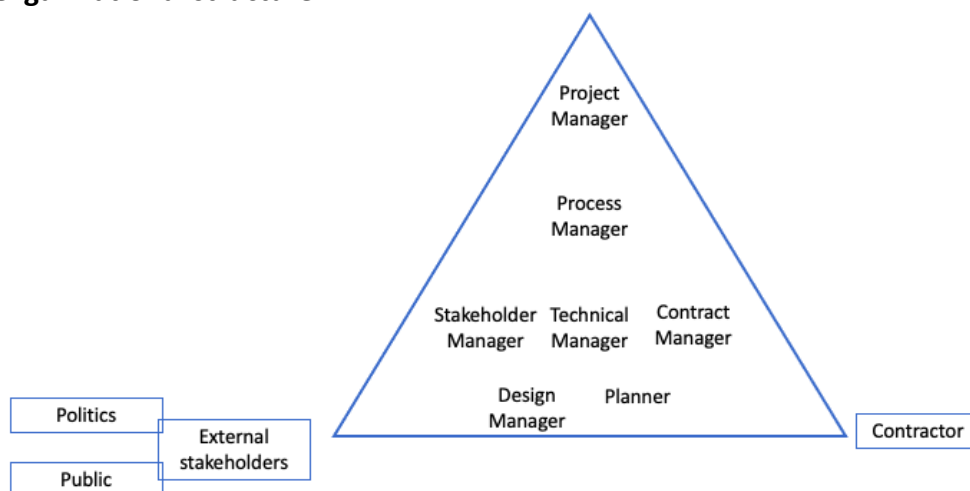


Figure 24 Organizational structure based on the IPM, Project A

4.1.2. Project A Conclusions

For Project A, there were two plans that determined how the stakeholder engagement should be done in the initial phases and in the construction phase. The plans were mainly used by the stakeholder managers of the municipality and the contractor as a guide to engage stakeholders in the project. The external stakeholders did not have a say in how they should be engaged in the project.

Project A used a power/interest matrix to identify the different external stakeholders. However, the project team does not state in their plans what these different identifications mean for the way they are going to communicate with the stakeholders.

For Project A, there was no broad participation, and it was more for information than consultation/advice. In the contracting phase, external stakeholders became more involved by assembling an advisory group. Project A explicitly asked the neighborhood association to help with engaging other external stakeholders, which helped with gathering requirements and preconditions from the external stakeholders, as well as ensured stakeholder satisfaction in the end. The external stakeholders indicate that they would have liked to be informed and consulted about the design and plans that were to be changed more throughout the process.

The stakeholder engagement process was evaluated through an audit by an external auditor, as well as through a satisfaction survey. Stakeholders indicate that they would have liked to be able to provide feedback on the stakeholder engagement process at each stage so that the other stages in the different phases could be improved.

In the plan Project A is very focused on communication with its stakeholders. To ensure effective collaboration and a good relationship, the plan suggests communication through a pre-project survey, information days, and individual meetings. The collaboration between the project team and stakeholders in Project A was found to be acceptable in the initial phases and satisfactory in the implementation phase. This was mainly due to good communication between the managers of the project and the external stakeholders. The managers used different sources of communication, so that all external stakeholders were informed about the status of the project. This project also involved a project team that listened to, and understood, the stakeholders.

In Project A the external stakeholders state they do not agree with the term “stakeholder management”, in their opinion, this implies that stakeholders can be managed. They rather talk about “stakeholder engagement” as according to them it is important to engage with stakeholders instead of managing.

In Project A, there were few people who chose to participate in the decision-making process. The municipality has learned from this. It knows that there are many people who think the project is very important but are less willing to participate in the decision-making process. This leads to the exclusion of many important stakeholders.

Project A was divided into phase A, B and C. During the changes of the project phases, the information was not shared with the stakeholders. This resulted in many complaints about traffic management as said by both project team and stakeholders. To minimize this, they suggest having more information meetings together with the municipality and the contractor.

For future projects, the project team of Project A would like to see the stakeholder engagement processes better documented, so that the information can be easily shared but also found by the project team when there are new staff members. If this is not documented well it can result in having to repeat processes.

The stakeholders of Project A state that, if they were involved in the initiative phase, stakeholder satisfaction could have been improved and it could have sped up the decision-making process. They do state that involving the external stakeholders from on the definition phase and listening to the input of stakeholders was seen as a good thing. This is also backed by the project team, they found that having the external stakeholders involved in the definition phase sped up their decision-making.

Table 4 SWOT-analysis of Project A

Strengths A separate communication plan; Connecting external stakeholders to the advisory board; Engaging stakeholders during the construction phase; Plans were evaluated by an external auditor; Conducting a brief survey at the beginning of the project to determine what stakeholders thought was important for the success of the project; Use various media to inform the stakeholders; An advisory board that is strongly involved.	Weaknesses Lack of openness at the beginning of the project, resulted in time overruns; Lack of joint meetings between all external stakeholders; Stubbornness in the way plans are made by the project team.
Opportunities Evaluating the positions of stakeholders regularly can help knowing when to engage stakeholders; Evaluate the plans together with the external stakeholders; Listening to the external stakeholders about the knowledge they have of the area; Have stakeholders have more say in the design.	Threats Trying to get stakeholders to be involved; Potential lack of external stakeholder interests; Excluding important external stakeholders; Asking input from stakeholders about everything.

4.3 Project B

4.3.1 Case description

Project B is a project commissioned by the municipality. The project is commissioned to improve a connecting road. This project deals with many different external stakeholders and has a lot of tangential projects. The project deals with people walking, biking, driving, and using public transportation throughout the life cycle of the project. The project uses a contract form UAV-GC 2005. In the civil engineering sector, the client and contractor have jointly developed general terms and conditions, the Uniform Administrative Terms and Conditions (UAV 2012 and UAV-GC 2005). In an integrated construction organization form, Design & Construct is the most commonly used construction organization form and contract form. The UAV-GC was developed specifically for this purpose. Integrated construction organization forms give the contractor more tasks and more responsibility. In traditional forms of construction organization, the contractor considers himself the expert and retains control from start to finish (PIANOo, 2018). This report shows the most important results from the interview and document analyses done for Project B. Appendix 9 shows a more detailed transcription of Project B, where results are divided based on the theoretical framework from Chapter 2.10.

Organizational structure

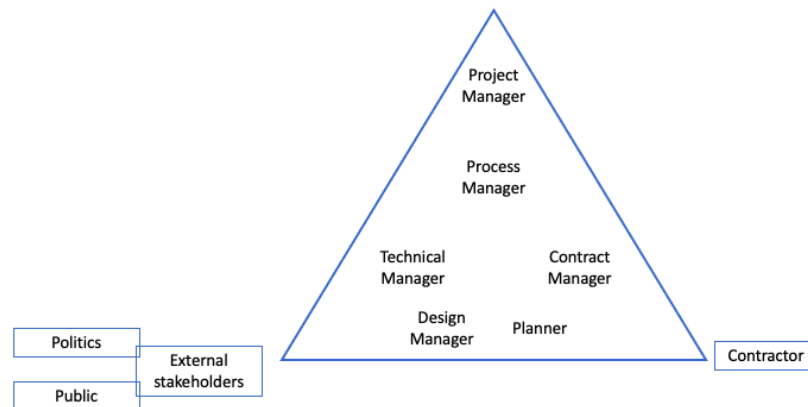


Figure 25 Organizational structure based on the IPM, Project B

For Project B the project manager together with the contract manager functioned as stakeholder managers.

4.3.2 Project B Conclusions

For Project B a plan during the construction phase and a standard communication plan was made. Project B is a project where stakeholders were very satisfied with the engagement of the client and contractor during the project from the beginning. This municipality places great importance on stakeholder engagement. This can be concluded from the various interviews. There are various stakeholders listed in the BLVC plan. There are several external stakeholders in the area that were identified by the municipality prior to the project. The plan does not indicate how much influence the stakeholders have. External stakeholders were primarily involved in the contracting phase.

External stakeholders of Project B were involved from the beginning to identify requirements and engage stakeholders in the project life cycle. By involving stakeholders from the beginning, there was less conflict between the community and the contractor during implementation because stakeholders knew what was coming.

The plans were not evaluated for Project B and were only monitored in a timely manner. The municipality would like to do this more often with the help of stakeholders. The plans were not changed during the project. They did not evaluate the plans so they did not need to be adjusted. The municipality would like to evaluate and adjust the plans more often to improve stakeholder engagement.

To collaborate with stakeholders, the client and contractor worked together on the project. The collaboration between the stakeholders and the project team was perceived as very good by the interviewees and the stakeholders at all different stages. There was definitely a sense of shared purpose. They state that this was partly because the implementation phase went very well, and the contractor was open about their collaboration.

Stakeholders have been engaged throughout the life cycle of Project B by keeping them informed of the process. The municipality is currently undertaking another project in which it is actively engaging stakeholders by creating an advisory board to help engage area stakeholders.

For Project B, the slogan is “the municipality serves the people” this means they listened to everyone’s interest, while showing that alternatives are being considered. This is according to the interviewees very important. The interviewees stated that when the municipality listens to the interest of the different external stakeholders, the stakeholders will automatically feel more engaged.

For Project B, external stakeholders were involved from very early on. They helped in the process of decision-making by providing requirements and requests for the design. One thing the municipality made sure of was to be open about the plans, even going so far as to hold city meetings where everyone was invited.

Table 5 SWOT-analysis of Project B

Strengths Sense of common goal between stakeholders and project team; Good engagement done by the contractor; Involving stakeholders early on in the decision-making process; Treat all stakeholders equally; Good collaboration between contractor and municipality during the construction phase; Stakeholders involved in the initial phase.	Weaknesses Not evaluating the plans and asking for feedback; Not evaluating on the participation done by the external stakeholders.
Opportunities Include engagement strategies in the plan; Let stakeholders give advise on the plans; Use a tool to identify stakeholders for the BLVC plan; Evaluate plans.	Threats Expanding the external stakeholder area too wide; Letting stakeholders give advise on everything even if it is a project that does not have high impact; Engaging stakeholders too much, leading to time overruns.

4.4 Project C

4.4.1 Case description

Project C is a project commissioned by the municipality. A park is contracted that should provide space and functionality for future and existing residents and form a new central link in a restructured neighborhood. Project C aims to make the residential area more cohesive. The design includes several playgrounds and self-built blocks. Project C uses the traditional method for a contract. This means that the client, in this case the municipality, prepares and designs a project, and based on the resulting specifications, a project is implemented by a contractor. This report shows the most important results from the interview and document analyses done for Project C. Appendix 11 shows a more detailed transcription of Project C, where results are divided based on the theoretical framework from Chapter 2.10.

Organizational structure

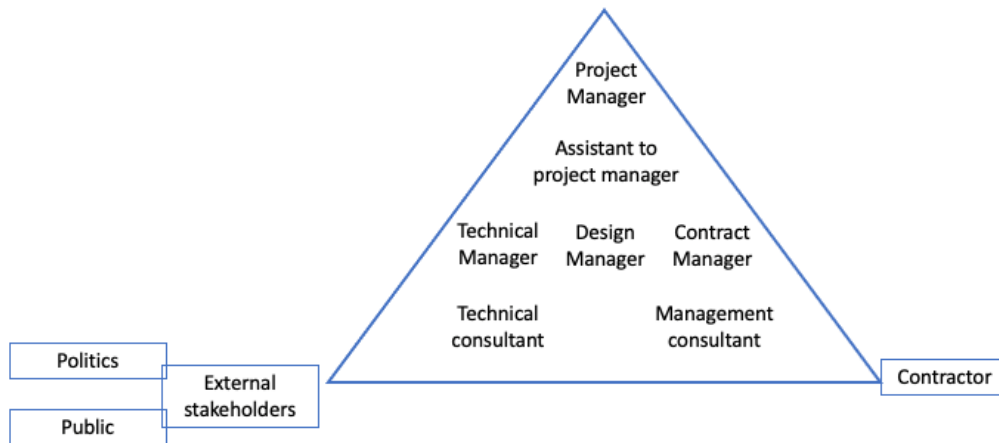


Figure 26 Organizational structure based on the IPM, Project C

For Project C the project manager together with the assistant and consultant handled the stakeholder management.

4.4.2 Project C Conclusions

Project C used a plan for the construction phase called BLVC-plan. The complete main construction phase is included in the BLVC plan. The plan does not identify stakeholders in detail, and it is difficult to identify which stakeholders are present in the area. The plan does not state how much influence the stakeholders have in the project. External stakeholders have been involved from the implementation phase onwards. There is no mention in the plan about the plans changing because of evaluation. The interviewees state that it would have been helpful to identify the stakeholders for every phase. With the rapid change in external stakeholders for Project C, it resulted in forgetting to engage external stakeholders. For future projects they intend to get more stakeholders engaged by identifying the external stakeholders at the beginning of the project phases.

Project C was, according to the project manager, a very difficult project to manage with insufficient stakeholder engagement, which led to conflicts in later phases of the project. There was no stakeholder management plan and no process to guide stakeholder engagement in the early stages. The stakeholder engagement process was done the old-fashioned way. A preliminary design was created based in part on the wishes of local residents.

The reason that Project C did not have a well-designed stakeholder engagement process was that the project involved many different stakeholders with conflicting interests. The project manager, who served as the stakeholder manager, also pointed out that most of the external stakeholders involved in the concept phase moved out before the work was implemented. This resulted in the addition of new external stakeholders who had not been involved in the early stages and had different interests

For Project C many stakeholders had backgrounds with no knowledge of construction or the Dutch language. The project manager notes that stakeholders with such backgrounds are often not interested in participating. However, the municipality feels that this is a great loss as these stakeholders are often very important to the community area and have interests that could help improve the project.

The relationship between the project team and stakeholders in Project C was considered to be acceptable. However, communication was very often one-sided. In other projects, this was improved by showing drawings of the plans to make them readable for the external stakeholders. In this way, stakeholders feel more involved in the process and can express their thoughts. There were not many informational discussions in the early stages and during implementation. In addition, the information given was often not comprehensible to some external stakeholders.

Stakeholder engagement in the construction phase went relatively well. However, because not many stakeholders were involved in the earlier stages of plan development, Project C is now experiencing conflict. The project manager believes that this could have been avoided if stakeholders had been involved early in the process. However, when stakeholders do not want to be involved, it is difficult for the community to be engaged.

Table 6 SWOT-analysis of Project C

Strengths Take the learnings of Project C to future projects; Stakeholders were identified early on in the process by an area scan; The project manager made sure to visit external stakeholders who had not voiced their input; Diverse stakeholder groups.	Weaknesses Not having a stakeholder engagement plan; Not involving stakeholders from the very beginning; Not evaluating the plans; Stakeholders not understanding the material; Stakeholders feel like they are not being heard.
Opportunities Set up a plan especially for the communication and engagement of stakeholders; Start involving stakeholders from the beginning by use of engagement strategies; Evaluate plans for every phase; Make the designs and plans understandable for everyone; Give feedback on stakeholder input.	Threats Due to the many changes of external stakeholders, not having the right stakeholders identified in the later phases; Many conflicting interests; Waiting to much engagement.

4.5 Project D

4.5.1 Case description

Project D is a road maintenance project commissioned by a municipality. Due to the state of maintenance, major maintenance is required in several areas. To promote efficiency, different maintenance projects have been combined into one major maintenance project. Just like in Project B, a contract form UAV-GC 2005 was used for the project. In this project, much emphasis is placed on the participation and involvement of external stakeholders. The goal is to build support among direct stakeholders, both external and internal. And to achieve sufficient understanding of the implementation of the decision among residents in the immediate area, to get the residents to think about the further elaboration of the design. This report shows the most important results from the interview and document analyses done for

Project D. Appendix 13 shows a more detailed transcription of Project D, where results are divided based on the theoretical framework of Chapter 2.10.

Organizational structure

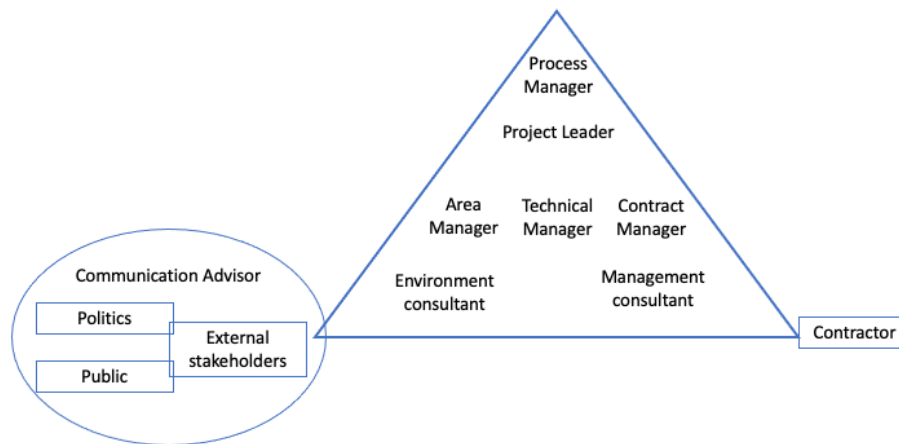


Figure 27 Organizational structure based on the IPM, Project D

For this project the process manager was the main source of communication for the external stakeholders, but he functioned together with the communication advisor and the area manager.

4.5.2 Project D Conclusions

For Project there were two plans made together with the stakeholders to determine the stakeholder engagement. The participation plan was used for the initial phases. The BLVC-plan was used during the construction phase. The plan was used by the process manager together with the stakeholders. This was seen as a positive thing, as this way external stakeholders had a say in how they wanted to be communicated and engaged, which led to a smooth process.

In the plans of Project D, different stakeholders are identified and categorized into different groups of power. Stakeholders have been involved from the initial phases onwards. The plan states that it should be adjusted when evaluation has passed. The process manager and the stakeholder manager of the consultant are responsible for the plans. To categorize stakeholders, Project D used the participation ladder. This proved to be a great solution because stakeholders knew how much power they had, as noted by the project manager. However, when interviewing the stakeholders and analyzing the messaging documents showed that many stakeholders still did not really know where they could provide input. This is something that should be communicated more in detail in future projects.

For Project D two adjacent projects were surveyed. Because the municipality prioritized stakeholder engagement over much else, the first project was delayed for a very long time and is now in the implementation phase. For the second project, lessons learned from the first project were used to complete the participation and communication plan. This led to the belief that the first project of project D was very difficult due to the way the municipality prioritized stakeholder arguments. The second project used for this case took a clearer approach. Here, stakeholders were categorized by their level of influence on the project and stakeholders were asked for specific concerns that the municipality should consider.

Project D is considered an exemplary project by the process manager and stakeholders. Mainly because the external stakeholders made their concerns clear during the development and planning of the strategy and presented concrete plans. This compared to the project commissioned previously, where the stakeholders who came to the information evenings had many conflicting interests and very strong opinions before the plans were even presented to them.

For Project D, stakeholders were involved from the beginning and decided how much influence they had on the project based on the participation ladder and groups. In Project D, stakeholders were fully involved from the beginning, with the city government being straightforward about what could and could not be done. Stakeholders helped develop the stakeholder engagement plan and facilitated the municipality to reach agreements, resulting in a smooth stakeholder engagement process.

For Project D, the external stakeholders state that the communication with the contractor during the construction phase was not optimal. The contractor often forgot to communicate towards the external stakeholders what needed to be done. However, due to the good communication of the municipality, conflicts were avoided, and the project still had a positive outcome. One thing they do want to see for next projects is a good collaboration between contractor, municipality and external stakeholders.

Table 7 SWOT-Analysis of Project D

<p>Strengths</p> <p>Using different plans in different phases to describe the stakeholder engagement strategies;</p> <p>Stakeholders helped with writing the plans;</p> <p>Evaluated the plans and asked feedback from the stakeholders;</p> <p>Using different communication tools per stakeholder group;</p> <p>Municipality listens to the input from stakeholders and changes plans.</p>	<p>Weaknesses</p> <p>City council was quick to persuade by the external stakeholders so many plans had to be changed leading to time overruns, even when the impact is not high;</p> <p>External stakeholders did not know how much influence they had in the plans and design;</p> <p>Communication with the contractor was not good.</p>
<p>Opportunities</p> <p>Letting stakeholders have a more advisory role instead of having them persuade the city council;</p> <p>Look at how high the impact is on the stakeholders and based on that categorize them;</p> <p>When writing the plans, let the stakeholders know how much influence they have in the project;</p> <p>Municipality should be clear about the possibilities, but also about what is not possible.</p>	<p>Threats</p> <p>Giving stakeholders too much freedom;</p> <p>Time overruns due to doing everything together with the stakeholders;</p> <p>Not letting the stakeholders know how much impact the project has on them.</p>

4.6 Results - Cross-case analysis

In this paragraph the four individual case studies will be compared to each other. Several findings about the stakeholder engagement plan and stakeholder engagement in practice compared to the theoretical framework came out of the case study research. The cross-case analysis is meant to find answers that can help to improve the stakeholder engagement.

The cross-case analysis is done on 4 topics. The stakeholder engagement process in (Chapter 4.6.1), the stakeholder engagement activities in (Chapter 4.6.2), the project phases in (Chapter 4.6.3) and the Environment and Planning Act in (Chapter 4.6.4). The reason why is explained in Chapter 3.1.2.

4.6.1 Cross-case comparison in the SE process – theoretical framework

In this section, the similarities and differences between the seven processes in the stakeholder engagement process area are explained in more detail, based on the process mentioned in the theoretical framework of Chapter 2.10. The stakeholder engagement process should emerge from the plan analyzes and interviews. The processes by which the case studies are compared are based on the theoretical framework. First, it examines how the municipality identified and categorized its stakeholders in the plan and how this was perceived by stakeholders. Then, the stakeholder plan is examined, which also means the collaboration between the stakeholders and the project team. After this, the projects are compared in terms of how the project team filled out the decision-making process and how the stakeholder relationship management went. Finally, a focus is laid upon whether the project team asked for feedback during the process and whether stakeholders were engaged throughout the process. The seven comparisons are explained in more detail in Table 8, and a better overview can be found in Appendix 15. These comparisons can be traced back to the interview questions about the stakeholder engagement process. The similarities and differences in the case studies are compared to the literature review on the stakeholder engagement process.

Comparisons

This study set out to find the similarities and the differences between the different cases and compare this with the literature. To reach this aim, a comparison will be made between the different case studies, with the theoretical framework as a guide. The comparisons are based on the four case studies mentioned above. The following comparisons in SE process between the case studies can be distinguished.

In all projects, project stakeholders were identified prior to project development. The stakeholder identification tool used in the literature is Bourne's (2005) stakeholder circle. However, this was not used in any of the case studies. Instead, they prefer to use Olander's (2007) power/interest matrix. In the initiative phase, municipalities used an area scan to identify the stakeholders present in the area. However, it can be concluded from the case studies that this should be done in every project phase, not just the initiative phase. Because many complex projects often take more than a year to complete, stakeholders can change quickly, so they need to be identified and categorized at each project phase.

All the case studies emphasize the importance of good relationship management. Not only in the case studies, but also in the literature it is stated that openness, respect, and trustworthiness are important for good relationship management. Nguyen et al. (2018) state in their study that "openness from the beginning, dialog, and active stakeholder involvement can reduce the potential for conflict in later project phases." Olander (2007) also states the prerequisites for communicating with stakeholders: open, trustworthy, collaborative, respectful, and informative. This is confirmed by the case study interviews, where the external stakeholders state they sometimes wished that the municipality would be open from the beginning about which issues stakeholders have a say in and which they do not.

For one of the case studies, Project D, Edelenbos and Monnikhof's (2001) participation ladder was used. In this case study, stakeholders were very satisfied with the way the municipality involved them. Thanks to the involvement of the participation, stakeholders knew the impact they had on the project. Other communities see this as a great tool to categorize stakeholders after they have been identified with the power/interest matrix.

According to the case studies, stakeholders should be kept informed through various media. However, the literature points out the danger of using social media. (Nguyen et al., 2020) This is a great way to influence stakeholders but can also lead to bad media that makes stakeholders unhappy. Which is highlighted by the communication manager of Project B, who states that it is important that the media is kept engaged.

Only one project, Project A, reported using an advisory group that represented all area residents; other projects, Project B and D, used a representative for this purpose. The literature on participation ladders by Friedman and Miles (2002) indicates that establishing an advisory board should be done when stakeholders are asked for advice on plans. When stakeholders are asked to consult, appointing a representative is also a good way to communicate.

On one project, Project A, the advisory board gathered information from surrounding stakeholders and submitted it to the municipality. When respondents were asked how they would like to be informed, they said they were not satisfied with just being informed through citizen letters. They wanted to be informed through a variety of tools. An example of this is Project A, which used various apps, media, and letters to convey information to its stakeholders.

The interviews show that it is important to cooperate and collaborate in the project. When the relationship between the project team and stakeholders is going well, the project feels most successful, according to the interviewees. This means that agreements need to be made with stakeholders during the process.

Table 8 Comparison SE process component, + is seen as ideal activities, - is seen as less ideal activities. (Further elaborated in Appendix 15)

Comparison SE process component	Case 1: Project A	Case 2: Project B	Case 3: Project C	Case 4: Project D
Stakeholder identification and categorization of stakeholders according to their influence	<ul style="list-style-type: none"> + A power/interest matrix has been used. - Tool was not used as much as a tool as literature states. + A great way to identify stakeholders - Did not adjust the matrix in later phases. 	<ul style="list-style-type: none"> + Identified using communication method. - No specific tool to identify its stakeholders. + Documents with the area scan are updated on a regular basis 	<ul style="list-style-type: none"> - Most of the identified stakeholders were not present in the later phases. + Area scan was done to identify the stakeholders 	<ul style="list-style-type: none"> + Project D identifies the stakeholders per project phase. + They use the P, U and L technique to identify and categorize stakeholders. - In Project D-1, stakeholders were not adequately identified + In Project D-2, stakeholders were identified for each phase of the project.
Plan	<ul style="list-style-type: none"> + Collaboration was perceived as good during the initial phases and very good during the implementation phase. + There was good communication between project team the external stakeholders - The municipality could have been more open about their plans. 	<ul style="list-style-type: none"> + Project B created a plan that showed what communication tools would be used to engage each stakeholder group. + The collaboration between the stakeholders and the project team was felt to be very good + There was definitely a sense of common purpose. 	<ul style="list-style-type: none"> + Because the project manager of Project C was actively trying to hear everyone's concerns and wishes the project was deemed as okay. - The municipality wishes the collaboration with stakeholders was better. 	<ul style="list-style-type: none"> + For Project D, they created a plan that set goals for stakeholder engagement. + They used communication tools based on stakeholder categorization.
Process of decision-making	<ul style="list-style-type: none"> + The plan indicated that it would hold individual discussions with stakeholders + At the beginning of the project, the team conducted a brief survey with residents and business - For Project A, there were only a few people who decided to participate in the decision-making process. 	<ul style="list-style-type: none"> + For Project B, stakeholders were involved very early on. They helped in the process of decision-making by providing requirements and requests for the design. + The municipality made sure of was to be open about the plans 	<ul style="list-style-type: none"> + Project C invited stakeholders to participate in decision making. - But the response was low. It is believed that this is in part because the stakeholders represented at Project C are diverse and do not understand everything that is planned for the project. 	<ul style="list-style-type: none"> + The municipality for Project D grouped stakeholders into different steps of the participation ladder. From this, they derived four groups. Stakeholders consider this very sufficient because they knew what their roles were.
Relationship management	<ul style="list-style-type: none"> + The plan suggest communication through a pre-project survey, information days, and individual meetings. - There have been complaints and anger from citizens about the way the municipality handled participation. 	<ul style="list-style-type: none"> + The municipality of Project B organized several information evenings to coordinate the design with the surrounding areas. + The relationship management was very good, the stakeholders were satisfied, because in this project all stakeholders were treated equally. 	<ul style="list-style-type: none"> - Communication for Project C was often one-sided. There were not many informational meetings in the early stages and during implementation. - The information given was often not understandable to some external stakeholders. 	<ul style="list-style-type: none"> + Depending on the level of participation, the municipality chose a path of information, discussion, etc. with stakeholders. + During implementation, a communication calendar was created that showed when stakeholders should be informed and involved.
Feedback and monitoring	<ul style="list-style-type: none"> - For Project A, there were no specific assessments, feedback, or monitoring of stakeholder engagement. 	<ul style="list-style-type: none"> - Project B had no structural assessments, feedback, or monitoring of stakeholder engagement and satisfaction. 	<ul style="list-style-type: none"> - There is no feedback and/or monitoring of the stakeholder engagement process at all stages. 	<ul style="list-style-type: none"> + During the 1-to-1 meeting and walk-in evening, stakeholders had the opportunity to provide feedback on the SE process. + The plan mentioned that the participation plan would be created with the stakeholders.

Keep stakeholders engaged	+ Because of the advisory board being very present, the stakeholders were kept engaged.	+ Stakeholders have been engaged throughout the life cycle of Project B by keeping them informed of the process.	- Project C stakeholders were kept informed through citizen letters, which was not considered enough engagement.	+ Project D stakeholders have been engaged throughout the project life cycle. - Too much consent from the council.
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4.6.2 Cross-case comparison in the SE activities

In this section, there will be further elaborated on the similarities and differences between the four projects in the field of the SE activities based on the PMI(2017b) model in Chapter 1.1.1. From the plan analyses and interviews in the case studies, the cross-case analysis is compared on four topics. First, a focus is laid on how the stakeholder engagement plan is implemented by analyzing the document. Followed by this, the focus is on how interviewees responded in regard to how the plan is used during the different phases. Second, a comparison is made on when stakeholders were involved in the project. Penultimately, literature states it is important that the stakeholder engagement process is evaluated by both the project team and the external stakeholders, this is why the third comparison is evaluating the stakeholder engagement process. Lastly, an evaluation is performed on the (optional) decision to, based on the evaluation of the stakeholder engagement process, adjust the plans during the different stages. These four comparisons are further elaborated in Table 9. These comparisons can be traced back in the interview questions about the stakeholder engagement activities. The similarities and differences in the case studies will be compared with the literature study about stakeholder engagement activities.

Comparisons

This study set out to find the similarities and the differences between the different cases and compare this with the literature. To reach this aim, a comparison will be made between the different case studies, with the theoretical framework as a guide. The comparisons are based on the four case studies mentioned above. The following comparisons in SE activities between the case studies can be distinguished.

From the interviews and document analysis, it can be concluded that all four projects used a construction phase plan that described who the external stakeholders were and how they would communicate with those stakeholders. Only one project, Project D, created a detailed plan with stakeholders for the initiative phase, whilst in Project A, a detailed communication plan was created for the definition phase that indicated when collaboration would occur. Based on the analyzed literature, this is the most effective way of dealing with stakeholders. It is important to keep track and adjust the plan as needed (PMI, 2017), something that is done successfully in Project D. From the other projects, it can be concluded that adapting the plan is often forgotten and the plan is used as a guide rather than a means to fill in the process. Failure to do so can lead to conflict during stakeholder engagement in the form of time delays, dissatisfied stakeholders, and other failures in a project.

Another conclusion from the case studies is that three of the four projects did not have extensive participation and involvement at the beginning of the planning process. Only in Project D did stakeholders help create the plans. Here, stakeholders knew what they had agreed to and were very satisfied with the work. From the interviews with stakeholder managers and project managers, it can be concluded that extensive involvement is not always

necessary. As the case studies have already shown, how much engagement and participation is required depends on the impact of the project on the stakeholders. However, in these projects, stakeholders indicate that they would have liked to have been involved at earlier stages in the process, as many issues arose during the construction phase. It is advisable to keep stakeholders fully informed about plans and open about what will happen. Depending on how much input is needed from stakeholders, they should be able to participate and contribute to the plans.

All of the interviewees in the four projects believe that good stakeholder engagement can help a project achieve a better outcome but find it difficult to engage all of the stakeholders involved in the project because of the reluctance of external stakeholders. This is often reported in the news (Boeve & Groothuijse, 2019; De Lint et al., 2018; Van Mierlo, 2021). Many external stakeholders are reluctant to participate. External stakeholders state that this is because they often do not understand what opportunities are available and where they can contribute. It is advisable to talk openly about the plans and show what is possible and what is not.

All municipalities believe it is necessary to have evaluation meetings with stakeholders at each stage but find it difficult to implement due to the time and cost involved. Literature suggests that it is very important to solicit feedback and evaluate written plans. (Schibi, 2013; Talley et al., 2016) Ideally, stakeholders are involved in thinking about the apparent successes and shortcomings of SE 's efforts and provide guidance on how to change and improve processes. (Talley et al., 2016) Evaluations do not have to be lengthy, but can often be derived from conversations. Other ways to collect evaluation data are informational interviews and advisory boards. These boards can be asked to evaluate how they perceived the stakeholder engagement process at different stages with the external stakeholders.

For all projects, plans are adjusted based on evaluation of previous projects. All municipalities have used the feedback and evaluation they received on previous projects to inform their projects. This is a good thing. However, what is often forgotten in this adjustment is to get the opinion of external stakeholders, as shown in the interviews. It is advisable to ask the stakeholders for feedback at the end of the project and tell them what should be changed in the following projects. Just as it is also described in the literature.

Table 9 Comparison SE activities, + is seen as ideal activities, - is seen as less ideal activities. (Further elaborated in Appendix 15)

Comparison SE activities	Case 1: Project A	Case 2: Project B	Case 3: Project C	Case 4: Project D
Implementing a stakeholder engagement plan	<ul style="list-style-type: none"> + Different engagement plans for different phases. + Implemented to help engage stakeholders in both the contracting and implementation phase. - The engagement plans are not drafted with the help of the external stakeholders. - There is no plan for the initial phases. 	<ul style="list-style-type: none"> + Different plans for different phases. + The plan was used to establish requirements with the stakeholders. - The plan does not actually include stakeholder engagement strategies, but rather addresses the communication methods. 	<ul style="list-style-type: none"> + Does have a plan for the implementation phase - No plan for earlier phases - Does not identify the stakeholders 	<ul style="list-style-type: none"> + Two plans made to determine the stakeholder engagement + Drafted together with the external stakeholders + The plan was made to let stakeholders know how they would be engaged. - No specific plan for the policy development phase

Involving stakeholders early in the activities	<ul style="list-style-type: none"> + Stakeholders have been divided into groups - No extensive participation at the beginning of the plan. - The team was not always open about the planning and the designs. 	<ul style="list-style-type: none"> + Involved stakeholders from the beginning. + Stakeholders have been divided into groups + Open about the plans - Inform rather than consult 	<ul style="list-style-type: none"> + Project manager proactive in trying to get stakeholders more involved - Did not involve stakeholders from the beginning. - Difficult to include all stakeholders given the many conflicting interests in the area. - Not open about the planning and the designs 	<ul style="list-style-type: none"> + Extensive engagement from the beginning + Open about the plans + Stakeholders helped develop the stakeholder engagement plan - Too much consent from the council - When a project does not have a high impact stakeholders should not be engaged from the very beginning
Evaluating the stakeholder engagement process	<ul style="list-style-type: none"> + Plans were evaluated by an external auditor. + A satisfaction survey was conducted. - Stakeholders wish they could have provided feedback on the stakeholder engagement process. 	<ul style="list-style-type: none"> - Plans were not evaluated and only monitored in a timely manner for Project B. 	<ul style="list-style-type: none"> - Project C did not evaluate the plans or ask stakeholders for feedback on stakeholder engagement. 	<ul style="list-style-type: none"> + Project D evaluated the plans and solicited feedback from stakeholders. This resulted in a smooth process.
Adjust plan	<ul style="list-style-type: none"> + Project A has transferred the evaluation of the project to another project. - The municipality and stakeholders did not evaluate the plans to adjust them in later phases. 	<ul style="list-style-type: none"> + The lessons learned from Project B were implemented in another project - The municipality did not evaluate the plans to adapt the plans in later phases. + They do however do this in other projects currently being planned. 	<ul style="list-style-type: none"> + Project C incorporated lessons learned into another project. - They did not evaluate the plans to adapt them in later phases. 	<ul style="list-style-type: none"> + Project D conducted the evaluation with stakeholders and adjusted plans where necessary.

4.6.3 Cross-case comparison in the project phases

In this section, there will be further elaborated on the similarities and differences between the five project phases according to literature in the field of construction (Chapter 2.1). Out of the plan analyses and interviews in the case studies four phases are compared, the initiative phase, definition phase, contracting phase and construction phase.

The four comparisons are further elaborated in Table 10. These comparisons can be traced back in the interview questions about the project phases. The similarities and differences in the case studies will be compared with the literature study about stakeholder engagement process with the project phases.

Comparison

This study set out to find the similarities and the differences between the different cases and compare this with the literature. To reach this aim, a comparison will be made between the different case studies, with the theoretical framework as a guide. The comparisons are based on the four case studies mentioned above. The following comparisons in project phases between the case studies can be distinguished.

From the case studies, it can be seen that in 2 of the 4 projects, Project B and D, the plans were presented to the external stakeholders, and they were informed about the project objectives during the initiative phase to set common goals. From the literature, it can be concluded that it is important to have a common goal to achieve the project objectives. (Pincot, 2021) It can also be concluded from the interviews that the project teams and external stakeholders worked best together when they had a common goal in mind.

From the case studies, it can be concluded that in 3 of the 4 projects, Project A, B and C, the external stakeholders did not know how much influence they had on the plan development. When stakeholders do not know how much influence they have on plan development, it can lead to confusion and conflict in the project. As with Project A, stakeholders did not know which areas they could weigh in on, leading to time delays because they were not satisfied with the plans when they came out.

For all 4 projects, external stakeholders indicate that the most important thing is to be open about the plans from the beginning. As mentioned, when comparing the stakeholder engagement process, one of the most important things to get stakeholders to feel engaged in a project is to openly explain the plans.

From the interviews, it appears that the plans as they are currently written are too difficult for external stakeholders to understand as a layman. This is supported by several studies. (Association for Project management et al., 2019; Gable & Shireman, 2005; Hamidu et al., 2014; Jeffery, 2009) They state that it is important to make plans, like the design, understandable to everyone. Even for those people who do not have the necessary knowledge. Failure to do so can lead to confusion and conflict.

The Environment and Planning Act requires municipalities to include and involve external stakeholders in the project from the beginning. (Aan de slag met de Omgevingswet, 2018; Gemeente Vliссingен, 2020) In the case study, this was not done for many projects, except for Project D. However, this is often perceived by external stakeholders as something they would like the municipality to do. This way they are aware of the plans from the beginning and can help advise on the plans. However, Project D mentions that this is not necessary for some projects. Depending on how much the project impacts external stakeholders, it should be decided whether it is necessary to involve stakeholders from the beginning.

Table 10 Comparison Project Phases, + is seen as ideal activities, - is seen as less ideal activities. (Further elaborated in Appendix 15)

Comparison project phases	Case 1: Project A	Case 2: Project B	Case 3: Project C	Case 4: Project D
Initiative	<ul style="list-style-type: none"> - Stakeholders weren't as engaged in the plans as they had wished. + Public hearing nights were held after the plans were made. - There was no participation during the development of the plans and strategies. + At the time it was not necessary to participate 	<ul style="list-style-type: none"> + Has begun a master plan for the overall structural vision. + Plan was presented through a series of general public planning meetings. 	<ul style="list-style-type: none"> - Not involve stakeholders during the policy development phase. - Stakeholders feel they are not being heard. 	<ul style="list-style-type: none"> + Plan was created in collaboration with external stakeholders. + Stakeholders have been given the opportunity to comment on local issues - What the community lacks is the extent to which citizen participation is practiced, and thus the influence that residents can exert.

Definition	<ul style="list-style-type: none"> + There were regular informational meetings + Municipality was open to suggestions - Stakeholders would have liked to have more say in the design. - It often took a long time for the city planner to understand the concerns of the stakeholders 	<ul style="list-style-type: none"> + Representative for the external stakeholders + Actively seek to involve external stakeholders in the bidding phase. 	<ul style="list-style-type: none"> + Informational letters to inform about the plans. - Little external stakeholder engagement. 	<ul style="list-style-type: none"> + Actively engaging stakeholders + Helping to create plans In Project D, - The plans, which were not yet approved, had already been sent out to external stakeholders, which caused discomfort. - They have to be clearer with stakeholders about what can and cannot be done and send out a survey about the changes stakeholders want.
Contracting	<ul style="list-style-type: none"> + Open about the implementation plans. - The advisory board wants to see more meetings about the contract. 	<ul style="list-style-type: none"> + Several planning meetings to discuss the final design. + Consultation evenings where the external stakeholders can discuss the contracts and the plans to be prepared, such as the BLVC plan. 	<ul style="list-style-type: none"> - Not involve much collaboration with external stakeholders. - The external stakeholders did not have the knowledge and felt they did not know what was going on. + For the next projects, the project manager stated that they have started to work with drawings as well to make it clear to the stakeholders what is going on. 	<ul style="list-style-type: none"> + Stakeholders were actively involved in the contracting phase, helping to develop the implementation plan (BLVC plan), and providing input on the final draft. - The process manager notes that this was sometimes too much of a good thing, and that the municipality needs to learn to say no to external stakeholders, as it too often agrees to what stakeholders want, when in fact this does not paint the most desirable picture of the project.
Construction	<ul style="list-style-type: none"> + The contractor was very accommodating. The municipality feels that this is very important to the success of a project. + If the contractor is considerate of the external stakeholders, the stakeholders will be much happier. 	<ul style="list-style-type: none"> + Stakeholders were satisfied with the way they were involved by the contractor and the client. - They would like more opportunities for feedback. + The complaint management was available 24/7 	<ul style="list-style-type: none"> + The project manager decided to keep stakeholders informed through face-to-face meetings and frequent attendance. This contributed to stakeholder satisfaction. - Most of the external stakeholders who were present had many concerns and were not adequately informed about the process, which led to frustration. 	<ul style="list-style-type: none"> + Stakeholders were very satisfied with the way they were engaged and informed in the process. + There were many different communication tools used per stakeholder group.

4.6.4 Cross-case comparison for the Environment and Planning Act

In this section, there will be further elaborated on the similarities and differences between the way municipalities are using the Environment and Planning Act as a guide for stakeholder engagement. Out of the interviews in the case studies and municipality plans, the past and the prospective can be compared. The comparisons are further elaborated in Table 11. These comparisons can be traced back in the interview questions about the Environment and Planning Act. The similarities and differences in the case studies will be compared with the literature study about the Environment and Planning Act (Chapter 2.7).

Comparison

The comparisons are based on the past and the future implementation of the Environment and Planning Act. The following comparisons in the field Environment and Planning Act between the case studies can be distinguished.

Results from the interviews of the case studies show that all four projects acknowledge the importance of involving the external stakeholders from the very beginning, but often find this hard to execute. The Environment and Planning Act suggests to categorize the stakeholders based on the participation ladder of Edelenbos and Monnikhof (2001). With this, there can be determined how much influence a stakeholder will have on the project. Based on how much influence a stakeholder has on the project there can be determined how early they have to be engaged or informed in the process.

From case studies there can be determined that different tools are used per municipality to get external stakeholders involved in the developments of the vision and plans. For example, Project B chooses to use social media a lot, whereas project D mostly focuses on information meetings. Depending on the project, tools should be chosen. If the project has high impact on the external stakeholders, the interviewees advise to have a more interactive process with the stakeholders. Whereas when the project does not have much impact on the external stakeholders, they advise to be informative.

Like also mentioned in the comparison on the project phases, it is very important that plans are understandable for the external stakeholders. 2 municipalities highlight the importance of making the plans understandable and readable for everyone during their interviews. But when questioning the other municipalities, they state that this is also something they are striving towards.

Table 11 Comparison Environment and Planning Act (Further elaborated in Appendix 15)

Comparison Environment and Planning Act	Case 1: Project A	Case 2: Project B	Case 3: Project C	Case 4: Project D
Past	For this municipality, they have stated to do a lot of participation, but the neighborhood groups abruptly terminated their cooperation with the municipality because their heartfelt and time-consuming input was rarely reflected in the municipality's final plans.	This municipality has always been precursor of participation.	In the past, this municipality has not done much stakeholder engagement. Because of the many diverse stakeholders in the area the municipality has a hard time accommodating to all of them.	This municipality has done a lot for the engagement of stakeholders already.
Prospective	This municipality has done a lot for the introduction of the Environment and Planning Act. They have improved the services to their external stakeholders and allow a more initiative, faster and transparent process.	The Environmental and Planning Act has not taken effect yet, but the municipality is working with the principles of the Act.	This municipality has started a citizens' council, asking the external stakeholders to think along with them on various themes concerning developments in the municipality.	This municipality is trying to get all stakeholders to think with them about the environment vision, including the hard-to-reach groups.

4.7 Conclusion Case Studies

In this research the aim was to find the similarities and differences between the different complex projects of various municipalities based on the theoretical framework, and to compare this with the literature review. The cross-case analysis shows that there are major differences in the way stakeholder engagement is carried out in the different municipalities of the four case studies. It can be concluded that the theoretical framework used to analyze the projects does not fully correspond to practice and other parts have to be added.

From the case study findings Olander's (2007) literature looks to be most consistent. It is part of the literature review and shows that good stakeholder engagement depends mainly on the way the project team categorizes and is open to the stakeholders about the engagement process. This means that stakeholders who feel informed and feel that they are included in the project by contributing to the project are the most satisfied with the project. Projects where the stakeholders and the project team shared the same goal seem to have fared best, implying that stakeholders need to be involved in the project from the beginning. The case studies differ from the literature in terms of the level of influence and engagement stakeholders should have in a project. Depending on how the project will impact the stakeholders, the level of influence and engagement should be determined. Edelenbos and Monnikhof's (2001) participation ladder is an excellent tool. However, municipalities should also ask themselves whether stakeholder knowledge is necessary for the project and whether they have the time to fully engage stakeholders or would rather inform them of the plans. Among the seven topics of the theoretical framework that was used to analyze the case studies, the topic of feedback and monitoring was not present in all four cases. The other topics were all addressed in detail or in part. The literature indicates that it is very important to solicit feedback and evaluate the written plans. Ideally, stakeholders should be involved in this process and provide guidance on how to change and improve the processes. In all cases, it is mentioned that this is the ideal situation for them as well, but due to the many different interests of the stakeholders and the amount of time and money involved, this is very difficult to implement. So, using evaluation rounds when creating plans and monitoring stakeholders could make stakeholder engagement more successful in the future.

What is not extensively addressed in the literature is the fact that many stakeholders do not understand the plans that are written most of the time and would like to see more readable files because they are reluctant to engage if the plans are written in technical terms. Something that is at odds with what the Environment and Planning Act wants is that the external stakeholders also want to know what is not possible, while the Environment and Planning Act aims to say what is possible. According to the external stakeholders and project managers, this would open up too wide a range of possibilities that would allow the external stakeholders to dream but ultimately not satisfy them. Rather, they would like to see a middle ground.

Another point that is often forgotten in the stakeholder engagement literature is that different phases can define the stakeholder engagement process. Most literature studies mention that stakeholder engagement is important in all project phases but forget to mention the different processes in the different phases. However, as shown in the cross-case data in this study, successful stakeholder engagement depends on the different project phases and the

communication of the project team. Therefore, this study adds value to the existing literature on stakeholder engagement by incorporating these aspects into the theoretical framework.

From the literature and case studies, the key activities that create support for stakeholder engagement can be concluded by designing a flower symbol. This symbol is shown in Figure 28. The figure is combined from literature, the case studies and the theoretical framework in Chapter 2.10. The activities of the theoretical framework are taken into account and the activities mentioned in the case studies are added, during the interviews and document analysis the activities that give support are named. It is important in the development of the roadmap that the activities of Figure 28 are taken into account to create the support of external stakeholders. When these twelve activities are done accordingly, the project team can create support from external stakeholders, and in turn get a successful project outcome.

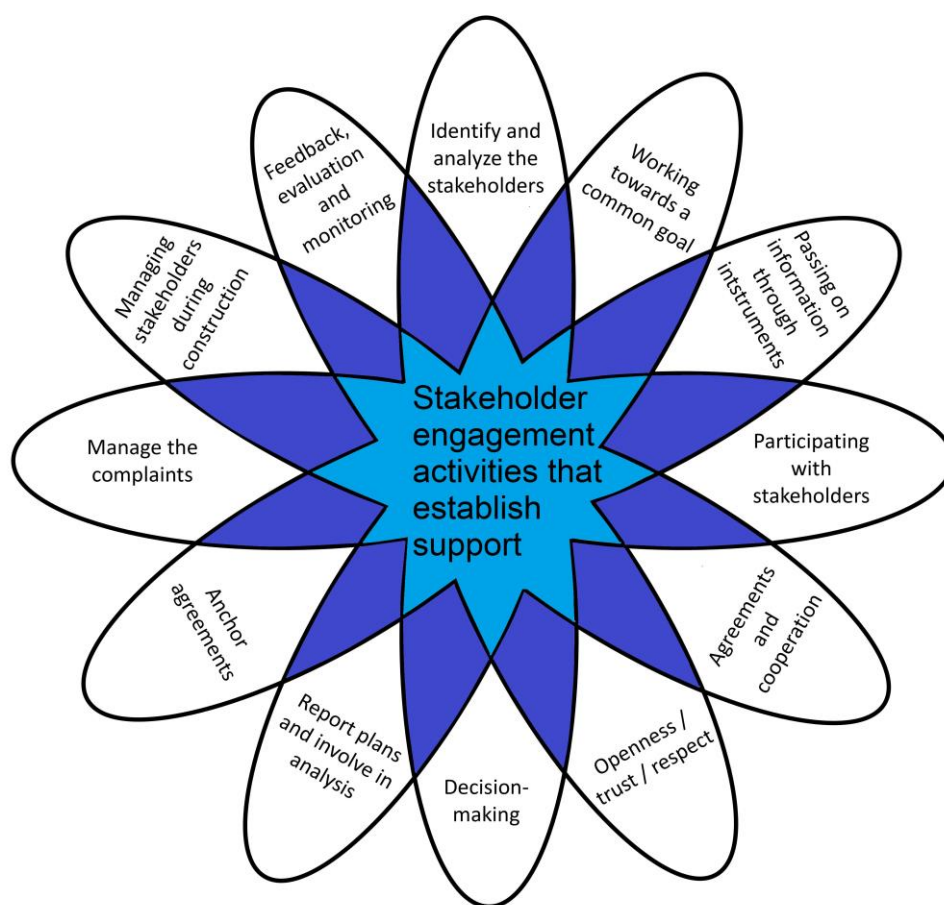


Figure 28 Stakeholder Engagement creates support (S. Donders, 2022)

Chapter 5

Development

This chapter will show the potential development in the form of an interactive roadmap. It will be developed in order to support this research in solving the problem statement as written in Chapter 1.2. The development will be an interactive roadmap which should support the stakeholder engagement process. The information from the literature study (Chapter 2), the theoretical framework (Chapter 2.10) and the case study research (Chapter 4) will be combined to create the development. In the first paragraph the design criteria will be formatted. In the second paragraph the development of the roadmap will be elaborated on, with the design criteria as a guideline. The third paragraph of this chapter will elaborate the components of the roadmap separately.

5.1 Development

From the four analyzed cases, a general proposal can be made. However, the aim is to be able to use the proposal for *all* further developments that deal with external stakeholders. Improvement areas are not only located in the stakeholder engagement, but also lie in the influence of stakeholders and the way municipalities will have to work with the Environment and Planning Act. The model has to at least have the following activities:

Stakeholder Engagement

- Creation and use of a structured stakeholder engagement process to manage the stakeholder engagement during all project phases;
- Evaluation with external stakeholders during the project phases;
- Being open about plans from the beginning of the project;
- Involving the external stakeholder on time when changes are made, giving stakeholders enough time to voice out concerns;
- Communicating to the stakeholders what is possible, and which wishes and concerns can be done;
- Communication during the project phases;
- Using different communication tools per stakeholder groups to minimize the work;
- Stakeholders who do not have the knowledge should understand the plans;
- Keeping records of the complaints.

Stakeholder Influence

- Identifying stakeholders every project phase to categorize their power and influence in that particular stage in the project;
- Stakeholders knowing how much influence they have in the project, municipalities being open about the plans;
- Using stakeholders' expertise to influence other external stakeholders;
- Grouping the stakeholders based on their influence.

Environment and Planning Act

- Involving stakeholders in the early phases when it has a lot of impact;
- Being clear about what the stakeholders can participate in;
- Having plans that are easy to understand for the external stakeholders;
- Having the right resources;
- No matter how different municipalities are, every municipality has to do something with participation.

5.1.2 Requirements

For the development of the method, the MoSCoW method is used. The MoSCoW method is a four-step approach which prioritizes the project requirements that will provide the best results. MoSCoW stands for Must have, Should have, Could have and Will not have. To start with the MoSCoW method first the objective has to be clear. The objective of this research is, *improve the stakeholder engagement process in complex projects while using the requirements and process of the Environment Act as a guide*. This means that the development that will be created should be a solution to improving the stakeholder engagement process of complex projects. In Appendix 16 the requirements are given.

In this common age, it is impossible to implement a complex project, without influencing the environment. The environment has a large impact on complex projects in return. In this environment stakeholders have different and changing interests, which may cause issues for the complex projects. With the Environment and Planning Act, stakeholder engagement from the very start becomes more important and the need for a clear process is necessary.

5.2 Roadmap towards stakeholder engagement

The stakeholder engagement model for successful stakeholder engagement is divided into the project phases, as from research there can be concluded that the stakeholder engagement process depends on the project phase the project is in. Some general requirements during the stakeholder engagement process that different roles have to be considerable of are given:

Initiator (municipality)

- The municipality is present during the full stakeholder engagement process, they are advised to have one member of the project team fully responsible for interacting with the stakeholders;
- The representative of the municipality has to coordinate internally between the members of the team before interacting with the stakeholders about major issues;
- The representative of the municipality has to give the information in an understandable jargon for all stakeholders identified;
- The municipality determines what is needed in accordance with the law;
- Based on the evaluation of the external stakeholders, the municipality should adjust plans for the next project phases;
- The municipality uses the roadmap towards stakeholder engagement together with the consultant to find the best possible stakeholder engagement strategy.

SE consultant/specialist

- The consultant advises on the way the goals of engagement can be set. They advise using this roadmap;
- The consultant advises in what is needed in accordance with the law and the stakeholder engagement process;
- The consultant provides tools that helps ease the stakeholder engagement process;
- The consultant uses the roadmap towards stakeholder engagement together with the municipality to find the best possible stakeholder engagement strategy.

External stakeholders

- If from the context analysis can be concluded that external stakeholders can participate in the writing of the plans, they, based on the influence, help with writing of the plans. This can either be advising, co-deciding, co-producing, consult and inform;
- Stakeholders should be able to determine together with the municipality how the communication should go;
- Stakeholders should evaluate on how the stakeholder engagement process went during the different phases.

The steps of the interactive roadmap towards stakeholder engagement are shown in Appendix 17. Figure 29 gives an overview of the most important activities in the different project phases. These activities are based of the theoretical framework of Chapter 2.10 and the Stakeholder Engagement Framework in Figure 28 (Chapter 4.7) as well as the literature and the case studies combined.

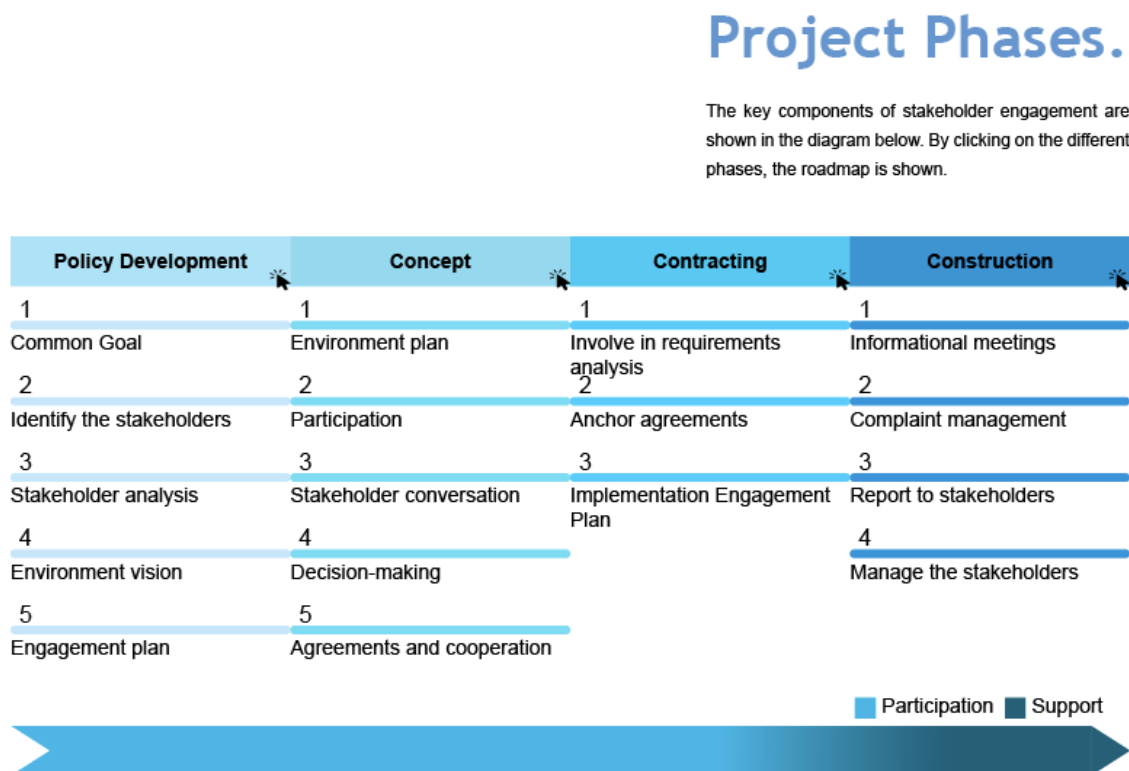


Figure 29 Part of the roadmap towards stakeholder engagement, highlighting the key components in the different project phases

After the overview, the different phases are presented in process models. These processes are created based on symbols that also appear in a BPMN model. Although it is not a BPMN model, the way it works is quite similar. Here, the blue squares are represented as tasks, the diamonds as decisions, and the circles as start or end points. In the full guide, there is a legend to help the person in charge quickly understand what means what. There are also icons such as question marks, lamps, and a click icon to help the person in charge know when information is being given.

5.3.1 Policy development/ initiative phase

A project starts with the initiative phase, in this phase the government decide whether a project should come to be. In principle this is the municipality, but it can also be the province. In the initiative phase, there is still plenty of room for choices.

During the initiative phase a few things are important gathered from literature and the case studies. Which have been added to the process. During the initiative it is important to be clear, objective and transparent. The process, planning and decision moments are discussed with the external stakeholders when necessary, should have feedback moments and be monitored regularly. During the initiative phase the municipality should provide the external stakeholder thorough information about what the problem is and how the project will solve this problem. It is important to build social support in the initiative phase, as this is the base of the other project phases. When making a stakeholder analysis it is important to make sure that all stakeholders are represented and recognized by the environment.

The key activities for the initiative phase are:

- Common goal;
- Identify the stakeholders;
- Stakeholder analysis;
- Engagement plan.

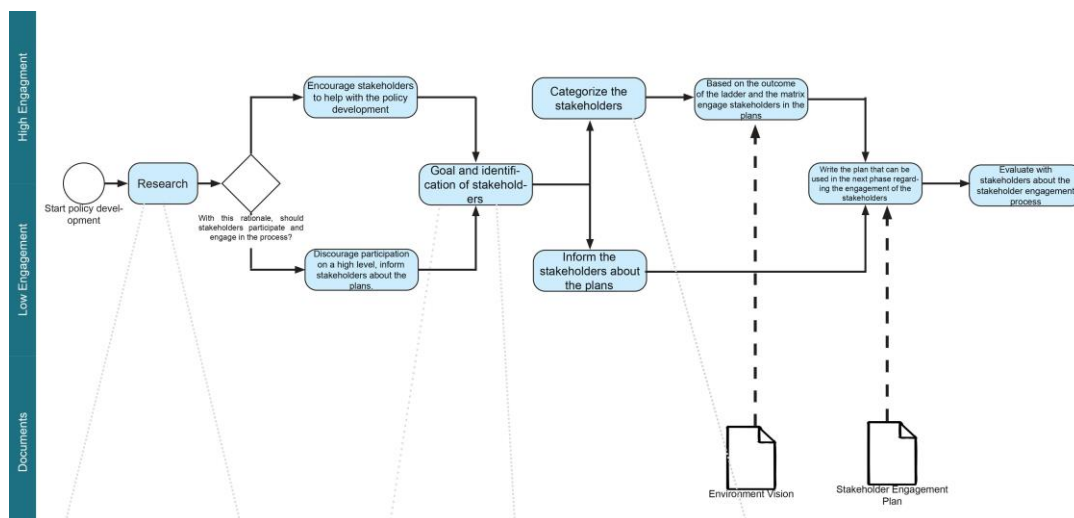


Figure 30 Stakeholder Engagement Process Policy Phase, full model in Appendix 18

5.3.2 Concept phase

The concept phase is meant to gather the wishes and requirements from the external stakeholders. In this phase the developer starts with designing and planning and is expected to share his input with the environment. During the concept phase it is important to be clear, objective and transparent. The process, planning and decision moments are discussed with the external stakeholders when necessary and the process receives feedback and is monitored. It is important to decide how big the impact is on the external stakeholders, as based on this the consultant and municipality can organize the way stakeholders should be engaged and participate. During the design and planning the impact on the stakeholders should be taken into account. It is important to clearly communicate the impact to the

stakeholders. When the project has a significant impact on the external stakeholder's autonomy can be given by having them consult on the plans. Even when it does not have that significant of an impact, it is of great importance to communicate the information.

The key activities for the concept phase are:

- Participation;
- Stakeholder conversation;
- Decision-making;
- Agreements and cooperation;
- Stakeholder engagement plan.

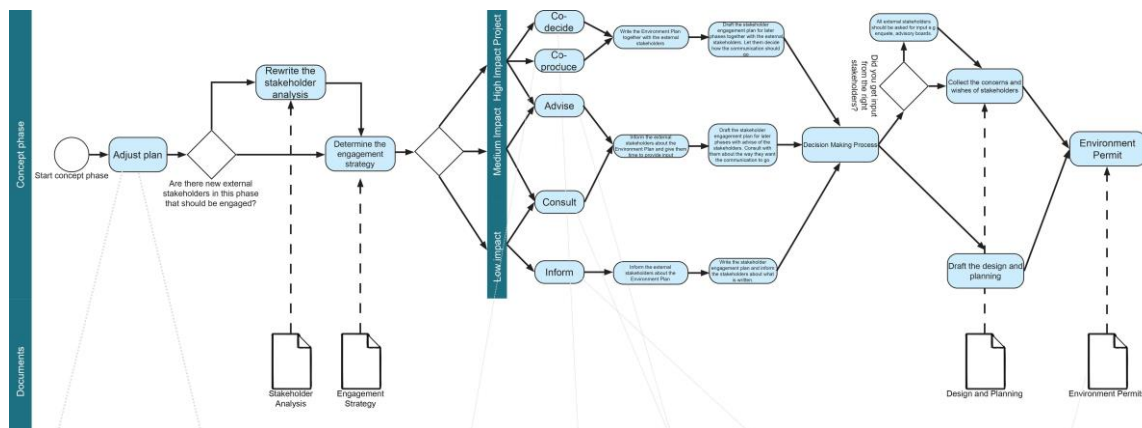


Figure 31 Stakeholder Engagement Process Concept phase, interactive model in Appendix 18

5.3.3 Contracting phase

During the contracting phase, the final decisions will be made and the plan will be finalized so that it is ready for the implementation phase. During the contracting phase it is important to further build support by engaging the stakeholders in the design and the BLVC-framework. Additionally, it is important to have timely consultations with stakeholders about the decisions, and have them consult/decide on those decisions if necessary. Conflicts can be avoided by communicating the decisions made correctly and by being open about the changes that will be happening when implementing this project.

The key activities for this phase are:

- Involve in requirements analysis;
- Anchor agreements;
- Implementation Engagement Plan.

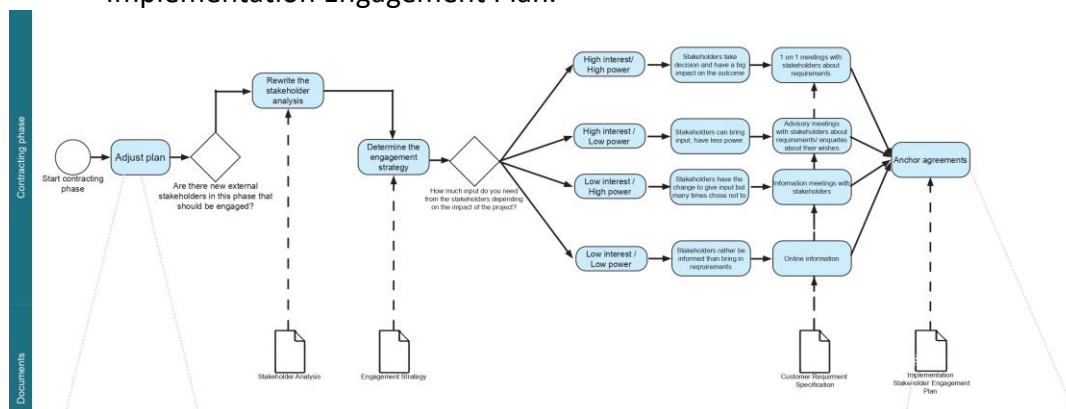


Figure 32 Stakeholder Engagement Process Contracting Phase, full model in Appendix 18

5.3.4 Construction phase

During the construction phase, the project is built and completed. In this phase it is important that there is no unnecessary nuisance for the environment. During the construction phase a few things are important gathered from literature and the case studies, that have been added to the process model. It is important to communicate all the information to the external stakeholders to avoid conflicts. Build social support by engaging the external stakeholder. Also, to be open about when changes are made and to prevent nuisance in the surrounding area.

The key activities for this phase are:

- Informational meetings;
- Complaint management;
- Report to the stakeholders;
- Manage the stakeholders.

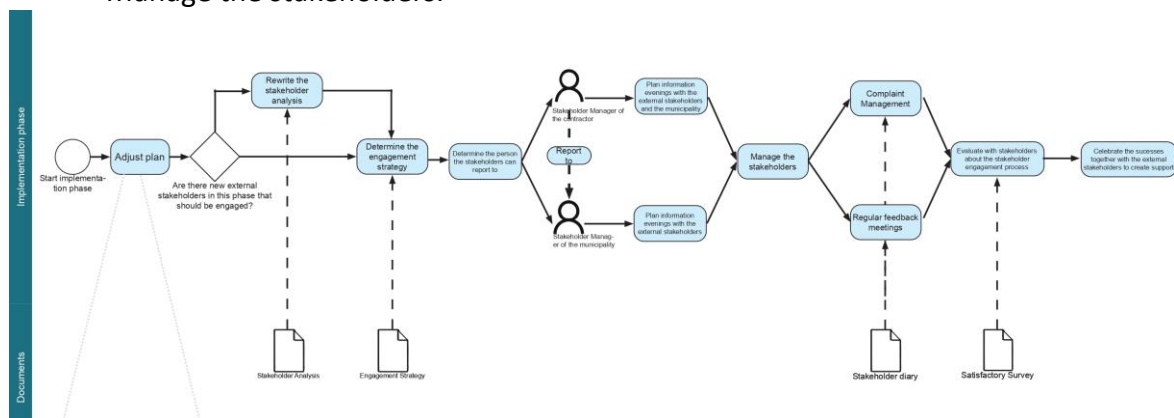


Figure 33 Stakeholder Engagement Process Construction Phase, full model in Appendix 18

5.3.5. Interactive development

The roadmap is meant to discuss with the client how the stakeholder engagement should go and which degree of stakeholder engagement will be chosen. It helps project team to improve the stakeholders the stakeholder engagement in projects and build support. For this, an interactive development has been made giving tips, questions and tools that can help with the choice of engagement. In Figure 34 an example is given that shows how the development can work. The interactive roadmap can be seen on request.



Figure 34 Example of the interaction that is done using the development (S. Donders, 2022)

Chapter 6

Validation

This chapter will validate the roadmap made in Chapter 5. It is important to evaluate the roadmap before it can be used in practice, to prevent errors and apply improvements. Furthermore, it is important for the conclusion and recommendations of this report that the answer to the problem statement is accurate. Expert interviews are used as a way to validate the roadmap. For this research, experts are defined as someone who has experience in the field of stakeholder management. The roadmap is meant to standardize the stakeholder engagement process. To validate this roadmap experts, who have not been interviewed for the case studies, are asked if the sequence of actions is correctly represented and if the decisions involved in the process are correct.

6.1 Expert validation

For refinement of the roadmap two environmental managers were asked who did not previously participate in the case studies, but will be using the roadmap. Their experience in the current stakeholder engagement process with project teams and external stakeholders means they can add relevant feedback about the usability of the roadmap. The interviews were planned and the roadmap was sent before conducting the questionnaire. The questionnaire can be seen in Appendix 19.

The following respondents were asked for feedback.

Table 12 Experts for validation

	Respondent 1	Respondent 2
Function	Consultant Stakeholder Manager	Consultant Stakeholder Manager
Company	Consultancy company	Consultancy company

The respondents were asked to what extent the roadmap would help them to have stakeholders more effectively engaged. From the interviews it can be concluded that the respondents find it a good and useful guide to help improve the stakeholder engagement process. According to the respondents the main reason for successful stakeholder engagement is to have stakeholders be involved from the beginning when necessary, to have stakeholders give feedback on the stakeholder engagement process in prior phases, to be open about the plans and to see communication as the key to stakeholder engagement. The respondents acknowledge that these aspects are taken into account in the roadmap. A few things were mentioned during the validation sessions. By using the criteria set in Appendix 19 it will be explained. The requirements list filled in can be seen in Appendix 19

6.2 Adjusted Models

The model is validated by the experts. To make the roadmap clearer and more applicable, some adjustments which came forward from the expert validation have been implemented. A few adjustments have been made based on the gathered data of the evaluation. The adjustments made can be observed in Figure 35, and a more elaborated adjustment model can be found in Appendix 20

The validation indicates that it could be used during the different project phases, as well as when the consultant company is asked for advice in later phases. Additionally, the validation indicates it might be able to be used by the contractors as well. This possibility will not be part of the model, since it requires a new research design in which the model is applied for the

contractors. However, the possibility will be discussed in the conclusion chapter for future research possibilities. The modified Stakeholder Engagement Process is illustrated in Figure 35.

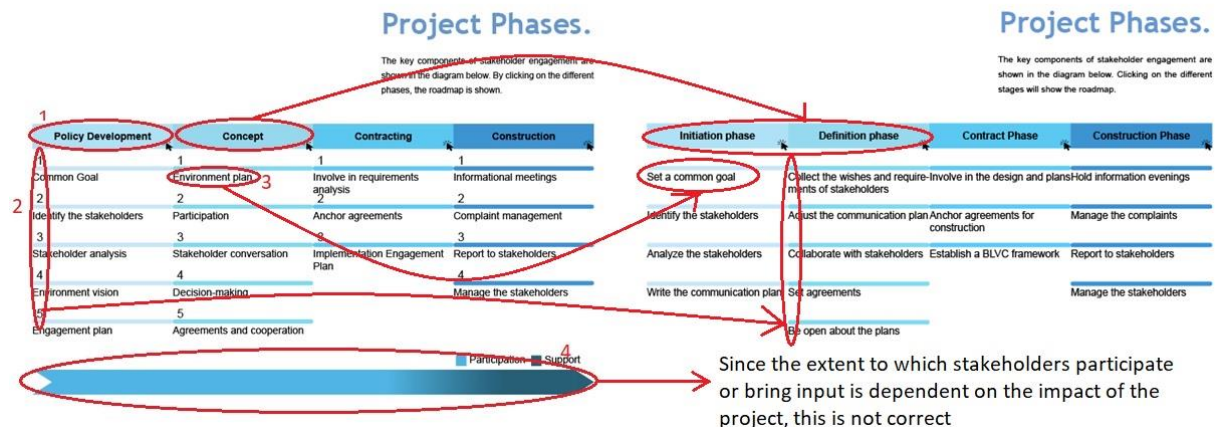


Figure 35 Modified model, full model in Appendix 20

The first adjustment that is done is the wording of the phases. During the validation it became clear that the wording of the different phases was not correct. The output of the phases was not coherent with the way the phases were worded. Together with the experts, the wording was changed to initiation, definition, contract and construction. It is important the different phases are better explained in the guide according to the experts.

The second adjustment is the numbering of the different activities. During the expert validation it became clear it looks like the activities are in sequence. When some of these activities are general activities for the whole phase. This is why there has been chosen to delete the numbering.

The third adjustment is made for the activities themselves. Experts stated that the activities were not all correctly worded and some of the wordings were outputs that came from the different phases. This is why the activities have been stated in a more active wording, for example, stakeholder analysis has been changed analyze the stakeholders. And the output documents from the different phases have been added as an output not activity.

The fourth adjustment is the participation bar on the bottom of the page. From expert validation there can be concluded that this is very direct and not always the case. Since the extent to which stakeholders participate or bring input is dependent on the impact of the project, this bar is not applicable.

6.2.1 Adjusted Model Initiation Phase

There were also some changes in the initiation phase of stakeholder engagement, these can be seen in Figure 36. The first adjustment that was made is after the research. It was discussed with the interviewees that before analyzing the stakeholders, an area scan must be done to define the goals of the project. This will also help determine how much the project will impact the stakeholders and determine whether or not stakeholder input is needed.

The second adjustment that has been made is the wording of the goal. Previously, it was necessary to have stakeholder input in the development of the policy. However, as the interviewees mentioned, it is necessary to have a common goal before plans are made. Therefore, it is important to ask stakeholders for advice and set a common goal if the project has a large impact on stakeholders. If this is not done, conflicts may arise because the stakeholders and the project team are not on the same page.

The third adjustment is made after discussion with interviewees and other experts. It is not really clear from the terms of reference what "writing the plans" means. This needs to be made clearer by calling it communication plan. This is also the fourth adjustment that was made.

The fifth adjustment that was made is the last task that respondents felt was very important. After the evaluation with the stakeholders about the stakeholder engagement process, it is important to take this feedback to the other phases.

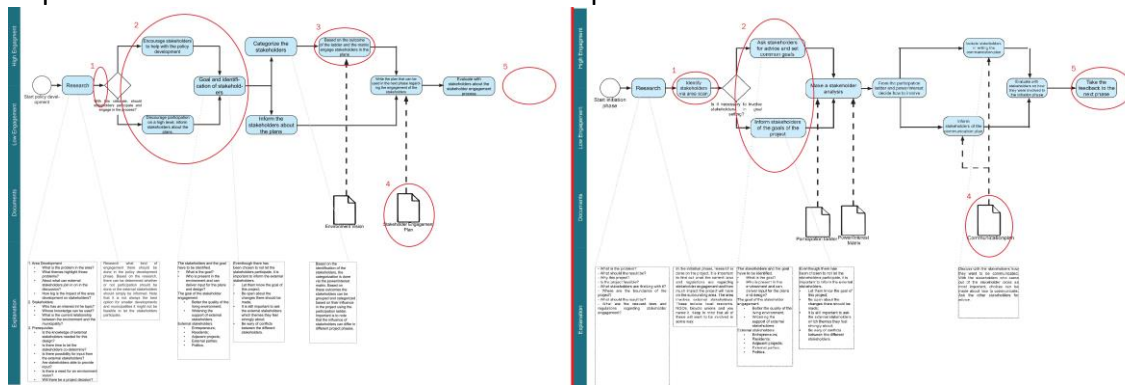


Figure 36 Modified Stakeholder Engagement Process Initiation phase, full model in Appendix 20

6.2.2 Adjusted Model Definition Phase

There were also some changes in the definition phase of the stakeholder engagement process, which can be seen in Figure 37. The first adjustment that is made is the "adjust the plan" task. After discussion with the interviewees, it has become clear that this needs to be done after checking whether there are new external stakeholders or not.

The second and third adjustments that had to make were the activities after the engagement strategy was selected. After discussion with the experts, it became clear that this was correct, but a Program of Requirements should result from these activities. For this reason, the documents for these activities are the communication plan and the program of requirements.

The last adaptation that had to be done is the thing that is often discussed in the literature review and the case studies but was forgotten during the development. This adaptation is about the feedback and evaluation with the stakeholders through the stakeholder engagement process.

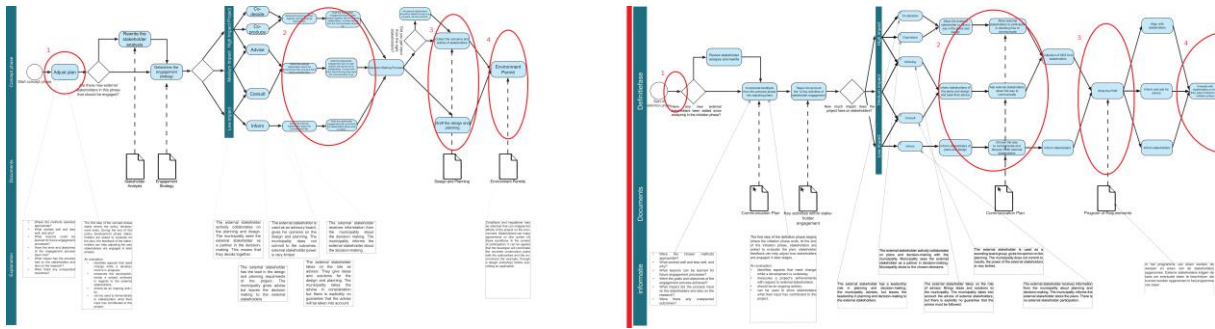


Figure 37 Modified Stakeholder Engagement Process Definition Phase, full model in Appendix 20

6.2.3 Adjusted Model Contracting Phase

There have also been made some changes in the contract phase of stakeholder engagement, which can be seen in Figure 38. The first adjustment is made in the same way as the first adjustment for the definition phase.

The second adjustment that had to be made is related to the final design. The customer requirements are identical to the final design and planning. For this reason, the output file was adjusted to design and planning after a discussion with the respondents.

The last adjustment concerns the "anchoring of the agreements". After discussion with respondents, this needed to be changed when writing the BLVC framework. It turned out that anchoring the agreements is about writing the BLVC framework, but the process model did not make this clear. For this reason, this has been added.

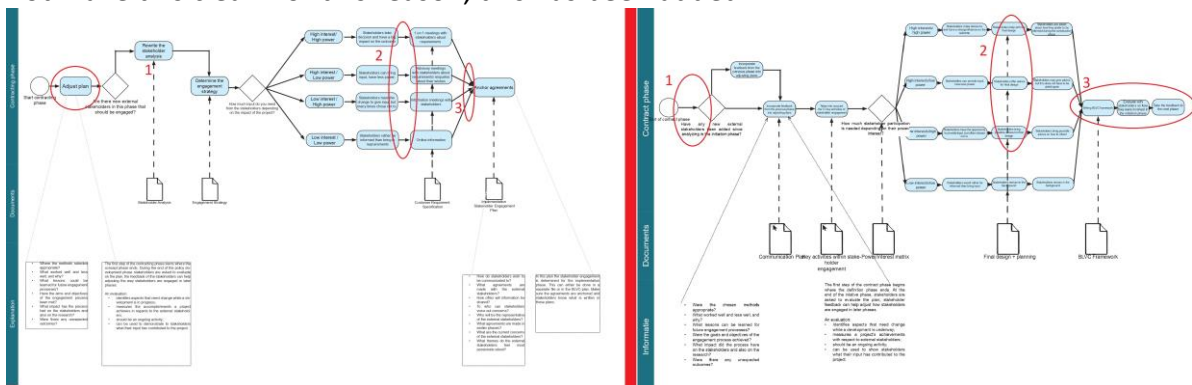


Figure 38 Modified Stakeholder Engagement Process Contracting Phase, full model in Appendix 20

6.2.4 Adjusted Model Construction Phase

There have also been some changes in the construction phase of the stakeholder engagement process, which can be seen in Figure 39. The first adjustment is done in the same way as the first adjustment for the definition phase and the contract phase.

The second adjustment that has been made is the placement of the "complaint management" and "regular evaluation meetings" activities. Rather than making it seem as if the activities are solely assigned to the contractor's stakeholder manager or the municipality, the interviewees make it clear that this does not make sense. This is because both activities must be performed by both stakeholder managers.

The last adjustment that was made was after a discussion with the interviewees. They make it clear that they need more explanation of the tasks given in the blue squares when explaining them to the municipality. Therefore, it was decided to make the tasks (blue squares) more interactive and give more explanations.

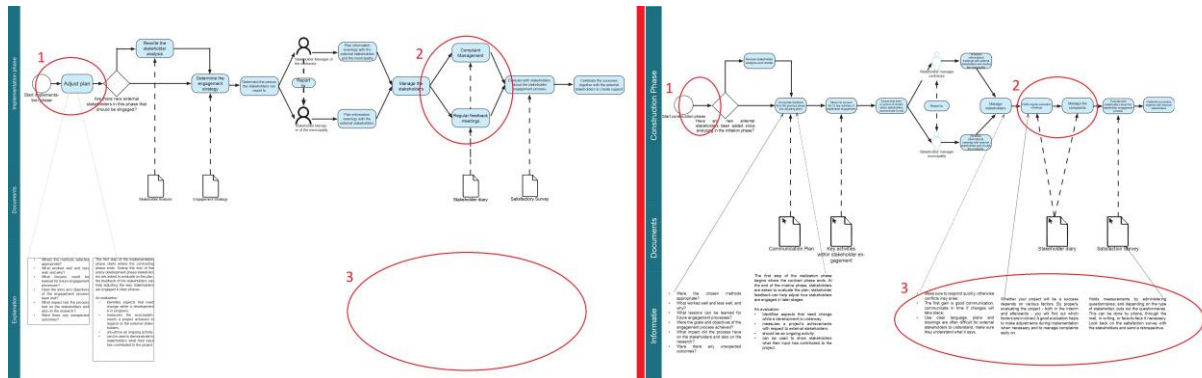


Figure 39 Modified Stakeholder Engagement Process Construction Phase, full model in Appendix 20

Chapter 7

Conclusion and recommendations

This chapter will discuss the conclusion and recommendation of the thesis about stakeholder engagement in complex projects. The first paragraph will answer the main question. Next, recommendations to project teams and consultants will be discussed. Finally, the results will be discussed as well as recommendations for future research.

7.1 Conclusion

The following main research question will be answered:

What changes in the engagement of stakeholders can be made to improve the stakeholder engagement process in complex projects?

To find an answer to the main research question the research was split into five sub-questions. For this study several stakeholder theory and stakeholder engagement activities were analyzed to gather theory on a stakeholder engagement process. From the results of this research regarding the process, the following can be concluded. Currently, there is no clear stakeholder engagement process taking place in practice, rather many state they use stakeholder management to a certain extent but state it costs a lot of time and money, and external stakeholders often feel like they are not engaged enough. There is a definite desire from the project team to get stakeholders more engaged, but an uncertainty about how and when. This research aimed to find answer in which changes had to be made to improve the stakeholder engagement process in complex project.

In general, many times stakeholder engagement is seen as something significant, but due to it costing time it is often neglected. To improve the stakeholder engagement process in complex projects it can be concluded that the literature and the practice, according to the four case studies, show that the most important change that has to be made is to consider the way stakeholders will be engaged from the initiation phase of a construction project. Start the dialogue and discuss with the project team and external stakeholders about the different possibilities regarding stakeholder engagement. Stakeholder engagement is essential for a project's success. The proposed interactive roadmap helps the project team to think about the way they will implement stakeholder engagement and discuss the possibilities to get the most out of the external stakeholders. The roadmap can help improve the process of engaging stakeholders and minimize the discontent of external stakeholders in projects.

From literature and interviews there can be concluded that there is a big difference between the engagement of external stakeholders and internal stakeholders. Were external stakeholders can be divided into primary and secondary stakeholders. With external stakeholders being stakeholders who do not have a contractual relationship with the project. This means that external stakeholders can also be adjacent projects. Primary external stakeholders have been primarily researched in this study.

From the literature it can be concluded that in order for project management to be successful, there is a need for efficient stakeholder engagement. There are different levels of engaging stakeholders in a project. External stakeholders often feel like they should not only be informed about the plans, but also should be able to at least consult or advise on the plans. Literature also states that stakeholder engagement is a strategy used for stakeholder

management. Were the main difference between stakeholder engagement and stakeholder management is, that stakeholder management is the process of managing the stakeholders, by the use of, for example, plans. Whereas stakeholder engagement is about the process of involving and building relationships with the stakeholders. Something that is often forgotten in complex projects. Results from the case studies show that stakeholders do not agree with the term stakeholder management, according to the external stakeholders this implies that they can be managed and controlled. Whereas, external stakeholders want to build a relationship with the project team and engage with the project, talking about stakeholder engagement.

Literature shows that solely identifying the stakeholders is not enough to know how the stakeholders should be engaged. Rather, stakeholders should be categorized in their power and interest, where one should not only look at how much interest the stakeholders have, but also how much impact the project will have on the stakeholders. This way, stakeholders can be grouped in interests' groups. Based on these groups it can be determined how and how much secondary stakeholders should be engaged on top of how much influence they have during the project. Literature shows there are different ways external stakeholders can influence a project or can be influenced. From the results, it becomes clear that external stakeholders can be influenced by a large variety of things, often with the media playing a big role in the way stakeholders are influenced. It is important for project teams to keep track of what is said in the media and inform the stakeholders about this.

Furthermore, literature shows that the Environment and Planning Act helps highlight the necessity of stakeholder engagement in projects. The Environment and Planning Act aims to broaden the engagement of external-primary and external-secondary stakeholders and explicates the possibility of embedding the challenge early on in the participation regulation. It guides stakeholder managers to write an engagement/participation plan, which can help determine how the project team will communicate, collaborate, and inform the stakeholders. From the literature review about the Environment and Planning Act it can also be concluded that stakeholder engagement can help speed up the decision-making process. Which is important for all project phases.

The data gathered through the case studies demonstrates that there are major differences in the way stakeholder engagement is carried out in different municipalities. Many times, the stakeholders were not engaged in the plans, leading to distrust. For the project where the stakeholders were actively engaged in the plans and design, the stakeholders felt more satisfied, and the process went faster. Another result shows that good stakeholder engagement depends mainly on the way the project team categorizes and is open to the stakeholders about the engagement process. This means that stakeholders who feel engaged and included in the project by contributing to the project were the most satisfied with the project. Establishing a common goal is also very important for good stakeholder engagement, as projects where the stakeholders and the project team shared the same goal seem to have fared best, implying that stakeholders need to be involved in the project from the beginning.

Results from the case studies show that all projects would have preferred to have more feedback and monitoring opportunities in the plan. The literature indicates that it is very important to solicit feedback and evaluate the written plans. Ideally, stakeholders should be

involved in this process and provide guidance on how to change and improve the processes. Due to the many different interests of the stakeholders and the amount of time and money involved, this is very difficult to implement.

Interviews and literature show that the first step of the roadmap should be to research whether or not it is important to have stakeholders engaged when setting goals. The second step is to make a stakeholder analysis. In this stakeholder analysis it is important to look at the power the stakeholders have in the project and how much impact/interest they have on the project. During the stakeholder analysis the participation ladder should be used to group the stakeholders in the way they should be engaged. Results show that not all stakeholders should be engaged at the same level, and sometimes stakeholders do not need to be engaged at all.

Both the literature and the case studies emphasize the importance of feedback and asking for evaluation. The roadmap shows that every project phase, the stakeholder engagement process should be evaluated. This can help gather information from the external stakeholders, and helps build support. Important when asking for feedback, is to also ask for the things that went well. Be open about the feedback that has been given towards the external stakeholders.

Working in the spirit of the Environment and Planning Act is a means of improving services to residents, businesses and organizations. The Environment and Planning Act seeks transparency, an accelerated decision-making process, and good relations between the project team and the environment. This should be done not only in the policy phase, but also in all subsequent phases.

7.2 Discussion

The goal of this research set out to understand the current issues of stakeholder engagement and eventually create a proposal that contributes to the execution of stakeholder engagement in complex projects. It became clear from the case study that there is currently no concrete process for executing stakeholder engagement, but that the demand to have a clearer process is there. The main contribution of this research is finding the gap between how the stakeholder engagement process is implemented in practice, what is written in literature and how the stakeholder engagement process can be improved using the information from the study. Results from the literature and case studies show there is not yet a stakeholder engagement process that uses the different project phases as foundation. Most literature studies mention that stakeholder engagement is important in all project phases but forget to mention the different processes in the different phases. However, as shown in the results of the case studies, successful stakeholder engagement depends on the different project phases and the communication of the project team. The roadmap is meant to standardize the stakeholder engagement process.

Case studies show that with the Environment and Planning Act, municipalities feel an increasing obligation to involve stakeholders in the plans but do not yet know how to do so. In the desired situation the roadmap should be used to decrease the uncertainty about how to engage the stakeholders and should increase the eventual stakeholder satisfaction, as well as the project team satisfaction.

One of the research gaps was that it is unclear what influence the external stakeholders have during a project, and when they should be involved in the development. This research developed a roadmap which gives tips and tools to be able to categorize the stakeholders according to influence as well as shows how to engage the stakeholders in the project.

Complex projects still experience failures due to inefficient stakeholder engagement. This research developed a roadmap to display the stakeholder engagement process. The roadmap can be used during all phases of the project, as it distinguishes the processes per project phase. The tool forces the stakeholder manager and project manager to focus on how engaging external stakeholders can help get project successes. It forces them to be open about the plans and the designs, which might ensure more trust from the stakeholders.

7.3 Limitations

The first limitation lays in the scope of the research. The scope of the research is limited to four cases. This limits the general applicability of the results from the cross-case data. These are only usable for the four cases. Therefore, future research is needed where the roadmap is tested and perfected on a bigger scale.

As well as the scope of the research based on what kind of projects are researched. In this research only projects commissioned by municipalities have been researched and used as case studies. Municipalities differ from other government authorities as they often have a way smaller team to work with. Government authorities often do have stakeholder managers, whereas with municipalities the project manager or process manager is also stakeholder manager often.

The third limitation is in the method of validation, for this research requirements are tested as well as validation interviews were held with independent experts. Although this is an effective way, it will not show if the roadmap actually works when it is being used as a guide. To test whether it can actually be used in theory, case studies should be done where the model is tested in practice.

The fourth limitation lies within the Environment and Planning Act. Since the act is not yet implemented in practice, there is no way of telling whether or not it works, and whether or not the external stakeholders are satisfied with the way they are engaged. In order to be able to do further research about this, it is necessary to wait until it comes into force.

7.4 Recommendations for future research

To validate the roadmap even more, it is advised to perform deepening case studies on the municipalities by getting more input from different external stakeholders. When the case studies will be conducted, it can be tested whether the process actually works and if it helps improve the stakeholder engagement process.

This research is mainly focused on the external stakeholders, in particular the residents and shop owners. However, another important external stakeholder that has not been considered in this study is politics. Politics need to be engaged differently than the external stakeholders

that have been interviewed for this research. It is recommended to do separate case studies with how this road map developed can work as a template for the basis of stakeholder communication with politics.

This research is focused on the responsibility of the client, not of the contractor. Depending on the choice of contract, the contractor can be responsible for the stakeholder management in the earlier phases. For future research, this could be researched to understand if there are differences between the responsibilities of the contractor and the client.

In this research, the Environment and Planning Act is used as a guide as it is not implemented in the Netherlands yet. When the Environment and Planning Act will come into force, it would be good to research whether or not the stakeholder engagement process is useful for the Environment and Planning Act.

One of the research for the future is to study other industries that deal with stakeholders. One of the industries that also deals with many external stakeholders is the healthcare sector. The healthcare sector has done a lot of research on stakeholder engagement, but the stakeholder engagement process made for this research might not fit in the health sector. External stakeholders such as patients, suppliers, and funders deal with different stakeholder engagement than the construction sector. Yet some of the same issues arise. Some of the sources used in this study are already from the healthcare sector. Future research could look at the different sectors and see where there is overlap, or whether it is possible to use the roadmap for the different sectors as well.

This research focuses on the stakeholder engagement process for four project phases. The wishes and requirements of external stakeholders are seen as an important part of the stakeholder engagement process. In order to get more knowledge on how to collect the client requirements (KES) of the different stakeholders and whether the client requirements can be based on characteristics of the external stakeholders, future social research should be done with external stakeholders to see which characteristics play a role in the KES process.

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Stakeholder engagement is one of the factors that can make or break a construction project's success. The topic of stakeholder engagement is a frequently discussed topic in project management. However, stakeholder disappointment is reported as one of the root problems for causing unsuccessful projects. This thesis focuses on the stakeholder engagement process and how to improve the way external stakeholders feel engaged. The research proposes a roadmap which showcases the stakeholder engagement process during the different project phases.



Chapter 9

Appendices

Appendix 1 - Regulations Environment and Planning Act



Ministerie van Binnenlandse Zaken en
Koninkrijksrelaties

Vernieuwing stelsel omgevingsrecht

Import track

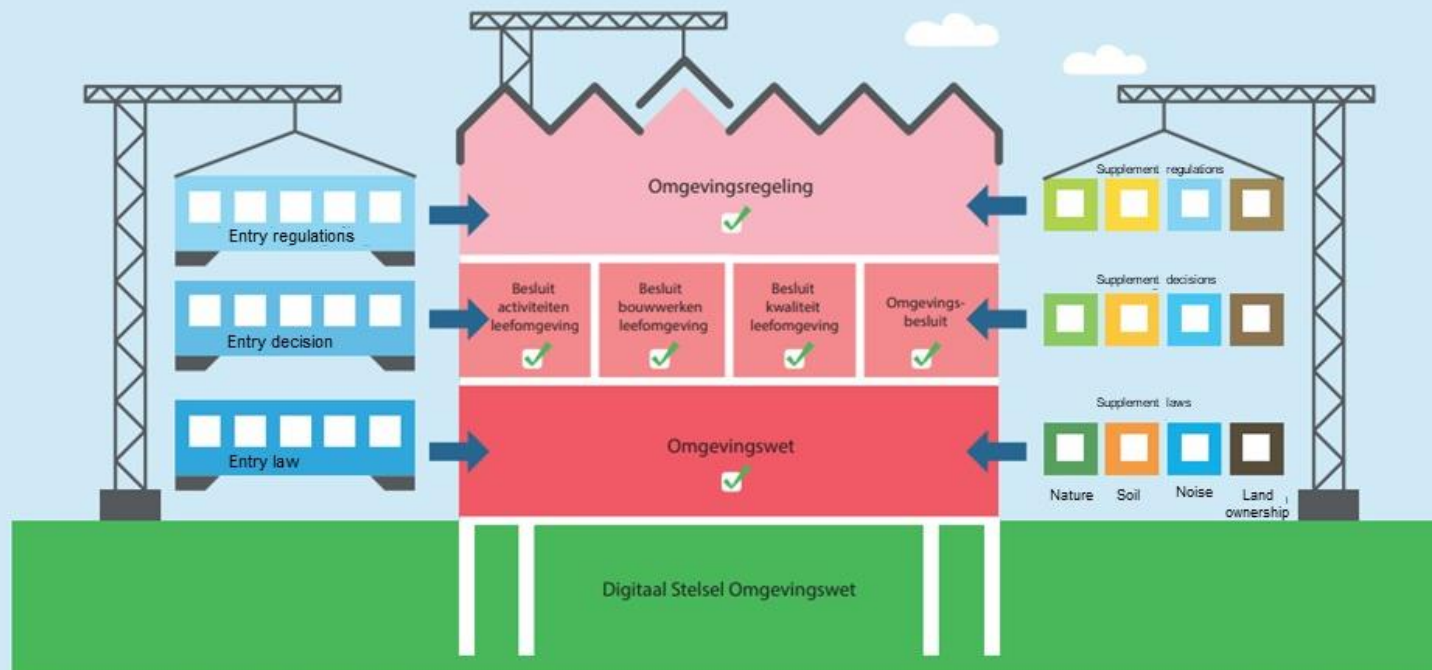
The import track regulates the transition from the existing to the new laws and regulations. In addition, this track complements the main track with some essentials.

Main track

The new plan consists of the Omgevingswet, four AMvB's and the Omgevingsregeling. Upon entry into force, the import and supplement tracks will merge into the main track.

Supplement track

The development of laws and regulations in the supplement track is part of ongoing policy developments in the areas of nature, soil, noise, and land ownership.



Een vinkje betekent dat het wetgevingsproduct is gepubliceerd in het Staatsblad.

Omgevingswetportaal.nl | november 2019

Appendix 2 - Consent letter

Informatie voor deelname aan wetenschappelijk onderzoek

Titel Onderzoek Improving stakeholder engagement under the Omgevingswet

Naam van onderzoeker: Susan Donders

Beste meneer of mevrouw,

Dit interview is gemaakt door onderzoekers van de Technische Universiteit Eindhoven en is deel van het onderzoek “Improving stakeholder engagement under the Omgevingswet”.

Het doel van dit onderzoek is om meer inzicht te krijgen in de wijze waarop verschillende stakeholders betrokken worden bij complexe projecten in Nederland en wat de invloed van de nieuwe omgevingswet hierop zal zijn.

Wij vragen u om mee te doen aan een wetenschappelijk onderzoek d.m.v. het deelnemen aan een interview met onderzoeker Susan Donders van de Technische Universiteit Eindhoven aan de hand van een vragenlijst over het bovengenoemd onderzoek. Voor deelname aan het onderzoek, het invullen van de vragenlijst en het analyseren en verwerken van de door U verstrekte informatie voor het uitvoeren van het genoemde onderzoek willen we uw toestemming vragen.

Meedoen is vrijwillig. Voordat u besluit of u wilt deelnemen aan dit onderzoek, krijgt u uitleg over wat het onderzoek inhoudt op het informatieblad op de volgende pagina met meer details over het onderzoek en gegevensverzameling. Lees deze informatie zorgvuldig door en vraag de onderzoeker om uitleg als u vragen heeft.

Met vriendelijke groet,

Susan Donders

Informatieblad voor onderzoek “Improving stakeholder engagement under the Omgevingswet”

1. Inleiding

U bent gevraagd om deel te nemen aan het onderzoek “Improving stakeholder engagement under the Omgevingswet”, omdat u te maken heeft met complexe projecten in de constructie sector.

Deelname aan dit onderzoek is vrijwillig: u besluit zelf of u mee wilt doen. Voordat u besluit tot deelname, willen wij u vragen de volgende informatie door te lezen, zodat u weet waar het onderzoek over gaat, wat er van u verwacht wordt en hoe wij omgaan met de verwerking van uw persoonsgegevens. Op basis van die informatie kunt u middels de toestemmingsverklaring aangeven of u toestemt met deelname aan het onderzoek en met de verwerking van uw persoonsgegevens.

U bent natuurlijk altijd vrij om vragen te stellen aan de onderzoeksleider via s.donders@student.tue.nl of deze informatie te bespreken met voor u bekenden.

2. Doel van het onderzoek

Dit onderzoek is opgezet door Susan Donders en wordt uitgevoerd onder supervisie van Dr. Q. (Qi) Han en Dr. Ir. C. (Claudia) Fecarotti. Het onderzoek betreft een samenwerking tussen de TU/e en Witteveen+Bos. Het doel van dit onderzoek is om meer inzicht te krijgen in de wijze waarop verschillende stakeholders betrokken worden bij complexe projecten in Nederland en wat de invloed van de nieuwe omgevingswet hierop zal zijn.

3. Wat houdt deelname aan de studie in?

U neemt deel aan een onderzoek waarbij we informatie zullen vergaren door:

- U te interviewen en uw antwoorden te noteren/op te nemen via een audio-opname/video-opname. Er zal ook een transcript worden uitgewerkt van het interview.

4. Welke persoonsgegevens verzamelen en verwerken wij van u?

Tijdens het onderzoek zullen er gegevens worden verzameld over uw:

- Naam en e-mail (voor contact)
- Functie
- Uitleg / meningen bij vragen

5. Potentiële risico's en ongemakken

Er zijn geen fysieke, juridische of economische risico's verbonden aan uw deelname aan deze studie. U hoeft geen vragen te beantwoorden die u niet wilt beantwoorden. Uw deelname is vrijwillig. Dit betekent dat u uw deelname op elk gewenst moment mag stoppen door dit te melden bij de onderzoeker. U hoeft niet uit te leggen waarom u wilt stoppen met deelname aan het onderzoek.

6. Vergoeding

U ontvangt voor deelname aan dit onderzoek geen vergoeding.

7. Vertrouwelijkheid van gegevens

Wij doen er alles aan uw privacy zo goed mogelijk te beschermen. De onderzoeksresultaten die gepubliceerd worden zullen op geen enkele wijze vertrouwelijke informatie of persoonsgegevens van of over u bevatten waardoor iemand u kan herkennen., tenzij u in ons toestemmingsformulier expliciet toestemming heeft gegeven voor het vermelden van uw naam, bijvoorbeeld bij een quote.

De gegevens worden verwerkt met goed beveiligde computersystemen waartoe onbevoegden geen toegang hebben. Om uw privacy te waarborgen, worden uw naam, contactgegevens en het project gescheiden van uw onderzoeksgegevens bewaard. Voorafgaand aan de verwerking van de interviewresultaten krijgt u een uniek deelnemersnummer toegewezen. Bij het invullen van alle formulieren en bij het opslaan van de gegevens in databestanden wordt alleen uw deelnemersnummer gebruikt, niet uw naam of e-mail. In de rapportage zullen resultaten niet herleidbaar zijn tot de identiteit van individuele deelnemers

De onderzoeksgegevens worden bewaard voor een periode van een half jaar. Uiterlijk na het verstrijken van deze termijn zullen de gegevens worden verwijderd of worden geanonimiseerd zodat ze niet meer te herleiden zijn tot een persoon.

TU Eindhoven garandeert dat uw gegevens alleen voor onderzoeksdoeleinden worden gebruikt. Uw gegevens zijn slechts toegankelijk voor daartoe bevoegde onderzoekers van de TU Eindhoven. Derden hebben geen toegang tot de verzamelde gegevens. In publicaties over het onderzoek zijn (de antwoorden van) individuele deelnemers op geen enkele wijze herkenbaar. Na afronding van het onderzoek zullen uw persoonlijke gegevens zoals naam, email, etc. vernietigd worden.

Tot slot is dit onderzoek beoordeeld en goedgekeurd door de ethische commissie van de Technische Universiteit Eindhoven.

8. Toegang tot u gegevens

Sommige personen kunnen op de onderzoek locatie toegang krijgen tot uw gegevens. Dit is nodig om te kunnen controleren of het onderzoek goed en betrouwbaar is uitgevoerd. Personen die ter controle inzage krijgen in uw gegevens zijn: de commissie die de veiligheid van het onderzoek in de gaten houdt en de begeleiders (supervisors) van onderzoeker Susan Donders. Zij houden uw gegevens geheim. Wij vragen u voor deze mogelijke inzage toestemming te geven.

9. Vrijwilligheid

Deelname aan dit onderzoek is geheel vrijwillig. U kunt als deelnemer uw medewerking aan het onderzoek te allen tijde stoppen, of weigeren dat uw gegevens voor het onderzoek mogen

worden gebruikt, zonder opgaaf van redenen. Het stopzetten van deelname heeft geen nadelige gevolgen voor u of de eventueel al ontvangen vergoeding.

Als u tijdens het onderzoek besluit om uw medewerking te staken, zullen de gegevens die u al hebt verstrekt tot het moment van intrekking van de toestemming in het onderzoek gebruikt worden.

Wilt u stoppen met het onderzoek, of heeft u vragen en/of klachten? Neem dan contact op met de onderzoeksleider. Susan Donders (s.donders@student.tue.nl; telefoon: +316 30 56 42 24)

Dit onderzoek wordt uitgevoerd vanuit de Technische Universiteit Eindhoven en is de verwerkingsverantwoordelijke in de zin van de AVG. Als u specifieke vragen hebt over de omgang met persoonsgegevens kun u deze ook richten aan de functionaris gegevensbescherming van de TU/e door een mail te sturen naar functionarisgegevensbescherming@tue.nl. U hebt daarnaast het recht om een klacht in te dienen bij de Autoriteit Persoonsgegevens.

Tot slot heeft u het recht een verzoek tot inzage, wijziging, verwijdering of aanpassing van uw gegevens te doen. Ga voor meer informatie naar <https://www.tue.nl/storage/privacy/>. Dien uw verzoek daartoe in via privacy@tue.nl.

10. Heeft u vragen?

Onderzoekers: Susan Donders (e-mail: s.donders@student.tue.nl)

Dr. Q. (Qi) Han (e-mail: q.han@tue.nl)

Ir. C. Claudia Fecarotti (e-mail: c.fecarotti@tue.nl)

Locatie: VRT. 9.10

The Built Environment

Eindhoven University of Technology

Ethical Review Board: Jolanda Habraken

j.m.habraken@tue.nl

Toestemmingsformulier voor deelname aan onderzoek

Voor het deelnemen aan een wetenschappelijk onderzoek is het belangrijk dat de deelnemers weten dat deelname volledig vrijwillig is en dat we uw toestemming nodig hebben om deel te nemen aan het onderzoek “Improving stakeholder engagement under the Omgevingswet”, en om de informatie die u in dit interview verstrekt te verwerken. Lees de onderstaande verklaringen aandachtig door. Als u het eens bent met onderstaande verklaringen, dan kunt u onderaan uw goedkeuring geven. Als u het niet eens bent met deze stellingen, kunt u de vragenlijst afbreken

***** Scroll naar beneden voor het toestemmingsformulier *****

Toestemmingsformulier voor deelname volwassene

Door dit toestemmingsformulier te ondertekenen erken ik het volgende:

1. Ik ben voldoende geïnformeerd over het onderzoek door middel van een separaat informatieblad. Ik heb het informatieblad gelezen en heb daarna de mogelijkheid gehad vragen te kunnen stellen. Deze vragen zijn voldoende beantwoord.
2. Ik neem vrijwillig deel aan dit onderzoek. Er is geen expliciete of impliciete dwang voor mij om aan dit onderzoek deel te nemen. Het is mij duidelijk dat ik deelname aan het onderzoek op elk moment, zonder opgave van reden, kan beëindigen. Ik hoef een vraag niet te beantwoorden als ik dat niet wil.

Naast het bovenstaande is het hieronder mogelijk voor verschillende onderdelen van het onderzoek specifiek toestemming te geven. U kunt er per onderdeel voor kiezen wel of geen toestemming te geven.

3. Ik geef toestemming om de persoonsgegevens die gedurende het onderzoek bij mij worden verzameld te verwerken zoals is opgenomen in het bijgevoegde informatieblad. (lees meer in paragraaf 4).

JA ☐ NEE ☐

4. Ik geef toestemming om tijdens het interview opnames (geluid/ beeld) te maken en mijn antwoorden uit te werken in een transcript. (lees meer in paragraaf 3).

JA ☐ NEE ☐

5. Ik geef toestemming om mijn antwoorden te gebruiken voor quotes in de onderzoek publicaties – zonder dat daarbij mijn naam wordt gepubliceerd. (lees meer in paragraaf 7).

JA ☐ NEE ☐

Deelnemer Onderzoek

Ik heb bovenstaande verklaringen gelezen en begrepen en ben het eens met de verklaringen.

Plaats, datum _____

Handtekening deelnemer interview: _____

Lid onderzoeksteam:

Ik heb me ervan vergewist dat ik deze deelnemer goed geïnformeerd heb over het onderzoek waaraan hij/zij gaat deelnemen. Ik heb mij ervan overtuigd dat deze persoon voldoet aan de selectiecriteria om aan bovengenoemd onderzoek deel te mogen nemen.

Plaats, datum _____

Handtekening deelnemer interview: _____

Appendix 3 - Interviews English

Interview to project manager/stakeholder manager

The project manager/stakeholder manager responsible for the project is contacted. This contact will contain the following information:

- Information about the research
- That this research is conducted together with the TU Eindhoven and Witteveen+Bos
- If the project manager is willing to conduct an interview of 1 to 1.5 hours
- Ask which external stakeholders were involved during the different phases of the project
- Why this project was selected for this research

Information given before the interview

If the project manager agrees to be interviewed, an appointment will be emailed. This email contains:

- Date, time, and place of the interview;
- A brief explanation about the subject and why the interview has to be conducted;
- The interview will take no longer than 90 min;
- Their names, answers, statements and also the project name will be coded in the thesis. It will be completely anonymous also for the exam committee;
- A device to record the interview will be used. Only the researcher can listen to it to retrieve the information;
- A PDF with the interview structure with all the questions will be send by email to the participant.

General guidelines for conducting the interview

- There is an emphasize on that the participant can answer freely and his statements and project name will be coded so it will be anonymous;
- The conversation will start with small talk;
- The conversations will not be steered towards a biased answer;
- Emphasize that the participant can stop at any time.

Background Information

First some information about the project manager/stakeholder manager is collected.

→ Can you describe your function and experience within your company?

- Function
- Responsibility
- Degree of education
- How long they have worked at the company

→ What was your role and responsibility within the project?

- Role
- Responsibility

Stakeholder Engagement

→ How were the stakeholder engaged and kept engaged in the Planning phase?

- Stakeholder management plan
- Difference in stakeholders
- Evaluation of the stakeholder management plan
- Evaluation of stakeholder satisfaction

→ How did the stakeholder engagement strategy work out in the Planning phase?

- For the stakeholders
- For the project team

→ Has a tool been used to measure stakeholder engagement?

Collaboration

→ How did you manage the collaboration between the project team and the stakeholders?

- Was there a common goal?
- Responsibility stakeholder manager
- Participatory process
- Decision making together
- Width and depth of participation
- Treatment of stakeholder characteristics
- Difference between external and internal stakeholders

Relationship between the project team and stakeholders

→ How was the relationship managed between project team and stakeholders?

- Were there conflict/how were they resolved
- Were the stakeholders involved at all time
- Openness (acknowledge imperfections)
- Trust (apologize in person)
- Cooperative
- Respectful
- Commitment towards the stakeholder engagement
- Acknowledge positive impact stakeholder have

→ How was the relationship managed between project team and external stakeholders?

- Were there conflict/how were they resolved
- Were the stakeholders involved at all time
- Openness (acknowledge imperfections)
- Trust (apologize in person)
- Cooperative
- Respectful
- Commitment towards the stakeholder engagement

- Acknowledge positive impact stakeholder have

→ **How was the relationship between you and the project team?**

- Interim feedback between PM and SM
- Regular feedback on stakeholder management plan
- Conflicts
- Informed at all times
- Data storage

Communication

→ **How did the communication go between project team and stakeholders?**

- Was there effective communication
- Were there regular communication meetings
- Was the communication planned
- Consult, early and often

Feedback/consulting

→ **How was the stakeholder engagement monitored, analyzed and if necessary adjusted?**

- Communication of feedback from stakeholders and monitored
- Conflicts analyzed and lessons learned
- Consulted stakeholders about adjustments of information timely
- Adjustment of stakeholder management plan

Omgevingswet

→ **Do you feel like the Omgevingswet will make the participation of external stakeholders harder to manage?**

- DSO
- Let external stakeholders participate from the beginning
- Involve stakeholders through interactive websites
- Participation ladder

End

→ **Do you have anything extra to add which can be used in improving the stakeholder engagement**

Interview with external stakeholders

The external stakeholders that are present in the project, like residents, NGO's, nature organizations, are contacted. This contact will contain the following information:

- Information about the research;
- That this research is conducted together with the TU Eindhoven and Witteveen+Bos;
- If the external stakeholder is willing to conduct an interview of 1 to 1.5 hours
- Why this project was selected for the research

Information given before the interview

If the external stakeholder agrees to be interviewed, an appointment will be emailed. This email contains:

- Date, time, and place of the interview;
- A brief explanation about the subject and why the interview has to be conducted;
- The interview will take no longer than 90 min;
- Their names, answers, statements and also the project name will be coded in the thesis. It will be completely anonymous also for the exam committee;
- A device to record the interview will be used. Only the researcher can listen to it to retrieve the information;
- A PDF with the interview structure with all the questions will be send by email to the participant.

General guidelines for conducting the interview

- There is an emphasize on that the participant can answer freely and his statements and project name will be coded so it will be anonymous;
- The conversation will start with small talk;
- The conversation will not be steered towards a biased answer;
- Emphasize that the participant can stop at any time

Background information

First some information about the external stakeholder is collected.

→ Can you describe your function and experience with the company?

- Function
- Educational background
- Degree of education
- Experience with the company

→ What was your role and responsibility within the project?

- Role
- Responsibility

Stakeholder Engagement

→ How were you as a project stakeholder engaged and kept engaged in the planning phase?

- Aware of stakeholder management plan

- Participation in the stakeholder management plan
- Implementation of the plan
- Evaluation of the stakeholder engagement strategy
- Evaluation of the stakeholder's satisfaction
- Adjustment of the stakeholder management plan

→ **How did this stakeholder engagement strategy work out for you?**

- Satisfied/Dissatisfied

→ **What could the project team have done better in regard to keeping you engaged in the project?**

Collaboration

→ **How did the collaboration between you and the project team go?**

- Was there a common goal?
- Participatory process
- Did they help making decisions?
- Did they push you
- Treatment

Relationship between the project team and stakeholders

→ **How was the relationship between the project team and you?**

- Were there any conflicting situation
- Were you informed sufficiently before and during the planning phase?
- Are you satisfied about the relationship?
- Trust
- Respectful
- Commitment of the project team towards the stakeholder engagement

Communication

→ **How was the communication between project team and you as project stakeholder?**

- Regular meetings
- Regular updates
- Effective communication
- Planned information days
- Time for feedback
- Information communicated
- Consulted

Feedback/consulting

→ **How was your engagement monitored, analyzed and if necessary adjusted?**

- Communication of feedback and monitoring
- Conflicts analyzed and learned from
- Changing stakeholder information
- Adjustment of the stakeholder management plan

Omgevingswet

→ The Omgevingswet will soon require initiators to show from the beginning who and when stakeholders are involved. Here participation will be very important. How would you like to bring out your decisions from the beginning?

End

→ Do you have anything extra to add which can be used in improving the stakeholder engagement?

Interview project manager/omgevingsmanager

Er wordt contact opgenomen met de project manager/omgevingsmanager die verantwoordelijk is voor het project. Dit contact zal de volgende informatie bevatten.

- Informatie over het onderzoek;
- Dat dit onderzoek wordt uitgevoerd in samenwerking met de TU Eindhoven en Witteveen+Bos;
- Of de projectmanager/omgevingsmanager bereid is voor een gesprek van 1 tot 1,5 uur;
- Vraag welke externe stakeholders betrokken waren tijdens het project;
- Waarom dit project is geselecteerd voor dit onderzoek.

Voor het interview verstrekte informatie

Als de projectmanager akkoord gaat met een interview, wordt per e-mail een afspraak gemaakt. Deze e-mail bevat:

- Datum, tijd en plaats van het interview;
- Een korte uitleg over het onderwerp en waarom het interview wordt afgenomen;
- Het interview zal niet langer dan 90 minuten duren;
- Hun namen, antwoorden, verklaringen en ook de naam van het project zullen in het eindwerk worden gecodeerd. Het zal ook voor de examencommissie volledig anoniem zijn;
- Er zal een mobiel worden gebruikt om het interview op te nemen. Alleen de onderzoeker kan ernaar luisteren om de informatie te achterhalen;
- Een PDF met de structuur van het interview met alle vragen zal per e-mail aan de deelnemer worden toegestuurd.

Algemene richtlijnen voor het afnemen van het interview

- Er wordt benadrukt dat de deelnemer vrij kan antwoorden en dat zijn uitspraken en projectnaam zullen worden gecodeerd, zodat de anoniem zal zijn;
- Het gesprek zal beginnen met 'smalltalk';
- De gesprekken zullen niet in de richting van een vooringenomen antwoord worden gestuurd;
- Benadruk dat de deelnemer op elk moment kan stoppen.

Achtergrondinformatie

Eerst wordt enige informatie over de projectmanager/omgevingsmanager verzameld.

→ Kunt u uw functie en ervaring binnen uw bedrijf beschrijven?

- Functie
- Verantwoordelijkheid
- Onderwijs
- Hoe lang ze al bij het bedrijf werken

→ Wat was uw rol en verantwoordelijkheid binnen het project?

- Rol
- Verantwoordelijkheid

Betrokkenheid van belanghebbenden

→ Hoe zijn de belanghebbenden bij de planning betrokken en hoe zijn zij daarbij betrokken gebleven?

- Stakeholder management plan
- Verschil in belanghebbenden
- Evaluatie van het stakeholder management plan
- Evaluatie van de tevredenheid van de belanghebbenden

→ Hoe heeft de stakeholder engagement strategie in de planningsfase uitgepakt?

- Voor de belanghebbenden
- Voor het projectteam

→ Is er gebruik gemaakt van een tool om de stakeholder engagement te meten?

Samenwerking

→ Hoe denkt u dat de omgeving het heeft ervaren? Heeft u dat onderzocht?

→ Hoe werd de samenwerking tussen het projectteam en de belanghebbenden beheerd?

- Was er een gemeenschappelijk doel?
- Verantwoordelijkheid stakeholder manager
- Participatieproces
- Samen beslissingen nemen
- Breedte en diepte van participatie
- Behandeling van kenmerken van belanghebbenden

Relatie tussen het projectteam en de belanghebbenden

→ Hoe werd de relatie tussen het projectteam en de belanghebbenden beheerd?

- Waren er conflicten/hoe werden die opgelost
- Waren de belanghebbende ten alle tijden betrokken
- Openheid (erkennen van fouten)
- Vertrouwen (persoonlijk verontschuldigen)
- Coöperatie
- Respectvol
- Inzet voor de betrokkenheid van belanghebbenden
- Erken de positieve invloed die belanghebbenden hebben

→ Hoe was de relatie tussen u en het projectteam?

- Tussentijdse feedback tussen PT en OM
- Regelmatige feedback over het stakeholder manager plan
- Conflicten
- Te allen tijde op de hoogte brengen
- Gegevensopslag

Communicatie

→ **Hoe verliep de communicatie tussen projectteam en stakeholders?**

- Was er doeltreffende communicatie
- Waren er regelmatige vergaderingen
- Was de communicatie meetings gepland
- Raadpleeg, vroeg en vaak

Feedback

→ **Wat denkt u dat de omgeving vond van de betrokkenheid?**

→ **Hoe is de betrokkenheid van de belanghebbenden gemonitord, geanalyseerd en zo nodig bijgestuurd?**

- Mededeling van feedback van belanghebbenden en gemonitord
- Geanalyseerde conflicten en daaruit lessons learned
- Belanghebbenden tijdig geraadpleegd over aanpassingen van de informatie
- Aanpassing van het stakeholder management plan

Omgevingswet

→ **Heeft u het gevoel dat de Omgevingswet het moeilijker zal maken om de participatie van externe belanghebbenden te beheren?**

- DSO
- Externe belanghebbenden vanaf het begin laten participeren
- Betrekken van belanghebbenden via databanken
- Participatieladder

Einde

→ **Hebt u nog iets toe te voegen dat kan worden gebruikt om de betrokkenheid van belanghebbenden te verbeteren?**

→ **Heeft u nog tips voor mij om te gebruiken bij volgende interviews?**

Interview met externe belanghebbenden

Er wordt contact opgenomen met de externe belanghebbenden die bij het project betrokken zijn, zoals bewoners, NGO's, natuurorganisaties. Dit contact zal de volgende informatie bevatten.

- Informatie over het onderzoek;
- Dat dit onderzoek wordt uitgevoerd in samenwerking met de TU Eindhoven en Witteveen+Bos;
- Of de externe stakeholder bereid is voor een gesprek van 1 tot 1,5 uur;
- Waarom dit project is geselecteerd voor dit onderzoek.

Voor het interview verstrekte informatie

Als de externe stakeholder akkoord gaat met een interview, wordt per e-mail een afspraak gemaakt. Deze e-mail bevat:

- Datum, tijd en plaats van het interview;
- Een korte uitleg over het onderwerp en waarom het interview wordt afgenomen;
- Het interview zal niet langer dan 90 minuten duren;
- Hun namen, antwoorden, verklaringen en ook de naam van het project zullen in het eindwerk worden gecodeerd. Het zal ook voor de examencommissie volledig anoniem zijn;
- Er zal een mobiel worden gebruikt om het interview op te nemen. Alleen de onderzoeker kan ernaar luisteren om de informatie te achterhalen;
- Een PDF met de structuur van het interview met alle vragen zal per e-mail aan de deelnemer worden toegestuurd.

Algemene richtlijnen voor het afnemen van het interview

- Er wordt benadrukt dat de deelnemer vrij kan antwoorden en dat zijn uitspraken en projectnaam zullen worden gecodeerd, zodat de anoniem zal zijn;
- Het gesprek zal beginnen met 'smalltalk';
- De gesprekken zullen niet in de richting van een vooringenomen antwoord worden gestuurd;
- Benadruk dat de deelnemer op elk moment kan stoppen.

Achtergrondinformatie

Eerst wordt enige informatie over de projectmanager verzameld.

→ Kunt u uw functie en ervaring met het bedrijf beschrijven?

- Functie
- Opleidingsachtergrond
- Onderwijs
- Ervaring met het bedrijf

→ Wat was uw rol en verantwoordelijkheid binnen het project?

- Rol
- Verantwoordelijkheid

Betrokkenheid van belanghebbenden

→ Hoe werd u als belanghebbenden bij het project betrokken en betrokken gehouden in de planningsfase?

- Op de hoogte van het stakeholder management plan
- Deelname aan het stakeholder management plan
- Uitvoering van het plan
- Evaluatie van de stakeholder engagement strategie
- Evaluatie van de tevredenheid
- Aanpassing van het stakeholder management plan

→ Hoe heeft de stakeholder engagement strategie in de planningsfase uitgepakt?

- Tevreden/Ontevreden

→ Wat had het projectteam beter kunnen doen om u bij het project betrokken te houden?

Samenwerking

→ Hoe verliep de samenwerking tussen u en het projectteam?

- Was er een gemeenschappelijk doel?
- Participatieproces
- Samen beslissingen nemen
- Hebben ze je geduwd naar een beslissing
- Behandeling

Relatie tussen het projectteam en de belanghebbenden

→ How was de relatie tussen het projectteam en u?

- Waren er conflicten/hoe werden die opgelost
- Werd u voor en tijdens de planningsfase voldoende geïnformeerd
- Bent u tevreden over de relatie
- Vertrouwen
- Respectvol
- Betrokkenheid van het projectteam bij de betrokkenheid van de belanghebbenden

Communicatie

→ Hoe was de communicatie tussen het projectteam en u als belanghebbenden bij het project?

- Regelmatige vergaderingen
- Regelmatige updates
- Doeltreffende communicatie
- Geplande informatiedagen
- Tijd voor feedback
- Medegedeelde informatie
- Geraadpleegd

Feedback

→ Hoe werd uw inzet gecontroleerd, geanalyseerd en zo nodig bijgestuurd?

- Mededeling van feedback en monitor
- Geanalyseerde conflicten en daaruit lessons learned
- Wijziging van informatie
- Aanpassing van het stakeholder management plan

Omgevingswet

→ De Omgevingswet eist straks van initiatiefnemers dat zij vanaf het begin laten zien wie en wanneer de belanghebbenden betrokken zijn. Participatie zal hier heel belangrijk zijn. Hoe wilt u uw besluiten vanaf het begin naar buiten brengen?

Einde

→ Hebt u nog iets toe te voegen dat kan worden gebruikt om de betrokkenheid van belanghebbenden te verbeteren?

Appendix 5 - Case study interview reasoning

3.1.3 Case study interviews

There are several types of interviews that can help answer the research question. Depending on the preferred interview outcome an interview type is chosen. According to Mathers et al. (1998), there are three main types of interviews: structured, semi-structured, and unstructured. Structured interviews allow the interviewer to ask the same question in the same way to each respondent. A structured interview looks very similar to a questionnaire, because a strictly structured set of questions is used to interview the respondent.

The other type, the semi-structured interview, consists of a series of open-ended questions that relate to the topic the researcher wishes to address. It is a more open-ended interview in which the respondent and interviewer have an opportunity to discuss some topics in detail. Well-planned semi-structured interviews require a lot of preparation.

Unstructured or in-depth interviews are the last type of interview. The interviewer begins the interview with the goal of discussing only a few topics and asks questions according to the interviewee's previous response.

For this research, the interviews are semi-structured. The interviews are semi-structured to get the respondent to answer openly and flexibly. Klenke et al. (2016) and Nomnian (2009) provide an overview of the advantages and disadvantages of using semi-structured interviews. This is compromised in Table 12.

Table 13 (Dis)advantages of semi-structured interviews (compromised from (Klenke et al., 2016; Nomnian, 2009))

Advantages	Disadvantages
Positive report between interviewer and interviewee	Dependent on interviewer's skill and respondent's ability to articulate answers
Results in high reliability	
Addresses and clarifies complex issues	Not very reliable
Reduce prejudgments on part of the interviewer	Depth of information difficult to analyze Limited generalizability
Allows the researcher and interviewee to pursue topics of interests which may not have been foreseen when the questions were originally drawn up.	Lack of validity Interviewees' responses may be based on the emotional impact or the perceived purpose of the interviewers.
Semi-structured interviews allow researchers to adapt the main questions to suit interviewees' complementary roles in order to explore their different perspectives in depth.	

Appendix 6 - Interview comparison table

	A	B	C	D
1. Implementing a stakeholder engagement plan				
Plan				
What is included in the plan				
When is the plan used				
Who will be using the plan				
In practice				
When was the plan used				
Who has used the plan				
How is the plan used				
2. Involving stakeholders early in the activities				
Plan				
Who are the stakeholders				
How much power do the stakeholders have				
In what phase will the stakeholders be involved				
In practice				
How much power did the stakeholders have				
In what phase have the stakeholders been involved				
Has the project team been open about the plans from the start				
3. Evaluating the stakeholder engagement process				
4. Based on the last activity, adjust the plan				
Plan				
What does it say about changing the plans				
Who will be responsible for keeping up with the plans				
In practice				
Have the plans been changed				
Who was responsible for adjusting the plans				
1. Stakeholder identification and categorization of stakeholders according to their influence				
Plan				
Which tools have been used to identify the stakeholders				
How are external stakeholders defined				
In practice				
Have the tools added extra insight in identifying the stakeholders				
How should external stakeholders be defined				
2. Stakeholder plan				
Plan				
How has the collaboration been planned				
In practice				
How do the different parties perceive the collaboration				
4. Decision-making process				
Plan				
What does the plan say about helping with the decision-making process				
Did the project use tools to get concerns and wishes from the external stakeholders				
In practice				
How has the decision-making process been				
5. Relationship management				
Plan				
How will the project team communicate with the external stakeholders				
In practice				
How has the communication been with the external stakeholders				
Was the project team open about the plans				
6. Feedback and monitoring				
Plan				
Does the plan mention feedback and monitoring				
In practice				
Have there been feedback moments				
7. Keep stakeholders engaged throughout the entire process				

	Project A	Project B	Project C	Project D
1. Implementing a Stakeholder Engagement Plan				
Plan				
What is included in the plan	For Project A there are two plans made to determine the stakeholder engagement. A communication plan and a BLVC-plan. The communication plan is divided into several parts: Stakeholder's analysis; Purpose of communication; Method of communication. The BLVC-plan is describing the tasks of the stakeholder manager during the implementation phase.	For Project B there is an implementation plan made, as well as a standard stakeholder plan for the districts, which shows how communication and stakeholder engagement should occur. The implementation plan was prepared based on several reference documents, as this is a smaller project of a larger development. The BLVC plan is a document that does not actually include stakeholder engagement strategies, but rather addresses communication methods.	Project C has a plan for the implementation phase called BLVC-plan. The complete main construction phase is included in the BLVC plan. The first part of the BLVC Plan contains an explanation of the project, which includes the administrative details of the project, the project location, and a description of the work. The second part describes the project's surroundings. What routes run through the area, what features, and facilities need special attention during activities. The final chapter describes the conditions that apply to the implementation of Project C. The conditions are described in terms of accessibility, quality of life, safety, and communication.	For Project D there are two plans made to determine the stakeholder engagement together with the stakeholders. The participation plan defines for all stakeholders their level of participation and how they will participate in the plans. The goal of the BLVC-plan is to ensure accessibility, livability, safety, and communication in the project area.
When is the plan used	The communication plan is used during the contracting phase to get the concerns and wishes from the external stakeholders and determine how the communication should be during this phase. The BLVC-plan is used during the implementation phase. This states the tasks that have to be done during the implementation phase for the stakeholder manager.	The plan is used for the implementation phase. The engagement plan was used for earlier phases.	The plan is used during the implementation phase.	The participation plan is used for the initial phases. The BLVC-plan is used during the implementation phase.
Who will be using the plan	The communication plan is mostly used by the stakeholder manager and project manager of the municipality to get information from the external stakeholders. The BLVC-plan is used by the contractor and the municipality for the stakeholder engagement.	The plan is used by the contract manager and the stakeholder manager	The plan is used by the project manager	The plan is used together with the stakeholders by the process manager
In practice				
When was the plan used	The communication plan and the BLVC plan were implemented to engage stakeholders in both the contracting phase and execution phase.	The plan was used during the implementation phase to engage stakeholders	The plan was used during the implementation phase to ensure accessibility, quality of life, safety, and communication.	The participation plan and the BLVC plan were implemented to engage stakeholders in both the contracting phase and execution phase.

Who has used the plan	It was mainly used by the stakeholder managers from both the municipality and the contractor to use as a guide to get stakeholders engaged in the project.	The plan has mainly been used by the contractor, contract manager and project manager	The plan has mainly been used by the contractor and project manager	It was mainly used by the stakeholder managers from both the municipality and the contractor to let stakeholders know how they would be engaged.
How is the plan used	As a guideline to get stakeholders engaged in the project	For Project B, the plan was not really used as a guide, but rather was used to establish requirements with the stakeholders.	For Project C, the plan was not really used as a guide, but rather was used to establish requirements with the stakeholders.	As a guide to get stakeholders engaged and to let stakeholders know how they will be engaged
2. Involving stakeholders early in the activities				
Plan				
Who are the stakeholders	There are different stakeholders identified in the communication plan. Were the communication plan is highlighting the external stakeholders in the project and less the internal stakeholders.	There are different stakeholders identified in the BLVC-plan. There are different external stakeholders present in the area that have been identified by the municipality prior to the project.	The plan does not identify stakeholders in detail, and it is difficult to identify which stakeholders are present in the area.	There are different stakeholders identified in the plans. Were the participation plan highlights the external stakeholders in the project.
How much power do the stakeholders have	External stakeholders have been divided in the power interest matrix to see how much power they have in the project.	It does not state in the plan how much influence the stakeholders have.	The plan does not state how much influence the stakeholders have in the project.	The plan categorizes the stakeholders into different groups of power.
In what phase will the stakeholders be involved	External stakeholders have been involved since the concept phase and got more involved in the contracting phase.	External stakeholders have been involved from on the contracting phase.	External stakeholders have been involved from on the implementation phase.	Stakeholders have been involved from on the initial phases
In practice				
How much power did the stakeholders have	Project A did not have extensive participation at the beginning of the project. They had a consulting role during the project.	Project B did involve stakeholders from the beginning but decided to inform them, rather than let them advise on the plans. However, with other projects in the development they have now chosen to let stakeholders advise on the plans and environmental vision that has to be implemented in 2022.	The stakeholders were not involved early on in the process and the engagement with the stakeholders was not a lot. Because of this stakeholder did not have a lot of power in the project.	Project D did involve stakeholders from the very beginning and decided based on the participation ladder and groups how much power they had in the project.
In what phase have the stakeholders been involved	External stakeholders have been involved since the concept phase and got more involved in the contracting phase. They would have liked to be engaged more during the concept phase.	The external stakeholders have been involved during the contracting phase and the implementation phase. They are satisfied with the way they have been involved.	External stakeholders have been asked for input in the contracting phase and got more engaged during the implementation phase.	External stakeholders have been involved since the initial phases.

Has the project team been open about the plans from the start	Stakeholders would have liked if the municipality would have been more open about the plans about what could and what could not be done.	The project team have been open from the start about the plans, they even set up information evenings for the whole city.	The project team has been open about the plans, but the plans were very hard to read for someone who does not have construction knowledge.	For Project D there was extensive engagement from the very beginning, where the municipality was open and straightforward about what could and what could not be done. Stakeholders helped with writing the stakeholder engagement plan, making it easier for the municipality to make agreements, this led to a smooth stakeholder engagement process.
3. Evaluating the stakeholder engagement process	The stakeholder engagement process was evaluated via an audit by an external auditor. As well as via a satisfaction survey. Stakeholders indicate they wish they could have provided feedback on the stakeholder engagement process during every phase, so the other phases could be improved	The plans were not evaluated and only monitored timely in Project B; The municipality does wish they would do this more often with the help of stakeholders.	The plans were not evaluated and only monitored timely in Project C. The municipality has done this more in later projects.	Plans were adjusted after evaluating it every phase. This was done by individual meetings with the stakeholders asking about their opinion and the way they want to be engaged.
4. Based on the last activity, adjust the plan				
Plan				
What does it say about changing the plans	The plan does not mention changing the plans, it does mention that stakeholders' power can change during the course of the project.	The plan does not mention changing the plans.	The plan does not mention changing the plans.	The plan should be adjusted when evaluation has passed.
Who will be responsible for keeping up with the plans	The responsible person for the plans is the project manager of the municipality.	The contract manager is responsible for the plans	The project manager is responsible for the plans	The process manager and the advice stakeholder manager are responsible for the plans.
In Practice				
Have the plans been changed	The plans have not been changed in the course of the project. They did not evaluate the plans, so it did not have to be adjusted. The municipality does want to do this more often to improve the stakeholder engagement.	The plans have not been changed in the course of the project. They did not evaluate the plans, so it did not have to be adjusted. The municipality does want to do this more often to improve the stakeholder engagement.	The plans have not been changed over the course of the project. They did not evaluate the plans, so it did not have to be adjusted.	Plans were adjusted after evaluating it every phase. This was done by individual meetings with the stakeholders asking about their opinion and the way they want to be engaged.
Who was responsible for adjusting the plans	The responsible person for the plans is the project manager of the municipality.	The responsible person for the plans is the contract manager	The responsible person for the plans was the project manager	The process manager and the advice stakeholder manager were responsible for the plans.
1. Stakeholder identification and categorization of stakeholders according to their influence				
Plan				

Which tools have been used to identify the stakeholders	For Project A, a power/interest matrix was used. More than anything else direct thinking was used to identify the stakeholders. In the plan, a small assessment was made of what kind of stakeholders were likely to be present in the project by creating a power/interest matrix, using common sense, and based on what they knew about different projects. In other words, without asking questions to the stakeholders in the area.	Stakeholders were identified using communication method. However, the project did not use a specific tool like Project A to identify its stakeholders. however, the municipality has a variety of such matrices in various documents. These documents are updated on a regular basis. This project is part of a larger project, so it was not necessary to identify stakeholders.	An area scan has been done to identify its stakeholders.	Project D provides a stakeholder analysis in both documents. In the Participation Plan, stakeholders are first analyzed and then categorized based on interest (low, moderate, high, very high) and degree of influence. In the BLVC plan, stakeholders are again identified for the implementation phase. First, the area is scanned by examining what is in the area. For example, residents and businesses. Then the stakeholders in the area are listed and grouped. Here it is clear to see that the stakeholders have changed from the participation plan, as the participation plan included more external stakeholders such as the province.
How are external stakeholders defined	External stakeholders are defined in the plans as "stakeholders that do not have contractual relations with the client"	External stakeholders have not been defined in the plans	The external stakeholders include stakeholders that will be directly or indirectly affected by the implementation of the project.	External stakeholders have been defined as "stakeholders that do not have contractual relations with the project" Tangent projects are included here as external stakeholders.
In Practice				

Have the tools added extra insight in identifying the stakeholders	The tool was mostly used to identify and categorize the stakeholders on their power. In practice it was not used as much as the tools are supposed to. The municipality states that it was a great way to identify the stakeholders in the beginning phase, but they did not change it later.	Tools have not really been used	Stakeholders were identified in the initial phase, but due to the rapid change of external stakeholders in this community, most of the identified stakeholders were not present in the later phases. According to the project manager, this could be improved by identifying stakeholders in the different phases of a project. This is especially necessary for complex projects with a long-time frame.	Project D identifies the stakeholders per project phase. They use the power, urgency, and legitimacy technique to identify and categorize stakeholders. This was not the case for one of Project D's projects. In Project D-1, stakeholders were not adequately identified, which led to conflict from the beginning. In Project D-2, stakeholders were identified for each phase of the project so that stakeholders felt included. To categorize the stakeholders, they made use of the participation ladder in Project D. This has come out as a great solution as stakeholders knew how much power they had as the project manager states, however when asking stakeholders and looking at news documents, there is shown that many stakeholders still do not really know where they can give input in to.
How should external stakeholders be defined	External stakeholders should be defined as "stakeholders that do not have contractual relations with the client"	External stakeholders should be defined as "stakeholders that do not have contractual relations with the project"	External stakeholders should be defined as all those who are directly or indirectly affected by the implementation of the project.	External stakeholders have been defined as "stakeholders that do not have contractual relations with the project" Tangent projects are included here as external stakeholders.
2. Stakeholder plan				
Plan				

How has the collaboration been planned	The purpose of the stakeholder engagement process for Project A is to identify the project's audiences that you need to consider and communicate with. Based on the stakeholder analysis and/or if a stakeholder comes up during the implementation phase, there will be a coordination with that stakeholder to reach good agreements.	Project B created a plan that showed what communication tools would be used to engage each stakeholder group.	There is no mention that a communication plan has been created for this project. Nor has a plan been created to plan the collaboration	Project D provides a plan for stakeholder engagement in both plans. The objective of engagement within the project in the policy development phase is to arrive at a participative decision, together with the stakeholders and surroundings. They use different communication tools to plan engagement, for example 1-on-1 meetings. In the BLVC-plan the objective of engagement within the project is to have stakeholders that are satisfied with the implementation of the works. They use different communication tools to inform stakeholders about the works, for example resident letters.
In Practice				
How do the different parties perceive the collaboration	The collaboration between the project team and stakeholders was found to be fine in the initial phases and satisfactory in the implementation phase. This was mainly due to good communication between the managers of the project and the external stakeholders.	To collaborate with stakeholders, the client and contractor worked together on the project. The collaboration between the stakeholders and the project team was felt to be very good by the interviewees and stakeholders at all stages. There was definitely a sense of common purpose. They state that this was partly because the implementation phase went very well, and the contractor was open about their collaboration.	All in all, the collaboration was fine. The project manager made sure to go to the homes of people she had not yet spoken with to understand their needs. However, the municipality would have liked the stakeholders to collaborate more with the project team. This could have been done by actively engaging them in planning and implementation to build a better relationship.	The collaboration with the stakeholders went very well according to both stakeholders and project manager. There was a sense of common goal. Stakeholders were treated fairly. Due to the good complaint management during the implementation phase, they felt included in the implementation phase as well.
4. Decision-making process				
Plan				
What does the plan say about helping with the decision-making process	The plan indicated that it would hold individual discussions with stakeholders, if they requested it, as part of the decision-making process.	The plan indicates it has done informational meetings with the external stakeholders to get help with the design and planning.	The plan indicates that stakeholders were invited to participate in the process, but there was not much response.	To make the decision-making process strong with stakeholders, the municipality has grouped the stakeholders into different ladders of the participation ladder

Did the project use tools to get concerns and wishes from the external stakeholders	At the beginning of the project, the team conducted a brief survey of residents and business owners using a questionnaire. The purpose was to determine what stakeholders' thought was important to the success of the project	The municipality held informational meetings to get information from the different external stakeholders.	Informational evenings	The participation ladder was used to see how decisions should be made
In practice				
How has the decision-making process been	For Project A, there were only a few people who decided to participate in the decision-making process. This is for the municipality a lesson learned, they know that there are many people who think the project is very important but are less willing to participate in the decision-making process. This leads to the exclusion of many important stakeholders.	For Project B, stakeholders were involved very early on. They helped in the process of decision-making by providing requirements and requests for the design. One this the municipality made sure of was to be open about the plans, even going so far as to hold city meetings where everyone was invited.	External stakeholders were invited to participate in the decision-making process, but there was not much response. The municipality and the project manager see this as a great loss and will take a more open attitude in future projects to involve stakeholders more in the project.	To sufficiently frame the decision-making process with stakeholders, the municipality for Project D grouped stakeholders into different steps of the participation ladder. From this, they derived four groups. Stakeholders consider this very sufficient because they knew what their roles were.
5. Relationship management				
Plan				
How will the project team communicate with the external stakeholders	To ensure effective collaboration and a good relationship, the plan suggest communication through a pre-project survey, information days, and individual meetings.	To ensure effective collaboration during the implementation phase the municipality has appointed a stakeholder manager and contract manager that will be present on the site to answer the concerns and the wishes, there will be complaint management 24/7	During the preparation and implementation of the project, environmental management and related communications are handled by the client. Questions and complaints that can be answered by the contractor are forwarded by the client. They are then answered within 1 business day	To make sure there is a mutual understanding and good relationship between the project team and the stakeholders, the municipality have chosen to use a participatory approach. As mentioned above, stakeholders were categorized into different groups. Based on the level of participation the municipality have chosen a way of informing, discussing etcetera with the stakeholder.
In practice				

How has the communication been with the external stakeholders	The municipality mentions there have been complaints and anger from citizens about the way the municipality handled participation. The stakeholders mention that it took time for the municipality to get their wishes and concerns on paper as the project team was stubborn in their plan and it was hard to change the outcome. The contractor organizes meetings together with the municipality and as indicated in the communication plan, has an app through which all information about the works is shared.	Before the bidding phase, the municipality of Project B organized several information evenings to coordinate the design with the surrounding areas. The relationship management was very good, the stakeholders were satisfied, because in this project all stakeholders were treated equally.	The relationship between the project team and stakeholders was considered to be fine. However, communication was very often one-sided. In other projects, this was improved by showing drawings of the plans to make them readable for the external stakeholders. In this way, stakeholders feel more involved in the process and can express their thoughts.	Project D stakeholders have been engaged throughout the project life cycle. The municipality places a high value on stakeholder satisfaction. However, the process manager mentions that this is often done too much by the city council, resulting in a large time overrun. He would like to see a more advisory role for stakeholders when it comes to getting them involved. City Council often agrees with stakeholders, which can result in a project that does not quite meet the plan. A good tip would be to look at the impact of the project on stakeholders to determine how stakeholders should be involved in the project.
Was the project team open about the plans	Stakeholders wish the municipality would have been more open about plans and what could not be done.	The municipality made sure of was to be open about the plans, even going so far as to hold city meetings where everyone was invited.	There were not many informational discussions in the early stages and during implementation. In addition, the information given was often not understandable to some external stakeholders.	The project team was very open about the plans, the process manager reckons this is done too much, and for the next projects the parts that are important to the external stakeholders should be communicated.
6. Feedback and monitoring				
Plan				
Does the plan mention feedback and monitoring	The plan does not mention anything about feedback moments.	The plan does not mention anything about feedback moments	The plan does not specify how feedback and monitoring will be provided to stakeholders and on the stakeholder engagement process.	<p>During 1-on-1 meetings and walk-in evenings stakeholders have the change to give feedback on the stakeholder engagement process, however, there is no specific date set for these moments. Neither is there a tool that will make sure stakeholders can give feedback and monitoring.</p> <p>The plan does mention that the participation plan is drafted together with the stakeholders. This is a way to ask for the way they want to have feedback and monitoring.</p>

In practice				
Have there been feedback moments	For Project A, there were no specific assessments, feedback, or monitoring of stakeholder engagement. This is an issue that both the external stakeholders and the project team see as an opportunity for improvement in the next projects.	Project B had no structural assessments, feedback, or monitoring of stakeholder engagement and satisfaction. According to the interviewees, this was achieved through informal discussions. The municipality would like to do this more and considers it a very important step in the SE process, but often neglected due to cost and time constraints.	There is no feedback and/or monitoring of the stakeholder engagement process at all stages. They see this as a possible point of improvement for the next projects.	During the 1-to-1 meeting and walk-in evening, stakeholders had the opportunity to provide feedback on the SE process. The plan mentioned that the participation plan would be created with the stakeholders. This is an opportunity to ask for how they would like feedback and monitoring.
7. Keep stakeholders engaged throughout the entire process	In the initial phases, the client appointed a project manager who communicated the overall measures with the key stakeholders in the environment. He was responsible for gathering stakeholder requirements and concerns. During the implementation phase, stakeholders were kept informed of project developments through various media. The information from the various stakeholders was gathered by the advisory board, which was a great solution for the municipality to get input from various stakeholders. They mention that this was only possible because the advisory board was very involved with the surrounding stakeholders. If this had not been the case, the stakeholders would have mostly just been informed.	Stakeholders have been engaged throughout the life cycle of Project B by keeping them informed of the process. The municipality is currently undertaking another project in which it is actively engaging stakeholders by creating an advisory board to help engage area stakeholders.	Throughout the project, residents viewed the client's project manager as the person to contact with all their questions/problems regarding the project. During the project, stakeholders were kept informed through citizen letters.	Stakeholders have been engaged throughout the life cycle of Project D by keeping them informed based on their power in the project.

Appendix 7 - Summary Case Study Project A

The following participants were interviewed for this case study:

The project teams

Stakeholder manager during the implementation phase (contractor): responsible for communication and stakeholder management during the implementation.

Stakeholder manager client: responsible for communication and stakeholder management during the initial phases and implementation phase.

Project manager client: responsible for developing plans and gathering customer requirements.

External stakeholders

For Project A, there are two plans to determine stakeholder engagement. A communication plan and a BLVC plan. The communication plan is divided into several parts: the stakeholder analysis - this determines how to address each stakeholder group; the purpose of the communication; and the method of communication.

The communication is then carried out in accordance with the communication plan and in coordination with the customer.

The communication plan is used during the contracting phase to learn the concerns and desires of the external stakeholders and to determine how to communicate during this phase. The BLVC plan is used during the implementation phase. It specifies the tasks to be completed during the implementation phase for the stakeholder manager. The Communication Plan is primarily used by the Stakeholder Manager and the Municipality Project Manager to obtain information from external stakeholders. The BLVC plan is used by the contractor and the municipality for stakeholder engagement.

The communication plan identifies different stakeholders, where emphasis is on the external stakeholders. The external stakeholders have been divided in the power interest matrix, which shows how much power they have during the project. In the concept phase the external stakeholders have been involved by conducting a survey that asks for the concerns and wishes. During the contracting phase and the implementation phase they will be more engaged.

The stakeholder engagement process will be evaluated by an audit from an external auditor. As well as a satisfaction survey will be conducted. The plan does not mention changing the plans when feedback and evaluation has been done. It does mention that stakeholders' power can change throughout the course of the project. The project manager is responsible to manage the plans and adjust them when necessary.

Stakeholder identification and categorization of stakeholders according to their influence

During the bidding phase, the contractor and the client obtained information from various stakeholders and conducted an analysis of the stakeholders in the area. A power/interest matrix was used for Project A. However, direct thinking was primarily used to identify stakeholders. The plan made a small assessment of what types of stakeholders would likely be involved in the project by creating a power/interest matrix, using common sense, and based on what they knew about various projects. In other words, without interviewing stakeholders in the field. Project A identifies external stakeholders in the plans as "stakeholders who have no contractual relationship with the client."

Plan

The purpose of the stakeholder engagement process for Project A is to identify the project's audiences that you need to consider and communicate with. Based on the stakeholder analysis and/or if a stakeholder emerges during the implementation phase, there will be coordination with that stakeholder to reach good agreements.

Process of decision making

The plan indicated that it would hold individual discussions with stakeholders as part of the decision-making process if they so desired. At the beginning of the project, the team conducted a brief survey of residents and business owners using a questionnaire. The purpose was to determine what stakeholders' thought was important to the success of the project.

Relationship management

Relationship and communication management is the topic most often mentioned in the plan. As mentioned earlier, Project A is very focused on communication with its stakeholders. To ensure effective collaboration and a good relationship, the plan suggests communication through a pre-project survey, information days, and individual meetings.

Feedback and monitoring

The plan does not mention anything about feedback moments for the stakeholder engagement process.

Keep stakeholders engaged

Throughout the beginning phase, the client will use a project leader, who will communicate the overall actions to and from surrounding and key stakeholders. He or she will be in charge of gathering the requirements and the worries of the stakeholders.

Throughout the implementation phase, the contractor will use an environmental manager, who is also listed in the communication plan. The contractor's environmental manager will communicate the overall actions to and from surrounding and key stakeholders. The environment manager takes the lead in gathering and developing information from surrounding stakeholders and shares his or her findings with the client's stakeholder manager. Stakeholders are actively engaged and listened to, which helps support and understand the project.

Throughout the project, residents, business owners, and emergency services will be kept informed of project developments, through various media outlets.

- Website, which will feature 2 articles about the work;
- Newspaper, which will run 2 advertisements about the construction work;
- Environmental app. From informational meeting to completion of work. Weekly update, during works, bi-weekly during construction team phase.
- Online banner. The banner is visible for 20 days. After ten days, the banner is only visible on the page of the most read newspaper
- Survey. To gather opinions, during the first week of the Bouwteam phase.
- Residents' letter. In case of changes in the phase / traffic flow / abnormal disturbance / if needed.

- Walk-in hour. If needed.
- Walk-in evening. 2x during construction team phase.
- Stakeholder Manager. If needed.
- Information board and mailbox. During the work.

Stakeholder Engagement in Practice

In this project, both the external stakeholders and the client are satisfied with the progress of stakeholder engagement. The communication plan and BLVC plan were implemented to engage stakeholders in both the contract and implementation phases. The plans were mainly used by the stakeholder managers of the municipality and the contractor as a guide to engage stakeholders in the project.

In this project, stakeholder management on the part of the contractor was handled differently than described in the literature for the Netherlands. While in the literature it is part of the environmental management, in this project a manager was assigned specifically for the stakeholders. Stakeholders were involved in the concept, contract, and implementation phases. However, they were not as involved in the policy development phase. The external stakeholders feel that it would have saved a lot of time and money if they had been involved in the policy development phase and a little more in the conceptual phase because they have knowledge that the client does not have. They explain, "Most members of a project team do not live in the city or near the project, whereas the external stakeholders have the neighborhood knowledge."

There was no advisory board at the beginning of the concept phase. For Project A, there was no broad participation, and it was more for information than consultation/advice. In the contracting phase, external stakeholders became more involved by assembling an advisory group. The external stakeholders indicate that they would have liked to be more informed and consulted about the design and plans that were to be changed.

The stakeholder engagement process was evaluated through an audit by an external auditor. As well as through a satisfaction survey. Stakeholders indicate that they would have liked to be able to provide feedback on the stakeholder engagement process at each stage so that the other stages in the different phases could be improved

They did not change the plans during the project. They did not evaluate the plans, so they did not need to be adjusted. However, the municipality would like to do this more frequently to improve stakeholder engagement. The person responsible for managing the plans during the project was the project manager.

Stakeholder identification and categorization of stakeholders by influence

The power/interest matrix in the plan was used mainly to identify stakeholders and categorize them according to their power. In practice, it was not used as frequently as described in the literature. The municipality states that it was a good method for identifying stakeholders in the early stages, but they did not change it later. Project A identifies external stakeholders in practice as "stakeholders who have no contractual relationship with the client."

Plan

The collaboration between the project team and stakeholders was found to be fine in the initial phases and satisfactory in the implementation phase. This was mainly due to good communication between the managers of the project and the external stakeholders. The reasons for good cooperation were:

1. different communication sources, so that all external stakeholders were informed about the status of the project;
2. a project team that listened to and understood the stakeholders;
3. stakeholder involvement in implementation, e.g., the client's environmental manager worked with the external stakeholders to select the new trees to be planted in the neighborhood.

Process of decision making

In Project A, there were few people who chose to participate in the decision-making process. The municipality has learned from this. It knows that there are many people who think the project is very important but are less willing to participate in the decision-making process. This leads to the exclusion of many important stakeholders.

Relationship Management

The municipality mentions that there have been complaints and anger from citizens about the way the municipality has handled participation. Stakeholders mention that the municipality needed time to put their wishes and concerns on paper because the project team stubbornly stuck to its plan, and it was difficult to change the outcome. The contractor organizes meetings with the municipality and as indicated in the communication plan, has an app through which all information about the construction work is shared. External stakeholders wish the municipality would have been more open about plans and what could not be done.

Feedback and monitoring

For Project A, there were no specific assessments, feedback, or monitoring of stakeholder engagement. This is an issue that both the external stakeholders and the project team see as an opportunity for improvement in the next projects.

Keep stakeholders engaged

In the initial phases, the client appointed a project manager who communicated the overall effort with key stakeholders in the environment. He was responsible for gathering stakeholder requirements and concerns. During the implementation phase, stakeholders were kept informed of project developments through various media. The information from the different stakeholders was gathered through the advisory board, which was a great solution for the community to get input from different stakeholders. They mention that this was only possible because the advisory board was very closely connected to the surrounding stakeholders. If this had not been the case, stakeholders would have mostly just been informed.

Lessons from Project A

- The project was divided into different phases. During the changes of the project phases, the information was not shared with the stakeholders. This resulted in many complaints about traffic management as said by both project team and stakeholders.
- For future projects, the project team would like to see the processes better documented so that this information can be easily shared and found when new staff gets to work.
- Stakeholders state that, if they were involved in the policy development phase stakeholder satisfaction could be improved and it could speed up the decision-making process.
- Involving stakeholders from the concept phase and listening to the stakeholders was seen as a good thing in this project, by both the stakeholders and the project team.
- This project explicitly asked the neighborhood association to help with engaging other external stakeholders, this helped with gathering requirements and preconditions from the external stakeholders, as well ensured stakeholder satisfaction in the end.

Appendix 8 - Transcription Case Study Project A

on request

Appendix 9 - Summary Case Study Project B

The following people were interviewed for this case study:

- The project teams

Communications manager: responsible for communications and stakeholder management during the planning and design phases

Contract manager: responsible for developing plans and gathering customer requirements

Since this project is an older project, stakeholders were analyzed using the satisfaction survey conducted by the municipality after the implementation phase.

An implementation plan was created for Project B, as well as a standard plan for districts to follow, indicating how communication and stakeholder engagement will occur. The implementation plan was created based on several reference documents, as this is a smaller project of a larger development. The BLVC plan is a document that does not actually include stakeholder engagement strategies, but rather addresses communication methods. The BLVC plan is intended for the implementation phase. The Engagement Plan is intended for earlier phases. Here, the plans are used by the contract manager and the project manager.

There are various stakeholders listed in the BLVC plan. There are several external stakeholders in the area that were identified by the municipality prior to the project. The plan does not indicate how much influence the stakeholders have, but it does state that the external stakeholders were engaged during the contracting phase. There is no mention in the plan about the plans changing because of evaluation.

Identify stakeholders and categorize stakeholders according to their influence

Stakeholders were identified using the communication method. However, the project did not use a specific tool like Project A to identify its stakeholders. However, the municipality has a variety of such matrices in different documents. These documents are updated periodically. This project is part of a larger project, so it was not necessary to identify stakeholders. External stakeholders have not been defined in the plans.

Plan

In order to work with the stakeholders, the client and the contractors work together. They have created a plan that shows which communication tools will be used for each stakeholder group. This state which resources are used and in what frequency the stakeholders are communicated with.

Process of decision making

Face-to-face meetings are held. Pre-work face-to-face meetings are held with a number of (interested) stakeholders. At this meeting, the contractor gives a brief explanation of the work, discusses the plan, and the stakeholders can ask specific questions and make their requests. Nowhere in the plan is there any mention of what was done prior to the planning and design phases to help inform the decision-making process.

Relationship Management

Before to the bidding phase, the municipality organized several information evenings to coordinate the design with the surrounding area. During the preparation and implementation

of the project, the contractor's environmental manager in coordination with the municipality's communications departments handles communication related to the construction. The municipality made sure it was open about their plans, even going so far as to hold city meetings where everyone was invited.

In the plan, it is called building communication, which focuses on stakeholders in the immediate vicinity of the works. Its purpose is to limit the perception of inconvenience and/or reduce or prevent the number of objections/appeals, complaints, and negative publicity. This is accomplished by providing appropriate information, two-way communication, and creating support and understanding. The ultimate goal is good coordination so that the work can be accomplished as smoothly as possible for both stakeholders and project team.

Feedback and monitoring

There is no mention of reviewing the plan and nothing is said about monitoring stakeholder needs.

Keep stakeholders engaged

Throughout the project life cycle, residents will see the stakeholder manager as the person to contact with all their questions/problems regarding the implementation of the work in the area. The stakeholder manager will not be present at the site every day, which means that people will not always be able to physically approach him. However, the foreman is present and can always be contacted by people with questions or potential problems. To ensure that the foreman's time goes into the quality of the work, he or she will refer any questions and/or complaints that he or she cannot resolve on the spot to the stakeholder manager.

Stakeholder Engagement in Practice

Project B is a project where stakeholders were very satisfied with the engagement of the client and contractor during the project from the beginning. This municipality places great importance on stakeholder engagement. This can be concluded from the various interviews. The communications manager explains that this project is a bit older than most of the other projects and has changed a lot in the last few years. The plan was mainly used by the contract manager and the project manager.

There are various stakeholders listed in the BLVC plan. There are several external stakeholders in the area that were identified by the municipality prior to the project. The plan does not indicate how much influence the stakeholders have. External stakeholders were primarily involved in the contracting phase.

External stakeholders were involved from the beginning to identify requirements and engage stakeholders in the project life cycle. By involving stakeholders from the beginning, there was less conflict between the community and the contractor during implementation because stakeholders knew what was coming.

The plans were not evaluated for Project B and were only monitored in a timely manner. The municipality would like to see them do this more often with the help of stakeholders. The plans were not changed during the project. They did not evaluate the plans, so they did not need to be adjusted. The municipality would like to do this more often to improve stakeholder engagement.

Stakeholder identification and categorization of stakeholders according to their influence

To identify the stakeholders, an analysis was done. This was not done with a special tool, but rather with the knowledge they had from other projects, according to the contract manager and the communication manager. There were tangential projects for Project B. In the literature, external stakeholders are defined as “groups and people that do not have a contractual relationship with the client.”. However, tangent projects have a contractual relationship with the client and, according to the contract manager, should rather be defined as “groups, individuals and projects that do not have a contractual relationship with the project.”. In this way, projects such as Project B’s tangent projects are also included in the external stakeholder analysis.

Plan

To collaborate with stakeholders, the client and contractor worked together on the project. The collaboration between the stakeholders and the project team was perceived as very good by the interviewees and the stakeholders at all stages. There was definitely a sense of shared purpose. They state that this was partly because the implementation phase went very well, and the contractor was open about their collaboration.

Decision-making process

For Project B, stakeholders were involved very early on. They helped in the process of decision-making by providing requirements and requests for the design. One this the municipality made sure of was to be open about the plans, even going so far as to hold city meetings where everyone was invited.

Relationship Management

Before the bidding phase, the municipality of Project B organized several information evenings to coordinate the design with the surrounding areas. The relationship management was very good, the stakeholders were satisfied, because in this project all stakeholders were treated equally. The municipality made sure that the plans were disclosed and even went so far as to hold town meetings to which everyone was invited.

Feedback and monitoring

Project B had no structural assessments, feedback, or monitoring of stakeholder engagement and satisfaction. According to the interviewees, this was achieved through informal discussions. The municipality would like to do this more and considers it a very important step in the SE process, but often neglected due to cost and time constraints.

Keep stakeholders engaged

Stakeholders have been engaged throughout the life cycle of Project B by keeping them informed of the process. The municipality is currently undertaking another project in which it is actively engaging stakeholders by creating an advisory board to help engage area stakeholders.

Lessons from Project B

- listen carefully to everyone's interest, while showing that alternatives are being considered;
- talk openly about plans, what can and cannot be done;
- 'the municipality serves the external stakeholders', take all interests seriously, including those who have less financial influence on the project;
- this project did not have an assessment of stakeholder engagement and satisfaction, since this project is a part of a larger project, this was not a problem, however, the municipality feels this is important.

Appendix 10 - Transcription Case Study Project B

on request

Appendix 11 - Summary Case Study Project C

For this case study, the following participants are interviewed:

- Project team

Project Manager: responsible for communication, management of the project and was also the stakeholder manager in this project.

- External Stakeholder

Project C has a plan for the implementation phase called BLVC-plan. The complete main construction phase is included in the BLVC plan. The first part of the BLVC Plan contains an explanation of the project, which includes the administrative details of the project, the project location, and a description of the work. The second part describes the project's surroundings. What routes run through the area, what features, and facilities need special attention during activities. The final chapter describes the conditions that apply to the implementation of Project C. The conditions are described in terms of accessibility, quality of life, safety, and communication. The plan is mainly used by the project manager.

The plan does not identify stakeholders in detail, and it is difficult to identify which stakeholders are present in the area. The plan does not state how much influence the stakeholders have in the project. External stakeholders have been involved from on the implementation phase. There is no mention in the plan about the plans changing because of evaluation.

Stakeholder identification and categorization of stakeholders according to their influence

There is not much in the plan about how the municipality identified its stakeholders. There is an area scan highlighting the area around the project. In the plan the external stakeholders include stakeholders that will be directly or indirectly affected by the implementation of the project.

Plan

There is no mention that a communication plan has been created for this project. Nor has a plan been created to plan the collaboration

Decision-making process

The plan indicates that stakeholders were invited to participate in the process by informational evenings, but there was not much response.

Relationship Management

During the preparation and implementation of the project, environmental management and related communications are handled by the client. Questions and complaints that can be answered by the contractor are forwarded by the client. They are then answered within 1 business day

Feedback and monitoring

The plan does not specify how feedback and monitoring will be provided to stakeholders and on the stakeholder engagement process.

Keep stakeholders engaged

Throughout the project, residents will view the client's project manager as the person to contact with all their questions/problems regarding the project. The project manager will not be present at the work every day, which means that people will not always have the opportunity to address him or her personally. However, the foreman will be present and will contact the project manager with any complaints. During the project, stakeholders will be kept informed through citizen letters.

Stakeholder Engagement in practice

Project C was a very difficult project to manage with insufficient stakeholder engagement, which led to conflicts in later phases of the project. There was no stakeholder management plan and no process to guide stakeholder engagement in the early stages. The stakeholder engagement process was done the old-fashioned way. A preliminary design was created based in part on the wishes of local residents.

The reason that Project C did not have a well-designed stakeholder engagement process was that the project involved many different stakeholders with conflicting interests. The project manager, who served as the stakeholder manager, also pointed out that most of the external stakeholders involved in the concept phase moved out before the work was implemented. This resulted in the addition of new external stakeholders who had not been involved in the early stages and had different interests.

The project manager also mentions that in this community, external stakeholders often choose not to be involved in the process. For Project C in particular, many stakeholders have backgrounds where they are not highly educated or do not speak the language well enough. The project manager notes that stakeholders with such backgrounds are often not interested in participating. However, the municipality feels that this is a great loss as these stakeholders are often very important to the community area and have interests that could help improve the project.

Stakeholder engagement in implementation went relatively well. However, because not many stakeholders were involved in the earlier stages of plan development, Project C is now experiencing conflict. The project manager believes that this could have been avoided if stakeholders had been involved early in the planning process. However, when stakeholders do not want to be involved, it is difficult for the community to be engaged.

Stakeholder identification and categorization of stakeholders according to their influence

Stakeholders were identified in the initial phase, but due to the rapid change of external stakeholders in this community, most of the identified stakeholders were not present in the later phases. According to the project manager, this could be improved by identifying stakeholders in the different phases of a project. This is especially necessary for complex projects with a long-time frame.

In order to analyze the stakeholders, an area scan was conducted. This identified the relevant stakeholders. However, as already mentioned, the identified stakeholders were no longer present in the later phases, so the area scan was not really useful.

Plan

All in all, the collaboration was perceived as okay. The project manager made sure to go to the homes of people she had not yet spoken with to understand their needs. However, the municipality would have liked stakeholders to collaborate more with the project team. This could have been done by actively engaging them in planning and implementation to build a better relationship.

Decision-making Process

External stakeholders were invited to participate in the decision-making process, but there was not much response. The municipality and the project manager see this as a great loss and will take a more open attitude in future projects to involve stakeholders more in the project.

Relationship Management

The relationship between the project team and stakeholders was considered to be fine. However, communication was very often one-sided. In other projects, this was improved by showing drawings of the plans to make them readable for the external stakeholders. In this way, stakeholders feel more involved in the process and can express their thoughts. There were not many informational discussions in the early stages and during implementation. In addition, the information given was often not understandable to some external stakeholders.

Feedback and monitoring

There is no feedback and/or monitoring of the stakeholder engagement process at all stages. They see this as a possible point of improvement for the next projects.

Keep stakeholders engaged

Throughout the project, residents viewed the client's project manager as the person to contact with all their questions/problems regarding the project. During the project, stakeholders were kept informed through citizen letters.

Lessons from project C

- find a way to engage stakeholders who often feel they do not have the knowledge or do not understand the plans;

- create a clear stakeholder management plan or structured process to engage stakeholders at all stages;
- take note of stakeholder knowledge; change the way stakeholders are talked to base on their knowledge;
- identify stakeholders throughout the different phases of a project, not just at the beginning;
- achieve a better relationship by actively engaging stakeholders;
- be open about the plans and clear about what can and cannot be done;
- keep good records of complaint management to hear stakeholder concerns in a timely manner.

Appendix 12 - Transcript Case Study Project C

on request

Appendix 13 - Summary Case Study Project D

The following participants were interviewed for this case study:

- The project teams
Process Manager: contact person and representative regarding the project. If there were concerns, stakeholders contacted the process manager. Because of this there was no stakeholder manager.
- External Stakeholder

For Project D there are two plans made to determine the stakeholder engagement together with the stakeholders. The participation plan defines for all stakeholders their level of participation and how they will participate in the plans. The goal of the BLVC-plan is to ensure accessibility, livability, safety, and communication in the project area. The participation plan is used for the initial phases. The BLVC-plan is used during the implementation phase. The plan is used together with the stakeholders by the process manager.

There are different stakeholders identified in the plans. Were the participation plan highlights the external stakeholders in the project. The plan categorizes the stakeholders into different groups of power. Stakeholders have been involved from on the initial phases. The plan states that it should be adjusted when evaluation has passed. The process manager and the stakeholder manager of the consultant are responsible for the plans.

Stakeholder identification and categorization of stakeholders according to their influence

Project D provides a stakeholder analysis in both documents. In the participation plan, stakeholders are first analyzed and then categorized by interest (low, moderate, high, very high) and degree of influence.

In the BLVC plan, stakeholders are again identified for the implementation phase. First, the area is scanned by examining what is in the area. For example, the residents and businesses. Then the stakeholders in the area are listed and grouped. Here it is clear that the stakeholders have changed from the Participation Plan, as the Participation Plan included more external stakeholders such as the province. The tangential projects in the BLVC plan are classified as external stakeholders. Finally, a scan of traffic flows is conducted. External stakeholders have been defined as "stakeholders who do not have contractual relationship with the project" Tangent projects are included here as external stakeholders.

Plan

Project D provides a plan for stakeholder engagement in both plans. The objective of engagement within the project in the policy development phase is to arrive at a participative decision, together with the stakeholders and surroundings. They use different communication tools to plan engagement, for example 1-on-1 meetings.

In the BLVC-plan the objective of engagement within the project is to have stakeholders that are satisfied with the implementation of the works. They use different communication tools to inform stakeholders about the works, for example resident letters.

Decision-making process

To make the decision-making process strong with stakeholders, the municipality has grouped the stakeholders into different ladders of the participation ladder. Four groups of stakeholders are derived from this:

1. co-decision: stakeholder with formal decision-making power is approached as partners, they have a strong saying in the project;
2. agreements: with stakeholders that have a direct interest. These parties have a lot of influence in the project, especially if there is resistance, to prevent this support is created by working together towards solutions in which they can help decide.
3. advise: stakeholder who are indirectly affected in their interests are asked for advise;
4. inform: secondary external stakeholders, like stakeholders that live a larger distance from the project, will be informed.

Relationship Management

To make sure there is a mutual understanding and good relationship between the project team and the stakeholders, the municipality have chosen to use a participatory approach. As mentioned above, stakeholders were categorized into different groups. Based on the level of participation the municipality have chosen a way of informing, discussing etcetera with the stakeholder. This is shown in Table 13

Table 14 Project D relationship management during the participation phase (Project D, 2021)

Category stakeholders	1-on-1 conversations	Meetings	Walk-in evening	Inform via site
Co-decision	x	x		
Agreements	x	x	x	
Advise		x	x	x
Inform				x

During implementation, a communication calendar was given where it is indicated how communication with the stakeholders will take place during the project.

Feedback and monitoring

During 1-on-1 meetings and walk-in evenings stakeholders have the change to give feedback on the stakeholder engagement process, however, there is no specific date set for these moments. Neither is there a tool that will make sure stakeholders can give feedback and monitoring.

The plan does mention that the participation plan is drafted together with the stakeholders. This is a way to ask for the way they want to have feedback and monitoring.

Stakeholder Engagement in practice

In this case study, two adjacent projects were surveyed. Because the municipality prioritized stakeholder engagement over much else, the first project was delayed for a very long time and is now in the implementation phase. For the second project, lessons learned from the first project were used to complete the participation and communication plan. This led to the belief that the first project of Case 4 was very difficult due to the way the municipality prioritized stakeholder arguments. The second project used for this case took a better approach. Here, stakeholders were categorized by their level of influence on the project and stakeholders were asked for specific concerns that the municipality should consider.

The project analyzed is considered an exemplary project by the process manager and stakeholders. Mainly because the external stakeholders made their concerns clear during the development and planning of the strategy and presented concrete plans. This compared to the project commissioned previously, where the stakeholders who came to the information evenings had many conflicting interests and very strong opinions before the plans were even presented to them.

The Participation Plan and BLVC Plan were used to engage stakeholders in both the contract and implementation phases. It was mainly used by the stakeholder managers of the municipality and the contractor to inform stakeholders how they would be involved.

Plans were adjusted at each stage after evaluation. This was done through individual meetings with stakeholders, asking for their opinions and how they would like to be involved. The process manager and a consultant's stakeholder manager were responsible for the plans.

Stakeholder identification and categorization of stakeholders according to their influence

Project D identifies the stakeholders per project phase. They use the power, urgency, and legitimacy technique to identify and categorize stakeholders. This was not the case for one of Project D's projects. In Project D-1, stakeholders were not adequately identified, which led to conflict from the beginning. For Project D-2, stakeholders were identified for each phase of the project so that stakeholders felt included. To categorize stakeholders, Project D used the participation ladder. This proved to be a great solution because stakeholders knew how much power they had, as noted by the project manager, but interviewing stakeholders and looking at the messaging documents showed that many stakeholders still did not really know where they could provide input. External stakeholders were defined as "stakeholders who have no contractual relationship with the project" Tangent projects are included here as external stakeholders.

Plan

The collaboration with the stakeholders went very well according to both stakeholders and project manager. There was a sense of common goal. Stakeholders were treated fairly. Due to the good complaint management during the implementation phase, they felt included in the implementation phase as well.

Process of decision-making

To sufficiently frame the decision-making process with stakeholders, the municipality for Project D grouped stakeholders into different steps of the participation ladder. From this, they derived four groups. Stakeholders consider this very sufficient because they knew what their roles were.

Relationship Management

Project D stakeholders have been engaged throughout the project life cycle. The municipality places a high value on stakeholder satisfaction. However, the process manager mentions that this is often done too much by the city council, resulting in a large time overrun. He would like to see a more advisory role for stakeholders when it comes to getting them involved. City Council often agrees with stakeholders, which can result in a project that does not quite meet the plan. A good tip would be to look at the impact of the project on stakeholders to determine how stakeholders should be involved in the project.

Feedback and monitoring

During the 1-to-1 meeting and walk-in evening, stakeholders had the opportunity to provide feedback on the SE process. The plan mentioned that the participation plan would be created with the stakeholders. This is an opportunity to ask for how they would like feedback and monitoring.

Keep stakeholders engaged

Stakeholders have been engaged throughout the life cycle of Project D by keeping them engaged based on their power in the project.

Lessons learned from Project D:

- Use different plans in different phases to validate the stakeholder engagement;
- Use different communication tools per stakeholder group;
- Be open about the plans, and be clear about what is possible;
- Let stakeholders know how much influence they have in the project, so they will not go to the city council too often;
- Have a city council that is willing to look at the plans again but also is willing to not go through with the wishes of the stakeholders if it does not fit in the project.
- Good communication between contractor, municipality and stakeholders is needed in the construction phase.

Appendix 14 - Transcript Case Study Project D

on request

Appendix 15 - Cross case comparison

Comparison SE activities component	Case 1: Project A	Case 2: Project B	Case 3: Project C	Case 4: Project D
Implementing a stakeholder engagement plan	Project A uses a communication plan. A communication plan documents the flow of information among stakeholders. In the communication plan, stakeholders are analyzed using an environment scan and a power-interest matrix. The plan also states the purpose of the communication and the method for communicating with external stakeholders. They use this plan mainly in the implementation phase and do not have a plan for earlier phases.	Project B uses an implementation phase plan and has a stakeholder plan in the area, pre-prepared by the municipality, that shows how communication and stakeholder engagement will occur. The implementation plan was prepared based on several reference documents, as this is a smaller project of a larger development. The BLVC plan is a document that does not actually include stakeholder engagement strategies, but rather addresses communication methods.	Project C does not have a plan for earlier phases but does have a BLVC plan for implementation. This does not identify stakeholders in detail, and it is difficult to identify which stakeholders are present in the area.	Project D uses multiple plans to describe the stakeholder engagement plan. In the initial phases, the plan analyses and groups stakeholders based on power and interests and how they will be involved and engaged in the initial phases. The BLVC plan is created for the implementation phase and updates the stakeholders in the area and determines how stakeholders will be engaged during implementation.
Involving stakeholders early in the activities	For Project A there was no extensive participation in the beginning of the plan, this would led to having to put time and money into research which the stakeholders could have told the project developers. Stakeholders wish the municipality would have been more open about plans and what could not be done.	Project B did involve stakeholders from the beginning but decided to inform them, rather than let them advise on the plans. However, with other projects in the development they have now chosen to let stakeholders advise on the plans and environmental vision that has to be implemented in 2022.	Project C did not involve stakeholders from the beginning, the municipality made the plans and would send a letter to the external stakeholders about the plans, giving them 1 moment to voice out. This led to complaints in the later stages of the development. The project team does state that with the many conflicting interests in this area, it was hard to engage all stakeholders.	For Project D there was extensive engagement from the very beginning, where the municipality was open and straightforward about what could and what could not be done. Stakeholders helped with writing the stakeholder engagement plan, making it easier for the municipality to make agreements, this led to a smooth stakeholder engagement process.
Evaluating the stakeholder engagement process	The plans were evaluated by an external auditor. Where was checked whether or not the municipality did what was written. As well as do a satisfaction survey. The stakeholders do state they wish they could have given feedback on the stakeholder engagement process to take the feedback with them to other phases.	The plans were not evaluated and only monitored timely in Project B; The municipality does wish they would do this more often with the help of stakeholders.	Project C did not evaluate the plans, neither did they ask feedback towards the stakeholders about the stakeholder engagement.	Project D did evaluate the plans and asked feedback to the stakeholders. This resulted in a smooth process.
Adjust plan	Project A took the evaluation from the project towards another project. They did not evaluate the plans to adjust it in later phases.	Project B took the learnings from the project towards another project. They did not evaluate the plans to adjust it in later phases.	Project C took the learnings from the project towards another project. They did not evaluate the plans to adjust it in later phases.	Project D did the evaluation together with stakeholders and adjusted the plans where necessary.

Comparison SE process component	Case 1: Project A	Case 2: Project B	Case 3: Project C	Case 4: Project D
Stakeholder identification and categorization of stakeholders according to their influence	For Project A, a power/interest matrix was used. More than anything else direct thinking was used to identify the stakeholders. In the plan, a small assessment was made of what kind of stakeholders were likely to be present in the project by creating a power/interest matrix, using common sense, and based on what they knew about different projects. In other words, without asking questions to the stakeholders in the area.	Stakeholders were identified using communication method. However, the project did not use a specific tool like Project A to identify its stakeholders. Project B did not have a specific advisory board, as this would not have been sufficient. In Project B, external stakeholders are identified as "groups, individuals, and projects that do not have a contractual relationship with the project." As mentioned earlier, Project B did not use a stakeholder identification tool; however, the municipality has a variety of such matrices in various documents. These documents are updated on a regular basis. This project is part of a larger project, so it was not necessary to identify stakeholders.	For Project C, stakeholders were identified in the initial phase, but due to the rapid change of external stakeholders in this community, most of the identified stakeholders were not present in the later phases. This could have been improved by identifying stakeholders again in different phases.	Project D identifies the stakeholders per project phase. They use the power, urgency, and legitimacy technique to identify and categorize stakeholders. This was not the case for one of Project D's projects. In Project D-1, stakeholders were not adequately identified, which led to conflict from the beginning. In Project D-2, stakeholders were identified for each phase of the project so that stakeholders felt included.
Plan	The purpose of the stakeholder engagement process for Project A is to identify the project's audiences that you need to consider and communicate with. Based on the stakeholder analysis and/or if a stakeholder comes up during the implementation phase, there will be a coordination with that stakeholder to reach good agreements. The collaboration between the project team and stakeholders was found to be fine in the initial phases and satisfactory in the implementation phase. This was mainly due to good communication between the managers of the project and the external stakeholders.	To collaborate with stakeholders, the client and contractor worked together on the project. Project B created a plan that showed what communication tools would be used to engage each stakeholder group. For Project B, the plan was not really used as a guide, but rather was used to establish requirements with the stakeholders. The collaboration between the stakeholders and the project team was felt to be very good by the interviewees and stakeholders at all stages. There was definitely a sense of common purpose. They state that this was partly because the implementation phase went very well, and the contractor was open about their collaboration.	Because the project manager of Project C was actively trying to hear everyone's concerns and wishes the project was deemed as okay. The municipality does wish the collaboration with stakeholders was a lot better.	For Project D, they created a plan that set goals for stakeholder engagement. They used communication tools based on stakeholder categorization.
Process of decision-making	The plan indicated that it would hold individual discussions with stakeholders, if they requested it, as part of the decision-making process. At the beginning of the project, the team conducted a brief survey of residents and business owners using a questionnaire. The purpose was to determine what stakeholders' thought was important to the success of the project. For Project A, there were only a few people who decided to participate in the decision-making process. This is for the municipality a lesson learned, they know that there are many people who think the project is very important but are less willing to participate in the decision-making process. This leads to the exclusion of many important stakeholders.	For Project B, stakeholders were involved very early on. They helped in the process of decision-making by providing requirements and requests for the design. One this the municipality made sure of was to be open about the plans, even going so far as to hold city meetings where everyone was invited.	Project C invited stakeholders to participate in decision making, but the response was low. It is believed that this is in part because the stakeholders represented at Project C are diverse and do not understand everything that is planned for the project.	To sufficiently frame the decision-making process with stakeholders, the municipality for Project D grouped stakeholders into different steps of the participation ladder. From this, they derived four groups. Stakeholders consider this very sufficient because they knew what their roles were.

Relationship management	To ensure effective collaboration and a good relationship, the plan suggest communication through a pre-project survey, information days, and individual meetings. The municipality mentions there have been complaints and anger from citizens about the way the municipality handled participation. The stakeholders mention that it took time for the municipality to get their wishes and concerns on paper as the project team was stubborn in their plan and it was hard to change the outlook. The contractor organizes meetings together with the municipality and as indicated in the communication plan, has an app through which all information about the works is shared.	Before the bidding phase, the municipality of Project B organized several information evenings to coordinate the design with the surrounding areas. The relationship management was very good, the stakeholders were satisfied, because in this project all stakeholders were treated equally.	Communication for Project C was often one-sided. There were not many informational meetings in the early stages and during implementation. In addition, the information given was often not understandable to some external stakeholders.	The municipality of Project D has chosen a participatory approach. Depending on the level of participation, the municipality chose a path of information, discussion, etc. with stakeholders. During implementation, a communication calendar was created that showed when stakeholders should be informed and involved. These were the prescribed dates, but they had much more contact than indicated in the plans.
Feedback and monitoring	For Project A, there were no specific assessments, feedback, or monitoring of stakeholder engagement. This is an issue that both the external stakeholders and the project team see as an opportunity for improvement in the next projects.	Project B had no structural assessments, feedback, or monitoring of stakeholder engagement and satisfaction. According to the interviewees, this was achieved through informal discussions. The municipality would like to do this more and considers it a very important step in the SE process, but often neglected due to cost and time constraints.	There is no feedback and/or monitoring of the stakeholder engagement process at all stages. They see this as a possible point of improvement for the next projects.	During the 1-to-1 meeting and walk-in evening, stakeholders had the opportunity to provide feedback on the SE process. The plan mentioned that the participation plan would be created with the stakeholders. This is an opportunity to ask for how they would like feedback and monitoring.
Keep stakeholders engaged	In the initial phases, the client appointed a project manager who communicated the overall measures with the key stakeholders in the environment. He was responsible for gathering stakeholder requirements and concerns. During the implementation phase, stakeholders were kept informed of project developments through various media. The information from the various stakeholders was gathered by the advisory board, which was a great solution for the municipality to get input from various stakeholders. They mention that this was only possible because the advisory board was very involved with the surrounding stakeholders. If this had not been the case, the stakeholders would have mostly just been informed.	Stakeholders have been engaged throughout the life cycle of Project B by keeping them informed of the process. The municipality is currently undertaking another project in which it is actively engaging stakeholders by creating an advisory board to help engage area stakeholders.	Project C stakeholders were kept informed through citizen letters, which was not considered enough engagement. Stakeholders, as well as the project manager, would have liked more interaction throughout the project cycle.	Project D stakeholders have been engaged throughout the project life cycle. The municipality places a high value on stakeholder satisfaction. However, the process manager mentions that this is often done too much by the city council, resulting in a large time overrun. He would like to see a more advisory role for stakeholders when it comes to getting them involved. City Council often agrees with stakeholders, which can result in a project that does not quite meet the plan. A good tip would be to look at the impact of the project on stakeholders to determine how stakeholders should be involved in the project.

	Case 1: Project A	Case 2: Project B	Case 3: Project C	Case 4: Project D
Policy development	During the policy development phase, Project A's external stakeholders made it clear that they disagreed with the plans and frequently visited the City Council. At that time, it was still envisioned to be a street that would have trams running on it, which led to a change in the project's street image. Public hearing nights were held after the plans were made. There was no participation during the development of the plans and strategies. There was no need to be since the plans were written some time ago. At that time, this was not a common practice. Stakeholders state that participation during the writing of the plans would have made more sense, because then the project could have moved forward much faster.	For Project B, the municipality has begun a master plan for the overall structural vision. The development of the vision was presented to residents through a series of general public planning meetings and a series of meetings for specific audiences, such as resident associations and interest groups. External stakeholders in the Project B area knew what the vision and policies were in advance, as they could actively help craft the vision if they wanted to.	Project C did not involve external stakeholders in policy development. This municipality suffers from the problem that it very much wants to be but is not. As one stakeholder said, "If you want to participate, go through the entire process with the citizens, all the way to decision making. And do not say, 'Goodbye, thank you for the ideas, we will take them.' And the oyster closes. After that, you just have to wait and see what happens, which is often the opposite. And that's really death in the pot." Here, stakeholders feel they are not being heard.	In the policy development phase, the plan was created in collaboration with external stakeholders. As mentioned in their plans, "The municipality has received many responses to the structural vision. As with participation before, the responses show very well what it's all about: making decisions and considering the different interests." Stakeholders have opportunities in the municipality to comment on local issues and are sufficiently involved in the community's plans, activities, and facilities. What the community lacks is the extent to which citizen participation is practiced, and thus the influence that residents can exert.

Concept	During the conceptual phase, various solutions were developed and evaluated. The sketch plan and preliminary design are being prepared. For Project A, stakeholders would have liked to have had more say in the design. It often took a long time for the city planner to understand the concerns of the stakeholders. There were regular informational meetings with the advisory board and the other boards, such as the store owners. However, the advisory board decided on its own to also hold informational meetings for the external stakeholders who were not members of the advisory board. This was a good way for the council to keep all stakeholders informed. Another thing that the external stakeholders wanted was for the municipality to be more open and honest about its plans from the beginning, and more information meetings were also requested.	For Project B, stakeholders had a say in the sketch and preliminary design for the entire development. Project B was only a small part of the overall development, but during the conceptual phase, the external stakeholders had a representative to ask about stakeholder needs and concerns in this area. For this project, this was sufficient because it was part of a smaller development. Other projects today actively seek to involve external stakeholders at the bidding phase.	Project C had little external stakeholder engagement. Stakeholders received informational letters informing them of developments, giving them the opportunity to voice their concerns and address the City Council as appropriate.	In Project D, stakeholders were actively engaged in the conceptual phase, helping to create the plans, and thinking about the designs with the help of the urban planner. Regular meetings were held, and many external stakeholders participated. This resulted in a faster process. This was not the case with Project D-1. The plans, which were not yet approved, had already been sent out to external stakeholders, which caused discomfort. For next time, they want to be clearer with stakeholders about what can and cannot be done and send out a survey about the changes stakeholders want.
Contracting	During the contract phase, the municipality organized several meetings. The Advisory Board felt that these meetings were not enough and decided to organize more. The Advisory Board also stated that it would have liked to see more cohesion between the different groups of external stakeholders. Often, the municipality divided the meetings among the different groups, while the advisory board stated that it would have liked to have more joint input meetings during the contracting phase. During the contracting phase, the implementation decision was made, but the external stakeholders were not satisfied with it and decided that changes needed to be made. Once again, the stakeholders make it clear that they expect openness and honesty from the municipality about their plans, as well as mutual trust.	Prior to bidding, the Project B municipality organized several planning meetings to discuss the final design. This resulted in good cooperation between external stakeholders and the municipality. Currently, the municipality of Project B organizes consultation evenings where the external stakeholders can discuss the contracts and the plans to be prepared, such as the BLVC plan.	Project C did not involve much collaboration with external stakeholders. This was partly because the external stakeholders did not have the knowledge and felt they did not know what was going on. For the next projects, the project manager stated that they have started to work with drawings as well to make it clear to the stakeholders what is going on.	For Project D, stakeholders were actively involved in the contracting phase, helping to develop the implementation plan (BLVC plan), and providing input on the final draft. The process manager notes that this was sometimes too much of a good thing, and that the municipality needs to learn to say no to external stakeholders, as it too often agrees to what stakeholders want, when in fact this does not paint the most desirable picture of the project.
Implementation	The implementation phase went very well for project A. This is probably due to the fact that the contractor was very accommodating. The municipality feels that this is very important to the success of a project. If the contractor is considerate of the external stakeholders, the stakeholders will be much happier.	The implementation phase went very well for Project B. Stakeholders were satisfied with the way they were involved by the contractor and the client. They would like more opportunities for feedback. The stakeholder manager was available 24/7, which made it easy for external stakeholders to express their concerns openly.	The implementation phase began somewhat tenaciously for Project C. Most of the external stakeholders who were present had many concerns and were not adequately informed about the process, which led to frustration. Eventually, the project manager decided to keep stakeholders informed through face-to-face meetings and frequent attendance. This contributed to stakeholder satisfaction.	During the implementation phase the stakeholders were very satisfied with the way they were engaged and informed in the process. There were many different communication tools used per stakeholder group.
Maintenance	-	-	-	-

Comparison Environment and Planning Act	Case 1: Project A	Case 2: Project B	Case 3: Project C	Case 4: Project D
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Past	For this municipality, they have stated to do a lot of participation, but the neighborhood groups abruptly terminated their cooperation with the municipality because their heartfelt and time-consuming input was rarely reflected in the municipality's final plans. After the municipality noted this, they set up a platform specially to involve residents in the various neighborhood projects. External stakeholders can thus contribute their opinions, ideas, and suggestions. This has shown to be a big improvement, as this way the municipality can access many external stakeholders. They are more open and willing to listen to the plans.	This municipality has always been precursor of participation. However, often been said that the municipality would ask external stakeholders to participate, but later not participate in the plans at all. This is why the municipality came up with a participation note. The district councils are going to be overhauled. The municipality wants to look for new forms of districts and neighborhood participation. This way district councils no longer have to give an opinion about everything. This gives external stakeholders the opportunity to give their opinion where the policy really affects them. Such as for local residents when a street is redesigned.	In the past, this municipality has not done much stakeholder engagement. Because of the many diverse stakeholders in the area the municipality has a hard time accommodating to all of them. Currently, there are roughly three obstacles that hold back participation. The first obstacle is related to agreements. Important decisions are recorded in agreements, which are not publicly debated or available. The second obstacle is related to language. Consultants and officials often use professional language, which can be difficult for practitioners. The third obstacle is related to time. Participation is time consuming, and not everyone has the time to participate in public meetings and workshops.	This municipality has done a lot for the engagement of stakeholders already. They have as starting point: as municipality you do not stand above the city but try to get things done together with the people, businesses, and organizations in the city. That means listening when it matters and letting go, based on trust in the self-responsibility and talents of the people of the city. They created a few instruments to stimulate engagement. By setting up a participation plan, roadmap, profile of stakeholders and a structural tool that connects the municipality and stakeholders.
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Prospective	<p>This municipality has done a lot for the introduction of the Environment and Planning Act. The process of the Act has yielded great gains when it comes to the municipality's mindset about rules. They have improved the services to their external stakeholders and allow a more initiative, faster and transparent process. The municipality is making the rules in such a way that they are clear to understand. They had already previously set up a platform asking the external stakeholders about ideas and suggestions working towards a cooperating community.</p>	<p>The Environmental and Planning Act has not taken effect yet, but the municipality is working with the principles of the Act. They ask external stakeholders: What do you want to keep in the neighborhood? What do you want to change and how? Where they use different themes to outline the necessities of the external stakeholders. The municipality is introducing the Environment and Planning Act in a way that will be of immediate benefit to external stakeholders. With their online platforms they want to actively involve the external stakeholders.</p>	<p>This municipality has started a citizens' council, asking the external stakeholders to think along with them on various themes concerning developments in the municipality. In this way they want to anticipate the coming into force of the environment and planning act. They want more participation through online platforms, they want to make the language more accessible to practitioners and they want to approach all target groups.</p>	<p>This municipality is trying to get all stakeholders to think with them about the environment vision, including the hard-to-reach groups. They set up several tools and activities to get stakeholders to feel engaged in the city. Things like being there more often in the area, using social media and showing the plans via photos and videos.</p>
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Appendix 16 - MoSCoW method

M - Must Have.

The first category includes all the requirements that are necessary for the successful completion of the project. Must-haves can be defined as:

- There is no point completing the research objective without this requirement;
- The final improvement would not be compliant without this requirement;
- The final improvement will not deliver an effective solution without this requirement.

One of the musts of the improvement should be the components of the stakeholder engagement process. It is important that there is noted that the stakeholder engagement process will differ per project phase, so the improvement must take the project phases into account. The following project phases must be in the improvement:

- Policy Development/Initiative;
- Concept;
- Contracting;
- Construction.

From literature and case studies 12 key components of stakeholder engagement is concluded. For a project to succeed in the stakeholder engagement, it is a must those 12 components are done. These 12 components that must be in the improvement are:

1. Identify and analyze the stakeholders;
2. Working towards a common goal;
3. Communicate information via tools;
4. Participation;
5. Agreements and cooperation;
6. Openness / trust / respect;
7. Decision-making;
8. Report plans / involve in analysis;
9. Anchor agreements;
10. Complaint management;
11. Manage the stakeholders during the implementation;
12. Feedback, evaluate and monitor.

Then there are also requirements for the tool that are necessary for it so be usable for the business. Because the company the tool is made for is a consulting company, the tool must give advice on different aspects of stakeholder engagement process. It must give options the company can deliver to the municipalities.

The tool must be in both English and Dutch so the company can consult to both clients.

The tool should be a roadmap showing the stakeholder engagement process in different phases of a construction project.

S – Should Have.

The Should Have category is one step below the must have. It can be used to get requirements for future releases.

- For the tool to be able to be accessible to all people in the company and outside the tool should be made on a public platform;
- The tool should notify that there are other external stakeholders that have not been considered in the research;
- The tool should differ the stakeholder engagement based on the impact of a project.
-

C – Could Have

This category includes requirements that have a much smaller impact when left out of the project:

- For this research the maintenance phase has not been looked at. This is why the maintenance phase could be in the project but because there are more pressing requirements lined up so it is not a must.
- For this tool internal stakeholders could be also included;
- For this tool it could be interactive.

W – Will not have

This final category includes all the requirements that have been recognized as not a priority for the project's timeframe:

- The improvement will not consider the possibility of the Environment and Planning Act not being implemented in July 2022;
- The improvement will not consider the difference between provinces and municipalities;
- The improvement will not consider that municipalities differ per size as all municipalities will have to do something with stakeholder engagement.

Appendix 17 - Different steps per phase, Roadmap Towards Stakeholder Engagement

Initiative/policy phase

Step 1: Research

The first step of the initiative stakeholder engagement process is to research what kind of engagement there should be done. Based on the research there can be determined whether or not active engagement with the stakeholders should be done. If the answer to the research questions determines that the stakeholders should help with the plan development there can be determined that there is a high engagement for this phase, if not, it becomes low engagement.

Step 2: Goal and identification of stakeholders

One of the goals of the engagement of stakeholders in the plans could be to better the quality of the living environment. It is important that this process is done in such a way that it is understandable to all stakeholders. Another thing that is important is to be open about the knowledge there is needed from the external stakeholders.

Identifying the stakeholders is important to later group and categorize them. With the help of different tools stakeholders can be identified. There should be looked at what their interests is in the project and what they will be affected by because of this project.

Step 3: Categorize stakeholders

Based on the identification of the stakeholders, the categorization is done via the power/interest matrix. Based on these outcomes the stakeholders can be grouped and categorized based on their influence in the project using the participation ladder. Important is to note that the influence of stakeholders can differ in different project phases.

Step 4: Engage stakeholders in the plans

Stakeholders should be engaged in the writing of the plans when there is determined that the project team needs high engagement. They should be able to come up with ideas, advise on the plans and bring up the themes that are most important to them. It is important that these plans are written readable to all stakeholders, often they lack the technical jargon and because of that feel less engaged. Municipality and consultants should be open about what is possible and what cannot be done at this point.

Step 5: Evaluate the stakeholder engagement process

To evaluate the stakeholder engagement process, the stakeholders should be measured to see how well they responded to the stakeholder engagement process in the initiative phase. Here the conflicts and issues between the stakeholders can be analyzed as well as the constant changing influence of stakeholders and the identification of the different stakeholders as they can swiftly change.

Concept phase

Step 1: Adjust Plan

The first step of the concept phase starts where the initiative phase ends. During the end of the initiative phase stakeholders are asked to evaluate on the plan, the feedback of the stakeholders can help adjusting the way stakeholders are engaged in later phases. During this step the municipality should also ask whether there are new external stakeholders in the area. If so, it is important the stakeholder analysis is rewritten and changed according to the new external stakeholders.

Step 2: Engagement strategy

The second step is to determine how the external stakeholders should be engaged. There are different ways of engaging stakeholders according to the participation ladder. There are 5 different ways of engaging the stakeholders in the plan: inform; consult; advice; co-produce; and co-create. There are different outcomes that can come out of this, depending on the way the stakeholders should be engaged. Important to note is that the different stakeholder groups can be different in engagement strategy.

Step 3: Engagement plan

When the engagement strategy has been chosen the engagement plan should be written together with the external stakeholders depending on how much input you need from them. The benefit of them helping with writing the engagement plan is that the municipality will know what the wishes of the stakeholders are regarding engagement, so they can act towards it. The participation plan is not regulated by law. The Environment and Planning Act assumes participation if a project decision is taken for a project. However, the current bill does not assume a mandatory participation plan.

Step 4: Decision-making process

It is advised to have a representative in the decision-making process. In order to communicate well with the environment, it is important to have a representative representation of that environment. Often the environment is not or moderately organized. Sometimes there are organized supporters (for example, an energy cooperative) or opponents, but these are minorities, and they often drown out the debate. By setting up a sounding board group with representatives from all layers of the population and from all neighborhoods/regions in the area, the aim is to also give the larger middle groups a voice. Sometimes the neighborhood organizes itself, but that is often as a counter-reaction to a plan. In the early stages of policy development, there will often be no organized forum. The local government can facilitate this by inviting various stakeholders. It is important the external stakeholders know about the plans, where they can give input into, and which decisions are non-negotiable. This gives mutual respect.

Step 5: Draft the design and planning

Depending on the engagement strategy chosen prior, the design and planning is drafted together with the stakeholders or by informing the external stakeholders. During this step it is important that the stakeholders clearly know what is going on by being open, explaining it in jargon they will understand and by also respecting their wishes.

Step 6: Evaluate the stakeholder engagement process

To evaluate the stakeholder engagement process, the stakeholders should be measured to see how well they responded to the stakeholder engagement process in the initiative phase. Here the conflicts and issues between the stakeholders can be analyzed as well as the constant changing influence of stakeholders and the identification of the different stakeholders as they can swiftly change.

Contracting phase

Step 1: Adjust Plan

The first step of the contracting phase starts where the concept phase ends. During the end of the concept phase stakeholders are asked to evaluate on the plan, the feedback of the stakeholders can help adjusting the way stakeholders are engaged in

later phases. During this step the municipality should also ask whether there are new external stakeholders in the area. If so, it is important the stakeholder analysis is rewritten and changed according to the new external stakeholders.

Step 2: Determine the impact of the project and the engagement strategy

The second step is to determine how the external stakeholders should be engaged. There are different ways of engaging stakeholders based on how high the impact will be on the external stakeholders and on their power in the project. For this there are four engagement strategies.

Step 3: Get input from the stakeholders

Based on the engagement strategy per stakeholder, the way they will deliver input for the design and planning will be determined. Here the participation ladder can also be used. Based on the degree of involvement of the stakeholders it needs to be determined whether or not the customer requirements of these stakeholders have to be formulated.

Step 4: Anchor agreements

Together with the stakeholders, based on their power and interest, agreements can be made so the BLVC-plan can be made. Questions will be asked to the stakeholders, asking them how they want to be engaged.

Step 5: Evaluate the stakeholder engagement process

To evaluate the stakeholder engagement process, the stakeholders should be measured to see how well they responded to the stakeholder engagement process in the initiative phase. Here the conflicts and issues between the stakeholders can be analyzed as well as the constant changing influence of stakeholders and the identification of the different stakeholders as they can swiftly change.

Contracting phase

Step 1: Adjust Plan

The first step of the construction phase starts where the contracting phase ends. During the end of the contracting phase stakeholders are asked to evaluate on the plan, the feedback of the stakeholders can help adjusting the way stakeholders are engaged in later phases. During this step the municipality should also ask whether there are new external stakeholders in the area. If so, it is important the stakeholder analysis is rewritten and changed according to the new external stakeholders.

Step 2: Determine the person the stakeholders will report to

It is important that stakeholders have 1 person they can go to with concerns, wishes, questions during the construction phase. This can be the stakeholder manager of the contractor or the stakeholder manager of the municipality. External stakeholders argue that they would like to have contact with the stakeholder manager from the municipality as they state that “we live in the municipality, so these are the people we want to be in contact with.” It is important that informational meetings are together with the other parties in a project team.

Step 3: Manage the stakeholders

The most important thing to get stakeholders to feel engaged and satisfied during the construction phase is to manage the stakeholder relationship accordingly. This means being open about the plans, having one person they can communicate with and that there is recognized there are different stakeholders in a project.

Step 4: Regular feedback meetings

Regular feedback meetings should be held to know how stakeholders feel and what their concerns are. This should be maintained in a stakeholder diary and the feedback should be followed up.

Step 5: Complaint management

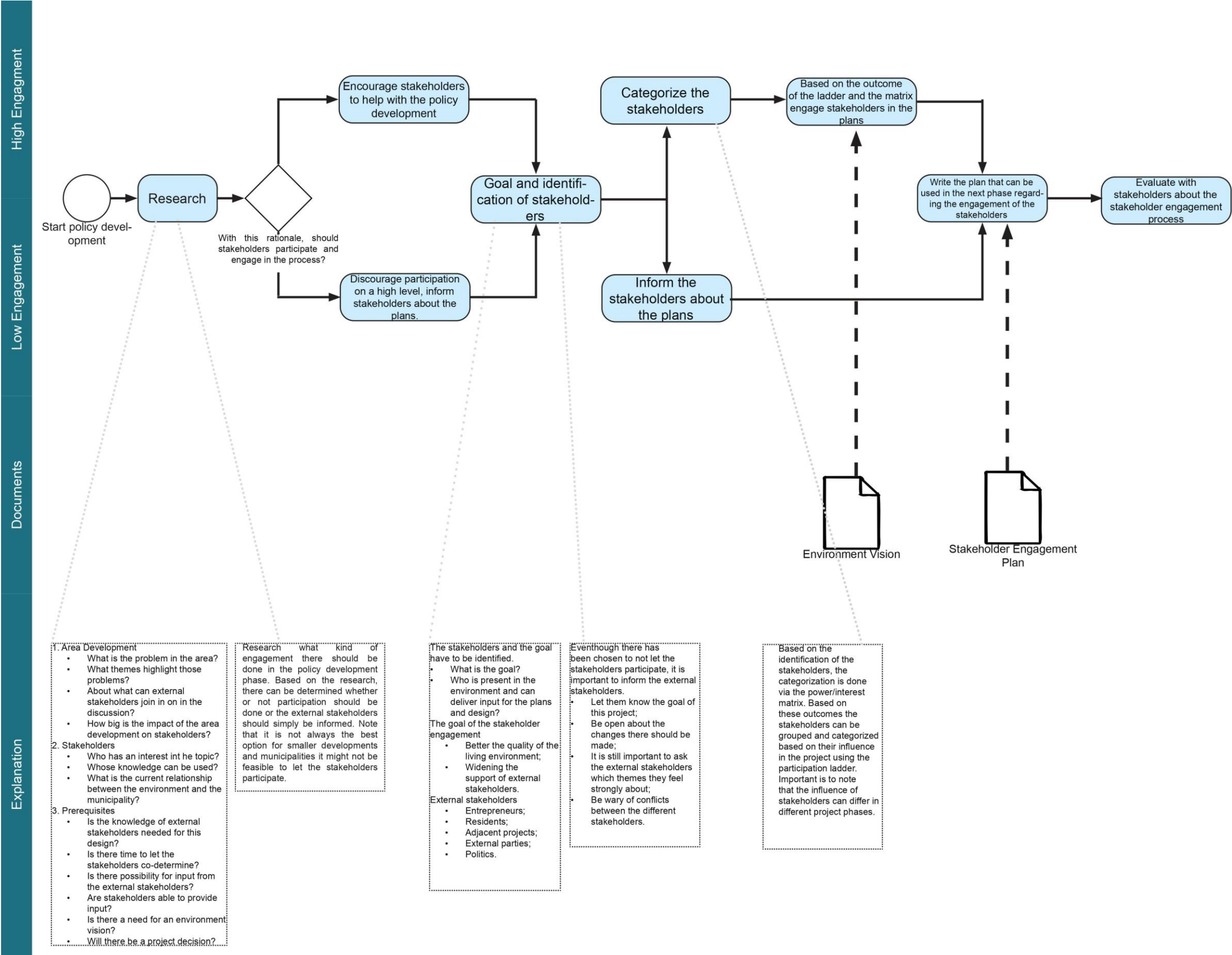
It is important complaints are managed correctly to minimize the chances of conflict. It is about resolving the complaints and identifying opportunities to improve the works.

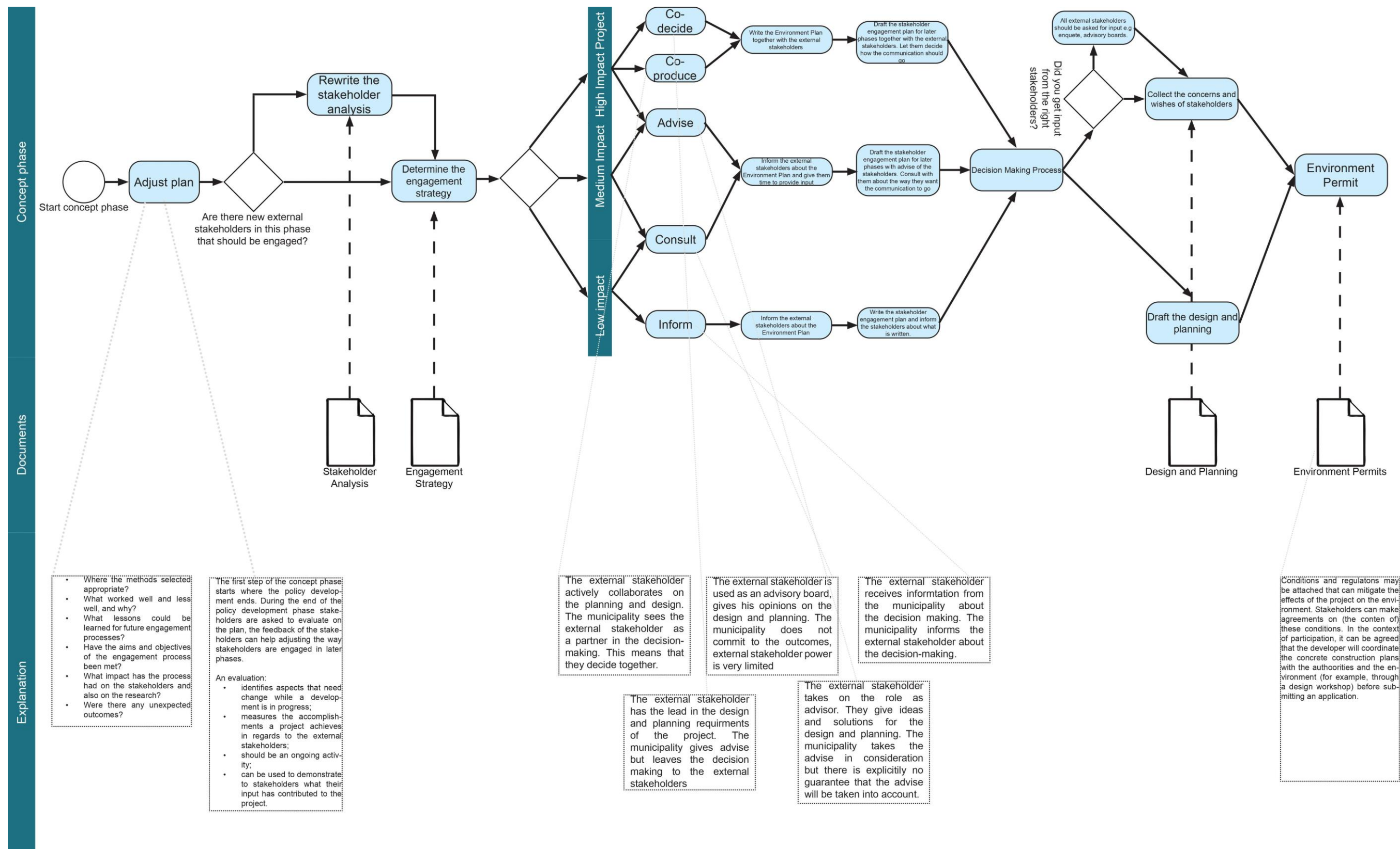
Step 6: Evaluate the stakeholder engagement process

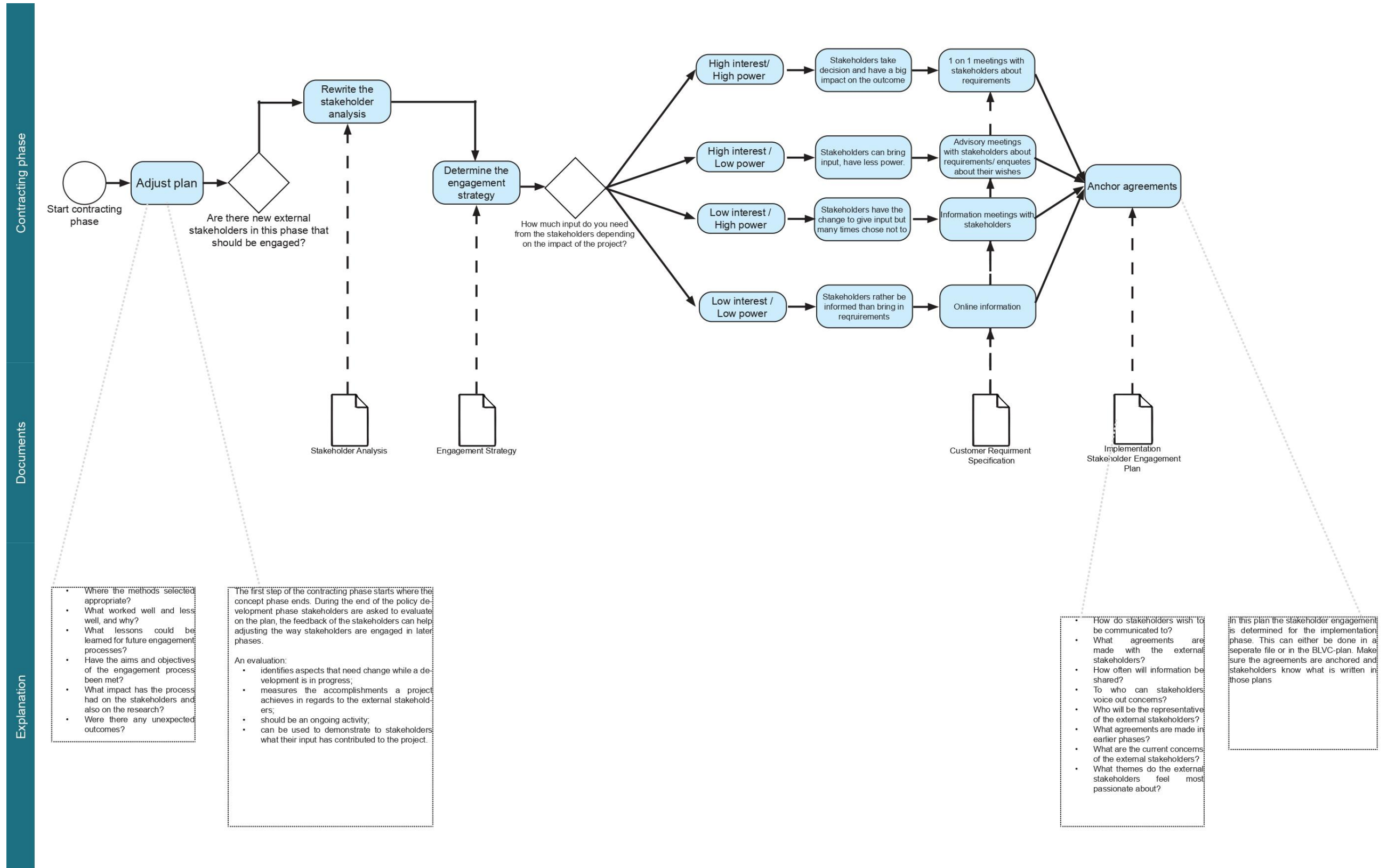
To evaluate the stakeholder engagement process, the stakeholders should be measured to see how well they responded to the stakeholder engagement process in the initiative phase. Here the conflicts and issues between the stakeholders can be analyzed as well as the constant changing influence of stakeholders and the identification of the different stakeholders as they can swiftly change.

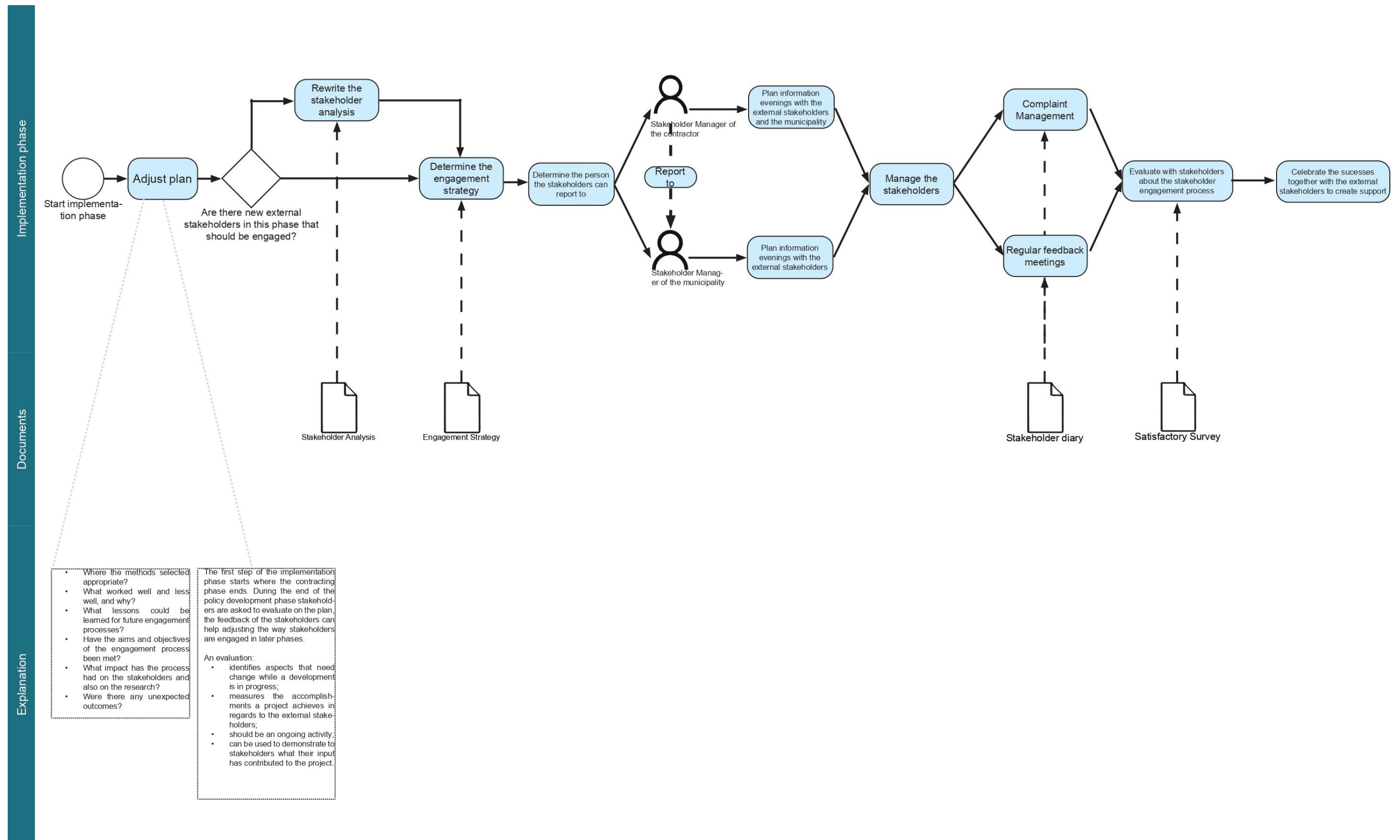
Step 7: Celebrate the successes together with the external stakeholders

Celebrating successes with the surrounding community is part of communicating and sharing the returns.









Appendix 19 - Validations

The model is validated by the experts. To make the roadmap clearer and more applicable, some adjustments which comes forward from the expert validation have been implemented. There are a few adjustments to be made from the model.

Q	Question text	Yes	No	Comment
1	The roadmap shows its intent clearly			
2	The roadmap helps bring structure to the stakeholder engagement process to manage the stakeholder engagement during the project phases			
3	The roadmap encourages reviewing the process with external stakeholders			
4	The roadmap shows when to engage stakeholders			
5	The roadmap visualizes different tools to support the stakeholder engagement process			
6	The roadmap will help to consult about the stakeholder engagement process			
7	The roadmap shows what stakeholders can do to participate			
8	The roadmap shows the stakeholder engagement process in all project phases			
8.1	Policy/Initiative			
8.2	Concept			
8.3	Contracting			
8.4	Construction			
9	The roadmap shows the 12 key components of stakeholder engagement as shown in Chapter 4.7			
9.1	Identify and analyze the stakeholders			
9.2	Working towards a common goal			
9.3	Communicate information via tools			
9.4	Participation			
9.5	Agreements and cooperation			
9.6	Openness / trust / respect			
9.7	Decision-making			
9.8	Report plans / involve in analysis			
9.10	Complaint management			
9.11	Manage the stakeholders during the implementation			
9.12	Feedback, evaluate and monitor			
10	The roadmap is available in both English and Dutch			

- Activities need to be more in line with the process in the project phases;
- Activities need to be activities not just a word;
- Not all activities mentioned on the project phase page are applicable for that phase, this needs to be changed;
- The policy development phase is not really applicable for the stakeholder engagement process of the consultancy company, because of this it is advised to change this to the initiative phase and make it more usable for the consultancy company;
- The names of the phases have to be changed because some are not how it should be named in Dutch and are not the way the Dutch building phases are named;
- The step that was missing was the way to discuss with the stakeholders how they really want to be communicated during the different phases, this has to be changed in the process model;

- It is in English not clear what is meant with Environment, this has to be clearly discussed, it should be called something like area.

As a result of the data gathered from the expert interviews, a few modifications had to be made to the roadmap. The roadmap did not clearly show how to use it and what every phase meant in the project. The respondents state that a small guide at the beginning of the process could help make it easier to understand. Also, the respondents state that the key activities should be given as activities, as now it was solely words and did not show that they were activities. According to the respondents it is a tool that can help project teams think about the way they want to design the stakeholder engagement process. According to them, it is a good and useful guide to help improve the stakeholder engagement process. The respondents state that the roadmap encourages reviewing the process with the external stakeholders, and that the roadmap offers ways stakeholders can be engaged. The roadmap advises to discuss and evaluate the stakeholder engagement process together with the stakeholders and shows when to engage the stakeholders. However, the respondents would like to have the impact of the project already determined in the initiative phase .

The respondents agree that different tools, like the participation ladder, are given to support the stakeholder engagement process when necessary. The respondents state that the different tools are given at the right moment. The respondents agree that it can help consult the municipality and its project team about the stakeholder engagement process. They do, however, state that it will still be in dialogue with them. The respondents do not think the roadmap shows what stakeholders can do to participate, as this is not specified within the roadmap. However, it does say how the municipality can get stakeholders to participate (advisory meetings/enquiries, etc.). Respondents state that the purpose of the roadmap is not for stakeholders to see how they can participate, but in what ways municipalities/governments can participate with stakeholders. The latter is what the roadmap does, so the respondents do not agree with the statement above mentioned about the showing of stakeholder participation but do think the roadmap does what it needs to be doing. One respondent state that it is not yet clear what the different project phases mean; a clear explanation needs to be given about the different phases. Different project teams differ in the way they pursue the project phases. By being clear about what needs to be done in which project phase it becomes a guide that is comprehensible. The respondent also mentions they do not agree with the policy development phase, as they feel this should be the initiative phase.

A few of the 12 key activities are not shown in enough detail. In the 'initiative' there is only a heading 'goal and identification of stakeholders', but then it does not continue with the goal and only focuses on categorizing the stakeholders/informing the stakeholders. A common goal is not mentioned anywhere. Openness, trust and respect are not emphasized enough in the roadmap. These points are indeed very important. Both from the municipality to the stakeholder and vice versa. During the time of the validation, the roadmap was only available in English. Because the company's roadmap is made for functions mostly in Dutch, it is required to also create a Dutch version.

Initiation phase

A project starts with the initiative phase, in this phase the government decide whether a project should come to be. In principle this is the municipality, but it can also be the province. In the initiative phase, there is still plenty of room for choices.

During the initiative phase a few things are important gathered from literature and the case studies.

- During the initiative is it important to be clear, objective, and transparent. Where the process, planning and decision moments are discussed with the external stakeholders when necessary. Have the process feedbacked and monitored;
- Provide thorough information so that all stakeholders can deliberate;
- Build social support; and
- Make sure that all stakeholders are represented and recognized by the environment.

The key activities for this phase are

- Set a common goal;
- Identify the stakeholders;
- Analyze the stakeholders;
- Write the communication plan.

Step 1: Research

In the initiation phase, research is conducted on the project. Here it is important to find out what the current laws and regulations are in the area of stakeholder involvement and approximately how much impact the project will have on the area. The area involves external stakeholders. It should be considered that they all want to be involved in the project in some way.

Step 2: Identify the stakeholders by means of an area scan

Every project and all project surroundings are unique. Therefore, an area scan should be done. With this the area is mapped out and there is known what is going on in the project surroundings.

Step 3: Depending on the research and area scan determine whether high or low engagement

The question is whether there should be high or low engagement. After which the goals are set of the project. With high engagement this should be done together with the stakeholders to get a common goal. With low engagement a goal should still be set, and external stakeholders should be informed.

Step 4: Make a stakeholder analysis

Identifying the stakeholders is important to later group and categorize them. With the help of different tools stakeholders can be identified. There should be looked at what their interests is in the project and what they will be affected by because of this project. Based on the identification of the stakeholders, the categorization is done via the power/interest matrix. Based on these outcomes the stakeholders can be grouped and categorized based on their influence in the project using the participation ladder. Important is to note that the influence of stakeholders can differ in different project phases.

Step 5: Inform or engage stakeholders in the writing of the communication plan

Discuss with stakeholders how they want to be communicated with. With the stakeholders who came out of the power/interest matrix as most important, choices

can be made about how to communicate. The other stakeholders should be asked for advice.

Step 6: Evaluate the stakeholder engagement process

To evaluate the stakeholder engagement process, the stakeholders should be measured to see how well they responded to the stakeholder engagement process in the initiation phase. Here the conflicts and issues between the stakeholders can be analyzed as well as the constant changing influence of stakeholders and the identification of the different stakeholders as they can swiftly change.

Definition phase

The definition phase is meant to gather the wishes and requirements from the external stakeholders. In this phase the developer starts with designing and planning and should share his input with the external stakeholders.

During the definition phase a few things are important gathered from literature and the case studies.

- During the definition is it important to be clear, objective, and transparent. Where the process, planning and decision moments are discussed with the external stakeholders when necessary. Have the process feedbacked and monitored;
- Decide how big the impact is on the external stakeholders, based on this organize the way stakeholders should be engaged and participate;
- During the design and planning the impact on the stakeholders should be considered, communicate the impact to the stakeholders;
- Communicate information to the stakeholders, with big impact let them advise on the plans.

The key activities for this phase are:

- Collect the wishes and requirements of stakeholders;
- Adjust the communication plan;
- Collaborate with stakeholders;
- Set agreements;
- Be open about the plans.

Step 1: Adjust Plan

The first step of the definition phase begins where the initiation phase ends. At the end of the initiation phase, stakeholders are asked to evaluate the plan; stakeholder feedback can help fine-tune how stakeholders are engaged in later stages.

Step 2: Engagement strategy

The second step is to determine how the external stakeholders should be engaged. There are different ways of engaging stakeholders according to the participation ladder. There are 5 different ways of engaging the stakeholders in the plan: inform; consult; advice; co-produce; and co-create. There are different outcomes that can come out of this, depending on the way the stakeholders should be engaged. Important to note is that the different stakeholder groups can be different in engagement strategy.

Step 3: Depending on the engagement strategy write the communication plan

When the engagement strategy has been chosen the engagement plan should be written together with the external stakeholders depending on how much input you need from them. The benefit of them helping with writing the engagement plan is that the municipality will know what the wishes of the stakeholders are regarding engagement, so they can act towards it.

Step 4: Write the customer requirements

The program of requirements includes the wishes and requirements of the stakeholders. External stakeholders are given the opportunity to describe any requirements based on the engagement strategy.

Step 5: Inform the stakeholders about the program of requirements

Step 6: Evaluate the stakeholder engagement process

To evaluate the stakeholder engagement process, the stakeholders should be measured to see how well they responded to the stakeholder engagement process in the definition phase. Here the conflicts and issues between the stakeholders can be analyzed as well as the constant changing influence of stakeholders and the identification of the different stakeholders as they can swiftly change.

Contracting phase

During the contracting phase, the final decisions will be made, and the plan will be finalized so it is ready for the implementation phase.

During the contracting phase a few things are important gathered from literature and the case studies.

- Build the support further by engaging the stakeholders;
- Have timely consultations with stakeholders about the decisions, have them advised/decide if necessary;
- Avoid unnecessary conflict by communicating correctly; and
- Be open about the changes that will be happening.

The key activities for stakeholder engagement for this phase are:

- Involve in the design and planning;
- Anchor agreements With the external stakeholders for the construction;
- Establish a BLVC framework.

Step 1: Adjust Plan

The first step of the contract phase begins where the definition phase ends. At the end of the definition phase, stakeholders are asked to evaluate the plan; stakeholder feedback can help fine-tune how stakeholders are engaged in later stages.

Step 2: Determine the impact of the project and the engagement strategy

The second step is to determine how the external stakeholders should be engaged. There are different ways of engaging stakeholders based on how high the impact will be on the external stakeholders and on their power in the project. For this there are four engagement strategies.

Step 3: Based on the engagement strategy decide how much input stakeholders can have
Stakeholders have different input possibilities. From this input the final design and planning can be made.

Step 4: Write the BLVC-framework

Stakeholders are asked, depending on their engagement strategy, how they want to communicate with. Based on their engagement strategy, they get to decide or get to give advice.

Step 5: Evaluate the stakeholder engagement process

To evaluate the stakeholder engagement process, the stakeholders should be measured to see how well they responded to the stakeholder engagement process in the contracting phase. Here the conflicts and issues between the stakeholders can be analyzed as well as the constant changing influence of stakeholders and the identification of the different stakeholders as they can swiftly change.

Construction phase

During the construction phase, the project is built and completed. In this phase it is important that there is no unnecessary nuisance for the environment.

During the construction phase a few things are important gathered from literature and the case studies.

- Communicate all information to the external stakeholders to avoid conflicts;
- Build social support by engaging the external stakeholders;
- Be open about when changes are made; and
- Prevent nuisance in the surrounding area.

The key activities for this phase are:

- Informational meetings;
- Complaint management;
- Report to the stakeholders;
- Manage the stakeholders.

Step 1: Adjust plan

The first step of the construction phase begins where the contracting phase ends. At the end of the contracting phase, stakeholders are asked to evaluate the plan; stakeholder feedback can help fine-tune how stakeholders are engaged in later stages.

Step 2: Determine the person the stakeholders will report to

It is important that stakeholders have 1 person they can go to with concerns, wishes, questions during the construction phase. This can be the stakeholder manager of the contractor or the stakeholder manager of the municipality. External stakeholders argue that they would like to have contact with the stakeholder manager from the municipality as they state that “we live in the municipality, so these are the people we want to be in contact with.” It is important that informational meetings are together with the other parties in a project team.

Step 3: Manage the stakeholders

The most important thing to get stakeholders to feel engaged and satisfied during the construction phase is to manage the stakeholder relationship accordingly. This means being open about the plans, having one person they can communicate with and that there is recognized there are different stakeholders in a project.

Step 4: Regular feedback meetings

Regular feedback meetings should be held to know how stakeholders feel and what their concerns are. This should be maintained in a stakeholder diary and the feedback should be followed up.

Step 5: Complaint management

It is important complaints are managed correctly to minimize the chances of conflict. It is about resolving the complaints and identifying opportunities to improve the works.

Step 6: Evaluate the stakeholder engagement process

To evaluate the stakeholder engagement process, the stakeholders should be measured to see how well they responded to the stakeholder engagement process in the initiative phase. Here the conflicts and issues between the stakeholders can be analyzed as well as the constant changing influence of stakeholders and the identification of the different stakeholders as they can swiftly change.

Step 7: Celebrate the successes together with the external stakeholders

Celebrating successes with the surrounding community is part of communicating and sharing the returns.

Appendix 20 - Adjusted Roadmap Towards External Stakeholder

on request