



**CHALMERS**  
UNIVERSITY OF TECHNOLOGY

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# **Project portfolio management and project management offices in local government**

## **Challenges and possibilities in Gothenburg**

Master's Thesis in the Master's Programme International Project Management

NILS LINDAHL

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**Department of Technology Management and Economics**  
*Division of Service Management and Logistics*  
CHALMERS UNIVERSITY OF TECHNOLOGY  
Master's Thesis E2017:110  
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## ABSTRACT

In response to the shortage of housing and political and societal demands the city of Gothenburg has initiated many land development projects leading to a high pressure on its municipal offices. Current lack of efficient frameworks for multi-project management have several offices operating with strained resources to deliver projects. This thesis investigates the current state of project management in the public offices and if and how principles of project portfolio management and project management offices can be implemented to support effective project delivery in municipal offices. The qualitative case study includes a literature review and semi-structured interviews. The empirical findings show numerous challenges to the practice of effective project management, implementation of project portfolio management and project management offices that indicate low project management maturity levels in the organizations. The conclusions drawn show that project portfolio management can address the challenges faced in dealing with the multi-project setting. More urgent however is development of project management maturity and effective project management practices as this is essential to support effective project portfolio management. A possible way of addressing these challenges and facilitate implementation of more effective project management practices and project portfolio management is identified in the project management office.

Key words: Project management, project portfolio management, project management office, public offices, public organizations, resource management, efficiency, municipal, land development, organizational project maturity, local government

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## Preface

The research conducted in in this thesis was motivated by the identified need for developing processes and tools for multi-project management in the municipal organizations of Gothenburg as well as the authors' personal, combined interest in organizational development and urban development. Prior to project management, the author has a background in studying the Chalmers Business Development and Entrepreneurship in Construction and Property programme. In this research the challenges and possibilities associated with project portfolio management and project management offices in municipal organizations have been investigated. The thesis covers topics of project management, organizational development and public and private management. The research has been conducted as a qualitative case study in order to capture more nuanced and profound accounts and views from interviewees. The case study has focused on the three primary municipal organizations responsible for the land development process in Gothenburg. The empirical data was gathered through semi-structured interviews with employees at the three studied organizations. Its results and conclusions present current challenges in project management and possibilities for future development and enhanced performance.

This thesis has been carried out as the final part of the collaborating M.Sc. programs International Project Management at Chalmers University of Technology in Gothenburg, Sweden, and Project Management at Northumbria University in Newcastle upon Tyne, UK. The researcher has collaborated with the Property management administration (Fastighetskontoret) in Gothenburg and the research has been carried out between January and September 2017.

I would like to thank Göran Lindahl and Sara Bergdahl and all others who have supported and helped me throughout this process by providing insights, feedback and inspiration. Furthermore, I would like to thank my supervisor at Chalmers, Professor Jan Bröchner for academic support and feedback. In addition, I would like to extend a thank you to the participants for their time and answers to my questions, and specifically to my contact at the Property management administration, Lisa Kallmér, for support and encouragement.

Gothenburg, September 2017

Nils Lindahl



# 1 Introduction

The following chapter will introduce the background of the study and the context in which it has been carried out. Furthermore, it will introduce the concepts project portfolio management and project management offices.

## 1.1 Background and rationale

Gothenburg is the second largest city in Sweden and is celebrating 400 years as a city in 2021. The city has grown a lot over the last decades and is approaching 600 000 inhabitants with an estimated growth in population of 30% until 2035 (Byggnadsnämnden, 2014). As in many areas across Sweden there is a shortage of housing in Gothenburg affecting both inhabitants (Loudiyi, 2016) and businesses moving to or already established in the city (Businessregiongoteborg.se, 2017). The shortage of housing and the approaching 400-year celebration has spurred an increase in urban, housing and infrastructure development projects.

The new projects have been added to the normal production of land development projects and there is a possibility for 30 000 new homes being planned, designed and built until 2022 (Byggnadsnämnden, 2014). The municipal offices involved in these processes are under pressure from political and societal demands to meet the expectations and deliver the projects on time. However, the municipal organizations are facing challenges in adapting to the amplified multi-project environment. The current number of planned and ongoing projects are pushing the boundaries for current organizational processes and resources. Furthermore, the complexity of politically governed organizations combined with limited resources are affecting the city's ability to deliver the desired project outcomes. The municipal organizations are looking at ways to address these challenges and have tentatively implemented project portfolios and are reviewing processes.

Project portfolio management is a well-known concept in the private business sector and is generally found in any organization operating in a multi-project setting. The purpose of project portfolio management is essentially to ensure the organization does the right projects from a strategic point of view. It is a way of categorizing projects in programs and portfolios and managing them strategically (PMI, 2013). Project portfolio management entails appraising, selecting and prioritizing between projects as well as monitoring the projects and portfolios and allocate resources (Kendall and Rollins, 2003). The main focus of project portfolio management is aligning projects to organizational strategy to realize goals and benefits such as improved performance and resource management or better return on investments (PMI, 2013, APM, 2012). Strategic governance and functioning project management practices are vital factors for effective project portfolio management (APM, 2012, Hill, 2013) however these factors are challenging and often underdeveloped in politically governed and public organizations (Andrews et al., 2006, Aubry and Brunet, 2005, Bovaird and Löffler, 2009, Rainey, 2014).

A project management office is an organizational unit with many possible tasks and functions (Hobbs, 2007). While the scope of project portfolio management is to manage and support a certain set of projects the scope of the project management office is wider, providing support to

project managers and project teams while also overseeing project management practices in general (Dai and Wells, 2004). The role of the project management office varies greatly as it needs to be tailored to the organization in which it is implemented. A project management office is commonly involved in standardization of governance and project management processes. The unit provides support to projects and supports project management through providing methodologies, tools and techniques. It can be either directly involved in managing projects or have a more supportive role, providing guidance, templates and frameworks (PMI, 2013).

Furthermore, a project management office can also be tasked with running the project portfolio management (Hurt and Thomas, 2009, van der Linde and Steyn, 2016, Unger et al., 2012). As with its application in project management the project management office tasked with portfolio management can have different roles. Its role can range from directly managing the portfolio to supporting effective portfolio management through coordination and facilitation of top management involvement and knowledge management (Unger et al., 2012, Hill, 2013). The use and research of project management offices in public organizations is still emerging. However, research and cases-studies show that public organizations struggling with strategic alignment of projects, strategic governance and project management have benefited from project management office implementation (Santos and Varajão, 2015, Esquierro et al., 2014, Pilkaitė and Chmieliauskas, 2015).

Addressing the challenges faced by the municipal organizations of Gothenburg in multi-project management requires a proactive approach. The level of land development in the city of Gothenburg will continue to increase over the coming decades (Byggnadsnämnden, 2014) and requires structures that can support it. Applying concepts like project portfolio management and project management offices that have emerged from the private sector to public organizations holds challenges and possibilities. The focus of this qualitative case study is how these concepts can support project delivery in the municipal organizations of Gothenburg and what challenges and possibilities there are for its implementation. These challenges and possibilities relate both to factors of implementation and how it affects organizational processes and structures

## **1.2 Purpose, aims and objectives**

The *aim* of this thesis is to investigate the management of land development projects in the Gothenburg's local government offices and to what extent project portfolio management can support this management. The *objective* is to study issues and challenges related to the implementation of project portfolio management as well as effects on practices and the organization. The *purpose* is to support and enable more efficient performance of project execution in public sector organizations.

RQ1 – What is the state of project management and project portfolio management in the organizations?

RQ2 – What are the challenges for implementing project portfolio management in local government offices?

RQ3 – Is the use of a project management office approach an appropriate solution for project portfolio management in a municipal context?

### **1.3 Delimitations**

The City of Gothenburg has their own translations for the names of the organizational departments studied in this thesis. However, these translations are dated and may not represent international modern application in describing local government organizations. To avoid confusion the term “office” has been used instead. Furthermore, “office” is closer to the original Swedish designations and should not affect the comprehension of the study for Swedish or international readers.

This study focus on the offices involved in the land development process in Gothenburg, the property management office, city planning office and traffic and public transport office. There are other municipality owned companies, authorities and offices involved in some cases and to varying extent in the land development process however they have not been considered in this study. The normal process mainly involves the three offices mentioned above, and including all cases involving other parties would widen the scope of this thesis significantly. Furthermore, the interest of the study has been interrelation of management and processes in the joint land development processes of these offices and not the wider context.

### **1.4 Thesis structure**

The thesis is divided into nine chapters with the first being the introduction to the study providing background, purpose, scope and delimitations.

The second chapter presents the theoretical framework and includes a literature review of the areas project management, project portfolio management, project management offices and characteristics of public organizations.

The third chapter presents the methodology used to conduct the research. This chapter presents the research strategy and approach as well as methods for interviewing and analysis and brings up the concepts of reliability, validity and research ethics.

Chapter four gives an overview of the case and the context of that case by describing the laws and regulations of land development in Sweden and the studied organizations.

In chapter five the results and empirical findings of the study are presented which is then analysed and discussed in relation to the theoretical framework in chapter six.

Final conclusions are presented in chapter seven along with applications and recommendations for future research. Chapter eight and nine respectively contains appendices and references.

## 2 Theoretical framework

The following chapter will outline the theoretical basis for this thesis. It describes the concepts of project management, project portfolio management and project management offices as well as their role in private and public organizations.

### 2.1 Project management in organizations

Project management as a professional and academic discipline has been developing over a long time and project management as a tool for improving productivity is increasingly used in organizations. The methodologies and tools of project management have been adopted by countless organizations and project management is widely attributed to organizational benefits (Mir and Pinnington, 2014). Mir and Pinnington (2014) find that there is a close relationship between project performance in organizations and project success and that developing project management performance can enhance project success rate.

The popularity of project-based organizations has been increasing for some time and more and more organizations are adopting a project-based workflow. Projects are commonly regarded as temporary endeavours with the aim of delivering a unique product, service or other outcome. Being temporary by nature projects have a definite beginning and end from when an idea is formulated to when the goals of the projects are reached or the project is terminated. A project may be terminated on various grounds but commonly it is a result of the project not being viable or the circumstances warranting the project no longer exist. (PMI, 2013)

Although projects may be temporary and create a rather wide variety of unique outcomes there are some processes that may be repetitive across projects and their delivery. What makes each project unique even though they may appear the same is the setting in which it is carried out, different stakeholder, circumstances and design. Projects may be executed by a single person or multiple organizational divisions but they always involve some sort of uncertainties and risks. (PMI, 2013)

Project management is the application of knowledge and skills as well as tools, techniques and frameworks for executing project activities and meeting project requirements and deliverables. According to the *Project management body of knowledge* (PMI, 2013) the processes of project management can be categorized into five groups:

- Initiating
- Planning
- Executing
- Monitoring and Controlling
- Closing



These components of project management further involve multiple processes in themselves that form the project. As an example, the initiating component involves processes for determining what the project will accomplish and how that will be achieved and measured. This approach of planning ahead is typical for traditional project management (Wysocki, 2013). Traditional project management is universally applicable and setting up a project using principles of traditional project management would entail building on the five categories of project processes as defined by the PMI (2013) above and build from there. Initially the client's needs and desired outcomes of the project would be established. After this the project can be planned, budget and resource needs can be established as well as how to deal with the risks associated with the project. As planning processes are finished the project execution phase can begin followed by monitoring and controlling. Monitoring and controlling the project is paramount to predict and avoid risks, keep budget and time constraints and meet the desired outcomes. Closing the project involves processes for evaluating and measuring project performance and success as this can be used to improve coming projects (Wysocki, 2013).

In addition to the project structure presented above there are several other frameworks for handling projects as the traditional approach may not always be the most effective and flexible. These approaches to project management have commonly been developed in order to handle the varying demands of different sectors or contexts such as Agile (APM, 2012), developed in the software industry, or to provide a universal project management framework applicable to all projects such as the PRINCE2 (Matos and Lopes, 2013), developed by the UK government.

### **2.1.1 Project maturity**

As a relatively modern concept; the maturity level of an organization is a way of describing its effectiveness in performing certain tasks. The maturity concept is used to assess organizational procedures and map logical ways of organizational improvement.

The existing models originated from the software engineering industry which is an industry with inherently high complexity as projects deal with more unknowns, variables and intangibles than what may be considered normal. Thus, project success is in many cases dependent on certain developers and their skills rather than their role in the organization. Having the expected outcome of a project dependent on a person makes it impossible to obtain predictable results once that person leaves the company or the projects reach a certain size and complexity. Consequently a large amount of resources were put into developing the first Capability maturity model in an effort to help organizations obtain consistent results (Crawford, 2014).

Langston and Ghanbaripour (2016) review some of the more prominent project maturity measurement models (CMMI, P3M3, OPM3) and while they differ in scope and design many aspects are similar. Common between these models is that they use a scale based on whether the measured organization has structured processes in place for handling different aspects of project management and how it works with improving such processes as exemplified by Table 1 showing the maturity levels of P3M3.

TABLE 1: SIMPLIFIED PROJECT MATURITY LEVELS OF P3M3, ADAPTED BY AUTHOR FROM LANGSTON AND GHANBARIPOUR (2016)

Maternity level	Portfolio management	Program Management	Project Management
Level 1: Awareness of process	Recognition of project, programs and portfolios and their operation		
Level 2: Repeatable process	Projects, Programs and portfolios have their own processes and are run to minimum specified standard		
Level 3: Defined process	Processes are centrally controlled and projects, programs and portfolios can adapt within them to suit particular needs		
Level 4: Managed process	Measurements and metrics are obtained to measure future performance		
Level 5: optimised process	Continuous improvement with proactive problem and technology management to optimise performance and processes		

Criticisms of the current models are that they give little regard to intangible and human factors contributing to mature project management capability such as customer involvement and context-specific outcome or creativity and trust. Instead, they are firmly rooted in explicit project management knowledge areas which also makes them inflexible and at risk of not acknowledging technological changes, organizational developments and innovation. Thus, many models are considered complex and too reliant on theoretical concepts according to Langston and Ghanbaripour (2016).

## 2.2 Project portfolio management in organizations

Originally portfolio management and theory was applied mainly in financial asset selection but has since been developed and applied in project selection. Project portfolio management has extended past the scope of original portfolio theory factors of risk and return and involves a greater set of activities (Kaiser et al., 2015). Project, program and portfolio management is a way of categorizing projects within an organization operating in a multi-project setting. Management of projects, programs and portfolios is driven by alignment to the overall organizational strategies and goals. Project, program and portfolio management are interlinked but have individual ways of contributing to the achievement of strategic organizational goals. (PMI, 2013)

Portfolio management is concerned with selecting which projects or programs are to be undertaken by the organization, prioritizing between them and providing resources. Program management provide support for a grouping of projects and program components, and managing

interdependencies to realize specific benefits while project management is in turn concerned with the implementation of plans to achieve a specific project scope. (PMI, 2013)

Project portfolio management is typically implemented to realize certain performance enhancing benefits, improved resource management and to improve return of investment. For project portfolio management to provide these benefits a set of activities and tasks must be performed regardless of sector and business environment. Perhaps the most important aspect of project portfolio management is choosing the right project mix in order to utilize the organizational resources effectively and achieve the most benefits and value to stakeholders. Furthermore, it is paramount to ensure the correct scope as many projects lack the company-wide strategic alignment to ensure the changes needed to meet organizational goals. Moreover, if projects are not executed quickly and in the correct sequence the organization is at risk of starting too many projects creating resource allocation issues and slowing down ongoing projects. (APM, 2012)

The APM body of knowledge (2012) further states that to be able to practice effective project portfolio management certain roles must be defined. One of these is governance and is concerned with the decision-making responsibilities of top management in questions such as approving projects, prioritizing, resource allocation, project reviews etc. Furthermore, the role of management must be defined in relation to project portfolio management as it is tasked with ensuring that the management system are in control. This means that the goals of the system can be predictably met in nearly all cases and projects are finished on time, budget and within scope. The last role that needs to be defined according to the APM body of knowledge (2012) is the role of project portfolio management. This role provides information and recommendations to the governance group and monitors ongoing projects while also tracking strategic alignment among projects and programs. Furthermore, it is the project portfolio manager's role to notify strategic planning and governance when projects are not meeting goals or have enough resources.

Not all portfolio management systems are reaching the intended goals. Kendall and Rollins (2003) present some common problems faced by organizations in project portfolio management and how to improve on its execution. The main problems commonly faced in project portfolio management is that the organization is running too many projects simultaneously and that these projects i.e. the wrong projects, are not providing value to the organization. Furthermore, projects not linked to strategic goals and having an unbalanced portfolio is a major concern for any project portfolio. (Kendall and Rollins, 2003)

Additionally Kendall and Rollins (2003) argue that there are three common problems in how projects are sanctioned in an organization. Firstly, senior management rarely set goals measurably linked to projects i.e. it is often not identified or adhered to how the projects will fulfil the intended goals. Without this information, it is hard for the portfolio manager to evaluate the health of the portfolio. Secondly, active projects are not formally tracked to measure if and how they are reaching the goals, and if they are, organizations often fail to use the information as a base for measuring performance. Lastly Kendall and Rollins (2003) argue that many projects are initiated that are not sanctioned by any executive.

The responsibilities of project portfolio management can according to Kendall and Rollins (2003) be divided into six major areas:

- Determining a viable project mix that can help the organization meet its goals.
- Creating balance in the portfolio by achieving a mix of projects in relation to risk, timeframe and research etc.
- Monitoring, planning and execution of chosen projects.
- Analysis and improvement of portfolio performance.
- Evaluating new opportunities against the current portfolio.
- Providing information to decision makers throughout the organization.

(Kendall and Rollins, 2003)

Kaiser et al. (2015) argue that project portfolio management is not only about implementing the right methodologies and techniques for project selection. They find that successful project portfolio management is interconnected with structural alignment. This implies that the strategy of project portfolio management shapes the organization and in order to successfully implement it there is a need to understand the organizational effects and the necessary measures of project portfolio management and strategy implementation.

### **2.2.1 Project portfolio management and efficiency**

The multi-project setting is often described as an inherently volatile one and a highly political climate with continuous competition between managers for priorities, attention and resources. Engwall and Jerbrant (2003) argue that most authors look at resource allocation mostly as a problem before the implementation of portfolio management however their findings show that this might not be a correct way to address the resource allocation problems many organizations are facing. Instead Engwall and Jerbrant (2003) state that organizations working in a multi-project setting may be subject to a “resource allocation syndrome”. Through case studies they show that even though the primary issues were concerned with resource allocation there were no resources or slack to allocate. Instead resources were shifted around causing problems in other projects which in turn led to constant firefighting from management. It is also notable that the findings from Engwall and Jerbrant (2003) show that the main tool available to portfolio management when a project was in trouble was resource re-allocation, despite the negative effects on other ongoing projects.

According to Engwall and Jerbrant (2003) it is symptomatic for the multi-project setting itself to cause resource allocation difficulties, regardless of the size, type or context of the projects. The complexity of planning and scheduling is present both pre- and post-portfolio management implementation. Furthermore, organizations have a tendency to initiate more projects than they have resources for, focusing on winning contracts rather than prioritizing between projects.

## 2.3 Project management offices in organizations

While a project or program office is responsible for managing and supporting certain projects or groups of projects, a project management office as an organizational entity has a wider scope in its operation supporting project managers, teams and the implementation of project management tools, methodologies and practices (Dai and Wells, 2004). Despite being widely implemented there are many views on the value and functions of the project management office (Hobbs, 2007). A project management office can be many things but is often described as a structure within an organization tasked with the standardization of governance processes and support of an organizations project management efforts in terms of methodologies, tools and techniques (PMI, 2013). The project management office's role can be highly diverse, from providing support to being involved in directly managing projects. There are three types of project management offices as explained by the PMBOK which differs in influence and control over projects (PMI, 2013). However, it is also said that the structure and function of the project management office should always be tailored to the needs of the organization that it operates in.

The first type mentioned in the PMBOK (PMI, 2013) is the *supportive* project management office. It has a consultative role towards projects and operates by supplying templates, best practices and training. Moreover, it provides access to lessons learned and information from other projects. The second one is the *controlling* project management office which while also having a supportive role demands some degree of compliance, introducing methodologies or frameworks through tools, forms or governance. The last type is the *directive* project management office which is the type of project management office directly involved in managing projects.

The project management office collects data and information from the whole organization and evaluates the strategic alignment between organizational goals and projects. The project management office becomes a natural liaison between the organizations projects, programs and portfolios as well as its performance measurement systems. The project management office may also have varying degrees of influence over projects and can be an important stakeholder in projects having authority as a decision-maker throughout the project life-cycle. This means for example that it can make recommendations or terminate projects in order to keep alignment to organizational goals and objectives. In other scenarios the project management office can be involved in the selection, management and execution of projects and organizational resources (PMI, 2013).

Although project management offices are supporting the project managers in their work there is a clear distinction between the role of the project manager and the role of the project management office. While the project manager has a focus on realizing the goals of the project the project management office has a broader scope and manages large program changes opening up for new business opportunities. The project management office optimizes and allocates resources between projects while project managers control the resources within their project. Project managers are concerned with the restraints of project management (time, cost, scope) while the project management office manages methodologies, standards, measurements and interdependencies between the projects (PMI, 2013).

Project management offices are generally found in the top layers of an organization. They operate as formalization of governance strategies by being positioned between top management and project management. An important role of the project management office is facilitating knowledge sharing and knowledge management (PMI, 2013). Knowledge management is a concept of creating, storing, sharing and using knowledge in an organization developed from skills, experiences and information derived from projects (Hanisch et al., 2009). Pemsel and Wiewiora (2013) find that while project managers take pride in their work they are lacking in knowledge sharing practices to pass on their knowledge to others. Moreover, project management offices usually help facilitate this through supplying frameworks for knowledge sharing, however there is a divide between systems in place for explicit and implicit knowledge. The distribution of explicit information was more developed in the organizations researched by Pemsel and Wiewiora (2013) while tacit knowledge was still a limited field.

Dai and Wells (2004) find that project management offices can be valuable in organizations for providing project management implementation, knowledge management and organizational efficiency. Project management standards and methods are closely related to project performance while an ad hoc approach to the use of project management creates inefficient organizations and projects. In addition, the project management office ability to gather and distribute knowledge and information and the use of lessons learned is imperative for project performance. Hill (2013) discusses the knowledge management practices of project management as a cornerstone in enabling increased project management maturity. Accomplishing this extends the idea of communication in project management from transferring data to conveying ideas, experiences and interpretations.

According to Hurt and Thomas (2009) project management offices struggle to prove their long-term value. When the project management office has reached its intended goals and benefits it is regularly closed down creating a cycle in organizations where project management offices are implemented and closed down. Nevertheless Hurt and Thomas (2009) argue that project management offices can be built to be a sustainable organizational entity. To accomplish sustainability in project management offices requires a strong core project management ideology and focus as well as the ability to adapt and shift focus from one area to the next, effectively reinventing themselves over time. This should according to Hurt and Thomas (2009) be done while keeping the core project management ideology and foundation of the project management office. Hurt and Thomas (2009) acknowledge that achieving this takes a lot of effort however implementing and closing project management offices repeatedly is in itself a time-consuming practice.

### **2.3.1 Project management office as a tool for managing portfolios**

Project portfolio management is the concept of recognizing all the current, ongoing and planned projects of the organization allowing for individual and comparative examination and is ultimately the responsibility of senior executive management. However, as established the project management office can have many varying functions and so also be tasked with a project portfolio management function (Hurt and Thomas, 2009). In this capability, the project management office can coordinate, facilitate and manage top level managers' involvement in the aspects of project portfolio management such as, alignment to business strategy, project approval, resource allocation, project prioritization and reviewing project and portfolio performance. Although the project management office can implement processes for such activities it is

inherently so that the project portfolio management should be a collaborative effort with senior management (Hill, 2013).

Hill (2013) further states that project portfolio management capability in the project management office is dependent on the interrelation between top level strategic governance and operational project management capability. Senior management need to provide useful guidance and strategies as well as sound critical decisions while also ensuring that there is adequate project management capability in the organization. Project management methods for planning, communication, knowledge management, resource management and project management competence are necessary for the organization to be able to support the processes of project portfolio management. Information generated at project level is the basis for project portfolio management decisions which is why project portfolio management will only be as good as the organizational project management capability (Hill, 2013).

Unger et al. (2012) present three distinct roles for project management offices directly responsible for project portfolio management and link them to successful project portfolio management implementation. The first role is *coordinating* which means that the project management office is responsible for allocating and reallocating resources across projects and facilitates cooperation managing conflicts of resource allocation. Furthermore, this role is involved with project appraisal and selection as well as coordination and support across projects and departments.

Second is the *controlling* role which is mainly concerned with information gathering, distribution and management to support decision-making needed for portfolio management. The information must be reliable, sufficient and accurate on a project level to suggest solutions. In addition, this role can also engage in information sharing and knowledge management internally and towards stakeholders.

Role number three is the *supportive* role which is more directly involved in projects and their implementation. The role provides support to projects, project members and project leaders on matters of project management and promote project management standards within the organization. Additionally, this role can also handle development and improvement of standard project management methodology.

Unger et al. (2012) find that the two roles *coordinating* and *controlling* have a direct impact on an organization's effective project portfolio management execution through resource allocation and coordination. The work of project management offices focused on project portfolio management is instrumental to an organization's multi-project management ability, ensuring value in its operation. The supportive role however was not found to improve project portfolio management quality although it is often promoted that project management offices deliver supportive activities. Unger et al. (2012) argue that this may be because of the single project level focus of the supportive role and that rather than project portfolio management quality it affects portfolio value creation. Nevertheless, the supportive role affects the single project performance and success consequently affecting the portfolio quality in an indirect way. A case study by van der Linde and Steyn (2016) also confirms the view that project management offices can have

positive effects on project portfolio management. They also found that the implementation of a project management office had dramatic effects on introducing systems and methodologies in the organization.

## 2.4 Characteristics of public organizations

Public and private organizations have different characteristics in how they operate but as Rainey (2014) argues in *Understanding and Managing Public Organizations* the exact differences and how distinct they may be are often hard to determine. One way of viewing the relationship between public and private organizations is distinguishing between organizations that benefit the public in general, i.e. public, and private business organizations which benefit the owners. The problem with this definition is that defining and measuring the public interest and what constitutes general benefits is not without problems (Rainey, 2014) as public services may be delivered through private functions or contractors (Bovaird and Löffler, 2009). The distinction can also be made in terms of ownership where public sector organizations are collectively owned and private sector privately owned (Bovaird and Löffler, 2009). Nevertheless, what can be said about characteristics of public organizations is that they are heavily influenced by the political and governmental landscape in which they operate. Furthermore they supply vital services and functions to citizens that are dependent on them. The inadequate organization and management of these organizations can therefore create problems and irritation among the public on a scale from trivial to severely dangerous. (Rainey, 2014)

A common notion is that public organizations operate less efficiently than private business organizations however Rainey (2014) argues that this may be an oversimplification that does not consider the managerial differences and public interests in public and private organizations respectively. It is also noted that maintaining a balance between effective operation and democratic control commonly creates constraints and impediments for employees in public organizations to act as their corporate counterparts. Measuring organizational performance is often linked to having a clear goal structure. This would suggest that having clear goals to measure progress against would help public organizations perform better, supporting the idea that for governmental organizations to perform better they can become more like business firms. However, operating in a wider spectrum of stakeholders as is the fragmented, political environment of public organizations there is not necessarily a consensus regarding goals and performance measures. The general notion of profitability does not apply to public organizations making the discussion on performance in public sector even more complex as the absence of economic markets makes the relationship to incentives and performance indicators diffuse. (Rainey, 2014)

Elaborating on the differences between public and private organizations Bovaird and Löffler (2009) discuss the effects on strategic management. The political context of public organizations is affected by the role of the politicians and their interaction among themselves and with stakeholders, such as the media. Politicians often have different views on strategic issues and the pressure from recurring elections can foster a short-term approach to decision-making. Strategic management involves focusing efforts and activities on one area while choosing not to focus on others. This is often controversial and public sector organizations can rarely enjoy the public united adherence to new policy that private sector organizations can. The political climate creates a situation where strategic decisions constantly need to be defended from opposition politicians



and the many stakeholders of public sector organizations. This can lead to inconsistent decision-making and reversal of strategic decisions already made (Bovaird and Löffler, 2009).

Although describing public organizations is at risk of simplifying complex structures Rainey (2014) provides some insight to the distinct characteristics of public organizations. The lack of an economic market and the reliance on governmental allocation of resources means there are less incentives for cost reduction, efficiency and performance. Furthermore, public organizations and its managers are under greater scrutiny and operate under more elaborate legal constraints. The external political influences and stakeholders are generally more influential and affect decision-making as more groups and influencers need to be taken into consideration. There is also a difference in expectations of fairness, transparency and accountability when it comes to public organizations as their services or products are often monopolistic and unavoidable having a broader societal impact. Managers in public organizations often have weaker authority than their private sector counterparts even though their practices are found to be generally the same. Due to the political influence and many stakeholders processes for decision-making and change are more cumbersome. Balancing the external and internal political, managerial, administrative and legislative factors weakens the position of public sector managers.

In addition Rainey (2014) presents a concise review of the available literature on high performing public sector organizations and there are some clear commonalities between the studies. High performing public organizations seem to have in common that they have a clear goal and mission structure which is communicated not only externally but internally as well as a service driven focus. Furthermore, their managers and leadership are accountable, committed and aligned with the organizational values, and employees are empowered and motivated through clear and well managed communication processes. In relation to change they are adaptive and flexible and have defined goals, and critical tasks are used to measure performance.

#### **2.4.1 Motivational factors**

Motivational factors in the work environment can come from many sources and there are several theories on what motivates us. Among them Maslow's theory of needs and Herzberg's theory of internal and external factors are commonly used (Boddy, 2001). Furthermore Buelens and Van den Broeck (2007) find that the different work environments offered by the private and public sector also constitute a difference in motivational factors among employees.

The theories on motivation are important in understanding the driving forces behind decisions as well as in project management as a tool to enhance team efficiency. Efficiency is driven by motivated team members and not the team as such. The theory on motivational factors put forward by Herzberg in 1959 deals more directly with workplace motivation than the more general perspective of Maslow's theory. The theory establishes factors that inspire and factors that does not inspire workplace motivation. (Boddy, 2001)

Factors associated with good work experiences:

- Achievement
- Recognition
- Work itself
- Responsibility
- Advancement

Factors associated with bad work experiences:

- Company policy and office
- Supervision
- Salary
- Interpersonal relations
- Working conditions

Boddy (2001) establishes that positive work experiences seem to relate to the actual work being done and that factors related to bad work experiences seem to derive from surrounding circumstances. Developing this theory Boddy (2001) finds that motivation comes from a sense of growth and self-actualization (motivators) while adverse working conditions, unsatisfactory salary or company policy make for less motivation (hygiene/maintenance factors). These findings form the basis for the theory on intrinsic and extrinsic rewards. Salary and promotion are examples of extrinsic rewards and can by themselves not motivate performance however the lack of or dissatisfaction with them makes us less motivated. Intrinsic rewards such as a sense of achievement, use of skills and work satisfaction is imperative for motivating efficiency and performance. (Boddy, 2001)

There are many stereotypes regarding the differences between private and public sector work and also in relation to motivation. Common stereotypes are that employees in public sector are more motivated by a “cause” and less so by monetary gain having more altruistic characteristics than their private sector counterparts. Many of these stereotypes in differences between private and public sector have been proven to be true according to research however factors such as hierarchical position, age, culture and gender also explain some of the differences (Hammer and Van Tassell, 1983, Karl and Sutton, 1998, Buelens and Van den Broeck, 2007, Baldwin, 1987). Buelens and Van den Broeck (2007) find that intrinsic motivational factors are more important among public sector employees and that as opposed to private sector employees they are less motivated by salary. While challenge, self-development and responsibility are motivating factors to private sector employees they are not great motivational factors among public sector

employees. Instead a supportive work environment is an example of a strong motivational factor in public sector work (Buelens and Van den Broeck, 2007).

#### **2.4.2 Project management in public organizations**

Project management capability in public sector organizations has been the subject of numerous government initiatives around the world. The main drivers behind this are more effective use of resources and funds, improved implementation of change, maintained public confidence in government as well as transparency, traceability and accountability (Crawford and Helm, 2009).

Through a case study on project management in public sector organizations Crawford and Helm (2009) find the implementation of project management has delivered benefits in accountability, transparency, reporting, risk management, and consistency in delivering projects. The studied organizations have also increased their efficiency in managing public funds and ensuring value and stakeholder engagement. Staff morale and satisfaction were also affected by implementing defined project management structures and as processes were streamlined this helped in relieving time-constrained staff. Yet, Aubry and Brunet (2005) find that the main obstacles and areas in need of improvement in public organizational entities are maturity in project management, change management and project management competencies.

Andrews et al. (2006) investigating failure of public organizations in the UK find that although failure is sometimes linked to adverse external factors it is also attributable to mismanagement. Local authorities prone to failure are often suffering from insufficient political and managerial leadership and weak performance management. Blair (2015) also comments on that management has a great effect on public sector delivery of projects and programs and that its implementation can help in maintaining and gaining trust in governmental practices. Despite this, organizational development in public sector and municipal organizations is often not prioritized. As organizational development project are weighted against daily operational activities it can be difficult for public sector organizations to motivate allocating government resources to organizational development projects rather than output producing activities (Stentoft Arlbjørn et al., 2015).

#### **2.4.3 Project management offices in public organizations**

Projects are a part of almost every organization, public or private, and achieving project success in large complex projects and organizational structures is challenging. Moving away from the isolated project success definition of time, cost and scope project success can be seen as more complex and achieving it even more so. For a project to succeed it is necessary to keep a holistic view on project activities and manage evolving objectives. In doing so a project management office can be of value in allocating resources, reducing uncertainties and promoting project management practices and frameworks for successful project delivery (Santos and Varajão, 2015).

Esquierro et al. (2014) studied the implementation of a project management office in a public company struggling with strategic alignment of projects. The case study showed positive effects in project management office activities, guidance, planning and control over projects.

Furthermore, the implementation of a project management office resulted in greater executive and management involvement and support as well as central control over strategy and information. It also improved the organizations project management practices, defining roles, communication processes and standardization of procedures.

The implementation of a project management office in public sector organizations can lead to great benefits in handling the increasingly complex projects and the pressure public organizations are under to deliver successful projects. There is then a question of where in an organizational structure a project management office should be placed to be most beneficial. Regardless of where the project management office is implemented it could have effects on project management procedures, knowledge management and resource allocation. Its location would also influence its ability to bridge a gap in management, knowledge and shared resources between different parts of an organization. There is also a risk in how low project management maturity affects the implementation of project management offices and their work. (Santos and Varajão, 2015)

Pilkaitė and Chmieliauskas (2015) point out that there is no one best way of project management office implementation and that it has to be tailored to the organization's structure and needs. Furthermore, they acknowledge that the implementation of project management offices in the public sector showed benefits in the cases reviewed and that it should be a reasonable step towards effectiveness in implementing governmental programs. Yet, it is still not common practice for public organization to implement project management oversight through project management offices which would be a recognition of project importance and project management maturity.

## **2.5 Main issues**

The literature allows identifying the main issues regarding the implementation of project portfolio management, project management offices and the characteristics of public organizations.

Project management maturity is a recurring theme in relation to successful project portfolio management and project management office implementation, and it is emphasized that developed and mature project practices are vital to such endeavours. The lack of project management practices, such as knowledge management, and defined roles and processes affect the implementation of systems like project portfolio management and project management offices, as well as their ability to perform.

In relation to project portfolio management the literature is also clear in that the lack of strategic governance and clear operational goals and objectives affects the efficiency of the portfolio management system negatively. For example, the lack of strategic governance and goals are affecting the strategic alignment of projects as well as prioritization processes. Furthermore, while strategic governance as well as clear objectives and goals are crucial for effective management of project portfolios, they are challenging in public organizations. According to the literature, the political setting of public organizations and the weaker authority of their managers are challenges to strong strategic governance.

## **3 Method**

The following chapter presents and describes the process and method for research used as a basis for this thesis. It describes how data was collected and information gathered through reviewing relevant literature and semi-structured interviews as well as how the qualitative data has been analysed. Furthermore, the ethical considerations of the research and methods are discussed.

### **3.1 Research strategy, approach and design**

This thesis has undertaken a qualitative research strategy meaning that it is concerned with the words and experience of people. The alternative research strategy would be a quantitative research strategy concerned with comparable numbers and statistics. While quantitative data collection methods are standardized and structured, distancing the researcher from the participants to achieve comparable results, the qualitative research strategy favours the capturing of views and opinions of the participants in more open contexts (Bryman, 2012). The aim and purpose of this study have been deemed hard to quantify hence the choice of the qualitative research strategy. To gain access to current practices, developments and challenges in the organizations the views and experiences of the participants have been considered more valuable than quantitative data. The method of gathering the qualitative data has been through interviews including open-ended questions and discussions.

The qualitative research strategy is however not without criticism. The most common critiques against qualitative studies according to Bryman (2012) include that they are too subjective, difficult to replicate, hard to generalize and lack transparency. Since qualitative research often means that there is a close relationship between the researcher and the participants as well as the area of study the research is at risk of reflecting too much of the author's subjective views. As the qualitative research strategy is also defining and narrowing-down the research over the course of the study being done there are few clues as to why focus is put on some areas and not others. Being largely based on the researcher's own ideas and not standardized processes the qualitative research can be hard to replicate. Furthermore, the gathering of data is likely to be affected by the characteristics of the researcher and the analysis of that data affected by the researcher's subjective views. Generalizing qualitative findings can also prove challenging as qualitative data gathering methods such as observation or interviews are not representative of the whole population. As qualitative research is not preoccupied with standardized and structured methods it can lead to a lack of transparency of the research as the decisions of the researcher are not clear to the reader. (Bryman, 2012)

In order to avoid these pitfalls of qualitative research the risks have been brought up and presented in this chapter. Furthermore, they have been taken into consideration by the author while conducting the research, analysing the data and drawing conclusions to understand how choices can have been affected and to prevent excessive subjectivity. Additionally, the validity of the research is discussed in the conclusions of this thesis. By describing the process and rationale for decisions in this chapter the ability for replication and the transparency of the study is improved.

Qualitative research is typically based on an inductive approach to reasoning where observations and findings generate a hypothesis that is then tested and revised. In contrast the deductive approach is based on generating a hypothesis and subjecting it to testing through observations and findings either confirming or disproving the hypothesis. The deductive approach forms a process in which findings are based on and created through theory while an inductive approach creates theory through reviewing findings (Bryman, 2012). As with most other qualitative research studies this thesis too is an inductive study.

As this thesis is concerned with the participants' view of the world as seen through their eyes the epistemological view of the study is the interpretivist. The interpretivist epistemological position is concerned with viewing the social world as different from the natural thus creating different needs for social and natural sciences and research. (Bryman, 2012)

The research design is an important aspect of any research project as it outlines the framework for the collection of data as well as the analysis (Bryman 2012). This thesis is based on a case study research design, investigating project management application and development in the community of the public offices involved in the land development process in Gothenburg.

## **3.2 Literature review**

To establish a theoretical starting point a review of literature on the application of project portfolio management and project management offices as well as project management methodology and application in the public sector was conducted. The literature review was focused on academic and professional project management literature in order to define concepts, tools and methodologies within the field. Furthermore, the available literature on project management, project portfolio management and project management offices in the public sector has been reviewed to develop a basis for understanding how the concepts, tools and methodologies of project management transfer into public organizations. To further develop this understanding literature on differences between public and private organizations regarding management and motivation has also been reviewed.

Literature was, except for a few printed works, researched online using the databases available through the search engines provided by the libraries of Chalmers University of Technology and Northumbria University respectively as well as Google Scholar. In the search for literature the following key words and phrases were used among others: *Project management (in public organizations)*, *project portfolio management (in public organizations)*, *project management office (in public organizations)*, *public vs. private sector*, *organizational project maturity*.

## **3.3 Interview methodology**

Empirical data has been collected through the use of interviews that have been carried out in a qualitative semi-structured manner. The semi-structured interview allows the interviewee to answer freely and the interviewer to follow up on things said in the interview and ask questions outside of the interview guide (Bryman, 2012). Interviewees can talk about what is of significant importance from their perspective rather than the perspective of the interviewer (Bell, 2010). Semi-structured interviews are concerned with getting rich, thorough answers rather than answers easily categorized and allows for great flexibility (Bryman, 2012).

In order to provide structure to the interviews an interview guide was prepared (Appendix A). The interview guide is thematically divided into three main areas with a number of follow up questions and topics under each theme. The first two themes of the interview guide were current practices and project portfolio management. The last theme was more open-ended and aimed to start a discussion regarding organizational development and efficiency at the offices. The interview guide allows the interviewer to ask the same questions in a similar manner to each interviewee (Bryman, 2012) however in this study other questions were also asked based on the answers from the interviewees.

### **3.3.1 Interviewees**

This thesis has employed a purposive sampling perspective in choosing interviewees. Purposive sampling is a form of non-probability sampling where participants are not chosen randomly but are rather chosen based on their relevance in relation to the research questions. Being a non-probability sampling approach the results cannot be generalized to a population which need to be addressed in the conclusions (Bryman, 2012). The sampling process of this thesis has been based around two types of purposive sampling methods, generic purposive sampling and snowball sampling. Generic purposive sampling is a sample process where a set of criteria to establish what kinds of cases are needed forms the basis for sampling (Bryman, 2012). In the case of this thesis the criteria for cases has been knowledge and experience of current processes, ongoing organizational development, strategies and the interrelations between the offices. Snowball sampling is a sampling method where a small relevant sample of participants propose other participants with relevant knowledge or experience to the research (Bryman, 2012).

Overall, interviewees were selected based on their relevance to the studied area and their ability to answer the research questions and were chosen in collaboration with the main contact person at the property management office. The participants were chosen to reflect different views of the involved departments at the public offices as well as giving an outside perspective in the case of interviewees from the City management office. The interviewee's ability to give holistic and informed answers in the area of study were considered in the selection process. All interviews were conducted face-to-face and in the offices of the interviewees or in conference rooms at the respective offices. Interviewees held varying positions in the organizations ranging from administrative officials to heads of departments and units and also included managers in development and strategic functions. The interviewees, their respective organization and the date of interviewing can be reviewed in Table 2.

TABLE 2: LIST OF INTERVIEWEES

interviewee	Organization	Interviewed
Interviewee A	Property management office	09-05-17
Interviewee B	Property management office	12-04-17
Interviewee C	Property management office	10-04-17
Interviewee D	Property management office	27-04-17
Interviewee E	Property management office	07-06-17
Interviewee F	City management office	20-04-17
Interviewee G	City management office	09-05-17
Interviewee H	Traffic and public transport office	27-04-17
Interviewee I	Traffic and public transport office	28-04-17
Interviewee J	City planning office	18-04-17
Interviewee K	City planning office	28-04-17

### 3.4 Analysing the data

The qualitative data analysis process is commonly difficult to follow in terms of how conclusions were made and the data interpreted (Bryman, 2012). In this study the data from the interviews were analysed using thematic analysis. Thematic analysis is a process of analysing data based on themes found in the process of reviewing it. The use of themes in this context is closely related to coding. A strategy for making thematic analysis less abstract and vague is by using Framework which is a matrix based method where data is presented in a matrix with themes and the input supporting them (Bryman, 2012).

The interviews were analysed through thematic analysis based on the Framework method. This was later developed into the matrix seen in Table 3 where themes and subthemes are presented as focus areas and subcategories.

### 3.5 Reliability and validity

The concepts of validity and reliability are important in research as it is concerned with the generalization and dependability of the results and conclusions. Their application and use in qualitative studies has been an area of questioning. Reliability is a concept which in qualitative research is associated with the study's ability to be replicated and the trustworthiness and consistency of the study. External validity is concerned with the degree to which findings of the research can be generalized while internal validity is concerned with the plausibility of the findings (Bryman, 2012).

Both the case study research design and the use of thematic analysis can be accused of low external validity and reliability. This has been taken into account when formulating the discussion, analysis and conclusions and is correspondingly discussed in the conclusions. Furthermore, the gathering of data through semi-structured interviews can be hard for other researchers to replicate as this would entail that other interviewees give the exact same answers.



Due to the nature of semi-structured interviewing and the relatively small sample the reliability and validity of the research and its basis for generalization could be limited.

### **3.6 Ethical considerations**

In any research there are ethical considerations and Bryman (2012) discusses four main areas in which ethical considerations in social research can be broken down: harm to participants, lack of informed consent, invasion of privacy and deception. To address these areas, measures have been taken by the author to ensure that ethical issues have been thoroughly considered. All participants have been informed of the study's aim and scope through a covering letter and face-to-face introduction of the topic as part of the interviews, as suggested by Bell (2010). Furthermore, the participants have been asked to sign an informed consent form with the possibility to make any individual remarks regarding confidentiality, anonymity or other conditions for their participation. In two cases the interviewee chose not to be audio recorded.

To shift focus from the participant's person their names have been omitted from the thesis and to allow for further anonymity titles have been omitted as well. The thesis has also been reviewed in conjunction with the property management office to avoid misunderstandings between the researcher and the organization.

## **4 Case: Land development in Gothenburg**

The following chapter will present the case examined in this study. Initially it will describe the laws and regulations associated with land development in Sweden. Subsequently it will present the studied organizations and their respective roles in the land development process in Gothenburg.

### **4.1 Swedish regulations of land development**

The Swedish construction and land development sector operates under a municipal planning monopoly. This is regulated through the Planning and Building Act which states that the municipalities have the responsibility and power to control land use and development (Kalbro and Lindgren, 2015). The planning of land use should reflect the most suitable use of that land and consider aesthetic, social, infrastructure, water and health and safety factors. Furthermore, the Planning and Building Act (2010:900) Chapter 2, Section 1 states that planning and permits should consider both private and public interests. To achieve this each municipality has two main tools, the comprehensive plan and the detailed development plan (Figure 1) (Kalbro and Lindgren, 2015). The comprehensive plan is a municipality wide, long-term plan defining land use throughout the municipality and, among other things, differentiate residential areas from industrial areas. The comprehensive plan is not legally binding and can therefore be changed through subsequent detailed development plans and permits. The detailed development plan is a detailed plan of a smaller area that contain details of design and disposition of the planned development and is mandatory when changing land use. Included in the detailed development plan is the distinction of public spaces such as streets, roads, squares and parks etc., and building sites as well as the intended use of those buildings such as offices, schools or housing. A detailed development plan is legally binding and assigns rights and obligations when it is adopted and building permits should be granted assuming they are in alignment with the detailed development plan. (Kalbro, 2005)

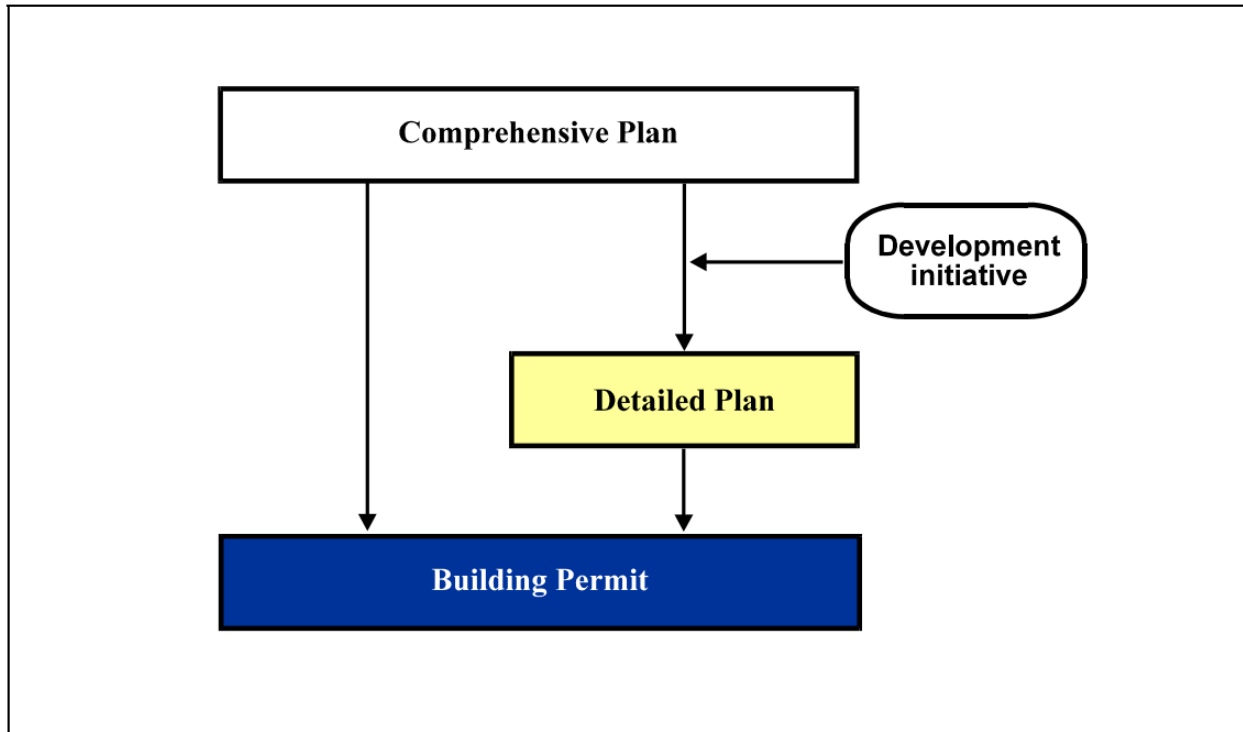


FIGURE 1: SIMPLIFIED PROCESS OF PLANNING AND BUILDING PERMITS (KALBRO, 2005)

Kalbro (2005) outlines some of the roles of the municipality in changes of land use and its responsibility in assuring that land development and changes of land use is supporting social and environmental needs of the community. As mentioned, the municipality has an unequivocal power in the decisions on land usage through planning and permit procedures. Many municipalities throughout Sweden are also large land-owners which gives them the opportunity to use land for public services, control and influence developments and strategically plan changes in land use. The municipality also has the ability to commission developments, mainly for housing.

The process of developing a detailed development plan is itself a heavily regulated and lengthy process (Figure 2). The formal process of developing a detailed development plan is initiated by the municipality, either on its own accord or at the request of a private developer (Fastighetsnytt, 2015). The municipality will review the proposed development and give either a positive or negative planning notification and motivate their decision to move forward with the planning or not, as per the Planning and Building Act, Chapter 5, Section 5. If deemed necessary, a planning program can initiate the detailed development plan process which as a further development of the comprehensive plan describes the motivation for and the conditions of development as well as how the planning process should continue. When a preliminary plan proposal has been developed business and property owners affected by the plans are consulted as well as other offices and agencies. Furthermore, affected citizens and organizations with interest in the plans are also consulted. After considering the results of the consultation, the plan proposal is put on public display for review offering citizens to contribute with their views on the plan. If the plan is not extensively revised it is then adopted by the city executive board. The general public directly

affected by the detailed development plan have the right to appeal against the plan which will be settled in a court process either keeping the original plan or having it revised. State agencies and the county board can also appeal against the plan if they find that national interests have not been adequately considered according to the Planning and Building Act. The detailed development plan process as outlined by the Planning and Building Act is presented in Figure 2.

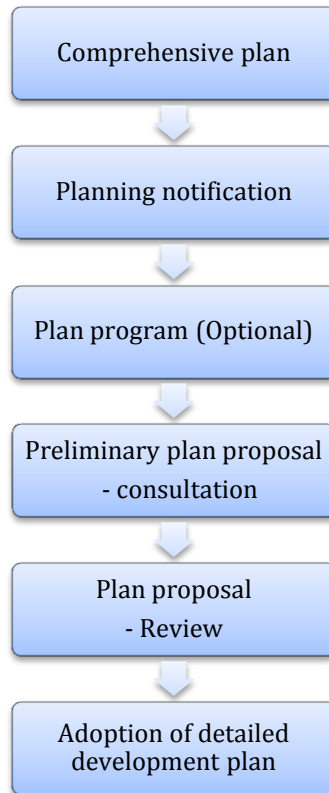


FIGURE 2: THE DETAILED DEVELOPMENT PLAN PROCESS

## 4.2 Land development projects in Gothenburg

The offices responsible for land development in the city of Gothenburg are the city planning office, the property management office and the traffic and public transport office. They each have a political committee responsible for directing their work which in turn is reporting to the City Council which is the highest instance. The City Council also has a supportive office in the city management office which is concerned with gathering and presenting information to the council and oversight of the offices and their operations, among other things. However, they have no mandate to be directly involved at the office level other than in an advisory or coordinating capacity<sup>1 2</sup>. Each office has different units that may or may not be divided into departments

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<sup>1</sup> Interviewee G

<sup>2</sup> Interviewee F

based on the work the unit is involved in<sup>1</sup>. The hierarchical division between offices, committees and council can be seen in Figure 3.

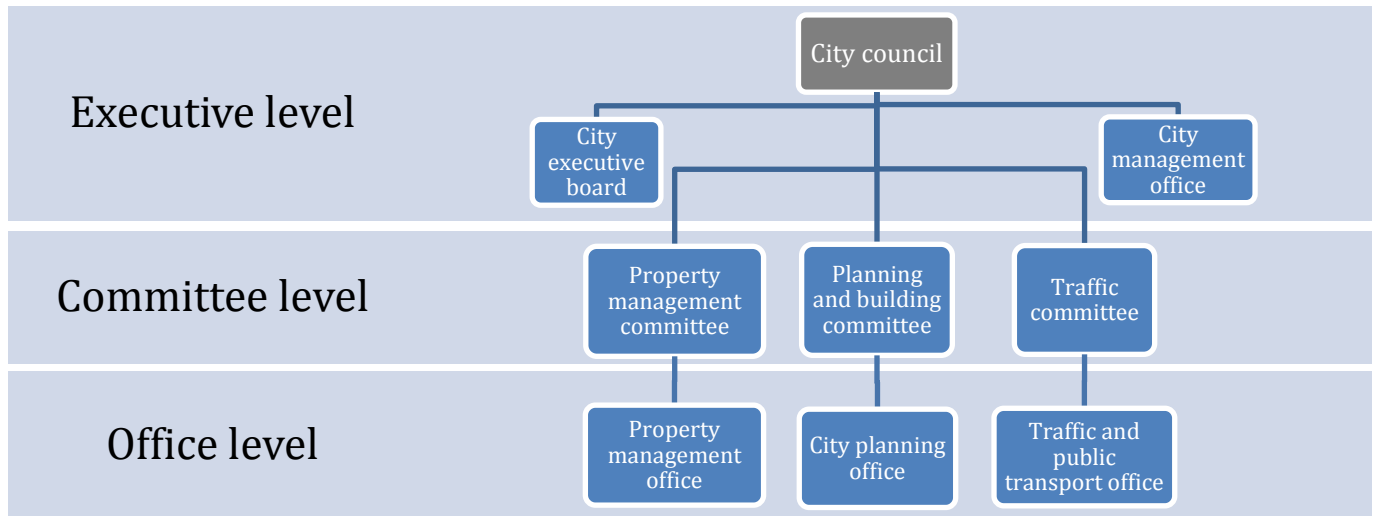


FIGURE 3: ORGANIZATION OF COMMITTEES AND OFFICES RESPONSIBLE FOR PLANNING AND CONSTRUCTION

Each office has different responsibilities but are all involved in the process of new land developments or changes of land use however their level of involvement may vary during the process. The city planning office is responsible for the comprehensive plan and development of detailed development plans<sup>3</sup>. Through the adoption of a detailed development plan the municipality is legally bound to manage the development and maintenance of public spaces and can acquire that land through compulsory sale if necessary (Fastighetsnytt, 2015). The implications of this is that all streets, roads, squares, parks or other public spaces necessary for the development are the responsibility of the municipality. This responsibility is regardless of whether the municipality is the land owner or not which means that any new development needs great involvement from the municipal offices. The city of Gothenburg is an exceptionally large land owner, owning approximately 55 percent of the total municipal land area, and it manages this land through the Property management office which are among other things responsible for selling and managing land that the city owns as well as acquiring new land (Goteborg.se, 2017). In new developments the Property management office has a coordinating role as a liaison between the offices and private developers and also of investments in public spaces. In the early phases of the land development process the office is also responsible for land allocation agreements as the city’s land administrator. Land allocation agreements are used when land owned by the city is to be developed and outlines the relationship between the municipality and a specific developer assigned with the land allocation (Caesar, 2016). In addition, the Property management office has a “client” role towards the traffic and public transport office which is tasked with procurement of design and construction of public spaces as well as having the

<sup>1</sup> Interviewee E

coordinating responsibility of the construction phase<sup>1</sup>. The land development process and the involved offices over time can be seen in Figure 4 below.



FIGURE 4: THE LAND DEVELOPMENT PROJECT PROCESS, SUB PROCESSES AND THE OFFICES' INVOLVEMENT

Due to Gothenburg's coming 400<sup>th</sup> anniversary in 2021 the city has initiated a program aimed at improving the city, environmentally, socially, culturally as well as in terms of housing and infrastructure in time for the anniversary celebrations. The BoStad2021 project includes 7000 dwellings in housing projects that, added to the volume of housing that the city undertakes normally, are to be finished in time for the anniversary. The BoStad2021 project is unique in that the housing projects included are given strict deadlines and in terms of its project organization, which is a separate collaborative effort with staff from three offices working jointly.

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<sup>1</sup> Interviewee H

## **5 Results**

The following chapter presents the outcomes of the interviews conducted as part of this thesis and it will give an insight into current practices and experiences from the involved offices.

The interviews have gathered views and experience from the offices regarding their current practices, project portfolio management and organizational development. The outcome points to management, process and organizational challenges in the land development process and among the involved offices. The result is presented briefly in Table 3 below where responses from interviewees have been divided into identified subcategories subsequently grouped in focus areas and followed by a more detailed description with input from the interviews.

TABLE 3: OVERVIEW OF THE RESULTS

Focus area	Subcategory	Input from interviews
<i>Project management</i>	Knowledge management	<ul style="list-style-type: none"> <li>• Lack of formal knowledge sharing tools</li> <li>• The same problems are being solved in different projects</li> <li>• Routines for project feedback are under development</li> </ul>
	Processes	<ul style="list-style-type: none"> <li>• Processes are not well defined</li> <li>• Processes not aligned to meeting goals set on a political level</li> <li>• Collaborative processes are better today than before</li> <li>• Uncertainty regarding how decisions affect other parts of the organizations and projects.</li> </ul>
	Resources	<ul style="list-style-type: none"> <li>• Resources are scarce</li> <li>• Resources are ordered rather than allocated as in projects</li> <li>• Lack of working resource planning</li> </ul>
	Financial	<ul style="list-style-type: none"> <li>• Weak economic assessment of projects</li> <li>• Lack of investment decisions and budget for starting projects</li> <li>• Municipal operational and maintenance costs not considered</li> </ul>
	Roles	<ul style="list-style-type: none"> <li>• Roles are not clearly defined, internally or externally</li> <li>• Uncertainty regarding what office is responsible for different project phases and where that responsibility ends.</li> </ul>
<i>Project portfolio management</i>	Prioritization	<ul style="list-style-type: none"> <li>• Projects are not being prioritized</li> <li>• Strategic balancing of the portfolio is missing</li> <li>• Guidelines and documents indicate where but not what and when developments should happen</li> </ul>
	Portfolio	<ul style="list-style-type: none"> <li>• There is no system in place for strategically managing the portfolio</li> <li>• Projects are not chosen, they are given</li> <li>• Joint work is being done on which projects are initiated</li> </ul>
	Strategic governance	<p>Decentralized strategic departments on an office level</p> <ul style="list-style-type: none"> <li>• Projects have been isolated from each other</li> <li>• Need for better project governance tools</li> </ul>
<i>General</i>	Bureaucracy	<ul style="list-style-type: none"> <li>• Political and administrative work is time-consuming</li> <li>• It is hard for the city to say no to new development initiatives</li> <li>• Goals set on a political level do not enable flexibility</li> <li>• The decentralized structure enables greater democratic influence</li> </ul>
	Completion of projects	<ul style="list-style-type: none"> <li>• With the processes and resources of today it is unlikely that projects will be finished on time.</li> </ul>
	Organizational	<ul style="list-style-type: none"> <li>• Lack of coordination and communication between offices</li> <li>• Projects are named differently</li> <li>• Unbalanced resources</li> </ul>



## 5.1 Project management

The focus area of project management is built up by the subcategories of knowledge management, processes, resources, financial and roles. Below, each subcategory will be presented in greater detail based on the responses from the interviews.

### 5.1.1 Knowledge management

A majority of the interviewees commented on no formal systems being in place for project feedback or sharing knowledge between projects. Interviewees at the traffic and public transport office acknowledged that monitoring of information and lessons learned in projects are flawed but that informal exchange of knowledge is more practised<sup>1 2</sup>. Among the interviewees, the ones from the city planning office expressed the most positive attitude and had great trust in recent workflow changes and their anticipated effects on knowledge management. Furthermore, at a departmental level some interviewees expressed that knowledge sharing routines were in fact in place however it was not part of an organization-wide system<sup>3</sup>. Concern was raised however that problems encountered in projects at the same unit were being solved at the same time by different managers and teams<sup>4</sup>. The organizations are not actively learning from past mistakes.<sup>5</sup>

### 5.1.2 Processes

As with knowledge management there is also a lack of formalized and defined processes. A number of interviewees express hope that a coming project management tool will help define processes and that going towards a project based workflow will enable more structured processes<sup>2 4 6</sup>. The City planning office has over the last few years implemented a project framework called GEM in an effort to speed up the detailed development plan process. This framework is essentially a stage/gate framework that clarifies decision points and processes<sup>5 6</sup>. A problem with this is that it is only focused on the detailed development plan process and does not carry over to the rest of the land development process. This creates a situation where the early stages and later stages of the land development process are not balanced in terms of efficiency<sup>6</sup>. In addition, the finished project does not always end up as planned, as the processes involved are lengthy and there are large gaps in time between planning and design<sup>2 3</sup>. Moreover, the current processes are more dependent on personal qualities of the project manager or administrative official than on their formal role<sup>1</sup>.

However, the interviewees from the City management office comment that there is currently a gap between the processes and the goals, where the processes are not enabling enough acceleration to handle the increasing number of projects even though the normal production rate

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<sup>1</sup> Interviewee I

<sup>2</sup> Interviewee H

<sup>3</sup> Interviewee A

<sup>4</sup> Interviewee J

<sup>5</sup> Interviewee E

<sup>6</sup> Interviewee K

is relatively the same<sup>1</sup>. Moreover, in decision-making processes little regard is shown for how decisions affects other parts of the organizations and other projects<sup>2</sup>.

### **5.1.3 Resources**

The interviewees all point to the current lack of resources as a major problem for land development projects. However, this is not just the case for the municipality but also for private developers<sup>3,3</sup>. The current system where resources are ordered between the offices rather than allocated as they would be in projects also makes it hard to anticipate resource needs and provide resources when needed<sup>1,5</sup>. Again, on a departmental level some departments handle their resource allocation successfully<sup>4</sup> however it does not extend through to the whole project organization from start to finish. Some effort has been made to free up resources by outsourcing small works in public spaces to other offices that would normally go through the Traffic and public transport office<sup>1</sup>.

### **5.1.4 Financial**

The economy of land development projects has historically been more or less free from financial decisions and investment evaluations. The nature of land development projects and the economic situation of the municipality has meant that land development has incurred both costs and profit achieving a balance. The scale of city development seen today however calls for a better financial assessment of projects not only looking at the individual project economy but how it affects other projects and the greater system<sup>2,4</sup>. Furthermore, investment decisions and financial evaluations in early stages are missing leading to projects getting started without a clear budget or an informed financial decision on how they affect other projects and development areas<sup>1,3</sup>.

In addition, operational and maintenance cost is largely an unknown area when starting projects<sup>5</sup>. What costs a project will incur over time is not considered when starting projects and is not brought up in financial assessments<sup>1</sup>. Furthermore, the municipality is sometimes forced to start projects that are at a loss in order to gain for example social values. These projects may be necessary but should be initiated based on informed financial decisions and an active choice.<sup>2</sup>

### **5.1.5 Roles**

There is currently great uncertainty regarding where the responsibility of one office ends and another begins among the offices as well as in the relationship to external developers<sup>2,1</sup>. However, interviewees responded that defining roles is an ongoing process<sup>1</sup>. Although project managers with responsibilities for several projects in the same development area has been assigned to oversee the projects, their mandate to influence the projects directly is unclear<sup>6</sup>. Being a decentralized structure carrying the project from beginning to end the roles are hard to

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<sup>1</sup> Interviewee F

<sup>2</sup> Interviewee G

<sup>3</sup> Interviewee H

<sup>4</sup> Interviewee A

<sup>5</sup> Interviewee E

<sup>6</sup> Interviewee J

define and there is a risk of projects ending up in grey areas and control and qualities can be lost<sup>1</sup>.

## 5.2 Project portfolio management

The focus area project portfolio management is built up by the subcategories prioritization, portfolio and strategic governance. Below, each subcategory will be presented in greater detail based on the responses from the interviews

### 5.2.1 Prioritization

The interviewees from the City management office state that it is hard to see any joint prioritization of projects between the offices. There are joint decisions of what to start but not the strategic balancing of what to start, and clear timeframes are missing. The weak cooperation between the offices regarding time, cost and scope can result in qualities in city planning being lost. Furthermore, the guidelines and documents given as basis for the offices to prioritize point to where developments should happen but leave out what developments and when developments should happen<sup>2 3</sup>.

The offices themselves have recently initiated work to prioritize projects based on input from guidelines, documents and influence from the respective committees<sup>4</sup>. The prioritization is based on housing, as the political goal of reducing the shortage of housing is the main driving force. There are currently three levels of prioritization: in the first one are projects that include both housing and social service, in the second one are housing projects without social service and in the third there are projects which can be started without any major public spaces work<sup>5</sup>. However, it is unclear how this prioritization filters down through the organization and it is still at an early stage. As political goals change, the prioritization changes with them, and it is hard to keep a long-term strategic approach<sup>2 4</sup>.

### 5.2.2 Portfolio

The current state of portfolio management in the offices is based on three recently introduced portfolios. The portfolios divide projects between them based on in which phase they are currently. The current portfolios are (1) start plan, (2) ongoing and (3) implementation, and the idea is that projects will over time move from one portfolio to the next. The portfolios are very unbalanced in how many projects they hold which shows that there is an unbalance in the processes. Today there are plans with around 50 000 homes in total across the three portfolios<sup>5</sup>.

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<sup>1</sup> Interviewee E

<sup>2</sup> Interviewee F

<sup>3</sup> Interviewee G

<sup>4</sup> Interviewee C

<sup>5</sup> Interviewee D

Other interviewees point to problems in the way projects are initiated as there is a lack of active control of what ends up in the portfolio<sup>1</sup> and that projects on the initiative of private developers are disrupting the overall plans for the city<sup>2</sup>. Additionally, other interviewees acknowledge the work being done with the portfolios as important however stating that there are flaws in the system and how it has been implemented<sup>3 4</sup>.

There is a notion of land development projects not being chosen but rather given<sup>5</sup> and that the new projects have just been added at random to the portfolios over time. Selecting and prioritizing between projects at an early stage is still not a functioning process and at a committee level politicians cannot make informed decisions on how new projects affect projects already in the portfolio and how they relate to each other<sup>2</sup>.

### **5.2.3 Strategic governance**

Strategic planning used to be a centralized effort but has over time become decentralized where each office has its own strategic unit at the cost of cooperation and a joint perspective. The issue of being able to plan everything that is happening used to be discussed but now the question is about not being able to develop everything; a functioning communication process is missing<sup>1</sup>. Projects have been treated isolated from each other but with the city-changing developments happening there is a need for a more holistic approach<sup>1 6</sup>. Projects are also affected by the long time-frames as it can take years for a development project from start to finish which means that property can change owners and administrative officials and project managers can leave. The lack of governance and defined processes affects the ability to adapt to these changes and it often results in projects taking even longer time<sup>7</sup>.

The current number of projects need to be worked through however flexibility is also needed to adapt to changing conditions<sup>3</sup>. The detailed development plan is only part of a bigger system but now the offices are trying to solve system problems, such as pollution and noise, in detailed development plans which not their purpose<sup>4</sup>.

The goals set on the political level makes it hard for the offices to operate flexibly and effectively. For example, instead of having goals of finished housing the goals are set to housing in plans, rather than finished housing, which creates a situation where it is hard for the offices to be flexible in the portfolio. New projects are added and at a committee level, in order to show that work is being done, new projects must be started even though there are already enough projects for ten years in the portfolio, according to interviewee D.<sup>8</sup>

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<sup>1</sup> Interviewee E

<sup>2</sup> Interviewee H

<sup>3</sup> Interviewee J

<sup>4</sup> Interviewee B

<sup>5</sup> Interviewee G

<sup>6</sup> Interviewee F

<sup>7</sup> Interviewee A

<sup>8</sup> Interviewee D

In the current organizational structure the planning and building committee is the decider regarding what projects are started. The committee is tasked with initiating detailed development plans however they carry no financial responsibility for investments connected to them<sup>1</sup>. That responsibility lies with the property management committee however there is currently no current practice of financial investment decisions related to land development<sup>1 2</sup> as the deciding power of what gets started lies with the planning and building committee<sup>2</sup>.

## 5.3 General

The general focus area is built up by the subcategories bureaucracy, completion of projects and cohesion. Below, each subcategory will be presented in greater detail based on the responses from the interviews.

### 5.3.1 Bureaucracy

Political and administrative work is a time-consuming effort in projects<sup>1</sup>. It is important to recognize that it is a complex system and land development projects are complex<sup>2 4</sup>. Being politically governed and under municipal regulations and state legislation it is hard for the municipal offices to say no to new development initiatives and smaller plans<sup>2 3</sup>, and to terminate projects a committee decision is needed<sup>1</sup>. The decentralized structure of the offices involved is not enabling effective cooperation between the offices. However, the decentralized structure enables greater democratic influence as the power is distributed across a greater number of elected officials.<sup>2 4</sup>

### 5.3.2 Completion of projects

Regarding the city's ability to finish all its projects scheduled to be finished in time for the 400<sup>th</sup> anniversary the interviewees are of the opinion that it will most likely not be possible. The current processes being too slow<sup>2 4</sup> and the shortage of resources are two big obstacles along with the extreme number of projects<sup>2 6</sup>. One interviewee pointed out that there is an unrealistic optimism regarding the city's ability to design everything and that there is a lot of trust put into parallel processes<sup>4</sup>. Nevertheless, some interviewees state that even though it is unlikely to finish all the projects on time they are better equipped now than before<sup>5 6</sup>.

### 5.3.3 Organizational

There is a lack of coordination and communication between the offices though it is recognized that they are all part of a chain in which projects go from start to finish<sup>2 7</sup>. Resources are not

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<sup>1</sup> Interviewee C

<sup>2</sup> Interviewee F

<sup>3</sup> Interviewee B

<sup>4</sup> Interviewee G

<sup>5</sup> Interviewee K

<sup>6</sup> Interviewee I

<sup>7</sup> Interviewee E

balanced between the offices which means that some projects that are ready for handover cannot be staffed at the receiving office<sup>1 2</sup>. Furthermore, there are cases of miscommunication where projects are named differently by the offices creating misunderstanding and friction between the organizations<sup>3</sup>. The city planning office can affect city planning through its comprehensive plan and detailed development plans however the property management office can also affect city planning as a large land owner through land allocation agreements. There is a power struggle between the offices and a lack of communication which creates unclear objectives, it is said.<sup>4</sup>

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<sup>1</sup> Interviewee K

<sup>2</sup> Interviewee D

<sup>3</sup> Interviewee B

<sup>4</sup> Interviewee H

## **6 Analysis and discussion**

The following chapter presents a discussion and analysis based on the interviews and the theoretical framework. It will discuss the findings from the previous chapter in a broader context and examine them from a theoretical standpoint. Furthermore, challenges, areas of improvement, possible explanations and possible solutions will be discussed.

### **6.1 Project management**

Land development from a municipal perspective is a complex process with many actors and stakeholders, large investments and bureaucratic procedures. The results show that the state of project management in the offices is facing challenges. The study shows that current processes are reactive and may not be efficient, structured or flexible enough to handle the pressure under which the public offices are from societal, political and business demands as well as the increasing number of projects.

Analysing the subcategories of the focus area of project management there are some challenges identified. Challenges lie in the defining of roles and processes. Defined processes and roles enable the organization to work more efficiently as there are less uncertainties regarding responsibilities and the way forward supporting more consistent project outcomes and lead times. As the land development process is managed by three separate offices challenges also occur when processes and roles are defined differently.

The study further finds challenges in the weak processes of formal knowledge management, resource management and economic assessment. The continued large-scale city developments put pressure on the organizational ability to learn from past successes and mistakes as well as to effectively communicate between projects. Although informal knowledge sharing and project feedback can be effective it lacks the long-term emphasis of formal knowledge management tools that enable organizational learning. With all the ongoing and planned developments resources are scarce for both private developers and public sector offices. Managing resource allocation when resources are scarce is a hard but vital process on a strategic organizational scale. The decentralized organizational structure is another challenge in allocating resources from start to finish in a project. Especially as resource availability is not balanced between the offices and the current system of ordering resources instead of allocating resources can make it hard to anticipate resource need. The process of ordering resources does not enable the offices to proactively plan resource availability, as orders are sent reactively to resource needs.

There is a risk of submitting to the resource allocation syndrome (Engwall and Jerbrant, 2003) where resources are shifted around, being reallocated to put out fires. In municipal organizations where personal or organizational profit is not a motivational factor or an incentive for efficiency it can be important to recognize also the financial effects of projects. This can allow for greater transparency and accountability and lead to greater incentives for efficiency in projects and planning.

The challenges found by the study are indicative of low project maturity and though it might prove difficult to apply an organizational project maturity framework on the public offices it is still possible to draw parallels between the project maturity models and the organizations. There also seem to be varying levels of project maturity between the organizations as processes, resources allocation and roles are differently defined and handled even down to a departmental level. However, viewing the organizations as a whole there appear to be differences also between the ambition of project management and what is being practised.

There can be several explanations for this as the decentralized structure and lack of early strategical definition of projects and objectives can cause diffuseness regarding roles, responsibilities and scope. Furthermore, the offices' development regarding project management over time can be seen as reactive. The evolution of project management has been based on current needs rather than the anticipation of those needs. This approach to organizational development makes it hard to be flexible and adapt to sudden changes in the project landscape. In the case of this study the increase in number of projects was known beforehand yet the study shows that the offices were not prepared. This can also be attributed to unclear governance and strategic management from a political or committee level if organizational or operational changes are not clearly communicated. The short-term approach to decision-making is symptomatic of the political context and can be explanatory of the vague strategic governance leading to underdeveloped project management practices. Nevertheless, there is also a slight possibility that the project management and project maturity frameworks are not appropriate to investigate public organizations.

## **6.2 Project portfolio management**

Project portfolio management is an advanced strategic project management practice that combines project management, strategy and governance. The study has found challenges related to project portfolio management in the public offices regarding portfolio management, prioritization of projects and strategic governance.

A challenge for project portfolio management as described in the interviews is the lack of a coordinated strategic vision leading to projects being isolated. The study shows that although projects are being appraised based on content and economy, among other factors, there is a lack of comparative assessment and analysis between projects regarding the projects' effect on the greater system of urban development and municipal finances. Projects are currently assessed mainly based on their content of housing and social services, pushing such projects to the front. However, a more nuanced prioritization based on programs and how projects complement each other may have positive effects on the strained project organization.

A step towards project portfolio management has recently been taken yet the study finds that there are challenges in its implementation. The current state where projects have been divided into three portfolios based on where in the project life-cycle the projects are is giving a momentary glimpse of the project balance. The study however finds that the mechanisms for management and control regarding what projects are ending up in the portfolios are not developed. For the project portfolio management system to work effectively and enable management of the portfolios it is important that there is a strategically managed process



regarding what projects are started and when projects go from one phase to the next and from one portfolio to next.

The decentralized organizational structure is a challenge for strategic governance as strategic planning is not currently a joint consistent effort. The study shows that the increase in development projects need, stronger strategic governance systems and common strategic visions. Strategic systems and visions broken down in more tangible goals and objectives would more effectively affect operational activities and the study shows that there is a gap between what it is being communicated and the operational realities. Rainey (2014) states that a clear and well managed communication process, defined goals and critical tasks to fulfil those goals, along with accountable and empowered staff and management is vital for efficiency in public organizations. The study shows that the current situation may not facilitate such practices. To avoid dispersed strategic objectives and diffuse and intangible goals, development of communication processes from top management and the political level is needed. The current goals as shown by the study are too general and overwhelming to inspire efficiency in the operational processes and provide basis for project appraisal.

Hill (2013) establishes that project portfolio management is dependent on structured project management practices to gather and generate information for portfolio management decisions. Thus, the low project maturity is another challenge for project portfolio management in the public offices. For project portfolio management to be effective it requires a mature project organization to execute the projects. Without defined project management practices and tools, it is difficult for the project portfolio management to allocate resources and evaluate the health and performance of the portfolio.

### **6.3 Project management office**

As established a project management office can vary significantly in its role and functions and needs to be tailored to the specific needs of the organization in which it is implemented. One question raised in this thesis is if a project management office could support project portfolio management in the municipal context of the public offices. The challenges of the public offices regarding project management and project portfolio management are presented in the list below:

- **Project management**
  - Vague roles
  - Vague processes
  - Lack of knowledge management procedures
  - Inadequate resource management
  - Low level of project maturity

- **Project portfolio management**
  - Lack of strategic alignment and overview of projects
  - Ineffective project prioritization and appraisal
  - Low control of portfolio management
  - Lack of joint strategic governance
  - Low level of project maturity

The review of the literature in the theoretical framework (Chapter 2) on project management offices and the tasks related to them suggests that the primary tasks are:

- **Project management**
  - Project management implementation, education, standardization, definition and support
    - Defining processes
    - Defining roles
    - Providing frameworks, methodologies and tools
  - Facilitating knowledge management
    - Accumulating and sharing project information
    - Collecting and distributing information for decision-making
  - Resource management and allocation
- **Portfolio management**
  - Strategic alignment and governance
  - Project prioritization and appraisal
  - Management of the project portfolio

It is easy to see that there is a close correlation between the identified key challenges and the tasks associated with project management offices. Thus, it can be presumed that a project management office is a possible solution to project management development and project portfolio management. In alignment with the findings of Esquierro et al. (2014) and Pilkaitė and Chmieliauskas (2015) a project management office could support better top and strategic management involvement as well as enhance project management practices. The challenges in project management and project portfolio management suggest that a project management office would need to be a combination of the coordinating, controlling and supportive project management offices as defined by Unger et al. (2012). As established in the theoretical framework (section 2.3) a project management office should be tailored to the specific organizational needs. The types of project management offices and their respective tasks found in

earlier research should be seen as guiding principles for what can be done; however the exact function and implementation need to be carefully considered and analysed.

Another possible solution to the wide-ranging needs of the offices is a project management office that can adapt its role over time, initially developing and facilitating project management within the organizations and increase project management maturity levels. Once project management practices are ingrained throughout the organization the project management office could adapt to support the strategic management of the portfolios. A project management office with strategic overview of project management and the portfolio that can evolve over time to suit the organizational needs could also be a powerful tool in establishing more proactive organizational development.

A project management office would likely be more beneficial if it was external to the offices and seen as a support function in the organizational structure as to not create friction between the offices or intensify any friction that may already be there. Three examples of where a project management office could be situated in the organizational structure are presented in Figures 5, 6 and 7 below.

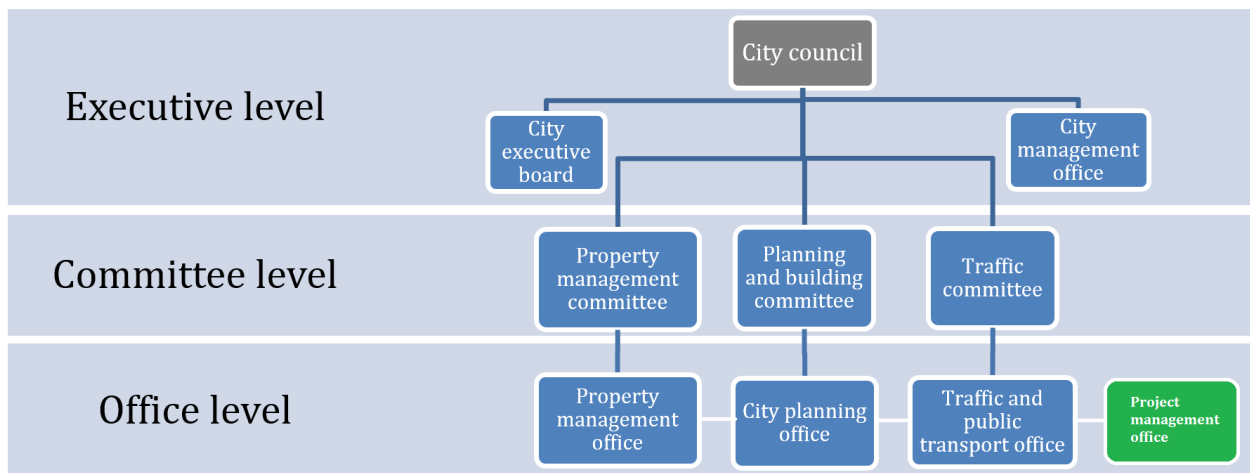


FIGURE 5: POSSIBLE PLACEMENT OF A PROJECT MANAGEMENT OFFICE AS A SUPPORT FUNCTION ON AN OFFICE LEVEL

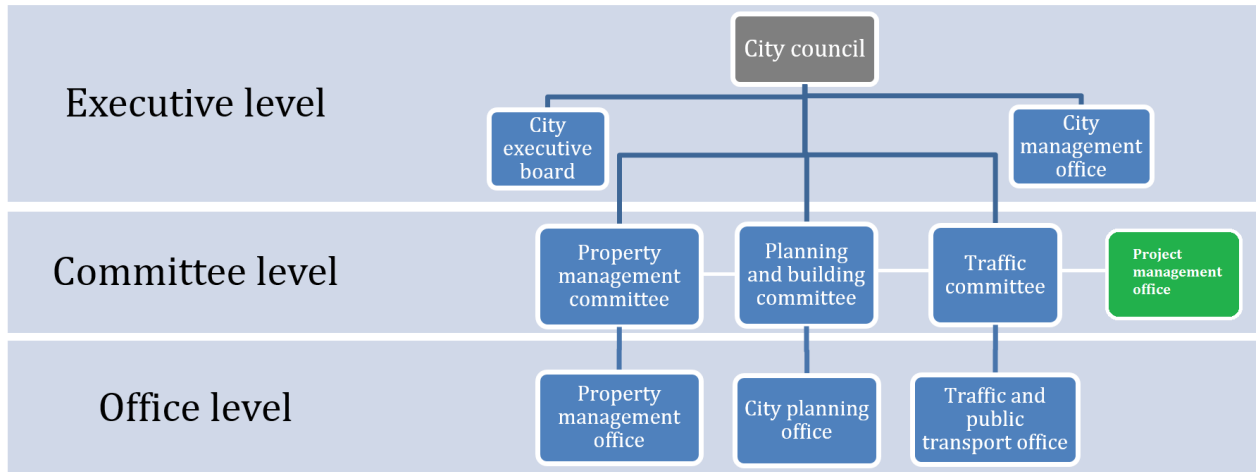


FIGURE 6: POSSIBLE PLACEMENT OF A PROJECT MANAGEMENT OFFICE AS A SUPPORT FUNCTION ON A COMMITTEE LEVEL

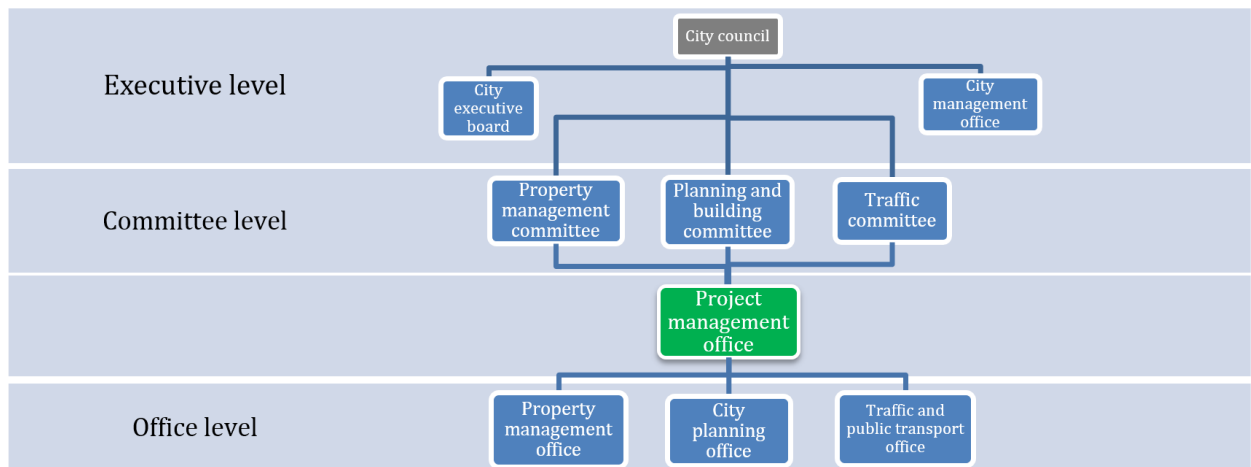


FIGURE 7: POSSIBLE PLACEMENT OF A PROJECT MANAGEMENT OFFICE FUNCTION AS A LINK BETWEEN THE OFFICE AND COMMITTEE LEVEL

The location of a project management office has implications on the organizational structure and the political system of the public offices, the committees and the city council. The placement as illustrated in Figure 5 puts the project management office as a support function to the offices. This may benefit the aspects of project management implementation and support but removes the project management office from decision-making processes and strategic governance. However, this location also enables the project management office to integrate with and coordinate the strategic functions at the respective offices.

In Figure 6 the placement of the project management office is as a support function to the committees. This location enables greater influence over decisions and strategic governance and could help coordinate the strategies, goals and guidelines communicated to the offices.

Positioning the project management office at the committee level could also enable influence over project management development in the offices, contributing to new organizational development initiatives as well as affecting decisions on projects. However, this exposes the project management office to greater political influence which could affect its long-term strategic value as it would be more affected by changes in the political landscape.

The placement of the project management office as in Figure 7 puts the project management office as a link between the offices and the committees. This enables the project management office to act as a hub reviewing and appraising projects and supporting portfolio decisions in the committees while supporting the offices in project management processes. It would also enable the project management office to act as a knowledge management facilitator sharing information between the committees and the offices. Furthermore, it could act as a centralized unit for strategic oversight of projects and portfolios. However, this location puts the project management office in an uncertain role between the committees and offices, necessitating a clearly communicated mandate and trust to be efficient.

A project management office positioned between the committees and the city council is hardly advisable for the purpose defined in this thesis. It may very well function as an organizational entity formalizing the policies and strategies put forward by the city council, enabling improved strategic governance and organizational goals. However, it would widen the scope of the project management office beyond the land development project process and competences.

Placing the project management office as exemplified in Figure 6 is assigning it to a politically and democratically governed level whereas placing a project management office as shown in Figure 5 is closer to operational activities. The example of placement shown in Figure 7 is putting it in the context of both the political and operational sphere. Furthermore, the placement as in Figure 6 and 7 may require a reorganization and development of new routines and guidelines as it changes the landscape of the direct political governance structures of the organization. Depending on the functions and tasks assigned to the project management office the ideal placement varies. However, to avoid disrupting political and bureaucratic processes and support easier implementation the example shown in Figure 5 may be the more realistic. The project management office should ideally consider interests from all three offices. Staffing the project management office is also dependent on its exact function, tasks and whether it should employ staff in a full-time capacity or by staff already holding other positions in the three offices. There is also the possibility of making the project management office a forum for the offices' strategic planning departments.

## 7 Conclusions

However easy it is to blame poor project management for inefficiency and time consuming processes it is also important to acknowledge that there are general internal and external factors affecting the delivery of projects. There are also inherent challenges in public organizations, project management in public organizations and the land development process that can affect the efficiency level and project execution. Public organizations are highly influenced by the political climate and context and there are challenges in balancing between organizational efficiency and democratic openness and control.

Key challenges identified in the study include political and bureaucratic processes, vague goal structure and lack of motivation for efficiency in the organizations. Furthermore, the results point to a gap between the optimistic political goals and the reality in which the offices operate. The vague goal structures can be seen as a strategic and a political problem. The nature of the political landscape may give politicians a tendency to express themselves vaguely so as to not lose their credibility or position. However, vague or immense goals and objectives are challenging in a public organization as the motivation for efficiency is more connected to the intrinsic motivational factors and personal contribution to the system as well as strong political and managerial leadership. Continual political changes and redefined goals also disrupt operational activities as resources may be reallocated to projects that fit in with the redefined goals.

In any public organization, there will be a presence of bureaucratic and political activities and as shown in this study the public offices of Gothenburg are no exception. The political and bureaucratic processes create the landscape and set the rules for the public organizations and may very well be justified although they sometimes contribute to longer lead times and interrupt project processes. The decentralized structure examined in this thesis may enable greater democratic control however it has also been shown to be a challenge for the organizations. The result of this study imply that the decentralized structure affects the communication and cooperation between offices and that it may create a conflict of interest between them. Ordering resources and work from each other, creating unclear client roles, may also be viewed as an overly bureaucratic procedure. This makes the project handover between the offices more official and formal than it needs to be and does not facilitate effective collaboration.

Moreover, this raises the question if the current organizational structure and project process for land development projects is obsolete and inadequate for the rapid rate of urban development seen today. Separating the land development functions from their respective offices and combining them in a new organization may open up for a more effective land development project process. In addition, concentrating the land development functions could enable more effective project management, resource management, communication and knowledge management while also improving structuring of roles, responsibilities and processes.

## 7.1 Practical and policy implications

This thesis has pointed out current challenges regarding project management, project portfolio management and organizational aspects for the land development process and offices responsible for it in the city of Gothenburg. Furthermore, the analysis and discussion has attempted to bring attention to possible explanations and solutions to the challenges faced and give a nuanced representation of the current state.

The theoretical and empirical research as presented in chapters two and five finds that the municipal offices studied are not mature project organizations. The state of project management is underdeveloped and the tentative implementation of project portfolio management is lacking the project level and governance support it requires. The study concludes that to address the challenges faced by the organizations, project management processes, tools, practices and frameworks should be the primary focus of development. To avoid a reactive approach to the project portfolio and organizational development these practices should be developed prior to project portfolio management. Developing project management practices and improving organizational project maturity will improve project delivery and execution as well as facilitate more effective project portfolio management and collaboration between the offices.

Project portfolio management would enable better strategic management of what projects are started as well as resource management and support to ongoing projects. There are currently challenges such as vague strategic governance and lack of effective project appraisal processes that further demonstrate the need for a developed project portfolio management system. However, if organizational project maturity remains low there is a risk of losing the benefits of any project portfolio management initiatives.

A project management office could be an appropriate way of addressing the challenges found in this study. There is a close correlation between the challenges identified through the interviews and the theory on tasks and functions of project management offices. It is a possible organizational support function for implementing and developing project management practices throughout the offices. Furthermore, it could adopt a role where it supports the strategic management of the project portfolio and oversees the alignment to development strategies. This would support development of project management skills, knowledge concerning execution of projects within the municipality and create a platform to discuss strategic decisions and project management performance.

Applying and implementing these concepts will have effects on the organization. To enable implementation, roles, current practices and processes need to be clearly defined and structured. Furthermore, applying project portfolio management practices affects the need for generating and managing project level information as well as strategic governance. A project management office would change the current organizational structure in different ways depending on its position in the organizational hierarchy. It would further require the development of new processes and routines in relation to workflow, information and strategic governance. The authority and role of the project management office must also be defined and understood by the employees.

Based on a small sample and the qualitative research design the results of this study and the presented conclusions may not be generalizable and applicable to all local government organizations involved in land development processes. The validity and reliability of the analysis and conclusions are likely to be greater in the context of organizations operating in comparable organizational and legal contexts e.g. organizations in Sweden working in land development projects. However, learnings and findings in the field of project management could be useful in other contexts as well, due to the universal characteristics of project management concepts. For example, the conclusions related to challenges of low project maturity could apply to other organizations operating in other contexts.

## **7.2 Suggestions for further research**

Most research in project management and are made in the private sector and with private organizations in mind. To bring the concepts and methods of project management into public sector and municipal organizations in a wider context through more research of the benefits and impacts is therefore a recommendation for future studies. For example, an analysis of the implications of project management maturity models in the public sector would be an interesting study as the differences between public and private organizations affect their general application. Furthermore, project portfolio management in public and local government organizations, where return on investment and appraisal based on financial factors are often not the most important basis for decision-making, is another potential future field of study. This also raises the question how the value of a project management office could be measured in public sector organizations. Additionally, studying the organizational effects of implementing project management offices in public organizations compared to private organizations would be fruitful. Moreover, the study opens up for future studies of comparison with other organizations and municipalities in Sweden or abroad.



## References

- ANDREWS, R., BOYNE, G. A. & ENTICOTT, G. 2006. Performance failure in the public sector. *Public Management Review*, 8, 273-296.
- APM 2012. *APM body of knowledge*, Princes Risborough: Association for Project Management.
- AUBRY, M. & BRUNET, M. 2005. Organizational Design in Public Administration: Categorization of Project Management Offices. *Project Management Journal*, 47, 107-129.
- BALDWIN, J. N. 1987. Public versus private - Not that different, not that consequential. *Public Personnel Management*, 16, 181-193.
- BELL, J. 2010. *Doing your research project: a guide for first-time researchers in education, health and social science*, Maidenhead: McGraw-Hill Education.
- BLAIR, D. G. 2015. Enhancing Trust in Government: Adoption of Program Management Discipline Can Help Government Improve Program Delivery and Service. *Public Administration Review*, 75, 789-790.
- BODDY, D. 2001. *Managing Projects: Building and Leading the Team*, Harlow: Financial Times Prentice Hall.
- BOVAIRD, A. G. & LÖFFLER, E. 2009. *Public Management and Governance*, New York: Routledge
- BRYMAN, A. 2012. *Social research methods*, Oxford: Oxford University Press.
- BUELENS, M. & VAN DEN BROECK, H. 2007. An Analysis of Differences in Work Motivation between Public and Private Sector Organizations. *Public Administration Review*, 67, 65-74.
- BUSINESSREGIONGOTEBORG.SE 2017. Bostadsbrist och attityder sänker företagsklimatet [Online]. Available: <https://www.businessregiongoteborg.se/sv/bostadsbrist-och-attityder-sanker-foretagsklimatet> [Accessed 08-09-2017].

BYGGNADSNÄMNDEN 2014. Strategi för Göteborg 2035: utbyggnadsplanering. Gothenburg: Göteborgs stad.

CAESAR, C. 2016. Municipal land allocations: integrating planning and selection of developers while transferring public land for housing in Sweden. *Journal of Housing and the Built Environment*, 31, 257-275.

CRAWFORD, J. K. 2014. *Project Management Maturity Model*, Boca Raton, FL: Auerbach publications.

CRAWFORD, L. H. & HELM, J. 2009. Government and governance: The value of project management in the public sector. *Project Management Journal*, 40, 73-87.

DAI, C. X. & WELLS, W. G. 2004. An exploration of project management office features and their relationship to project performance. *International Journal of Project Management*, 22, 523-532.

ENGWALL, M. & JERBRANT, A. 2003. The resource allocation syndrome: the prime challenge of multi-project management? *International Journal of Project Management*, 21, 403-409.

ESQUIERRO, J. C., VALLE, A. B. D., SOARES, C. A. P. & VIVAS, D. C. 2014. Implementation of a Project Management Office in a Public Sector Organization: A Case Study Involving a Sanitation Institution. *International Review of Management and Marketing*, 4, 1-12.

FASTIGHETSNYTT 2015. *Fastighetsekonomisk analys och fastighetsrätt: fastighetsnomenklatur*, Stockholm: Fastighetsnytt Förlag.

GOTEBORG.SE 2017. Fastighetskontorets verksamheter [Online]. Göteborg stad. Available: [http://goteborg.se/wps/portal/start/kommun-o-politik/kommunens-organisation/forvaltningar/forvaltningar/fastighetskontoret/vara-verksamheter/fastighetskontorets-verksamheter/!ut/p/z1/hY5BC4IwHMU\\_jdf9\\_06nWzcpCiwqumi7hMaagjqZq0GfPjsGRe\\_2eL\\_HeyChBDIUj1ZXrjVD1c3-LJNLTDcY5nG45YdwjRlb7vPjiUW4YID8A-Qc4w9ICDnItu6Jv\\_YECaUs5ZQLwdOYi0Sk7\\_1sqCOuQVp1U1ZZcrfzrca5cVoEGKD3nmhjdKfIpAL81mjM5KD8AGHsy-dOFdkLLB4fRg!!/dz/d5/L2dBISEvZ0FBIS9nQSEh/#htoc-0](http://goteborg.se/wps/portal/start/kommun-o-politik/kommunens-organisation/forvaltningar/forvaltningar/fastighetskontoret/vara-verksamheter/fastighetskontorets-verksamheter/!ut/p/z1/hY5BC4IwHMU_jdf9_06nWzcpCiwqumi7hMaagjqZq0GfPjsGRe_2eL_HeyChBDIUj1ZXrjVD1c3-LJNLTDcY5nG45YdwjRlb7vPjiUW4YID8A-Qc4w9ICDnItu6Jv_YECaUs5ZQLwdOYi0Sk7_1sqCOuQVp1U1ZZcrfzrca5cVoEGKD3nmhjdKfIpAL81mjM5KD8AGHsy-dOFdkLLB4fRg!!/dz/d5/L2dBISEvZ0FBIS9nQSEh/#htoc-0) [Accessed 04-09-2017].

- HAMMER, E. R. & VAN TASSELL, D. 1983. On the issue of public vs private sector motivation - Have the stereotypes been debunked? *Public Personnel Management*, 12, 282-289.
- HANISCH, B., LINDER, F., MUELLER, A. & WALD, A. 2009. Knowledge management in project environments. *Journal of Knowledge Management*, 13, 148-160.
- HILL, G. M. 2013. *The Complete Project Management Office Handbook, Third Edition*, Boca Raton, FL: CRC Press.
- HOBBS, B. 2007. *The Multi-Project PMO: A Global Analysis of the Current State of Practice, A White Paper prepared for PMI*, Newtown Square, PA: Project Management Institute.
- HURT, M. & THOMAS, J. L. 2009. Building value through sustainable project management offices. *Project Management Journal*, 40, 55-72.
- KAISER, M. G., EL ARBI, F. & AHLEMANN, F. 2015. Successful project portfolio management beyond project selection techniques: Understanding the role of structural alignment. *International Journal of Project Management*, 33, 126-139.
- KALBRO, T. 2005. *Urban Land Management: Papers on Property Development and Compulsory Purchase*. Stockholm: KTH Royal Institute of Technology.
- KALBRO, T. & LINDGREN, E. 2015. *Markexploatering*, Stockholm: Norstedts juridik.
- KARL, K. A. & SUTTON, C. L. 1998. Job values in today's workforce: A comparison of public and private sector employees. *Public Personnel Management*, 27, 515-527.
- KENDALL, G. I. & ROLLINS, S. C. 2003. *Advanced Project Portfolio Management and the PMO*, Boca Raton, FL: J. Ross Publishing.
- LANGSTON, C. & GHANBARIPOUR, A. N. 2016. A Management Maturity Model (MMM) for project-based organisational performance assessment. *Construction Economics and Building*, 16, 68-85.
- LOUDIYI, M. 2016. Akut bostadsbrist - kötiden fördubblad på fem år. *GöteborgsPosten*. [10-06-2016] [Online]. Available: <http://www.gp.se/nyheter/g%C3%B6teborg/akut-bostadsbrist->

[k%C3%B6tiden-f%C3%B6rdubblad-p%C3%A5-fem-%C3%A5r-1.2358982](#) [Accessed 11-09-2017].

- MATOS, S. & LOPES, E. 2013. Prince2 or PMBOK – A Question of Choice. *Procedia Technology*, 9, 787-794.
- MIR, F. A. & PINNINGTON, A. H. 2014. Exploring the value of project management: Linking Project Management Performance and Project Success. *International Journal of Project Management*, 32, 202-217.
- PEMSEL, S. & WIEWIORA, A. 2013. Project management office a knowledge broker in project-based organisations. *International Journal of Project Management*, 31, 31-42.
- PILKAITĖ, A. & CHMIELIAUSKAS, A. 2015. Changes in Public Sector Management: Establishment of Project Management Offices - A Comparative Case Study of Lithuania and Denmark. *Viesoji Politika ir Administravimas*, 14, 291-306.
- PMI 2013. *A Guide to the Project Management Body of Knowledge (PMBOK® Guide)*, Newton Square, PA: Project Management Institute.
- RAINEY, H. G. 2014. *Understanding and Managing Public Organizations*, New York, NY: John Wiley & Sons.
- SANTOS, V. & VARAJÃO, J. 2015. PMO as a Key Ingredient of Public Sector Projects' Success – Position Paper. *Procedia Computer Science*, 64, 1190-1199.
- STENTOFT ARLBJØRN, J., FREYTAG, P. V. & THOMS, L. 2015. Portfolio management of development projects in Danish municipalities. *International Journal of Public Sector Management*, 28, 11-28.
- UNGER, B. N., GEMÜNDEN, H. G. & AUBRY, M. 2012. The three roles of a project portfolio management office: Their impact on portfolio management execution and success. *International Journal of Project Management*, 30, 608-620.
- VAN DER LINDE, J. & STEYN, H. 2016. The effect of a project management office on project and organisational performance: a case study. *South African Journal of Industrial Engineering*, 27, 151-161.
- WYSOCKI, R. K. 2013. *Effective Project Management: Traditional, Agile, Extreme*, Somerset, NJ: John Wiley & Sons.

# Appendix A

## Interview guide

### Current practices and processes

Can you describe your routines, procedures and processes for starting a new project?

- How is a project started?
  - What do you identify as start of the project?
    - Receiving an order?
    - Resource allocation?
  - What are criteria are there for starting a project?
  
- Current processes for land development projects
  - In what phase does your unit/department/office get involved in the project?
    - Which phases follow where you are involved?
- Is the process different between projects?
- Are projects being monitored during their execution in terms of budget, time, scope?
  - How are variances handled?
- Is there any follow-up after the project has ended?
  - How, of what and by whom?

### How are you organized at your unit/department/office?

- How is the responsibility for projects structured?
  - Do you manage more than one project at a time?
- How do you assure that you have the relevant competences?
  - How do you gather and distribute information from projects to other projects?

### Have processes and procedures changed during your time here?

- What has changed?
- What initiated it?

### Portfolio mgmt.

- Are you familiar with the concept of project portfolio management?
- Are projects treated as isolated projects or are they managed as a whole?
  
- How are the current portfolio management efforts organized?
  - Is there a strategy?
  - What effects can be seen on current processes?
  - What benefits do you wish to realize?

- How are current projects being categorized?
- **How are projects being prioritized? (Criteria)**
  - Selection
  - What projects are initiated?
    - On what basis?
      - political
      - resources
      - housing
      - economic
      - Etc.
- Which are the available strategic guidelines?
  - Roles (in processes, information, output)
- Who is responsible for appraising projects?
  - Is it being done?
- Are roles and responsibilities clear?
  - Internally/externally?
  - Between offices?
- What is your role?
- What is the level of coordination (of information, resources)
  - Between functions/units/offices

## Development

- **How is organizational development and efficiency discussed in the organization?**
  - What is the view on efficiency?
  - Are current processes efficient?
    - What would be the first thing you would change to make current processes more efficient?
    - Are there other ways of working and manage projects?
- Is the information or knowledge available in the organization?
  - Are current procedures and processes enabling projects to finish on time?
  - Are there enough resources?
  - Is organizational development an organizational strategy or something that happens spontaneously?
  - Is there a need for clearer prioritization of projects?
- **Are current processes, procedures and practices affecting the organization's ability to deliver the projects on time, within budget and to the specified quality and scope?**

