Master Thesis

Innovation project portfolio management (IPPM) in the public sector context: A qualitative case study

Radboud University

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Preface

At this moment, I would like to present my Master Thesis. The Master Thesis is the final product for the master Innovation & Entrepreneurship, a specialization in Business Administration at Radboud University. After I finished the University of Applied Science, I started the pre-master Business Administration at Radboud University and the master Innovation & Entrepreneurship. The challenge of proving myself to myself and others is an characteristic that is important to me.

I want to thank my supervisors from the innovation lab of the Dutch Police, Frans Kooiman and Danny Timmermans, for the opportunity to conduct the case study and for their support and advice throughout the Master Thesis. While the outbreak of COVID-19 is present, they ensured that I was supervised, for which I am thankful.

Moreover, I want to thank my supervisor and second examiner from Radboud University, Prof. Dr. A. De Beuckelaer, and Dr. R.A.W. Kok, for their feedback. Prof Dr. A. De Beuckelaer inspired me to prove myself, and although this was challenging, I am proud that the feedback helped me grow as an academic. In addition, Dr. R.A.W. Kok provided insights into the importance of the research question's consistency with the research methods. I had to change some key elements in my Master Thesis after conducting the research, such as the research question and research method. Looking back, I would have taken a more inductive approach from the start because I expect that a more inductive approach would have intensified the consistency of the research question and the results. However, I am proud of the changes I made based on the feedback of R.A.W. Kok after I conducted the research. The different perspectives of Prof. Dr. A. De Beuckelaer and Dr. R.A.W. Kok were challenging but balancing the different perspectives is an important takeaway from the Master Thesis.

Finally, I want to thank my brother for reading my Master Thesis, and my family, boyfriend, and friends for their support and especially their patience in the process of writing my Master Thesis.

I hope you enjoy reading my Master Thesis and appreciate the changes that are taken into account in the process.

Janne Wijnands

Weert, November 2020

Abstract

Academic literature discloses that innovation projects are fundamental for the enhancement of an organization's efficiency and effectiveness. However, academic literature shows that the failure rate of innovation projects ranges up to 90%. Research has shown that the concept of innovation project portfolio management (IPPM) is fundamental in selecting successful innovation projects to enhance an organization's efficiency and effectiveness. Presently, IPPM is predominantly deployed in private sector organizations. However, IPPM is also recognized as fundamental for public sector organizations (PSOs). The lack of theory and empirical data on IPPM in PSOs is remarkable. Therefore, a case study is conducted to explore the deployment of IPPM in a PSO context and explore how a PSO can improve its deployment of IPPM to enhance its ability to innovate and therefore enhance the PSO's efficiency effectiveness. Data is collected by conducting semi-structured interviews and by analyzing archival data of the Dutch Police. The obtained data is analyzed and coded using the template analysis (i.e., between the inductive and deductive research approach), which helped to build a theory based on the collected data. Results indicated that IPPM is not (yet) unambiguous in the Dutch Police and that there is room for improvement concerning the current deployment of IPPM. The room for improvement is predominantly due to the confusion between 'regular' portfolio management and IPPM. Moreover, the need for an unambiguous innovation strategy, including an overview of innovations, the importance of IPPM, innovation types, a mechanism for funneling innovation projects, IPPM models, and IPPM flexibility, is found. Furthermore, due to the PSO context, innovation barriers are identified, such as the extensive public administration, the limited amount of human capital, and the complex responsibility structure.

Keywords: innovation project portfolio management, case study, Dutch Police, PSOs, ability to innovate, enhancing an organization's efficiency and effectiveness.

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1 Introduction

Freeman and Soete (1997, p. 266) stated that "not to innovate is to die". In addition, Tuschman and Nadar (1986) stated that managing innovation has become the most crucial task of an organization. Adams, Bessant, and Phelps (2006) developed a definition of innovation, which is: *"the successful exploitation of new ideas."* (p. 22). The definition' inclusion of new ideas accommodates different innovation types (e.g., process innovation; product or service innovation; governance innovation; and conceptual innovation) that can arise in an organization. New ideas (i.e., innovations) signify something new, either a new product, service, other output, and/or a new process and method (Filippov & Mooi, 2010). Therefore, the definition includes the successful exploitation of the innovation types, enabling the current study to focus on innovation's desired outcome. The desired outcome of innovation is the enhancement of an organization's efficiency and effectiveness.

Academic literature discloses that innovation is paramount and enhances the organization's efficiency and effectiveness (e.g., Anderson, Potočnik & Zhou, 2014; Collis, 2010; IBM, 2010; Kriekels, 2013; Van de Ven, 1986; Walton, 2003). Organizations need to be efficient in containing costs and effective to enhance the quality of services and satisfy their communities' needs (Moussa, McMurray & Muenjohn, 2018). Innovation can enhance organizational efficiency and effectiveness by, for example, utilizing increased productivity, greater employee satisfaction, more significant employee commitment, reduced staff turnover, the ability to respond to a crisis, improved planning processes, and a more satisfied and intrinsically oriented workforce (e.g., Amabile, Schatzel, Moneta & Kramer, 2004; Bedell-Avers, Hunter & Mumford, 2008; Mumford, Hester & Robledo, 2012; Rosenbusch, Brinckmann & Bausch, 2011; Somech & Drach-Zahavy, 2011; PricewaterhouseCoopers, 1999). Organizations benefit differently from innovation based on their contexts, such as an organization's strategy and resources (Hartley, 2005).

In addition, an organization's ability to innovate directly relates to organizational efficiency and effectiveness (e.g., DeVellis, 2012; Frazier, Tix & Barron, 2004; Sekaran, 2006). An organization's ability to innovate refers to the results in terms of the degree to which the organization introduces new ideas (i.e., innovation projects) into the market (Freeman & Soete, 1997). Organizations need to acknowledge that innovation projects are fundamental in empowering an organization's ability to innovate because innovation projects aim at converting new ideas (i.e., innovation projects) into innovations (Lerch & Spieth, 2012).

However, academic literature shows that the failure rate of innovation projects ranges up to 90% (e.g., Castellion & Markham, 2013; Cozijnsen, Vrakking & Van Ijzerloo, 2000; Girotra, Terwiesch & Ulrich, 2007; Heidenreich & Kraemer, 2015; Rizova, 2006; Välikangas, Hoegl & Gibbert, 2009). Moreover, Carroll and Mui (2008) showed that the costs associated with innovation projects' failure are estimated at $380 billion. The failure of innovation projects can decrease an organization's ability to innovate, resulting in a decrease in an organization's efficiency and effectiveness (Girotra et al., 2007). In all industries, organizations are undertaking innovation projects and need instruments and processes, like innovation project portfolio management (IPPM), to structure, organize, and control these innovation projects (Lerch & Spieth, 2012).

Research has shown that the concept of innovation project portfolio management (IPPM) is fundamental in selecting successful innovation projects to enhance an organization's ability to innovate (Coulon, Ernst, Lichtenthaler & Vollmoeller, 2009; Lerch & Spieth, 2012; Girotra et al., 2007; Meifort, 2016; Sicotte, Drouin & Delerue, 2014; Wheelwright & Clark, 1992). Cooper, Edgett and Kleinschmidt (2001) developed a widely accepted definition of IPPM (Kock & Gemünden, 2016; Lerch & Spieth, 2012; Meifort, 2016):

> Innovation project portfolio management is a dynamic decision process whereby an organization's list of active new products and R&D projects is continuously updated and revised. In this process, new projects are evaluated, selected, and prioritized; existing projects may be accelerated, killed, or de-prioritized; and resources are allocated and reallocated to the active projects. (Cooper et al., 2001, p. 3)

Noteworthy is that Lerch and Spieth (2012) showed that IPPM is broader than new product development acknowledged by Cooper et al. (2001). Therefore, the current study embraces the categorized four innovation types (e.g., process innovation; product or service innovation; governance innovation; and conceptual innovation), including product innovation and service innovation (De Vries, Bekkers & Tummers, 2015; Lerch & Spieth, 2012) . Cooper et al. (2001) definition of IPPM has been conceptualized in the current study because the definition embraces different types of innovation projects, portfolio techniques, and their underlying coherence. The IPPM techniques mentioned in IPPM's definition allow for flexibility in the IPPM decision process because innovation projects are analyzed systematically and rapidly. Flexibility provides the opportunity to improve an organization's ability to innovate. Moreover, the underlying coherence between innovation projects and portfolio techniques ensures efficient and effective IPPM. Lerch and Spieth (2012) conclude that IPPM is effective when the right innovation projects are selected and is efficient when IPPM's methods and activities do not waste time and resources.

Appendix A shows that innovation studies, such as on IPPM, are primarily focused on private sector organizations (Jaskyte, 2011; Walker, 2006). However, innovation is also recognized as crucial for public sector organizations (PSOs). Agolla and Lill (2013) appoint that innovation helps PSOs be efficient and effective by creating new jobs, providing higher incomes, offering investment opportunities, solving social problems, curing diseases,

safeguarding the environment, and protecting security (Agolla & Lill, 2013). PSOs have characteristics that distinguish them from private sector organizations, such as profit maximization not being their main objective, a relatively more outspoken political component, which influences the administration process, and a lack of clarity about clients (Fryer, Antony & Douglas, 2007; Hull & Lio, 2006). Even though PSOs differ from private sector organizations, the private sector experiences concerning innovation are increasingly deployed in PSOs (Turner & Keegan 1999; Crawford, Castello, Pollack & Bentley, 2003; Negoita, 2018; Parker & Bradley, 2000; Boland & Fowler, 2000). The literature suggests a one-best-way-fits-all approach to IPPM. However, a one-best-way-fits-all approach does not justify the different context of a PSO. Therefore, the presumption is that the differences between PSOs and private sector organizations imply distinct differences in the requirements to IPPM.

On the one hand, academic literature describes a direct relation of IPPM to an organization's ability to innovate. On the other hand, the lack of theory and empirical data on IPPM in PSOs is remarkable and has been described by various authors (e.g., Agolla & Lill, 2013; Anwar, Zamah Khan & Ali Shah, 2019; Cinar, Trott & Simms, 2019; Heinzen, Rossetto & Altoff, 2013; Jaskyte & Dressler, 2005; Jaskyte, 2011; Lacerda, Martens & Freits, 2016; Martinsuo & Dietrich, 2002; Walker, 2006; Wolfe, 1994). Moreover, several studies expressed the need for empirical data for the understanding of innovation in PSOs (Agolla & Lill, 2013; De Vries et al., 2015). Therefore, the aim of this research is to explore the deployment of IPPM in a PSO context and explore how a PSO can improve its deployment of IPPM to enhance the PSO's efficiency and effectiveness. The results of the study led to the formulation of propositions for future research (e.g., quantitative research). In the current study, the PSO studied is the Dutch Police, which is discussed in more detail in Chapter 3.

The study's practical value is that the resulting insights may improve managers' understanding of how to deploy IPPM to ultimately improve a PSO's efficiency and

effectiveness. Furthermore, the study addresses the gap in the academic literature of the deployment of IPPM in PSOs. To conduct the research and to achieve the formulated research aim, the following research question is composed: **"How is innovation project portfolio management (IPPM) deployed in the public sector, and how can IPPM and its deployment be improved?"**

To answer the research question, four sub-questions have been formulated and are discussed in more detail in the remaining chapters:

1. What is known in the current literature about innovation in the PSO context?
2. What is known in the current literature about IPPM?
    a. What is the recommended approach to IPPM?
3. What features of IPPM are present in the current situation of the PSO context, the Dutch Police?
4. How could IPPM, based on insights from theory and PSO practice, be deployed to enhance their efficiency and effectiveness?

The current study will discuss and answer the research question chapter through five chapters. Following the introduction, the second chapter provides the theoretical background of the problem at hand. The third chapter discusses the methods used to conduct the explorative case study. Subsequently, chapter four presents the results, and chapter five discusses the findings. Moreover, chapter five contains a conclusion, managerial implications, limitations, recommendations for future research, and a reflection.

2 Theoretical background

The topics related to the research question (and the sub-questions) of this research have been encountered in previous studies. Therefore, the first two sub-questions are answered in the following chapter. The first sub-question is: "*What is known in the current literature about innovation in the PSO context?"*. The sub-question is answered by utilizing the definition of innovation, addressing innovation projects, and addressing different types of innovation. Moreover, the different types of innovation and the right mix and balance of innovation projects are discussed in the PSO context. Therefore, the PSO context is discussed, and innovation barriers for the PSO context are identified.

The second sub-question is: "*What is known in the current literature about IPPM?"*. The second sub-question is answered by defining IPPM, studying best performers of IPPM, and identifying success drivers of IPPM. The chapter ends by connecting the sub-questions and concludes with the explorative case study's tentative conceptual model.

2.1 Innovation

2.1.1 Definition innovation

As already mentioned in the introduction, academic literature discloses that innovation is paramount and contributes to the efficiency and effectiveness of the organization (e.g., Anderson, Potočnik & Zhou, 2014; Collis, 2010; IBM, 2010; Kriekels, 2013; Van de Ven, 1986; Walton, 2003). The ability to innovate allows organizations to materialize ideas that add value to the organization's efficiency and effectiveness (Schumpeter, 1934; Leite & Maraes, 2015). Adams, Bessant, and Phelps (2006) developed a definition of innovation, which is: *"the successful exploitation of new ideas."* (p. 22). The definition' inclusion of new ideas accommodates different innovation types (e.g., process innovation; product or service innovation; governance innovation; and conceptual innovation) that can arise in a PSO. New ideas (i.e., innovations) signify something new, either a new product, service, other output,

and/or a new process and method (Filippov & Mooi, 2010). The exploitation of new ideas by different innovation types is important to reach the formulated research aim of enhancing a PSO's efficiency and effectiveness. Moreover, the definition includes the successful exploitation of the innovation types, enabling the current study to focus on innovation's desired outcome, which is enhancing an organization's efficiency and effectiveness. Therefore, the definition is complete for the organizational context and includes all relevant innovation types addressed in the current study.

To further define the concept of innovation, Miron-Spektor, Erez, and Naveh (2011) stated that *"innovation can vary form an incremental extension of current organizational capabilities to a radical one."* (p. 740). Therefore, two categories of innovation can be distinguished, viz incremental innovation and radical innovation (Ali, 1994; Elfring & Hulsink, 2007). Incremental innovation and radical innovation represent opposite ends of the novelty spectrum (Brentani, 2001). Incremental innovation (i.e., exploitation) is characterized as a change that implies small adaptions (Tushman & Romanelli, 1985). Accordingly, incremental innovation is often described as a step-by-step process. In contrast, radical innovation (i.e., exploration) is defined by Tushman and Romanelli (1985) as *"processes of reorientation wherein patterns of consistency are fundamentally reordered."* (p. 176). The effect of the change is higher for radical innovation than for incremental innovation. Due to the elevated effect of change, radical innovations take more time to be accepted and therefore implemented.

Both radical innovation and incremental innovation are essential for an organization's ability to innovate. However, the failure rate for radical innovation is higher than for incremental innovation. Furthermore, successful radical innovation is more beneficial to an organization than successful incremental innovation (Sen & Ghandforoush, 2011). Radical and incremental innovation can be pursued by different types of innovation projects that are embraced by PSOs. Radical and incremental innovation is focused on the effect of change.

However, radical and incremental innovation does not identify the type of change. Therefore, different types of innovation are identified for the deployment of IPPM (Moore & Hartley, 2008; De Vries et al., 2015).

2.1.2 Innovation types

Following Lerch and Spieth (2012), which underscore that IPPM's focus lies on different innovation types, the current study includes product innovation and service innovation, which arise in PSOs. The embracement of product innovation and service innovation leads to the inclusion of the following innovation types for PSOs: process innovation; product or service innovation; governance innovation; and conceptual innovation (De Vries et al., 2015).

Process innovation focuses on improving internal and external processes (Damanpour & Gopalakrishnan, 2001; Walker, 2013). Process innovation can be categorized into administrative process innovation and technological process innovation. Administrative process innovation is creating new organizational forms, the introduction of new management methods and techniques, and new working methods (Daft, 1978; Meeus & Equist, 2006). Moreover, technological process innovation is creating new technologies introduced in an organization to render services to users and citizens (Edquist et al., 2001; Damanpour & Gopalakrishnan, 2001). Product or service innovation is defined as creating new public services or products (Damanpour & Schneider, 2008). Furthermore, governance innovation comprises the development of new forms and processes to address specific societal problems (Bekkers, Edelenbos & Steijn, 2011; Moore & Hartley, 2008). The fourth and last innovation type is conceptual innovation. Conceptual innovation introduces new concepts, frames of reference, or new paradigms that help reframe the nature of specific problems and possible solutions (Bekkers et al., 2011).

Cooper et al. (2001) show that private sector organizations in IPPM are primarily focused on new product development (e.g., product innovation instead of service innovation). However, noteworthy is that IPPM is broader than new product development (Lerch & Spieth, 2012). Therefore, the current study embraces the categorized four innovation types, including product innovation and service innovation. Furthermore, the defined innovation types of a PSO are often intertwined, creating hybrid forms (Damanpour, 1991). Important for the deployment of IPPM is that Wheelwright and Clark (1992) show that defining innovation projects by type provides useful information about how resources should be allocated. The more significant the change, the more resources are needed (Wheelwright & Clark, 1992).

2.2 Innovation projects

There is attention for the right mix and balance of innovation project by type in innovation and IPPM literature (Cooper et al., 2001; Wheelwright & Clark, 1992). Most organizations, such as the Dutch Police, cannot grasp the tremendous amount of innovation going on inside their organization. Therefore, Nagji and Tuff (2012) created the innovation ambition matrix to help organizations create the right balance, number, and execution of innovation projects. The innovation ambition matrix is based on a pattern of top performers of IPPM in private sector organizations that have the right balance, number, and execution of innovation projects. Top performers' pattern is based on three innovation levels: core initiatives, transformational innovation, and adjacent innovation.

Core initiatives and transformational innovation represent opposite ends of the novelty spectrum. Core initiatives can be seen as save bets and involve making small adaptions to enhance organizational efficiency and effectiveness. Core initiatives act in accordance with the innovation type of incremental innovation. Core initiatives are in contrast to transformational innovation. Transformational innovation acts in accordance with the innovation type of radical innovation. Transformational innovation consists of developing breakthrough and inventing

innovations (Nagji & Tuff, 2012). Therefore, transformational innovation is high-risk but vital to an organization's efficiency and effectiveness. However, innovation projects can also have characteristics of both core initiatives and transformational innovation projects. Innovation projects with both characteristics are defined as adjacent innovation projects (Nagji & Tuff, 2012). Therefore, adjacent innovation projects can be seen as less sure than core initiatives, but they are more sure than transformational innovation projects. Adjacent innovation projects allow an organization to draw on existing capabilities and put those capabilities into new uses.

Nagji and Tuff (2012) stated that private sector organizations allocated 70% of their innovation projects to core initiatives, 20% to adjacent ones and 10% to transformational ones outperformed other organizations. Therefore, organizations should strive for a 70-20-10 innovation project balance, according to Nagji and Tuff (2012). Targeting a healthy balance of core, adjacent, and transformational innovation is vital towards managing innovation projects and, therefore, IPPM.

2.3 Public Sector Organizations and Innovation barriers

Innovation is an issue of considerable significance for both public and private sector organizations (Moore & Hartley, 2008). Moussa, McMurray, and Muenjohn (2018) even stated that public sector organizations (PSOs) consider innovation paramount and inevitable. The current study focuses on PSOs. Therefore, PSOs are defined and studied concerning innovation.

2.3.1 Public Sector Organizations

Oke (2001) and Zduncyk and Blenskinsopp (2007) underscore that an organization's strategy is one of the most important drivers of successful innovation. Strategy provides a clear direction and focuses the efforts of the entire organization. However, strategy can nevertheless pose as one of the most significant barriers to an organization's ability to innovate. Strategy is

an innovation barrier when communicated to organizational members ambiguously or half-heartedly, hoping that employees will understand (Martins & Terblanche 2003).

PSOs strive for efficient and correct utilization of money to achieve the strategy of contributing to society. Hull and Lio (2006) show that PSOs are less concerned with financial goals than private sector organizations. Private sector organizations are driven by the strategy of profit maximization. The difference between the PSO's objectives and private sector organization's strategy is notable when deploying IPPM because IPPM needs to be consistent with the organization's strategy.

Moreover, private sector organizations acquire money by offering products or services in exchange for money. Therefore, private sector organizations have a straightforward responsibility to maximize profit for their shareholders. On the contrary, PSOs acquire money from stakeholders and satisfy their stakeholders by balancing their cash flow and their contribution to society (Hull & Lio, 2006). Therefore, PSOs experience a relatively more complex structure of responsibility towards different stakeholders than private sector organizations.

2.3.2 Innovation barriers of Public Sector Organizations

PSOs are often hesitant to invest in unproven solutions given their limitations, such as complex responsibility structure, limited resources, and a lack of the same market forces that can naturally drive innovation in private sector organizations (Holden, Cassidy, Hallberg & Marsh, 2018). Accordingly, Hartley (2010) expressed that the organizational context of PSOs has an impact on innovation. Identifying innovation barriers that a PSO can control enables a PSO to avoid innovation barriers and, therefore, the stifling of their innovation.

The first indicated innovation barrier relates to PSO's public administration (Cinar, Trott & Christopher, 2019; Moussa et al., 2018). The public administration creates red tape (i.e., bureaucracy). Therefore, an extensive obligation for public administration can stifle

innovation. The second identified innovation barrier is the resistance to or lack of support of innovation from specific actors in the PSO. Furthermore, the third innovation barrier relates to a lack of available resources in terms of money, time, and IT infrastructure. A lack of national and state funding, shortage of staff, and limited information technology infrastructure could stifle innovation (Ciner et al., 2019). Moreover, an inappropriate organizational structure and culture are identified as an innovation barrier (Cinar et al., 2019). Moussa et al. (2018) indicate that an organizational structure and culture include: poor communication; lack of resources; top-down dictates; resistance to change; and politics. Consistent with Moussa et al. (2018), Martinsuo and Dietrich (2002) identified that PSO's strong political dimension is neglected. However, the political dimension does influence decision-making and could stifle innovation.

Furthermore, PSOs risk-averse culture is uncovered as an innovation barrier (Cinar et al., 2019). According to Covin and Slevin (1998), risk-aversity is the lack of the organization's ability to take risks and willingness to do so. Risk-aversity makes the pursuit of innovation more difficult and stifle because innovation consists of risks. Therefore, PSOs are constrained by a complex structure of responsibility that holds them extremely accountable for failure. The last identified innovation barrier is a lack of skills, knowledge, and expertise. All in all, the identified innovation barriers for PSOs are: public administration process; resistance or lack of support from specific actors; lack of available resources; inappropriate organizational structure and culture; and risk-aversity.

2.4 Innovation project portfolio management (IPPM)

As mentioned in the introduction, IPPM is an essential step toward effective management of innovation and management of innovation projects, therefore, an organization's ability to innovate (Gordon & Tarafdar, 2007; Keegan & Turner, 2002). The Dutch Police is a large organization, where hundreds of new ideas are being developed simultaneously, the ability to manage IPPM, deciding where to place resources and when to cut losses, is a

demanding and complex management effort (Benko & McFarlan, 2003; Cooper et al., 2001). However, IPPM helps to keep the organization and innovation focused. Cooper et al. (2001) defined managing the portfolio as innovation project portfolio management (IPPM):

> Innovation project portfolio management is a dynamic decision process whereby an organization's list of active new products and R&D projects is continuously updated and revised. In this process, new projects are evaluated, selected, and prioritized; existing projects may be accelerated, killed, or de-prioritized; and resources are allocated and reallocated to the active projects. (Cooper et al., 2001, p. 3)

The definition leads to two purposes of IPPM. In proactive terms, IPPM turns an organization's strategy concerning innovation into action (Eggers, 2011). In preventive terms, IPPM avoids pipeline gridlock in innovations, which could jeopardize organization benefits, and ultimately jeopardize the enhancement of an organization's efficiency and effectiveness (Cooper, Edgett & Kleinschmidt, 1999). To achieve these purposes, an organization's innovation project portfolio must be updated both timely and efficiently to avoid 'firefighting' unplanned resource requirements in the innovation pipeline (Meifort, 2015). Here, portfolio techniques are powerful in that they allow innovation projects to be analyzed systematically and rapidly, allowing for flexibility in the portfolio decision process.

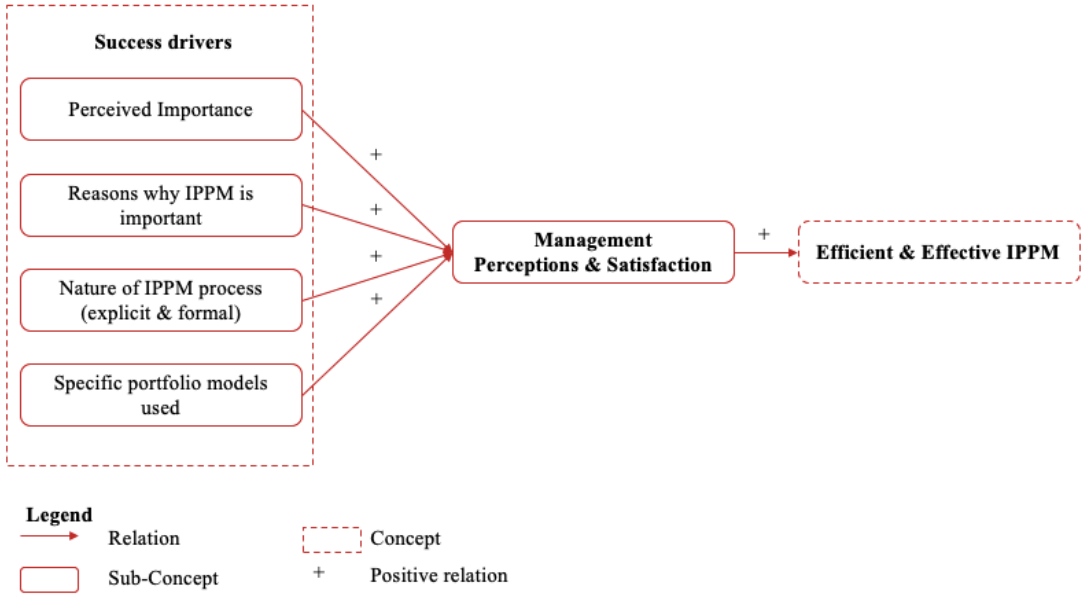
2.4.1 Theoretical framework IPPM

Cooper, Edgett & Kleinschmidt (1999, p. 334), and Lerch and Spieth (2012, p. 22) developed a theoretical framework for efficient and effective IPPM for private sector organizations (Imenda, 2014). Elements of the theoretical frameworks for efficient and effective IPPM are conceptualized as a starting point for discussing IPPM in the PSO context. Figure 1 shows the IPPM theoretical framework conceptualized in the study. The IPPM

theoretical framework shows that management perceptions and satisfaction directly influence efficient and effective IPPM (Cooper et al., 1999; Lerch & Spieth, 2012). Management perceptions and satisfaction consist of how managers perceive portfolio management tools and whether managers are satisfied with the used portfolio method (Lerch & Spieth, 2012). Moreover, Agolla and Lill (2013) also found that innovation in PSOs should begin with the support of management.

The success drivers of the IPPM theoretical framework, as shown in Figure 1, have a direct relation to the management's perception and satisfaction and to efficient and effective IPPM (see the left side of Figure 1). Cooper et al. (1999) defined four success drivers for IPPM: perceived importance, reasons why IPPM is important, nature of the portfolio process, and the specific portfolio models used.

Figure 1 Theoretical framework IPPM (Cooper et al., 1999, p. 334; Lerch & Spieth, 2012, p. 22)



2.4.1.1 Success driver 1: Perceived importance.

The first success factor of IPPM, perceived importance, consists of how the organization perceives the importance of IPPM (Cooper et al., 1999). Therefore, PSO's perception of the importance of IPPM is an underlying success factor of IPPM. Although IPPM is perceived as the most important management tool to enhance an organization's ability to innovate, not every

organization has received this message. The lack of support by the management is perceived as an innovation barrier for PSOs (Agolla & Lill, 2013; Cinar et al., 2013). Innovation should begin with the support of management. Cooper et al. (2001) concluded that top performers of IPPM show higher perceived importance of IPPM than poor performers of IPPM.

2.4.1.2 Success driver 2: Reasons why IPPM is important

The second success driver consists of acknowledgment of the reasons why IPPM is important (Cooper et al., 1999). The reasons why IPPM is important must be consistent with an organization's strategy to result in efficient and effective IPPM. Therefore, the found differences in section 2.2 between PSO's and private sector organizations' strategies have to be considered in the deployment of IPPM.

Cooper et al. (2001) show that most private sector organizations purely look at financial reasons as to why IPPM is important. However, the financial reasoning of private sector organizations is not consistent with PSO's societal reasoning. Cooper et al. (2001) established eight key reasons why IPPM is important cited by organizations. The first two key reasons are solely based on financial reasons and will not contribute to the acceptance of IPPM in the PSO context and, therefore, not relevant for the current study.

Besides financial reasons, Cooper et al. (2001) distinguished other reasons why IPPM is important, which are relevant for PSOs. The first reason is that IPPM properly and efficiently allocates scarce resources. Second, IPPM is important in forging consistency between innovation project selection and the organization's objectives. The third reason is that IPPM helps to achieve focus, not do too many projects for the limited resources available, and resource the profitable innovation projects. Furthermore, IPPM helps to achieve the right balance between long and short-term innovation projects, high risk and low-risk ones, consistent with the organization's objectives. The fifth reason is that IPPM communicates priorities within the organization better, both vertically and horizontally. Lastly, IPPM provides

better objectivity in innovation project selection and weeds out lousy innovation projects. Altogether, the acceptance of IPPM relies on the reasoning of an organization. The reasoning needs to be consistent with an organization's strategy.

2.4.1.3 Success driver 3: Nature of the IPPM processes.

The third success driver in IPPM's theoretical framework is the nature of IPPM processes (Cooper et al., 1999). IPPM processes are determined by three factors: formality, review frequency, and transparency (Lerch & Spieth, 2012).

Formality

A formalized IPPM process contributes to efficient and effective IPPM. Therefore, organizations have to formalize IPPM and communicate a clear framework. Formality guarantees that all innovation projects are treated in the same way. Consequently, the consistency of treating innovation projects in the same way increases the quality of evaluation and selection (Lerch & Spieth, 2012). Moreover, the entry into the innovation portfolio of innovation projects has to be formalized as well. Lerch & Spieth (2012) stressed the importance of evaluating ideas for innovation projects at an early stage in the process, thereby deleting ideas that could have become expensive failures. Therefore, Mathews (2010) created a decision tree that provides an efficient mechanism for setting criteria for entry into the innovation portfolio. Mathews (2010) claimed that funneling innovation projects through mechanisms is essential for the profitable selection of innovation projects. See Appendix B for an example of the funneling of innovation projects by a portfolio mechanism. Deploying such a mechanism in IPPM can increase innovation projects' success rate and help avoid costly failures by treating innovation projects in the same way (Lerch & Spieth, 2012).

Review frequency

In IPPM, innovation projects need to be consistently updated and revised. Here, the review frequency helps IPPM to remain flexible by reducing uncertainty about innovation projects and helping to quickly intervene when innovation projects go wrong or in prioritizing

innovation projects. Lerch and Spieth (2012) argue an inverted u-shape relationship between the review frequency and IPPM's efficiency and effectiveness. Review frequency is positively linked to management's acceptance of IPPM methods.

Transparency

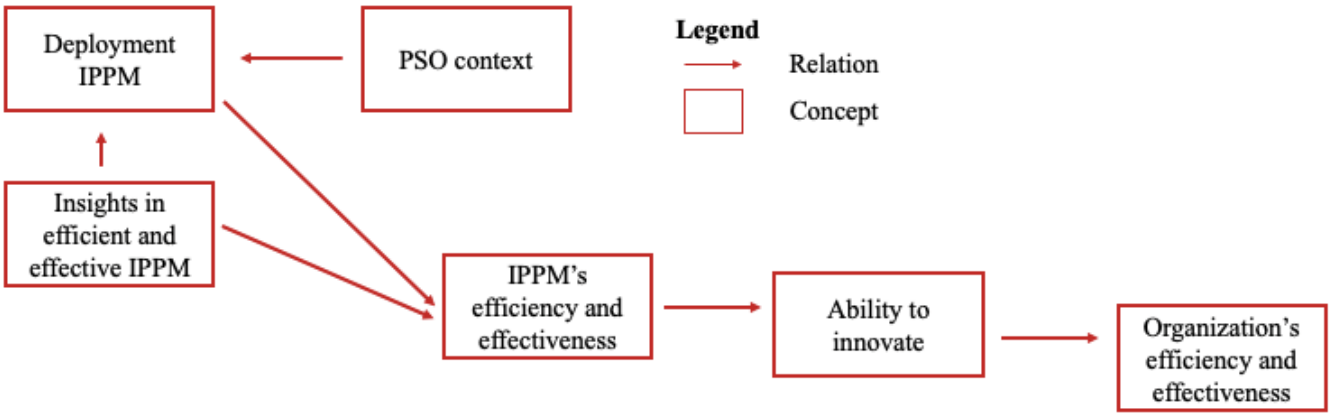
Furthermore, the IPPM process's transparency increases management acceptance (Lerch & Spieth, 2012). The more transparent the IPPM processes, the higher IPPM's efficiency and effectiveness. Elements of transparency are the consolidation of knowledge, knowledge and information visualization, and objective prioritization (Lerch & Spieth, 2012).

2.4.1.4 Success driver 4: Specific portfolio models used.

The final success driver focuses on the specific portfolio models used in IPPM (Cooper et al., 1999). Cooper et al. (2001) stated that organizations have to use more than two methods for efficient and effective IPPM. For that reason, qualitative and quantitative elements within IPPM methods can be used, for example, the methods of making team decisions and the use of scoring models (Lerch & Spieth, 2012). Scoring models could be, for example, bubble diagrams. Bubble diagrams plot innovation projects on an X-Y plot or map, much like bubbles (Chao & Kavadias, 2008; Cooper et al., 2001).

While IPPM has been investigated in prior studies, only the private sector organizations are studied (see Appendix A), and IPPM in the PSO context is not yet clear. Therefore, an exploratory case study method was utilized. The exploratory case study aims to develop theory by formulating research propositions (i.e., expected research outcomes).

Figure 2 Tentative Conceptual Model



The tentative conceptual model shown in Figure 2 is conceptualized to give direction and focus to the empirical case study and show the assumed relationships between the variables (Imenda, 2014). A final version of the conceptual model can be given based on the empirical case study results, which shows assumed relationships that need to be tested by a quantitative approach. As shown in Figure 2, the efficiency and effectiveness of the organization is the dependent variable. The dependent variable is dependent on the ability to innovate of the organization, which again is dependent on efficient and effective IPPM and the deployed of IPPM in the PSO context. The assumption is that efficient and effective deployment of IPPM will enhance an organization's ability to innovate and therefore increase an organization's efficiency and effectiveness.

3 Methodology

The following chapter elaborates on the methods used to conduct the research and answer the research question. Therefore, the research method, the research setting, the case study's data collection, the operationalization, and the data analysis are described.

3.1 Research method

The aim of the research is to explore the deployment of IPPM in a PSO context and explore how a PSO can improve its deployment of IPPM to enhance their ability to innovate, and ultimately to enhance the PSO's efficiency and effectiveness. Therefore, a qualitative research approach is utilized to research the current situation of IPPM in the PSO context and the current efficiency and effectiveness of IPPM. Qualitative research is chosen because qualitative research allows for the interpretation of a phenomenon that leads to a greater understanding of a phenomenon, such as IPPM (Justesen & Mik-Meyer, 2012; Newman, 2000). Moreover, according to Kaplan and Maxwell (2005), when doing exploratory research to understand a phenomenon, qualitative research is preferred over quantitative research because textual data is largely lost when the approach is quantitative.

A case study is conducted to generate empirical evidence on the deployment of IPPM in the PSO context. The purpose of the case study is to make an original contribution to the knowledge by using empirical evidence from real people in the real-life context. Since the theory on IPPM in the PSO context is currently in the early phases of development, there is a lack of a comprehensive theory (see Appendix A). A case study helps to build a theory based on the gathered textual data. Moreover, a survey is not (yet) applicable since a survey will not apprehend the complication of the real-life context. Therefore, the aim of the research is to develop theory. The current study's singular case study aims to score as high as possible on the internal validity, thus to draw the right conclusions and develop theory for the specific PSO, the Dutch Police. Eventually the developed theory can be tested in future research.

3.2 Research setting

The research setting, the PSO context, for the current study is the Dutch Police. The Dutch Police is the singular PSO context that is studied to strengthen the internal validity and the development of theory. The Dutch Police is a PSO that focuses on ensuring a safe and livable society and assist those in need. Within the Dutch Police, they had an innovation culture of 'let a thousand flowers bloom' (personal communication, May 20, 2020). Therefore, the Dutch Police deployed IPPM to help invest in certain innovation opportunities. The study's empirical case research aims to explore the deployment of IPPM in the PSO context and provide insights into how to improve the deployment of IPPM in the PSO context.

3.3 Case selection

The selected case is about IPPM in PSO context with the Dutch Police as the research object. In contradiction to private sector organizations, PSOs are not seen as innovative organizations and therefore fit the research gap of IPPM in PSOs. The case of improving IPPM has been chosen together with the Dutch Police. IPPM is deployed central in the organization on the Dutch Police's strategic and tactical level, at which a lot of employees are involved. The innovations of the Dutch Police aim to impact society in a positive matter. Therefore, the opportunity to contribute to these innovations contains a social contribution. Besides, the outcome of the research could influence other organizations in the PSO context.

3.4 Data collection

3.4.1 Sampling strategy

The explorative case study is about understanding a phenomenon in a certain context. Therefore, a more important issue than the number of interviews is making sure that the people interviewed represent various voices (Myers & Newman, 2007). Due to the fact that the study uses a qualitative research approach, a relatively small number of respondents is allowed, as

collected material is extensive (Bleijenbergh, 2015). To reach the aim of representing relevant voices, distinct selection criteria for the eight respondents were formulated.

The respondents' selection criteria are based on distinguishing two key functions of IPPM in the organizational context. These two key functions have the underlying assumption that the respondent is an executive of IPPM. The first key function of IPPM is the decision-maker. The decision-maker has authority over the portfolio in deciding on initiation, termination, or reprioritization of innovation projects. The second distinguished key function of IPPM are coordinators. Coordinators are in charge of actively managing IPPM. To ensure that the respondent meets the selection criteria, questions in the interview guide are committed to ensuring that the respondent is an executive of IPPM. Both key functions are hierarchically located at the strategic and tactical levels (i.e., not at the unit level or operational level) of the Dutch Police.

3.4.2 Respondents

Table 1 includes the key function and the respondents' level in the organization to allow readers to judge if other contexts (or their context) have to be informed by the study's findings (i.e., transferability). Merely the key function and level in the organization of the respondents are provided because the respondent's anonymity is guaranteed.

Table 1 Overview of the respondents

Respondent #	Key function of IPPM	Level of the organization
1	Decision-maker	Strategic level
2	Decision-maker	Strategic level
3	Decision-maker	Strategic level
4	Decision-maker	Strategic level
5	Coordinator	Tactical level
6	Coordinator	Tactical level
7	Coordinator	Tactical level

8	Coordinator	Tactical level

3.4.3 Interviews

Semi-structured interviews are one of the most important data-gathering techniques in qualitative research (Myers, 2013). The semi-structured interviews consisted of pre-formulated questions that are based on the operationalization of the theory. The pre-formulated questions are shown in Appendix D: Interview Guide. There was no strict adherence to the pre-formulated questions. Not every pre-formulated question mentioned in the interview guide is asked in the same order during each interview (Barribal & While, 1994). However, the eight respondents who participated in the semi-structured interviews were asked the same questions, using nearly the same words, to ensure that any differences in the answers would not be due to the questions asked, which increases the reliability (i.e., replicability) of the study. Therefore, the semi-structured interviews gave structure but allowed for improvisation, such as new questions. The opportunity for improvisation is consistent with the qualitative approach of the explorative case study.

Noteworthy is that interviews have been conducted through the digital technology of Microsoft Teams between June 2020 and July 2020 to prevent the spread of Covid-19. The use of digital technology provides the benefit that respondents can be interviewed within a safe environment (i.e., their home), making the respondent more comfortable and more prepared to open up and talk (Seitz, 2015). However, to overcome digital challenges, such as dropped calls and pauses, inaudible segments, inability to read body language and nonverbal cues, and loss of intimacy compared to traditional in-person interviews (Seitz, 2015), an interview preparation checklist for the researcher and the respondent was created and communicated before the interview. The interview preparation checklist includes tasks, such as informing that the duration of the interview is about 45 minutes, confirming a stable internet connection, finding a quiet room without distractions, slowing down and clarifying talk, and being open to repeating

answers and questions (Seitz, 2015). Next to the challenges of digital communication, the respondents can be interviewed within a safe environment (i.e., their home), making the respondent more comfortable and more prepared to open up and talk (Seitz, 2015). The interviews lasted between 50min and 3h. Notes were taken, and all interviews were taped and transcribed within five days after the interviews took place.

Interview data were supplemented with archival data such as IPPM methods, IPPM processes, and IPPM implementation for triangulation purposes and diminishing potential retrospective bias of the interviews (Yin, 2002). Bias is defined as any tendency which prevents unprejudiced considerations and can occur at any given phase of the research (Pannucci & Wilkins, 2010, p. 619). The study used interviews and documents to increase the convergence of data into a holistic understanding. Next to the triangulation purposes, this also provides the stronger substantiation of the concepts.

3.4.4 Research ethics

Since data is collected by interviewing human respondents, research ethics are taken into account. Specifically, for qualitative research, research ethics are defined as moral principles that involve *"respect and protection for the people actively consenting to be studied."* (Payne & Payne, 2004, p. 66). Therefore, human respondents consenting to be studied should be fully informed. Fully informed consent means that the human respondents know what they are letting themselves in for, what will happen to them during the research, and what will happen to the data they provide when the research is completed. First, each respondent is informed about the aim of the research and the type of questions the respondent can expect (Myers, 2013). Moreover, the respondents were asked for permission to audio-record the interview and informed that their answers are only used for scientific purposes. Furthermore, the respondents are provided with the interview transcript and the generated quotes to check for correctness. Subsequently, the respondent is given the option to withdraw from the study at

any time. If the respondent withdraws, the data that is collected from them will be returned or destroyed. In the current study, none of the respondents withdraw.

The respondents' identity is disguised to secure the respondents' privacy. Information on the respondents' identity does not contribute to the current study (Payne & Payne, 2004). Moreover, all collected data, such as the interview recordings, were securely stored on a hard drive, encrypted with passwords, and only accessible by the researcher. Furthermore, after the interviews were transcribed and checked for correctness by the respondent, the interview recordings were destroyed immediately (Gibbs, 2007). Furthermore, the researcher asked for and was granted permission to contact respondents and vice versa after the interviews with any questions regarding the conducted interviews. Allowing contact is consistent with informed consent because the respondent can contact the researcher and withdraw from the research at any given time.

3.5 Operationalization

An overview of the operationalization of the concepts and dimensions that have been discussed in Chapter 2 can be found in Appendix C: Operationalization. The concepts and dimensions are also used in the interview questions, shown in Appendix D: Interview Guide. The concepts have been discussed in Chapter 2. The constructs shown in the operationalization table are: innovation, Public Sector Organization, and innovation project portfolio management.

3.6 Data analysis

3.6.1 Test-interview

Before all the interviews were conducted, a test-interview is conducted. The test-interview helped identify flaws or limitations within the interview design that allow necessary adjustments (Kvale & Flick, 2007). The test-interview showed that the interview guide was not neutral enough and could lead to pushing respondents in a specific 'socially desirable' direction.

Accordingly, the interview guide was adjusted to improve the quality of the interview guide. To avoid socially desirable answers, the interview guide was not provided to the respondent. The formerly provided information of IPPM, such as a summary of IPPM and the found IPPM success drivers, is not provided (anymore). Therefore, the respondents could only answer based on their experiences.

3.6.2 Coding

As already mentioned, all interviews are recorded and transcribed. To make sense of the data to properly answer the research question, the transcripts are analyzed by coding (Miles & Huberman, 1994). Coding is the process of attaching a label (i.e., code) to a section of text to index it as relating to a theme (Symon & Cassell, 2012). The analysis is based on a template analysis (TA). TA is mostly utilized in organizational research, such as the current study (Symon & Cassell, 2012). Following Madill et al. (2000), TA can be used to study and phenomenon that is dependent upon the context of the research. Symon and Cassell (2012) indicate that *"TA is a style of thematic analysis that balances a relatively high degree of structure in the process of analyzing textual data with the flexibility to adapt it to the needs of a particular study"* (p. 426). TA is between the inductive (i.e., bottom-up approach) and deductive (i.e., top-down approach) way of coding and, therefore, supports the explorative nature of the case study (Symon & Cassell, 2012). TA enables the researcher to define some themes in advance (e.g., priori themes), which can be redefined or discarded when needed. Moreover, TA allows for parallel coding, whereby the same segment is classified within two (or more) different codes at the same level. Accordingly, due to TA's flexibility there is no fixed number of hierarchical levels of coding. All in all, TA's inclusion of parallel coding and flexibility in the levels of coding is important for the explorative nature of the case study.

For the coding of the transcripts, the researcher utilized ATLAS.ti (e.g., a coding-software). Utilizing coding-software enhances credibility building by making the research processes transparent and replicable (Hwang, 2007). All transcripts were imported in

ATLAS.ti. The transcripts are read thoroughly for familiarization and checked for any possible errors (Symon & Cassell, 2012). Subsequently, the coding process started by following the steps for TA of Symon and Cassell (2012, pp. 426-450). For the first step of coding, the initial template of priori codes, as shown in Table 2, is followed (Symon & Cassell, 2012). Noteworthy is that TA's coding process is an iterative process of applying, modifying, and re-applying the initial template (see Appendix E for the template of the study).

Table 2 Priori themes

Priori themes	
A priori theme	**Description**
Ability to innovate	Includes: Dynamic capability, materialize (new) ideas, contributes to efficiency and effectiveness of the organization.
Innovation types	Includes: Radical innovation, incremental innovation, process innovation, product or service innovation, governance innovation, conceptual innovation.
Innovation projects	Includes: The right mix (balance, number, and execution), innovation ambition matrix, 70-20-10 innovation projects balance
PSO context	Includes: Strategy, objectives, contribution to society, complex responsibility structure.
Innovation barriers	Includes: Public administration process, resistance or lack of support, lack of available resources, inappropriate organization structure and culture, risk-aversity.
Efficient and effective IPPM	Includes: Perceived importance, reasons why IPPM is important, nature of IPPM processes, specific portfolio models used.

Every section of text relevant for answering the research question was marked, noting in the margin a preliminary code title that sums up the interest. Every transcript is independently read and coded. Next, the template based on the codes is created by merging relevant codes and deleting irrelevant codes. Accordingly, codes were classified into higher-order themes. A key feature of TA is the hierarchical organization of codes, which clusters groups of similar codes together to create more general higher-order codes. The coding process and analysis aim to explore the current deployment of IPPM and the found room for improvement for efficient and effective IPPM (Yin, 2009). Therefore, a distinction between the current and desired situation is composed to analyze a gap (Verschuren & Doorewaard, 2015).

The analysis of the coded data is aimed at the development of propositions for further research. By constant comparison of the data, patterns or relationships were identified and developed into a theory that closely fits the data (Eisenhardt, 1989; Miles & Huberman, 1994).

4 Results

In the following chapter, the findings of the case study are discussed. Moreover, an answer to sub-question three and sub-question four is elaborated on: *"What features of IPPM are present in the current situation of the PSO context, the Dutch Police?"* and *"How could IPPM, based on insights from theory and PSO practice, be deployed to enhance their efficiency and effectiveness?"*. First, to answer sub-question three, the current state of the Dutch Police is defined and structured according to the different themes in the TA (see Appendix E for the template of the study). Subsequently, to answer sub-question four, the Dutch Police's current situation concerning innovation and IPPM is analyzed, and insights for improving IPPM (i.e., desired situation) are discussed. Moreover, the answer to both sub-questions leads to the formulation of propositions that aim to develop theory that can be tested in the future by a quantitative research approach. Subsequently, the propositions are referred to with a capital P and the number of the proposition. The sub-questions are answered based on the interviews conducted within the Dutch Police as well as the internal documents analyzed.

The interview data is provided by showing supporting and exemplifying quotes. To avoid differences in language and interpretation and achieve the best possible representation of the respondents' interpreted current situation, the quotes are provided in English and Dutch in Appendix F. Moreover, the quotes are provided with reference to the transcript number (see Appendix G for an overview of all transcripts) and the quotation number (see Appendix H for an overview of all identified quotes) to provide transparency in the coding process.

4.1 Current situation innovation

4.1.1 Ability to innovate

The ability to innovate allows organizations to materialize ideas that add value to the organization's efficiency and effectiveness (Schumpeter, 1934; Leite & Maraes, 2015). The materialization of innovation is captured by innovation projects. Innovation projects aim at

converting ideas into profitable innovations (Lerch & Spieth, 2012). However, the materialization (i.e., implementation or the conversion of ideas into profitable innovations) often fails within the Dutch Police, exemplified by the following: *"The Police is seen as a champion in testing grounds, but nothing gets implemented."* (Transcript #8, 8:11). The analyzed internal documents also showed an innovation culture of*: "Let a thousand flowers blossom"*, which means that there are too many innovation projects going on at once. Therefore, resources aren't efficiently and effectively managed.

4.1.2 Innovation in the PSO context of the Dutch Police

Innovation is seen as a separate determinant in the Dutch Police and, therefore, the connection with other units of the Dutch Police is missing, as shown in the following exemplifying quote: *"The problem that I see with innovation is that the connection with the other main portfolios lacks."* (Transcript #1, 1:50). Noteworthy is that one respondent approached the idea of an innovation speed lane because innovation should be approached differently from the Dutch Police's regular portfolio. *"Sometimes I have plead for an innovation speed lane next to the regular portfolio, causing that innovation do not compete with big renewal trajectories that are more important and win from the little innovations."* (Transcript #5, 5:30). A speed lane is consistent with Mathews (2010) idea of speeding the funneling of innovations through a mechanism.

4.1.3 Innovation types and innovation projects

The study's definition of innovation includes the successful exploitation of innovation types. Therefore, two categories of innovation are distinguished, viz incremental innovation and radical innovation (Ali, 1994; Elfring & Hulsink, 2007). Moreover, the study identified the following innovation types for the PSO context: process innovation; product or service innovation; governance innovation; and conceptual innovation. However, innovation is not clearly defined within the Dutch Police. In the internal documents of the Dutch Police, different

definitions of innovation are used pell-mell. Moreover, the following exemplifying quotes show that the respondents reported that the distinction of different types of innovation lacks in the Dutch Police: *"We do have one thing that is a bit of a glitch within the Police, when is something an innovation? Moreover, how does an innovation distinct itself from a renewal or an improvement? That is hard to define. You should have a definition for innovation, but we do not have an ambiguous definition for innovation within the Police"* (Transcript #3, 3:35), and *"I experience the dividing line between renewal and improvement sometimes as difficult. It should be ideal if you could ensure that every renewal leads to an improvement. And every improvement should not per se be a renewal."* (Transcript #7, 7:45).

Furthermore, due to the lack of the distinction of different innovation types, a lack of the distinction and balance of innovation projects, such as in the innovation ambition matrix (Nagji & Tuff, 2012), can be found. The following exemplifying quotes show that the respondents express the need for the identification and balance of innovation projects, and a present lack of the identification and balance of innovation projects: *"We do not distinguish a balance of different innovation types."* (Transcript #2, 2:14), and *"I see that."* (…) *"because there is an insufficient balance, that there is, in fact, a wastage."* (Transcript #1, 1:45).

4.2 Analysis innovation

The implementation of innovation projects often fails due to different reasons. First of all, the definition of innovation is pell-mell. Therefore, there is room for improvement to create an unambiguous definition of innovation for the Dutch Police. Moreover, the Dutch Police cannot grasp the tremendous amount of innovation going on inside their organization. Too many innovation projects are going on at once, and the connection with each other is missing. Moreover, the innovation projects going on are not categorized in different innovation types. The need for the distinction of innovation types is emphasized. These findings lead to the following propositions:

P1a: Innovation should be defined to ensure that the focus of the organization regarding innovation is unambiguous.

P1b: Innovation projects should be categorized into different innovation types to grasp the tremendous amount of innovation going on inside the organization and create balance and connection of the innovation projects.

4.3 Current situation PSO context

4.3.1 PSO context

Oke (2001) and Zduncyk and Blensikopp (2007) underscore that the PSOs strategy is one of the most important drivers of successful innovation. The Dutch Police's strategy is clear for the respondents: *"Our strategy is to be vigilant and subservient, that is to defend and protect the constitutional state."* (Transcript #2, 2:13). Furthermore, Hull and Lio (2006) findings of PSOs being less concerned with financial goals than private sector organizations are emphasized by the respondents of the Dutch Police. However, the respondents reported that due to their PSO context, the Dutch Police has a limited amount of human capital: *"We can only hire a limited amount of people. The government does not always offer competitive salary and people do not chose instantly for the government. We mostly consist out of people that are socially concerned, that is where the scarcity exists."* (Transcript #6, 6:13).

Moreover, the respondents reported that: *"The police organization is an ad-hoc organization."* (Transcript #3, 3:48), and *"That is typical for the Police I guess, thinking through in advance is not their strongest point."* (…) *"It is an action oriented organization and most of the times that is fun and sometimes you are like: oh oh oh…"* (Transcript #1, 1:22;1:23). The Dutch Police's ad-hoc approach creates less consistency to their strategy. The lack of consistency to their strategy is shown in the Dutch Police's decision-making because their decision-making is often based on a gut feeling, as exemplified by the following two quotes: *"The whole question of what is the best option was not based on a rational matter, but on a gut feeling, on politics, and on the interaction between different players. Actually, that is still the*

case." (Transcript #1, 1:5), and, *"The analysis if something is important or not, that is based on a gut feeling."* (Transcript #1, 1:34).

4.3.2 Innovation barriers in the PSO context

As mentioned in chapter 2, the innovation barriers that are identified are related to the PSO context. The innovation barriers can impact the Dutch Police's ability to innovate. Therefore, insights into the Dutch Police regarding which innovation barriers apply and how these innovation barriers are present in the Dutch Police. According to Cinar et al. (2019) and Moussa et al. (2018), the public administration process stifles innovation. The respondents experience that the public administration process of PSOs stifles innovation in the Dutch Police. The respondents linked the public administration process to the Dutch Police's inappropriate structure and culture, which is also identified as an innovation barrier by Cinar et al. (2019). The following exemplifying quotes show the public administration process, which is reported to stifle the Dutch Police's ability to innovate: *"You walk into bureaucratic problems, such as that the management asks when something is done. However, that is tricky with innovation, and does not suit innovation."* (Transcript #2, 2:33), *"It is an administrative process, which is hard, and also treacly."* (Transcript #3, 3:1), and, *"We have a special environment, with high safety requirements and high organizational demands. We are a large organization and things like management are complex, and because it is so complex we built an even more complex system around it."* (Transcript #4, 4:8).

The respondents did not report the lack of support regarding innovation, which is an identified innovation barrier by Cinar et al. (2019). However, the respondents reported that due to the complex responsibility structure that is experienced, some innovations purely occur to woo stakeholders: *"Occasionally, there are innovations taking place that are purely being done for the wooing stakeholders, but if you think about it, you already know that the innovation is not promising."* (Transcript #1, 1:59). A majority of the respondents experienced the

involvement of different stakeholders as complex. Matrinsuo and Dietrich (2002) identified that PSO's strong political dimension is neglected. However, the respondents referred to the (legal) obligation due to the Dutch Police's nature of adhering to the promises of politics, exemplified by the following quotes: *"There are a lot of stakeholders to serve, and we want the best for the Police employees but next to the employees we have a minister, who promises things in the House of Representatives, to which we are obligated to cope with."* (Transcript #5, 5:9), 7*"We have to accept that somethings are not business but politics. You get other tradeoffs."* (Transcript #1, 1:19), *"It is always a tricky game (in portfolio management) to grant all the wishes of the different stakeholders."* (Transcript #5, 5:12).

According to Cinar et al. (2019), the PSO's responsibility structure creates a risk-averse culture. However, the respondents of the Dutch Police report that the responsibility structure is an inevitability but do not experience a risk-averse culture. The respondents noted that there is room for failure within the Dutch Police. However, regarding some innovations, the Dutch Police has to be careful and needs guarantees because being unreachable is not an option for the Dutch Police due to their societal responsibility: *"I experience the freedom to take risks and to go where I want to go."* (Transcript #8, 8:12) and *"On the contrary I also see a lot of people who just have the guts to do things the way they think is good."* (Transcript #7, 7:36).

4.4 Analysis PSO context

The strategy of the Dutch Police appears to be clear in the whole organization. As expected, consistent with the Dutch Police's strategy, the Dutch Police is predominantly concerned about their contribution to society. However, there is room for improvement to define a clear strategy for innovation. Currently every innovation project can be tailored to be consistent with the strategy of the Dutch Police. Being able to tailor innovation projects to the strategy enables making decisions based on a gut feeling. Being ad-hoc and making decisions based on a gut feeling provides flexibility but does not ensure that innovation projects are

consistent with the Dutch Police's strategy. Moreover, the Dutch Police's ad-hoc approach does not ensure that every innovation project is treated the same. Therefore, creating a mechanism that allows for flexibility but funnels innovation projects the same way is desirable. These findings lead to the following propositions:

P2a: The Dutch Police's strategy should be consistent with their innovation projects, enhancing the organization's efficiency and effectiveness.
P2b: The Dutch Police should create a mechanism for funneling innovation projects that ensures that every innovation project is treated the same way, which positively influences their ability to innovate.
P2c: The public administration process of the Dutch Police negatively impacts their ability to innovate.

The PSO context of the Dutch Police leads to concerns about their ability to innovate. First of all, the public administration process that is rooted in the organization stifles innovation. The public administration process stifles innovation due to the extensive steps and time duration that are involved. Moreover, the Dutch Police is concerned about their limited amount of human capital. The Dutch Police does not provide market conform salary, which limits the recruitment of human capital. Remarkable is that the Dutch Police's complex responsibility structure does not influence their ability to take risks and willingness to do so and, thus, their ability to innovate. These findings lead to the following propositions:

P3a: The limited amount of human capital of the Dutch Police negatively impacts their ability to innovate.
P3b: The complex responsibility structure of the Dutch Police does not negatively impact their ability to innovate.
P3c: The ability to take risks and willingness to do so of the Dutch Police enhances their ability to innovate.

4.5 Current situation IPPM

4.5.1 Importance IPPM

IPPM is seen as an essential step toward effective management of innovation and the management of innovation projects (Gordon & Tarafdar, 2007; Keegan & Turner, 2002). Additionally, most of the respondents perceive IPPM as important. The following exemplifying quotes show that respondents express the importance of IPPM in that IPPM helps in dividing their scarce resources (i.e., capacity) and the structuring of making decisions: *"We are the Police. Therefore, we spend money of the community, and if you do that, especially when you almost spend a billion euros, you have to have checks and balances. That is just legally required. If you check something it takes time, but it is necessary."* (Transcript #4, 4:18), *"Especially in an organization with 60.000 employees, where there are infinite ideas and where there are different demands from the politics. If we do not have an order or process, we will not accomplish anything. For me, that is the basal importance."* (Transcript #1, 1:26), *"You need portfolio management. For me, portfolio management involves making choices, and linking the choices to strategic objectives. We have so many choices to make because there are so many innovation in our Corps or things that can improve even more. It is such an extensive organization that you need to have a process, which in this case is portfolio management."* (Transcript #5, 5:5), *"I think that in a big and complex organization."* (…) *"It is really good we have this process."* (Transcript #6, 6:38), and *"Look portfolio management in theory is an approach to rationally make the best choices where you spend your money on."* (Transcript #1, 1:4).

The respondents express the importance of IPPM for different reasons. On the contrary, the respondents report that other employees of the Dutch Police perceive IPPM as bureaucratic, treacly, and time-consuming. Especially the strategic level (i.e., top management) does not support IPPM. The strategic level utilizes its hierarchical power to do what they want. The lack of support by the top management leads, according to Cooper et al. (2001), to a decrease in the

IPPM performance. The following exemplifying quotes show the other employees' perception of IPPM: *"I hear a lot of terms, such as sandbox. Where you crash into."* (..) *"If you prepare very well and you have got the time for it, then the portfolio process is fine. However, you do not always have the time but you do expect that things can happen."* (Transcript #2, 2:23), *"If I ask my portfolio holder what he thinks of portfolio management he will say that it is part of the system world, and wants nothing to do with it and wishes me luck."*, (…) *"They do not want to have to do anything with it."* (Transcript #3, 3:39), "*You walk into bureaucratic problems, such as that the management asks when something is done. However, that is tricky with innovation, and does not suit innovation."* (Transcript #2, 2:33), and *"I have enough stripes on my shoulder to make my own decisions regardless of the consistency with other concerns."* (Transcript #6, 6:21).

4.5.2 IPPM processes

IPPM processes are determined by three factors: formality, review frequency, and transparency (Lerch & Spieth, 2012). A formalized IPPM process guarantees that all innovation projects are treated in the same way. Consequently, the consistency of treating innovation projects in the same way increases the quality of evaluation and selection (Lerch & Spieth, 2012). As already mentioned, the respondents reported that decision-making is often based on a gut feeling. Moreover, the respondents reported a lack of formalization by the lack of an unambiguous created and communicated framework and no created and communicated mechanism for funneling innovation projects. Spieth (2012) stressed the importance of evaluating ideas for innovation projects at an early stage in the process, thereby deleting ideas that could have become expensive failures. None of the respondents has reported any process where innovation projects are deleted. Also, there are notable differences reported by the respondents between the quality of evaluation and selection of innovation projects, as shown by the following exemplifying quotes: *"There are some differences, significant differences but*

we are busy to construct formats to cannibalize. The problem is how can we examine critically what is being delivered." (Transcript #1, 1:32), *"Actually, we see that 90% of the work does not go through any kind of checks and balances."* (Transcript #4, 4:20), *"I do not see that innovation is selected in advance based on the strategic objectives. I see a lot of innovations rise because they are fun and are experiences as fun."* (Transcript #7, 7:43), *"At the moment the choices are pretty random and pell-mell."* (Transcript #2, 2:2), *"We do not have enough money but it is still approved."* (Transcript #1, 1:21), and *"We are pretty nice to each other and we understand when something is off or why something is not complete yet, therefore the professionality in the whole trajectory could rise."* (Transcript #1, 1:33).

Furthermore, the respondents reported a formal quarterly process of reviewing innovation projects within the Dutch Police but did not report the consistently updating and revising of innovation projects. Therefore, the respondents do not experience flexibility in the formal process of the review frequency. However, the study noted that the review frequency could keep IPPM flexible. The review frequency keeps IPPM flexible by quickly interfering when innovation projects go wrong, by prioritizing innovation projects and by adding innovation projects. The following exemplary quotes show the experiences regarding the review frequency: *"For the portfolio itself. Every year we have a do a quarterly update of what is ready, what is added, what needs to be adjusted, which is pretty administrative."* (Transcript #1, 1:39), and *"It is a really formal process and ones every quarter you can add a new project."* (Transcript #5, 5:32).

For the transparency of the IPPM process, respondents reported a lack of overview concerning innovation. Several respondents reported that a new idea is often explored but eventually not implemented due to a lack of overview in the beginning. An example is that licenses are bought multiple times due to the unawareness that a specific license is already purchased elsewhere. Moreover, the lack of overview results in the unawareness that a new idea

was already explored elsewhere within the Dutch Police. For the overview of innovation, all respondents refer to an Excel list. However, the Excel list is not experienced as complete or clear visualization of innovation within the Dutch Police, as shown in the following exemplary quotes: *"We are really struggling to create an overview but we are all together convinced that it is necessary."* (Transcript #1, 1:47), *"We do not have a shared perspective on how we need to do things together."* (Transcript #1, 1:49),*"We try to map if there is a similar initiative somewhere else. That is tricky because we do not have the insights what runs somewhere else. There is a list that consists of 600 innovations, an Excel list, where they are working on. Those were technical innovations, process stuff, innovation stuff. Thus, everything compiled together. Not clear."* (Transcript #3, 3:25), *"I think that something needs to happen in the field of overview and movement in innovation."* (Transcript #7, 7:28), "*If there is someone now who knows exactly which steps are taken in the field of innovation within the Police… well that someone does not exist. Because we do not have that kind of overview."* (Transcript #3, 3:27), *"They do not know in which stage a projects finds itself, and what is put into a sprint, what is in the next sprint, for what preparations are being made, what is done, what is done in a year, what is done in a month, no idea."* (Transcript #4, 4:17), *"We hope that we can achieve that when the management asks for the current state of affairs we can give them that because then it is a lot easier to manage the portfolio. Because when you notice you are behind after a quarter than you are just too late. And then it has no point anymore. On the level of implementation, you even want to review and be transparent much more frequently."* (Transcript #6, 6:33), "*We are very bad in selling our own portfolio results."* (Transcript #6, 6:34), and *"Sometimes the Corps leaders state that they do not have a clear view on what is happening in the process, so that is kind of a black box."* (Transcript #6, 6:39)

4.5.3 IPPM methods

The respondents report that their strategy is too extensive, and innovation projects can be tailored to be consistent with their strategy, as shown by the following three exemplary quotes below: *"Most initiatives are perceived as good for everything, that they are good for every strategic objective. That of course cannot be true."* (Transcript #1, 1:14), *"Everything can always be placed under the strategic compass from the Police. They are so general, that if the two of us sat down we could connect everything to the strategic compass from the Police. But then again that also makes it easy."* (Transcript #3, 3:10), *"Innovation is often impulsive because innovations are put impulsively on the table. Therefore, afterwards there will be searched for a connection to a successful program, project or portfolio. However, the reasoning does not start at, for example, five strategic objectives, which are evaluated consistent with the innovation."* (Transcript #7, 7:17), and *"It is not always clear what the strategy is, thus where we want to accelerate upon."* (Transcript #4, 4:21). The respondents did express the need for consistency of innovation projects with the strategy of the Dutch Police. Moreover, the respondents expressed the need for prioritization of the Dutch Police's objectives to ensure that their employees know where to accelerate.

Cooper et al. (2001) has shown that more than two portfolio methods should be deployed. Regarding the methods in use, respondents experience that decisions are made on a gut feeling instead of a specific method. Similar to the results of section 4.4 Analysis of the PSO context, three of the respondents stated that they do not use any method other than their gut feeling. Five of the respondents have implemented their methods to follow (i.e., team decision-making and utilizing factsheets). However, the respondents do not use an unambiguous method, and when a method is deployed, they only deploy one method. Therefore, the methods of IPPM differ per respondent, project, unit, and level of the organization, as shown in the following exemplary quotes: *"A lot of initiatives come in and we*

have a form for evaluating. We call this a factsheet for realization." (…) *"There is also a technique that comes from the method management of portfolio (MOP), and MOP is a method that we apply within the organization, within IPPM."* (Transcript #6, 6:2) and *"The process is that we have a validated intake form, which consists of several measurements. The proposition for innovation will be elaborated, explained, and discussed at the innovation table. Afterwards it will continue in the process."* (Transcript #7, 7:29).

The respondents reported some improvements for IPPM in the Dutch Police. Respondents reported that the process of IPPM needs to be more unambiguous and less administrative. Moreover, due to the fact that the Police have an administrative portfolio process and innovation is added to the administrative portfolio process. The respondents experience the inclusion of innovation to the administrative portfolio process as odd. Moreover, the respondents experience that the administrative portfolio process and portfolio process of innovation projects should be separate, as shown by exemplary quotes below: *"An unambiguous process, which has more freedom than the classic process where everything is prescribed."* (Transcript #2, 2:31), *"Portfolio management for me with regard to innovation is especially on the rear end because innovation… when I am busy with an innovation I am not really involved yet with portfolio management because it is pretty administrative. That does not suit innovation on the fuzzy front end. As soon as you need capacity innovation projects need to go to the portfolio to get the capacity needed."* (Transcript #3, 3:29), *and "Innovation is something from all of us and the power of innovation is located locally, with the people, the teams, the units, the units are kind of the biggest units who really work together. The more national you go, the more it is like you get stuck in the dirt."* (Transcript #4, 4:24)

4.6 Analysis IPPM

IPPM is perceived as important in the Dutch Police because IPPM helps divide resources and structures the decision-making process. However, there is a lack of support from

the strategical level because the strategic level attempts to avoid IPPM. The lack of support from the strategic level and the different reasons by which IPPM is perceived as important raises concerns. The predominant concern is that the public administration process of the Dutch Police is inappropriate for IPPM. The public administration process of the Dutch Police shapes IPPM as bureaucratic, treacly, and time-consuming. Noteworthy is that the perceived importance of IPPM leads to efficient and effective IPPM. Therefore, the Dutch Police should perceive IPPM as important and well-known for clear and relevant reasons, which results in efficient and effective IPPM. These findings lead to the following propositions:

P4a: The Dutch Police should perceive IPPM as important and well-known for clear and relevant reasons, which leads to efficient and effective IPPM.
P4b: A high degree of the perceived importance of IPPM leads to efficient and effective IPPM.

The Dutch Police deploys IPPM and deploys ‘regular’ portfolio management for other concepts, such as artificial intelligence. The difference between ‘regular’ portfolio and IPPM is unclear. There is room for improvement concerning the lack of formalization of IPPM. The separation between ‘regular’ portfolio and IPPM should be more distinctive. Moreover, there is a need for more unambiguous IPPM, such as a created and communicated framework for IPPM. The findings include that the framework for IPPM should include the deletion and adding of innovation projects. Therefore, underlying IPPM methods should be deployed. The decisions are currently based on a gut feeling, but there is a need for unambiguous methods. Based on the theoretical background, two or more methods should be deployed. These findings lead to the following propositions:

P5a: The Dutch Police should create and communicate a framework for IPPM, which leads to efficient and effective IPPM.

P5b: The Dutch Police should deploy two or more portfolio models, which leads to efficient and effective IPPM.

The lack of overview results in the unawareness that a new idea was already explored elsewhere within the Dutch Police. The result of the lack of overview is unnecessary costs. The lack of overview creates room for improvement. An overview of the different innovation projects by type ensures insights into the innovation types. Knowledge of which innovation projects are taking place help to update and revise the innovation projects, enabling flexibility in IPPM. The need for flexibility in consistently updating and revising innovation projects is expressed. These findings lead to the following proposition:

P6a: The Dutch Police should create an overview and prioritization of innovation projects to enable transparency, which leads to efficient and effective IPPM.
P6b: The Dutch Police should consistently update and revise their innovation projects to enable flexibility in the review frequency, which leads to efficient and effective IPPM.

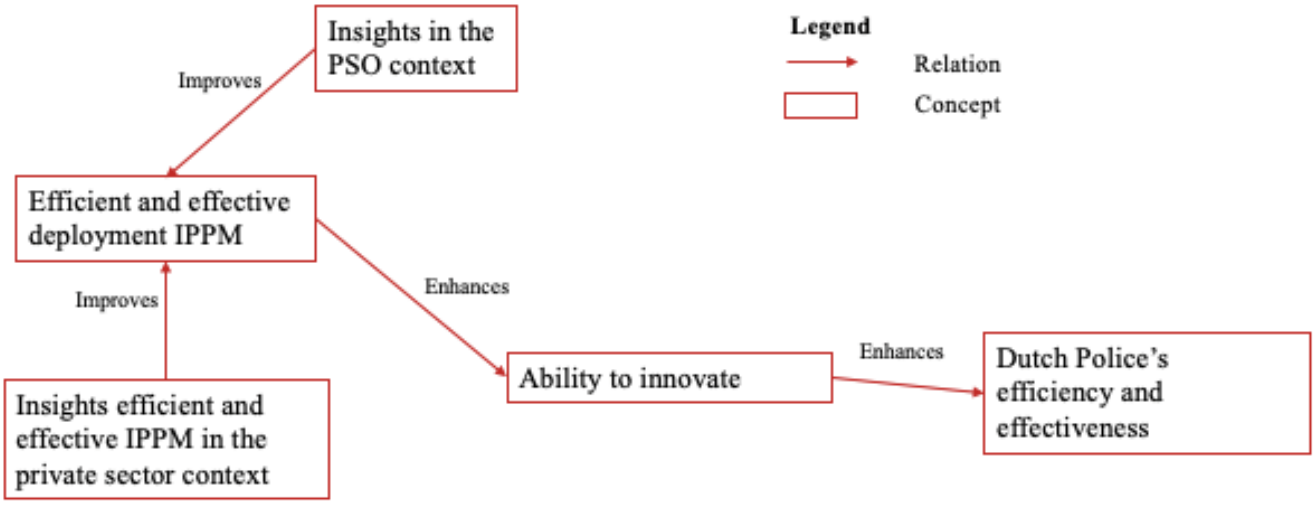
4.7 Conceptual model based on the results

Throughout the result section, several propositions have been formulated. The propositions based on the results of the study are shown in Table 3. When comparing the results to the tentative conceptual model created based on the study's theoretical background, concludes that the enhancement of IPPM's efficiency and effectiveness could enhance the Dutch Police's ability to innovate. Enhancement of the ability to innovate could improve the efficiency and effectiveness of the Dutch Police. Based on the propositions, the conceptual model, shown in Figure 3, is developed. The conceptual model shows assumed relationships and aims to enable to test the formulated propositions in future research by a quantitative approach.

Table 3 Overview of the formulated propositions

Overview propositions based on the results	
P1a	Innovation should be defined to ensure that the focus of the organization regarding innovation is unambiguous.
P1b	Innovation projects should be categorized into different innovation types to grasp the tremendous amount of innovation going on inside the organization and create balance and connection of the innovation projects.
P2a	The Dutch Police's strategy should be consistent with their innovation projects, which enhances the organization's efficiency and effectiveness.
P2b	The Dutch Police should create a mechanism for funneling innovation projects that ensures that every innovation project is treated the same way, which positively influences their ability to innovate.
P2c	The public administration process of the Dutch Police negatively impacts their ability to innovate.
P3a	The limited amount of human capital of the Dutch Police negatively impacts their ability to innovate.
P3b	The complex responsibility structure of the Dutch Police does not negatively impact their ability to innovate.
P3c	The ability to take risks and willingness to do so of the Dutch Police enhances their ability to innovate.
P4a	The Dutch Police should perceive IPPM as important and well-known for clear and relevant reasons, which leads to efficient and effective IPPM.
P4b	A high degree of the perceived importance of IPPM leads to efficient and effective IPPM.
P5a	The Dutch Police should create and communicate a framework for IPPM, which leads to efficient and effective IPPM.
P5b	The Dutch Police should deploy two or more portfolio models, which leads to efficient and effective IPPM.
P6a	The Dutch Police should create an overview and prioritization of innovation projects to enable transparency, which leads to efficient and effective IPPM.
P6b	The Dutch Police should consistently update and revise their innovation projects to enable flexibility in the review frequency, which leads to efficient and effective IPPM.

Figure 3 Conceptual model of the study



5 Discussion and conclusion

The final chapter of the current study starts with the conclusions and implications of the study. Moreover, the limitations of the study are discussed. Furthermore, future research suggestions are identified by the researcher.

5.1 Conclusion and implications

5.1.1 Conclusion

The research aimed to explore the deployment of IPPM in a PSO context and explore how a PSO can improve its deployment of IPPM to enhance its ability to innovate and ultimately to enhance the PSO's efficiency and effectiveness. To achieve the research aim, the following research question was formulated: **"How is innovation project portfolio management (IPPM) deployed in the public sector and how can IPPM and its deployment be improved?"**.

To answer the research question, a qualitative research approach was utilized. The qualitative research approach explored the current situation of IPPM in the PSO context and the current efficiency and effectiveness of IPPM by conducting a case study. The purpose of the case study was to make an original contribution to the knowledge by using empirical evidence from real people in the real-life context. The case study helped to build a theory based on the textual data of the semi-structured interviews and archival data of the Dutch Police. Following the flexible template analysis to analyze the semi-structured interviews' textual data, propositions that closely fit the data have been formulated that enable future research (Eisenhardt, 1989; Miles & Huberman, 1994).

The results provide insights into the current situation of IPPM and acknowledge room for improvement for IPPM to ultimately enhance the Dutch Police's efficiency and effectiveness. Noteworthy is that the assumed relationships in the conceptual model have to be

tested by future research to argue that a correlation exists between efficient and effective IPPM and the Dutch Police's efficiency and effectiveness.

To answer the research question, the study's findings show that the PSO context impacts the current situation of IPPM. With regard to the public administration process, the findings show that the PSO context comprises an extensive public administration process. The public administration process of the Dutch Police negatively impacts their ability to innovate. Also, the limited amount of human capital is found to be a characteristic of the PSO context. The limited amount of human capital of the PSO context limits the ability to innovate. Noteworthy is that the complex responsibility structure of the PSO context does not negatively influence their ability to innovate. A complex responsibility structure is expected to stifle innovation. However, the study found that the ability to take risks and willingness to do so is present in the PSO context. Therefore, the complex responsibility structure is inevitable but does not negatively impact its ability to innovate.

Besides the findings of the current deployment of IPPM in the PSO context, the study found improvements for the deployment of IPPM. The study identified the following improvements for IPPM, which are formulated in testable propositions. First of all, innovation should be defined to ensure that the focus of the organization on innovation is unambiguous. Second, innovation projects should be categorized into different innovation types to grasp the tremendous amount of innovation going on inside the organization and create balance and connection of the innovation projects. Third, the Dutch Police's strategy should be consistent with their innovation projects, which enhances the organization's efficiency and effectiveness. Fourth, the Dutch Police should create a mechanism for funneling innovation projects that ensures that every innovation project is treated the same way, which positively influences their ability to innovate. Moreover, the Dutch Police should perceive IPPM as important and well-known for clear and relevant reasons, which leads to efficient and effective IPPM. Furthermore,

the Dutch Police should deploy two or more portfolio models, which leads to efficient and effective IPPM. Subsequently, the Dutch Police should create an overview and prioritization of innovation projects to enable transparency, which leads to efficient and effective IPPM. Lastly, the Dutch Police should consistently update and revise their innovation projects to enable flexibility in the review frequency, which leads to efficient and effective IPPM.

5.1.2 Management implications

The research provides new insights into IPPM in the PSO context. Therefore, the researcher helps managers to deploy IPPM, especially in a PSO context. Practitioners gain insights into how the profitable implementation of innovation projects can be managed. Practitioners or other areas of the potential application of IPPM might relate to the findings and use the study's lessons for their context. First of all, the study identified success drivers and important take-aways for the deployment of IPPM. Moreover, the study gives insights into how to achieve the right mix and balance of innovation projects. Furthermore, the inclusion of the funneling mechanism for innovation projects shows how to achieve that every innovation project is treated the same way.

5.1.3 Scientific contribution

The scientific contribution is predominantly that the study takes the first step in making the deployment of IPPM 'harder science' for the PSO context. Furthermore, the study has a scientific contribution because the study links different concepts with each other. First, the study gives insights into the deployment of IPPM in the PSO context.

Second, the study gives insights into the right mix and balance of innovation projects. Cooper et al. (2001) explain that the right innovation projects should be selected and balanced but fails to include how. Therefore, the study complements the innovation ambition matrix of Nagji and Tuff (2012). The innovation ambition matrix includes how to achieve the right mix and balance of innovation projects.

Third, the academic literature of Cooper et al. (2001) is complemented with Mathews (2010). Cooper et al. (2001) show that innovation projects should be funneled in the early stages but fails to include how. Therefore, the study complements the funneling mechanism for innovation projects of Mathews (2010). The funneling mechanism for innovation projects includes how to achieve that every innovation project is treated the same way.

5.2 Limitations and future research

5.2.1 Limitations

The study has some limitations that should be mentioned. A limitation of a study is the systematic bias that the researcher did not control and could inappropriately affect the results (Price & Murnan, 2004). The following section acknowledges three limitations.

First, the findings might be rather idiosyncratic and only permit a certain level of analytic generalizability (Yin, 1994). Insights and generalizations drawn from the study may be rooted in the uniqueness of the Dutch Police. Further research may also want to test the theoretical insights that were obtained by the study on a larger scale. The inclusion of other PSO contexts creates the possibility of comparing experiences of IPPM in the PSO context, indicating differences and similarities between PSO contexts. Considering that the time to conduct this study was limited, the choice was made to focus on the in-depth study of one PSO context regarding IPPM to ensure internal validity. However, researchers may also want to include different industries and types of organizations (other than PSOs).

Second, the Dutch Police self-reported that they deployed IPPM. However, several respondents reported that they perceive innovation and portfolio management as separate concepts. Perceiving innovation and portfolio management as separate concepts is not consistent with the academic concept IPPM. Therefore, the identification of IPPM by the respondents is contradicted. The contrasts in the identified concept could lead to a limitation for the in-depth knowledge of the IPPM in the Dutch Police. Moreover, the respondents are

selected by the innovation lab of the Dutch Police. The selection criteria could not be verified because the researcher had no overview of the executives of IPPM. The respondents self-reported to be an executive of IPPM. To address the limitation, the researcher provided selection criteria for the respondents (i.e., the respondent must be an executive of IPPM) to which the innovation lab of the Dutch Police adhered.

Third, as mentioned earlier in the Preface, looking back to the study's change from research methods, such as from deductive approach to a more inductive approach, implies changes in the study, especially in the data collection and data analysis (i.e., the interview guide). Fortunately, the collected data is extensive and could, therefore, answer the formulated research question.

5.2.2 Future research suggestions

The present study poses some interesting findings, resulting in three concrete suggestions for future research.

Firstly, future research may want to test the theoretical insights obtained by the study on a larger scale. The formulated propositions enable for quantitative research of IPPM in the Dutch Police. A quantitative study of the formulated propositions in the Dutch Police supports to test the developed theory of the current study. Therefore, the developed theory which is based on the empirical evidence can be supported or not supported for the Dutch Police by future research.

Secondly, researchers may also want to include different PSOs than the Dutch Police. The inclusion of other PSO contexts creates the possibility of comparing experiences of IPPM in the PSO context, indicating differences and similarities between PSO contexts. Moreover, such a study enables that IPPM can be researched in an ecosystem of PSOs.

Thirdly, researchers may also want to include different industries and types of organizations (other than PSOs). An empirical study that includes different industries and types

of organizations could add value to the present study. Such a study would result in a complete overview of empirical evidence of IPPM in the organizational context.

5.3 Reflection

Conducting a case study can be a daunting way of conducting research. I now have first-hand experience of conducting a case study for my master's degree. I have made a number of mistakes during the process, which I will reflect on in this section. Due to the mistakes, I learned some valuable lessons as a result.

At the start of this research, I approached the innovation lab of the Dutch Police, intending to research their organization. When the Dutch Police responded that I could research their organization, I was extremely enthusiastic. The Dutch Police showed interest in the concept of IPPM, which they already deployed. Therefore, I immediately started to perform a literature review to establish a theoretical background and to strengthen my knowledge on the topic. Moreover, I read archival documents of the Dutch Police concerning IPPM. Looking back, I should have taken a broader approach because throwing myself in IPPM literature might have limited my insights on the management of innovation due to the focus on IPPM.

Moreover, I followed the identification of the Dutch Police that they are a nonprofit organization. I was too premature in following the identification of the Dutch Police that they are a nonprofit organization. Based on the insights provided by Dr. R.A.W. Kok, the Dutch Police is identified as a PSO. Furthermore, the insights provided by Prof. Dr. A. De Beuckelaer improved my academic writing skills. Prof. Dr. A. De Beuckelaer's feedback showed me the importance of referencing and using certain transitional words and phrases.

As already mentioned in the Preface, the most important takeaway for me is that research methods need to be consistent with the research question and the formulated research aims. Whereas I started with a rather deductive approach, the insights due to the feedback from Dr. R.A.W. Kok made me shift to a more inductive approach, which better suited my research

question and the formulated research aims. Looking back, I also learned how to embrace different academic perspectives. Moreover, I should have made sure that both supervisors read my research proposal because then the different academic perspectives could have been embraced sooner. All in all, I am proud that I maintained motivation throughout the whole Master Thesis.

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7 Appendices

Overview of the Appendices:

- 7.1 Appendix A: Overview of academic literature on IPPM.
- 7.2 Appendix B: Entry into the innovation portfolio mechanism.
- 7.3 Appendix C: Operationalization of concepts.
- 7.4 Appendix D: Interview Guide.
- 7.5 Appendix E: Template Analysis of the study.
- 7.6 Appendix F: Quotations from the results in English and Dutch.
- 7.7 Appendix G: All eight transcripts (separate document).
- 7.8 Appendix H: Overview of all quotes (separate document).

7.1 Appendix A: Overview of academic literature on IPPM.

After reading an extensive body of literature on IPPM, it became clear that IPPM is primarily focused on private sector organizations (Jaskyte, 2011; Walker, 2006). However, innovation is also recognized as crucial for public sector organizations (PSOs). To demonstrate the focus of IPPM on private sector organizations, research has been conducted in two of the most used databases for academic literature, Google Scholar and Web of Science. The keywords that were entered as query were between quotation marks. By using quotation marks, both Google Scholar and Web of Science only show results containing all entered search terms. As can be read in Table 4, no similar studies have been found at all. All studies focus on other parts of the research topic IPPM.

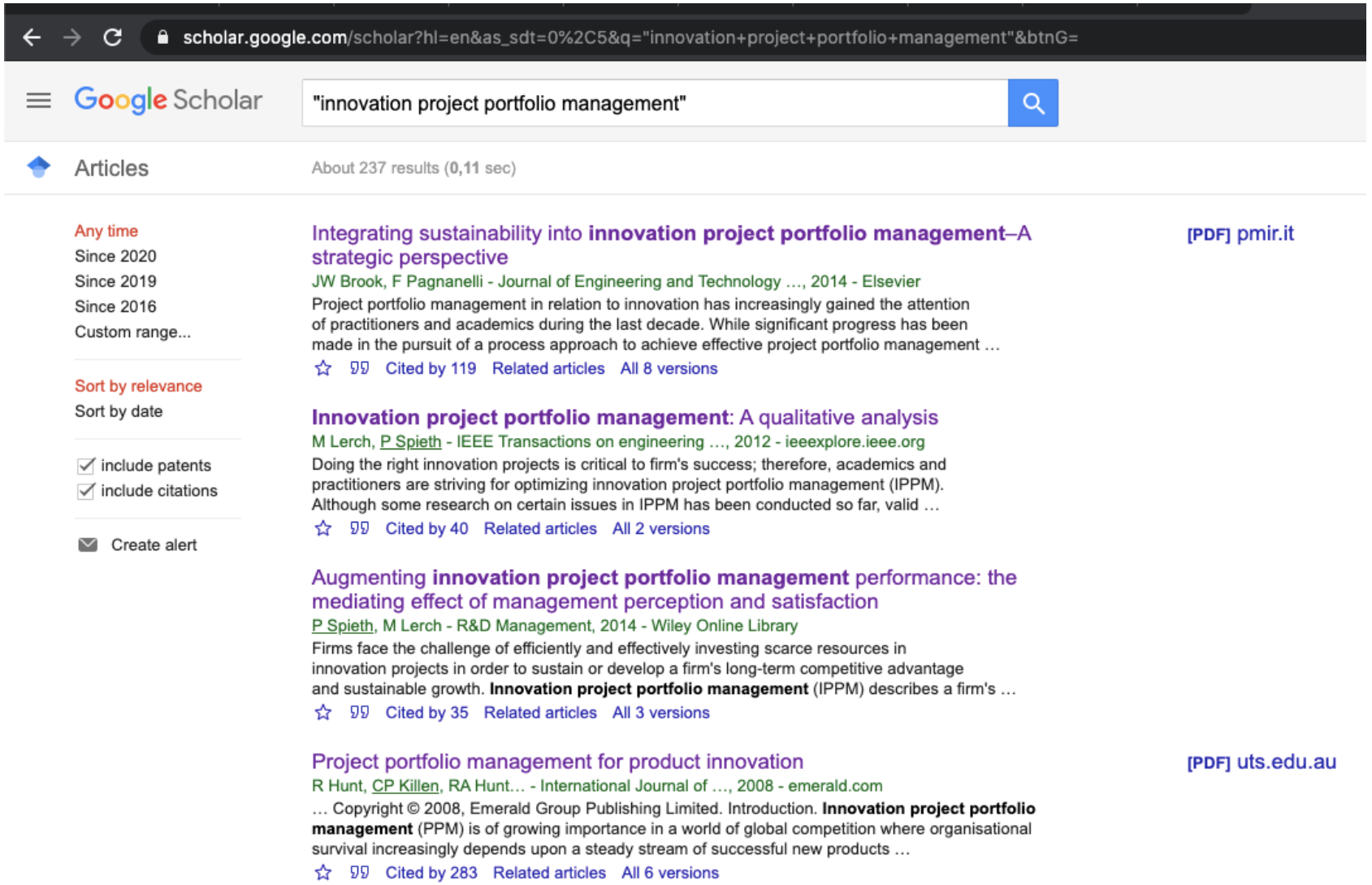
Table 4 Appendix A – Overview of academic literature on IPPM

Database	**Search term (query)**	**Results (#)**	**Title**	**Industry and Sector**	**Cited**
Google Scholar	"Innovation project portfolio management"	237, Top 10:	1. Integrating sustainability into innovation project portfolio management – A strategic perspective 2. Innovation Project Portfolio Management: A Qualitative Analysis 3. Augmenting innovation project portfolio management performance: the mediating effect of management perception and satisfaction 4. Project portfolio management for product innovation 5. A lack of insight: an experimental analysis of R&D managers' decision-making in innovation portfolio management	1. Automotive industry 2. International active medium- and large-sized product and service companies based in Germany: Diverse industries of entrepreneurs (26% automotive, 18% electronics/IT, 16% finance, 11% construction and utility, 8% health care, 7% logistics, 5% pharmaceuticals/chemicals, 9% others)	1. 119 2. 40 3. 55 4. 283 5. 28 6. Unknown 7. 18 8. 106 9. 10 10. 87

			6. How entrepreneurial orientation can leverage innovation project portfolio management 7. Dynamic capabilities: innovation project portfolio management 8. Dynamic capability through project portfolio management in service and manufacturing industries 9. Innovation Project Portfolio Management: A Qualitative Analysis (same article as #2) 10. Robust project portfolio management: capability evolution and maturity	3. 1040 service and producing companies in competitive industries 4. Australian organizations in a diverse range of service and manufacturing industries 5. R&D managers, 29.6% worked in the chemicals industry, 17.5% worked in the electronics industry, 27.8% worked in the mechanical engineering industry, and 25.1% worked in other industries (mostly in the consumer goods industry). 6. Diverse industries of entrepreneurs (26% automotive, 18% electronics/IT, 16% finance, 11% construction and utility, 8% health care, 7% logistics, 5% pharmaceuticals/chemicals, 9% others) 7. Based on other IPPM research in private sector organizations 8. 35,197 enterprises, including manufacturing as well as services-based firm	

				9. 12 international active medium- and large-sized product and service companies based in Germany: Diverse industries of entrepreneurs (26% automotive, 18% electronics/IT, 16% finance, 11% construction and utility, 8% health care, 7% logistics, 5% pharmaceuticals/chemicals, 9% others) 10. Based on engineering organizations to create algorithms **All private sector organizations**	
Web of Science	"Innovation project portfolio management"	8, Top 8:	1. How entrepreneurial orientation can leverage innovation project portfolio management 2. Robust data analysis in innovation project portfolio management 3. A Lack of Insight: An Experimental Analysis of R&D Managers' Decision-making in Innovation Portfolio Management 4. Augmenting innovation project portfolio management performance: the mediating effect of management perception and satisfaction	1. Diverse industries of entrepreneurs (26% automotive, 18% electronics/IT, 16% finance, 11% construction and utility, 8% health care, 7% logistics, 5% pharmaceuticals/chemicals, 9% others) 2. Based on engineering organizations to create algorithms	1. 0 2. 1 3. 13 4. 13 5. 45 6. 13 7. 17 8. 0

			5. Integrating sustainability into innovation project portfolio management - A strategic perspective 6. Governing the Portfolio Management Process for Product Innovation-A Quantitative Analysis on the Relationship Between Portfolio Management Governance, Portfolio Innovativeness, and Firm Performance 7. Innovation Project Portfolio Management: A Qualitative Analysis 8. Innovation Project Portfolio Management: the Case of Philips Research	3. R&D managers, 29.6% worked in the chemicals industry, 17.5% worked in the electronics industry, 27.8% worked in the mechanical engineering industry, and 25.1% worked in other industries (mostly in the consumer goods industry). 4. 1040 service and producing companies in competitive industries 5. One of the world's large car manufacturers in Europe. 6. R&D, and portfolio managers from German companies: manufacturing (49%),high-tech (19%), metal/steel (9%), electrical (8%), automotive(6%), chemical/ pharmaceutical (4%), and others (5%). 7. 12 international active medium- and large-sized product and service companies based in Germany. 8. Royal Philips Electronics **All private sector organizations**	



Screenshot 1 Search on Google Scholar: "innovation project portfolio management" on November 12, 2020.

A lack of insight: an experimental analysis of R&D managers' decision making in innovation portfolio management
J Behrens - Creativity and Innovation management, 2016 - Wiley Online Library
… Share a link. Share on: Email; Facebook; Twitter; Linked In; Reddit; Wechat. Abstract. This study analyses the decision to exploit an innovation project and investigates differences in individuals' evaluations of project attributes in the context of **innovation project portfolio management** …
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How entrepreneurial orientation can leverage **innovation project portfolio management** [PDF] wiley.com
A Kock, HG Gemünden - R&D Management, 2020 - Wiley Online Library
Innovation project portfolio management (IPPM) is a key task in R&D management because this decision-making process determines which R&D projects should be undertaken and how R&D resources are allocated. Previous research has developed a good understanding …
☆ 99

[PDF] Dynamic capabilities: **innovation project portfolio management** [PDF] uts.edu.au
CP Killen, R Hunt, E Kleinschmidt - Australian and New Zealand …, 2007 - opus.lib.uts.edu.au
Abstract **Innovation Project Portfolio Management** (IPPM) practices are a dynamic capability that provides competitive advantage by dynamically adjusting the organisation's portfolio of projects and resource allocation profile for the best innovation outcomes. A relatively new …
☆ 99 Cited by 18 Related articles All 3 versions »

Dynamic capability through project portfolio management in service and manufacturing industries [PDF] uts.edu.au
CP Killen, RA Hunt - International Journal of Managing Projects in …, 2010 - emerald.com
… Copyright © 2010, Emerald Group Publishing Limited. Summary of the doctoral thesis. The research reported in this paper examined the relationship between **innovation project portfolio management** (PPM) capabilities and competitive advantage …
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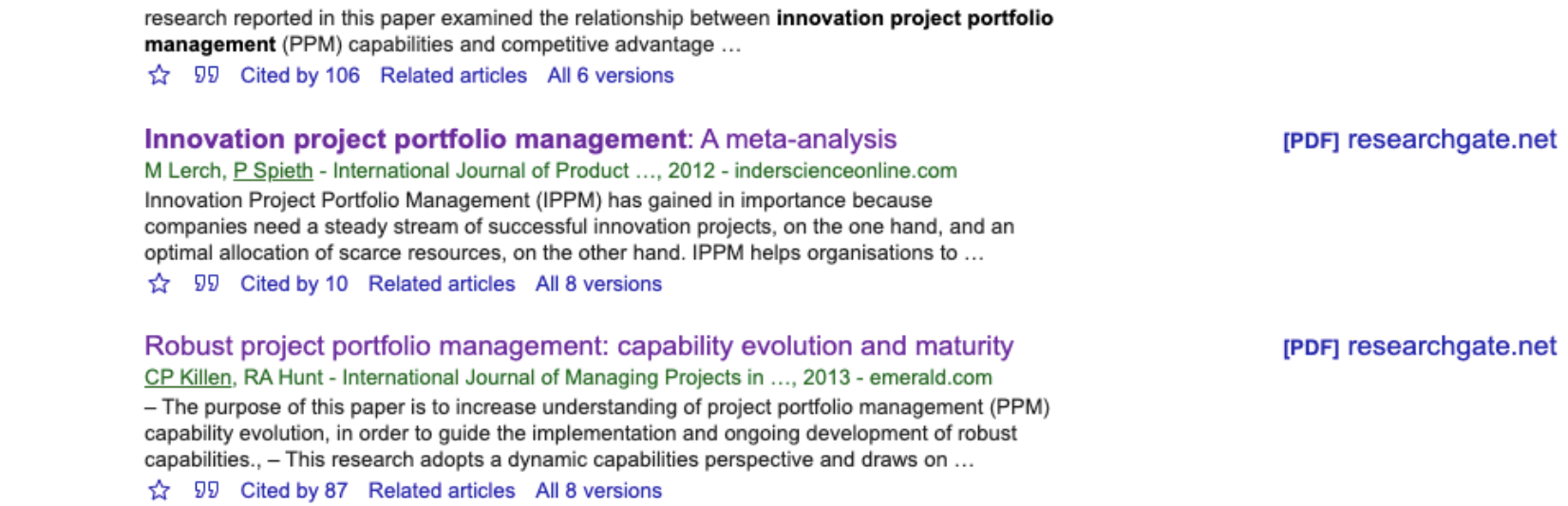
Innovation project portfolio management: A meta-analysis [PDF] researchgate.net
M Lerch, P Spieth - International Journal of Product …, 2012 - inderscienceonline.com
Innovation Project Portfolio Management (IPPM) has gained in importance because companies need a steady stream of successful innovation projects, on the one hand, and an optimal allocation of scarce resources, on the other hand. IPPM helps organisations to …
☆ 99 Cited by 10 Related articles All 8 versions

Screenshot 2 Search on Google Scholar: "innovation project portfolio management" on November 12, 2020.


research reported in this paper examined the relationship between **innovation project portfolio management** (PPM) capabilities and competitive advantage …

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Innovation project portfolio management: A meta-analysis [PDF] researchgate.net

M Lerch, P Spieth - International Journal of Product …, 2012 - inderscienceonline.com

Innovation Project Portfolio Management (IPPM) has gained in importance because companies need a steady stream of successful innovation projects, on the one hand, and an optimal allocation of scarce resources, on the other hand. IPPM helps organisations to …

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Robust project portfolio management: capability evolution and maturity [PDF] researchgate.net

CP Killen, RA Hunt - International Journal of Managing Projects in …, 2013 - emerald.com

– The purpose of this paper is to increase understanding of project portfolio management (PPM) capability evolution, in order to guide the implementation and ongoing development of robust capabilities., – This research adopts a dynamic capabilities perspective and draws on …

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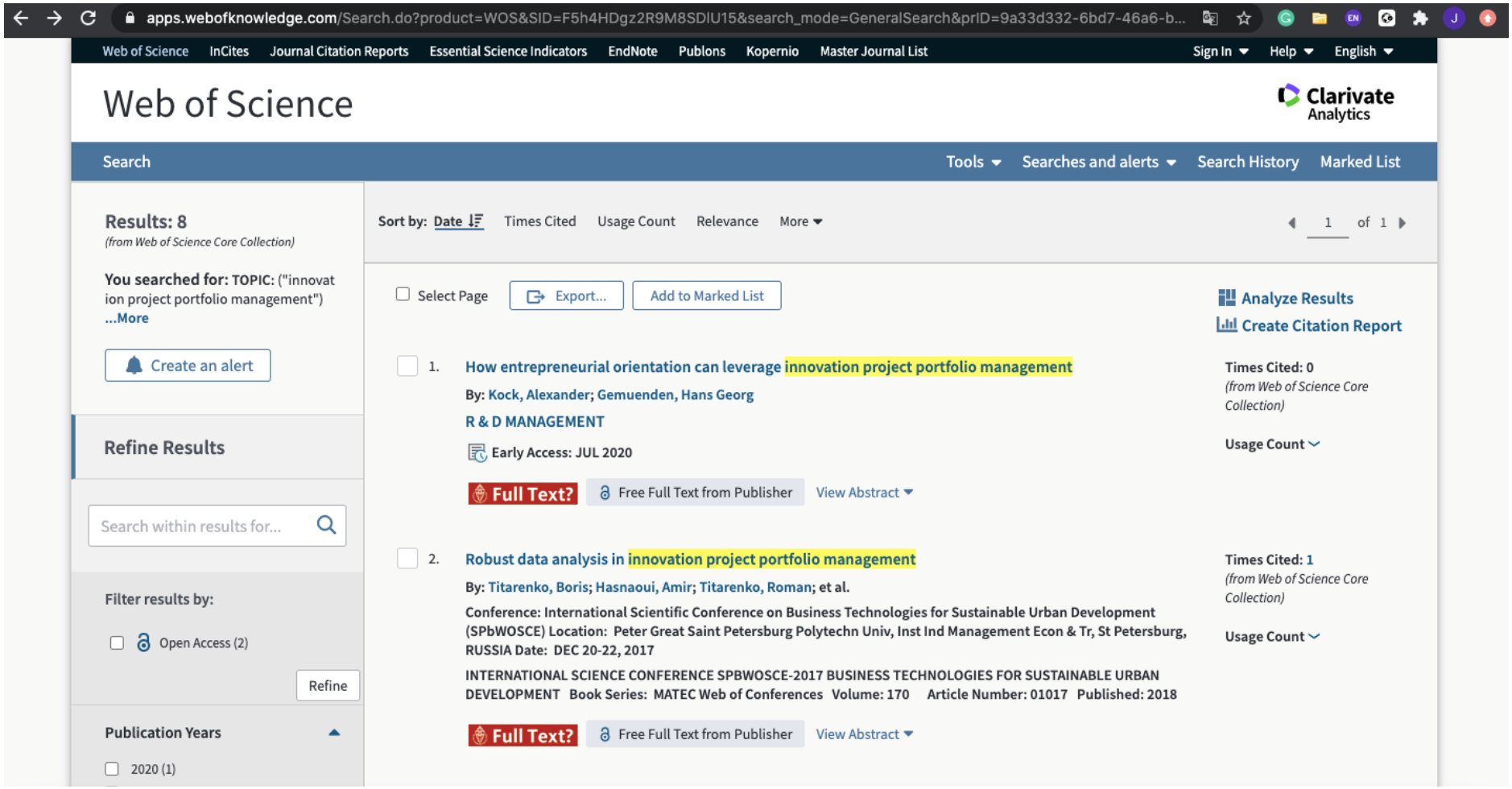
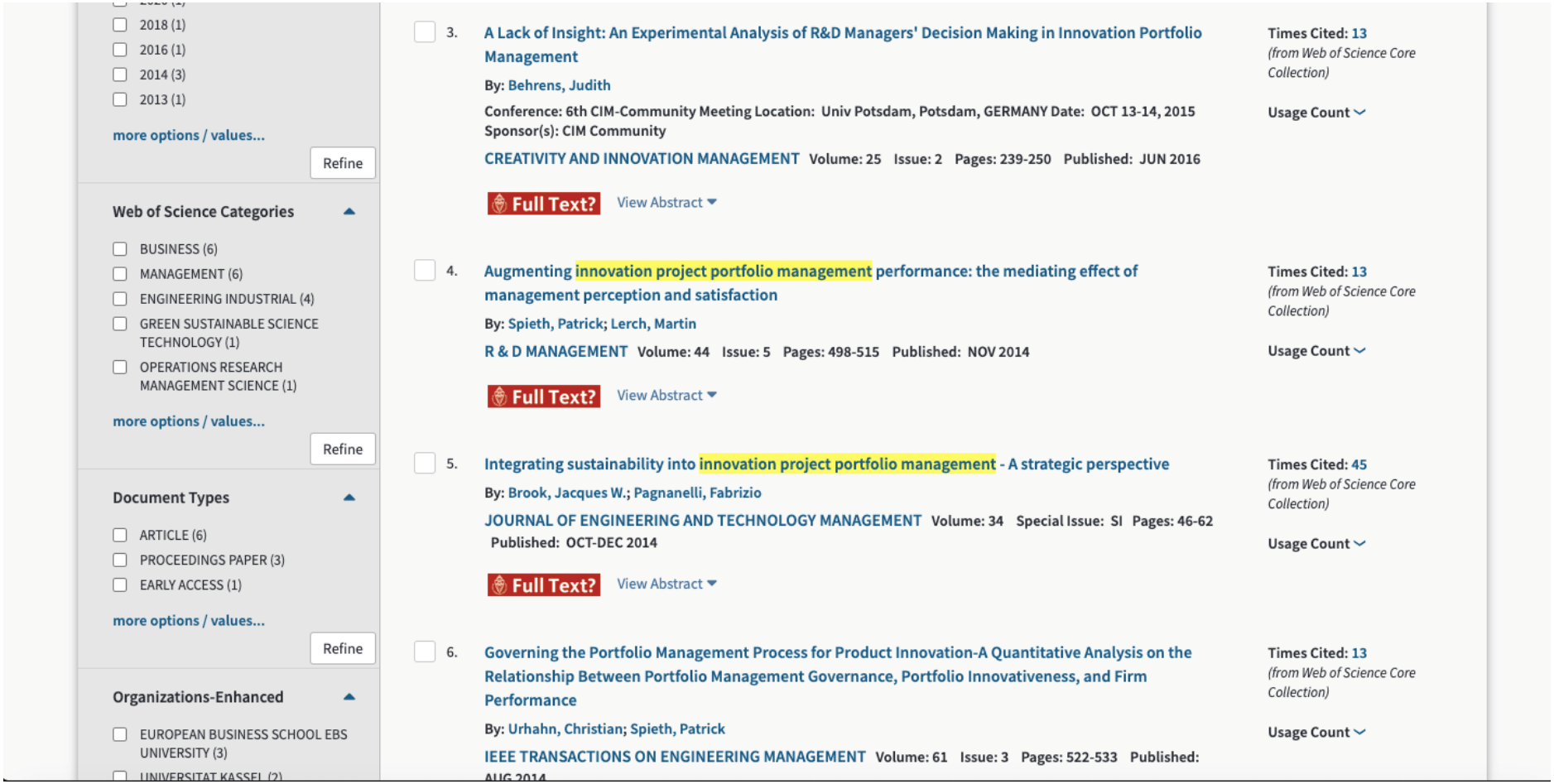
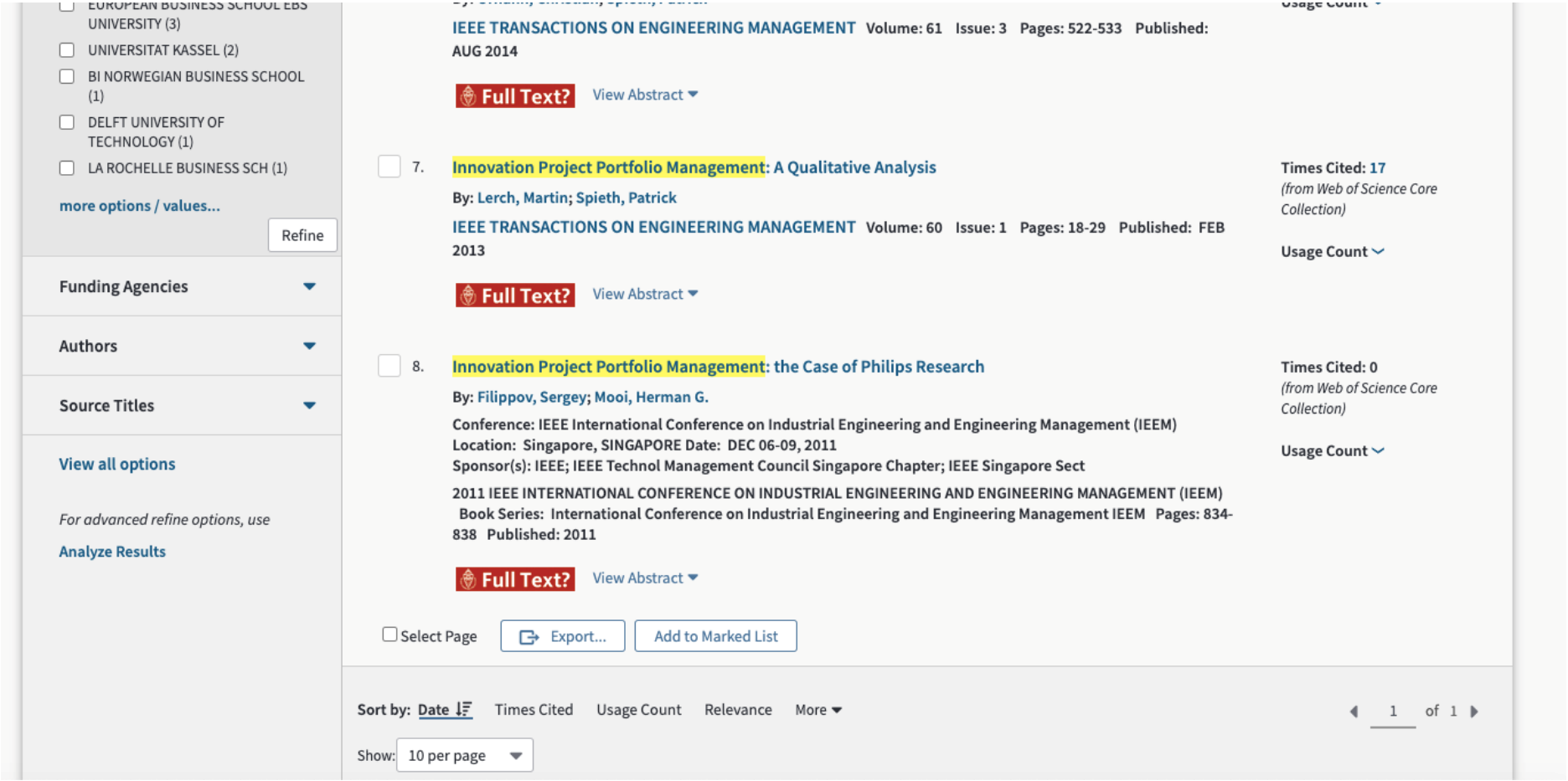
Screenshot 3 Search on Google Scholar: "innovation project portfolio management" on November 12, 2020.



Screenshot 4 Search on Web of Science: "innovation project portfolio management" on November 12, 2020.

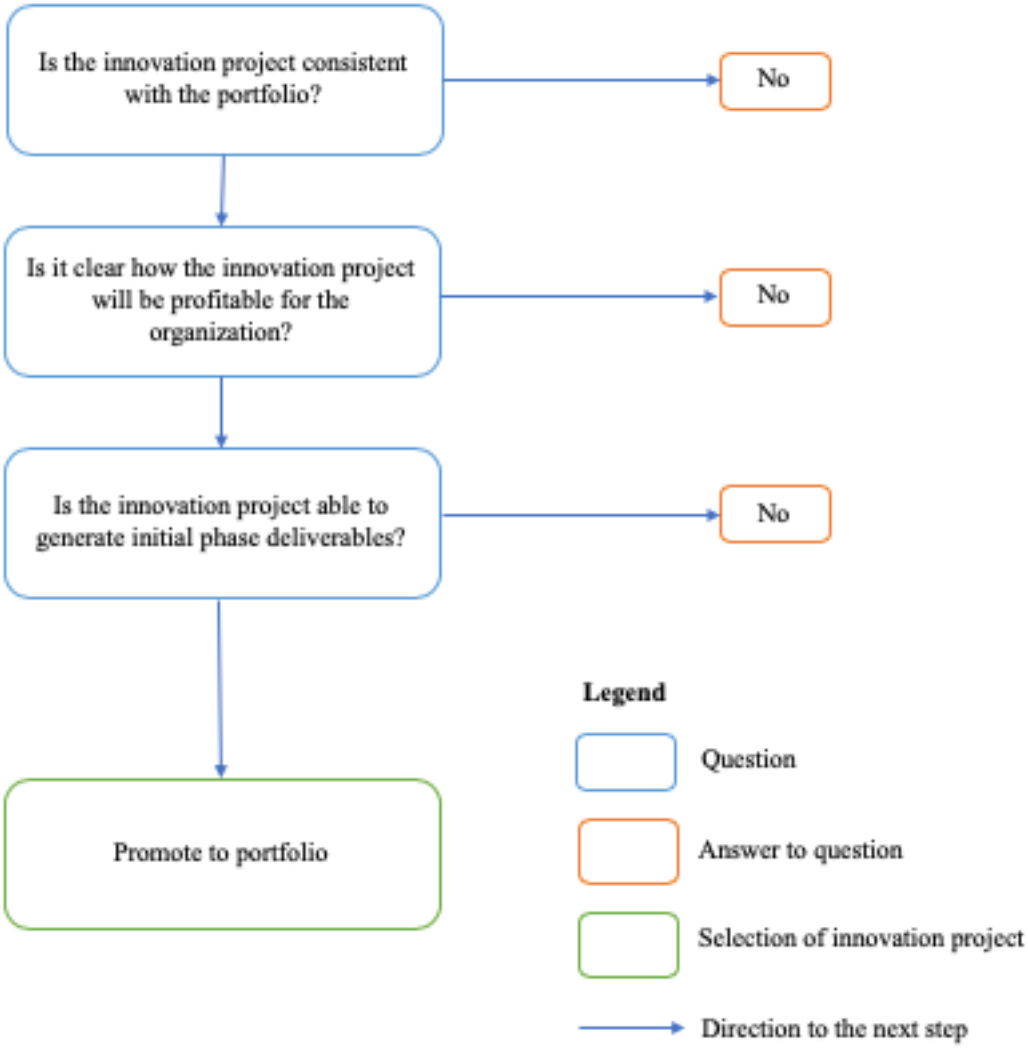


Screenshot 5 Search on Web of Science: "innovation project portfolio management" on November 12, 2020.



Screenshot 6 Search on Web of Science: "innovation project portfolio management" on November 12, 2020.

7.2 Appendix B: Entry into the innovation portfolio mechanism.



Note: The figure is a decision process for an innovation project to enter the portfolio.

Figure 4 Entry into the innovation portfolio (Mathews, 2010, p. 31).

7.3 Appendix C: Operationalization of concepts.

Concept	Dimension	Indicators	Source
Innovation	Definition innovation	Paramount Contributes to efficiency and effectiveness of the organization Successful exploitation of new ideas	Adams, Bessant and Phelps, 2006; Anderson, Potočnik & Zhou, 2014; Collis, 2010; IBM, 2010; Kriekels, 2013; Van de Ven, 1986; Walton, 2003
	Ability to innovate	Dynamic capability Matrialize (new) ideas Contributes to efficiency and effectiveness of the organization	Freeman and Soete, 1997; Lerch and Spieth, 2012
	Innovation types	Radical innovation Incremental innovation Process innovation Product or service innovation Governance innovation Conceptual innovation	Ali, 1994; Brentani, 2001; Elfring and Hulsink, 2007; Miron-Spektor, Erez, and Naveh, 2011; Tushman & Romanelli, 1985; De Vries, Bekkers and Tummers., 2015; Damanpour & Gopalakrishnan, 2001; Bekkers, Edelenbos and Steijn, 2011
	Innovation projects	The right mix (balance, number and execution) Innovation ambition matrix	Cooper, Edgett and Kleinschmidt, 2001; Nagji and Tuff, 2012;

		Core initiatives Transformational innovation Adjacent innovation 70-20-10 innovation projects balance	Wheelwright and Clark, 1992
PSO	PSO context	Strategy Objectives Contribution to society Complex responsibility structure	Moussa, McMurray & Muenjohn, 2018; Oke, 2001; Zduncyk and Blenskinsopp, 2007; Martins and Terblanche, 2003; Hull and Lio, 2006
	Innovation barriers	Public administration process Resistance or lack of support Lack of available resources Inappropriate organization structure and culture Risk-aversity	Holden, Cassidy, Hallberg and Marsh, 2018; Hartley, 2010; Cinar, Trott and Christopher, 2019; Moussa, McMurray & Muenjohn, 2018; Martinsuo and Dietrich, 2002
IPPM	Efficient and effective IPPM	Perceived importance Reasons why IPPM is important Nature of IPPM processes Specific portfolio models used	Cooper, Edgett and Kleinschmidt, 1999, 2000, 2001; Lerch and Spieth, 2012; Agolla and Lill, 2013, Mathews, 2010; Meifort, 2015

7.4 Appendix D: Interview guide.

Inleiding van het interview

Goedendag, mijn naam is Janne Wijnands. Heel fijn dat u mee wilt werken aan mijn onderzoek!

* Hierna volgt small talk. *Small talk voordat het interview start is van belang. Het doel van small talk is om het ijs te breken en om de tijd tussen de kennismaking en de start van de introductie te overbruggen.*

Ik verricht dit onderzoek voor het iLab van de Politie (eenheid Limburg) en in het kader van mijn afstuderen voor de Master Innovation & Entrepreneurship aan de Radboud Universiteit. Het onderzoek, en daarmee ook dit interview, gaat over innovation project portfolio management (IPPM). Er is al veel bekend over IPPM in commerciële organisaties, echter de Politie is ook actief bezig met IPPM. Nu is het zo dat in de theorie veel geschreven is over hoe innovatieprojecten het best georganiseerd en bestuurd kunnen worden door middel van IPPM in commerciële organisaties.

Echter, er is relatief weinig beschreven hoe IPPM kan bijdragen in niet commerciële organisaties, zoals de Politie. Graag wil ik inzicht verkrijgen hoe en op welke manier de Politie IPPM ervaart, zodat ik dit kan vergelijken met de bestaande literatuur van succesvol IPPM. De vergelijking van succesvol IPPM en de ervaringen van de Politie met IPPM zal leiden tot aanbevelingen om innovatieprojecten zo succesvol en effectief mogelijk uit te voeren binnen de Politie!

Daarom, zal ik u vragen stellen over uw werk bij de Politie in relatie tot het managen van innovatieprojecten derhalve van IPPM. Het interview duurt ongeveer 45 minuten. Uiteraard heb ik in het kader van mijn stage bij het iLab van de Politie geheimhoudingsplicht en zullen de antwoorden uitsluitend gebruikt worden voor onderzoeksdoeleinden. Dit interview zal worden opgenomen, echter deze opname wordt meteen verwijderd zodra deze getranscribeerd is. Daarnaast worden uw antwoorden volledig geanonimiseerd en aan niemand, uitgezonderd

mezelf, ter beschikking gesteld. Ik zal dit interview transcriberen. Het transcript zal indien gewenst naar u worden toegestuurd om het op correctheid te controleren.

Topic list

Hieronder staan de vragen opgenomen die in ieder geval aan de respondenten zullen worden gesteld. Bij iedere vraag wordt het geoperationaliseerde concept aangeduid. De geoperationaliseerde concepten zijn in kaart gebracht in Appendix C. De concepten zijn herleid uit de 'research question': **"How is innovation project portfolio management (IPPM) deployed in the public sector, and how can IPPM and its deployment be improved?"**. De verantwoording van de gestelde vragen in relatie tot het geoperationaliseerde concept wordt onder de vraag weergegeven. Gelet op het semigestructureerde karakter van dit interview is er ruimte voor improvisatie en doorvragen. Beantwoording van deze interviewvragen leidt tot toetsing op bruikbaarheid en effectiviteit van de geformuleerde proposities.

Interviewvragen:

Inleidende vragen:

Vraag 1: Wat is uw huidige functie?

Met deze inleidende vraag wordt inzicht verkregen in de huidige functie van de respondent. Deze informatie wordt verzameld om inzicht te krijgen in de werkzaamheden van de respondent met betrekking tot IPPM.

Vraag 2: Bent u betrokken bij innovatieprojecten en IPPM binnen uw organisatie?

Operationalisatie: Ability to innovate

Met deze inleidende vraag wordt inzicht verkregen in de betrokkenheid van de respondent met innovatieprojecten en IPPM. Hiernaast wordt gekeken of de respondenten in staat zijn om innovatie tot stand te brengen en/of te implementeren binnen de Politie. Hoewel middels de

selectiecriteria van respondenten betrokkenheid met innovatieprojecten en IPPM wordt verzekerd, wordt middels deze vraag bevestigd dat de respondent inderdaad betrokken is bij innovatieprojecten en IPPM binnen de Politie.

Concept 'Innovation' and 'PSO'.

Vragen met betrekking tot de dimensions: 'PSO context', 'Innovation barriers', 'Ability to innovate', 'Innovation projects' en, 'Innovation types'.

Vraag 3: Heeft de Politie een doel geformuleerd? Zo ja, wat is het doel van de Politie en ervaart u dat het doel van de Politie verweven in uw functie?

Operationalisatie: PSO Context

Met deze vraag wordt inzicht verkregen in de context van de Politie. De strategie en de doelen van de politie worden in kaart gebracht. Hiernaast kan er gekeken worden of er een maatschappelijk belang naar voren komt.

Vraag 4: Hoe ervaart u diverse belangen van stakeholders binnen de Politie?

Operationalisatie: Innovation Barriers

Met deze vraag wordt inzicht verkregen in de complexiteit van de verschillende stakeholders binnen de Politie. Dit is een geïdentificeerde innovatie barrière. Inzicht in hoe dit in de praktijk wordt ervaren is beoogt.

Vraag 5: Hoe ervaart u het belang van innovatieprojecten in het nastreven van het doel van de Politie?

Operationalisatie: Innovation projects & Ability to innovate

Deze vraag geeft inzicht in het belang van innovatie projecten en hoe dit is vormgegeven binnen de Politie. Hiernaast wordt er ook gevraagd naar de relatie tussen innovatie projecten en de mogelijkheden omtrent innovatie. Hoe kan er geïnnoveerd worden en of innovatie projecten hierbij zijn betrokken.

Vraag 6: Hoe ervaart u de selectie van innovatieprojecten?

Operationalisatie: Innovation projects

Deze vraag wordt gesteld om inzicht te krijgen of er wordt gekeken naar een mix van verschillende innovatieprojecten bij de selectie van innovatieprojecten. Deze vraag wordt zo open mogelijk gesteld, zodat de daadwerkelijke ervaringen van de Politie in kaart kunnen worden gebracht.

Vraag 7: Hoe ziet het verdere verloop van de innovatieprojecten eruit binnen de Politie?

Operationalisatie: Innovation projects

Deze vraag wordt gesteld om inzicht te krijgen of er wordt gekeken naar een mix van een goede balans, nummer en uitvoering (70-20-10) van innovatieprojecten door bijvoorbeeld het volgen van de 'innovation ambition matrix'. De vraag wordt open gesteld, zodat de daadwerkelijke ervaringen van de Politie in kaart kunnen worden gebracht.

Vraag 8: Hoe ervaart u het resultaat en de implementatie van innovatieprojecten binnen de Politie?

Operationalisatie: Innovation projects & Ability to innovate

Deze vraag wordt gesteld om inzicht te krijgen of de Politie daadwerkelijk in staat is om te innoveren. Met andere woorden of de innovatieprojecten daadwerkelijk geïmplementeerd worden en op welke manier. Ook zal er gevraagd worden of innovatie bijdraagt aan de Politie en zo ja, op welke manier.

Vraag 9: Ervaart u verschillende innovatiesoorten binnen de Politie? Zo ja, op welke manier?

Operationalisatie: Innovation types

Met deze vraag wordt inzicht verkregen of de Politie diverse innovatie types onderscheidt. Met andere woorden wordt er gekeken naar verschillende innovatie types, zoals radicale en incrementele innovatie. De vraag wordt open gesteld, zodat daadwerkelijk inzicht wordt verkregen of er verschillende innovatiesoorten zijn binnen de Politie.

Concept 'IPPM'.

Vragen met betrekking tot de dimensions 'IPPM' en 'Innovation barriers'.

Vraag 10: Hoe ervaart u het concept IPPM binnen de Politie?

Operationalisatie: IPPM & Innovation Barriers

Met deze vraag wordt inzicht verkregen hoe IPPM wordt ervaren binnen de Politie. Met andere woorden hoe ervaart de Politie IPPM. Hierbij wordt er vooral gericht op de context van de Politie.

Vraag 11: Hoe ervaart u het belang van IPPM (binnen de Politie/uw functie) en waarom?

Operationalisatie: IPPM

Hierbij wordt inzicht verkregen in het waargenomen belang van IPPM. Deze vraag is gericht op de ervaring van de respondent zelf.

Vraag 12: Hoe ervaart u het belang van IPPM bij de werknemers van de Politie en waarom?

Operationalisatie: IPPM

In tegenstelling tot vraag 11, wordt er nu gericht op de ervaring van de werknemers van de Politie. Het gaat hierbij om het waargenomen belang van IPPM. Hierbij worden verschillen verwacht.

Vraag 13: Worden er modellen/technieken gebruikt bij de selectie van innovatieprojecten (IPPM)? Zo ja, waarom en welke?

Operationalisatie: IPPM

Met deze vraag wordt inzicht verkregen in de specifieke portfolio modellen die gebruikt worden in IPPM. Ook wordt de vraag open gesteld, zodat de daadwerkelijke ervaringen van de Politie in kaart kunnen worden gebracht. Hierbij wordt er rekening gehouden dat het kan zijn dat er geen modellen/technieken gebruikt worden.

Vraag 14: Wat gebeurt er nadat innovatieprojecten voor IPPM zijn geselecteerd?

Operationalisatie: IPPM

Om het proces van IPPM in kaart te brengen en te vergelijken met de interne documenten. Het gaat hierbij om de processen na de selectie van de innovatieprojecten.

Vraag 15: Hoe ervaart u dat de innovatieprojecten van IPPM worden gedeeld binnen de Politie?

Operationalisatie: IPPM

Ook deze vraag is gericht om het proces van IPPM in kaart te brengen en te vergelijken met de documenten. Het gaat hierbij om de formalisatie van IPPM.

Afsluitende vragen:

Vraag 16: Heeft u nog overige opmerkingen over uw ervaringen met IPPM?

Met deze afsluitende vraag worden eventuele onbesproken relevantie ten aanzien van IPPM alsnog besproken.

Vraag 17: Heeft u opmerkingen of vragen naar aanleiding van dit interview?

Mochten er nog vragen of onduidelijkheden zijn voor de respondent, dan kunnen deze nog besproken worden.

Vraag 18: Wilt u het transcript ontvangen om correctheid van interpretatie van uw woorden te checken?

Deze afsluitende vraag draagt bij aan de toestemming van de respondent ten aanzien van de data collectie. Als de respondent wenst het transcript te ontvangen dienen verdere contactgegevens te worden uitgewisseld.

7.5 Appendix E: Template Analysis of the study.

Table 5 Template Analysis of the study.

Template Analysis			
Theme	**Dimension**	**Code**	**Definition**
Innovation	Ability to innovate	ABIN	All data related to the dynamic capability of materializing (new) ideas, and how innovation contributes to the organization's efficiency and effectiveness.
	Innovation types	INTY	All data related to innovation types. The literature shows radical innovation, incremental innovation, process innovation, product or service innovation, governance innovation, and conceptual innovation.
	Innovation projects	INPJ	All data related to the right mix (balance, number and execution) of innovation projects, the innovation ambition matrix, core initiatives, transformational innovation, adjacent innovation, and 70-20-10 innovation projects balance.
	Other innovation	OIN	All data related to innovation that is not captured by the other dimensions.
PSO	PSO context	PSOC	All data related to strategy, objectives, contribution to society, and complex responsibility structure.
	Innovation barriers	INBA	All data related to public administration process, resistance or lack of support, lack of available resources, inappropriate organization structure and culture, and risk-aversity.

	Other PSO	OPSO	All data related to PSOs that is not captured by the other dimensions.
IPPM	Perceived importance	IPPMIMP	All data related to the perceived importance of IPPM (positively and/or negatively)
	Reasons why IPPM is important	IPPMIMP	All data related to the reasoning why IPPM is perceived as important.
	Nature of IPPM processes	IPPMPRO	All data related to the processes of innovation and/or IPPM.
	Specific portfolio models used	IPPMMO	All data related to the models used for innovation and/or IPPM.
	Other IPPM	OIPPM	All data related to IPPM that is not captured by the other dimensions.

7.7 Appendix F: Quotations from the results in English and Dutch.

In the following Appendix the supporting and exemplifying quotes from chapter 4 Results are provided in English and Dutch. The quotes are provided in English and Dutch, and categorized by the subcodes to avoid differences in language and interpretation, and achieve the best possible representation of the respondents' interpreted experiences (Van Nes et al., 2010).

Original quote:

"Politie wordt gezien als een kampioen in proeftuinen, maar er wordt niks geïmplementeerd." (Transcript #8, 8:11)

Translated quote:

"The police is seen as a champion in testing grounds, but nothing gets implemented." (Transcript #8, 8:11)

Original quote:

"*Het probleem wat ik een beetje zie met innovatie dat de verbinding met de andere hoofdportefeuilles er niet zo is."* (Transcript #1, 1:50)

Translated quote:

"The problem that I see with innovation is that the connection with the other main portfolios lacks." (Transcript #1, 1:50)

Original quote:

"Daarbij heb ik weleens geroepen dat je een soort innovatie speedlane moet ontwikkelen naast je reguliere portfolio, waardoor de innovaties niet meer concurreren met grote vernieuwingstrajecten die toch belangrijk zijn en toch wel winnen van kleine innovaties." (Transcript #5, 5:30)

Translated quote:

"Sometimes I have plead for an innovation speed lane next to the regular portfolio, causing that innovation do not compete with big renewal trajectories that are more important and win from the little innovations." (Transcript #5, 5:30)

Original quote:

"Dat is ook wel een dingetje binnen de politie, wanneer is iets een innovatie? En wat onderscheidt een innovatie zich van een vernieuwing of een verbetering en dat is best lastig om te duiden. Eigenlijk zou je een definitie voor een innovatie moeten hebben, maar die hebben we niet binnen de politie" (Transcript #3, 3:35)

Translated quote:

"We do have one thing that is a bit of a glitch within the Police, when is something an innovation? And how does an innovation distinct itself from a renewal or an improvement, that is something which is hard to define. You should have a definition for innovation, but we do not have an ambiguous definition for innovation within the Police" (Transcript #3, 3:35)

Original quote:

"De scheidingslijn vernieuwen en verbeteren vind ik soms wel lastig. Want eigenlijk zou je moeten kunnen stellen dat iedere vernieuwing moet leiden tot een verbetering. En iedere verbetering hoeft niet een vernieuwing te zijn." (Transcript #7, 7:45)

Translated quote:

"I experience the dividing line between renewal and improvement sometimes difficult. It should be ideal if you could ensure that every renewal leads to an improvement. And every improvement should not per se be a renewal." (Transcript #7, 7:45)

Original quote:

"We kijken niet naar een balans van verschillende innovatiesoorten." (Transcript #2, 2:14)

Translated quote:

"We do not look at a balance of different innovation types." (Transcript #2, 2:14)

Original quote:

"Wat ik nu zie is dat het." (...) "Omdat er onvoldoende balans is, dat je in feite een soort verspilling aan het doen bent." (Transcript #1, 1:45)

Translated quote:

"I see that." (…) *"because there is an insufficient balance, that there is in fact a wastage."* (Transcript #1, 1:45)

Original quote:

"Onze hoofdtaak is waakzaam en dienstbaar, dat is het verdedigen en beschermen van de rechtsstaat." (Transcript #2, 2:13)

Translated quote:

"Our main task is to be vigilant and subservient, that is to defend and protect the constitutional state." (Transcript #2, 2:13)

Original quote:

"We kunnen ook maar een beperkt aantal mensen inhuren. De overheid biedt niet altijd marktconform salaris en mensen kiezen niet meteen voor de overheid. We hebben vooral mensen die maatschappelijk betrokken zijn, dus daar zit vooral de schaarste." (Transcript #6, 6:13)

Translated quote:

"We can only hire a limited amount of people. The government does not always offer competitive salary and people do not chose instantly for the government. We mostly consist out of people that are socially concerned, that is where the scarcity exists." (Transcript #6, 6:13)

Original quote:

"De Politie organisatie is een ad-hoc organisatie." (Transcript #3, 3:48)

Translated quote:

"The Police organization is an ad-hoc organization." (Transcript #3, 3:48)

Original quote:

"*Dat is wel typisch voor de Politie denk ik, het van tevoren helemaal uitdenken is niet het sterkste punt."* (…) *"Het is een actiegerichte organisatie en dat is meestal heel leuk en soms denk je: oh oh oh..."* (Transcript #1, 1:22;1:23)

Translated quote:

"That is typical for the Police I guess, thinking through in advance is not their strongest point." (…) *"It is an action oriented organization and most of the times that is fun and sometimes you are like: oh oh oh…"* (Transcript #1, 1:22;1:23)

Original quote:

"Het hele vraagstuk over wat is nou de beste optie die werd helemaal niet op een rationele manier gemaakt, maar die werd op gevoel gemaakt, op politiek, op interactie tussen de spelers. Eigenlijk is dat nog steeds een beetje zo." (Transcript #1, 1:5)

Translated quote:

"The whole question of what is the best option was not based on a rational matter, but on a gut feeling, on politics, and on the interaction between different players. Actually, that is still the case." (Transcript #1, 1:5)

Original quote:

"Daar zijn wel modellen voor, maar de analyse of iets belangrijk is of niet, dat is echt meer buikgevoel." (Transcript #1, 1:34)

Translated quote:

"There are models but the analysis if something is important or not, that is based on a gut feeling." (Transcript #1, 1:34)

Original quote:

"Je loopt tegen bureaucratische problemen aan, dat management vaak vraagt wanneer is wat klaar, wat natuurlijk lastig is bij innovatie, dat past niet bij innovatie." (Transcript #2, 2:33)

Translated quote:

"You walk into bureaucratic problems, such as that the management asks when something is done. However, that is tricky with innovation, and does not suit innovation." (Transcript #2, 2:33)

Original quote:

"Dat is een administratief proces wat best wel lastig is, wat ook stroperig is." (Transcript #3, 3:1)

Translated quote:

"It is an administrative process, which is hard, and also treacly." (Transcript #3, 3:1)

Original quote:

"We hebben een bijzondere omgeving, met hoge veiligheidseisen en hoge organisatorische eisen. We zijn een grote organisatie en dus zijn dingen zoals beheer ingewikkelder, en omdat ze zo ingewikkeld zijn hebben we er nog een ingewikkelder systeem omheen gebouwd." (Transcript #4, 4:8)

Translated quote:

"We have a special environment, with high safety requirements and high organizational demands. We are a large organization and things like management are complex, and because it is so complex we built an even more complex system around it." (Transcript #4, 4:8)

Original quote:

"Terwijl er nu en dan ook innovaties plaatsvinden, waarvan ik denk van: ja jongens, dit is gewoon warmte productie, dit gaat, als je er even over nadenkt, dan gaat het helemaal niks worden." (Transcript #1, 1:59)

Translated quote:

"Occasionally there are innovations taking place, that are purely being done for the wooing stakeholders but if you think about it, you already know that the innovation is not promising." (Transcript #1, 1:59)

Original quote:

"Er zijn veel stakeholders om te bedienen, we willen het allerbeste voor de politiemedewerkers, maar daarnaast hebben we ook een minister, die van alles toezegt in de Tweede Kamer, waar wij ook gewoon aan moeten voldoen." (...) "Maar naast de minister hebben we ook de verschillende burgemeesters te bedienen, die gaan ook over de politie en roepen ook van alles en willen ook van alles." (Transcript #5, 5:9)

Translated quote:

"There are a lot of stakeholders to serve, and we want the best for the Police employees but next to the employees we have a minister, who promises things in the House of Representatives, to which we are obligated to cope with." (Transcript #5, 5:9)

Original quote:

"We moeten ook accepteren dat sommige dingen gewoon geen business zijn, maar politiek. Dat je andere afwegingen krijgt." (Transcript #1, 1:19)

Translated quote:

"We have to accept that somethings are not business but politics. You get other tradeoffs." (Transcript #1, 1:19)

Original quote:

"Maar dat is altijd een heel erg lastig spel in portfolio management, om de verschillende stakeholders hun wensen in te willigen." (Transcript #5, 5:12)

Translated quote:

"It is always a tricky game in portfolio management to grant all the wishes of the different stakeholders." (Transcript #5, 5:12)

Original quote:

"Ik ervaar vrijheid om risico's te lopen en te doen waar ik naartoe wil." (Transcript #8, 8:12)

Translated quote:

"I experience the freedom to take risks and to go where I want to go." (Transcript #8, 8:12)

Original quote:

"Aan de andere kant zie ik ook weer heel veel mensen die gewoon het lef pakken om het zo te doen zoals dat zij denken dat het goed is." (Transcript #7, 7:36)

Translated quote:

"On the contrary I also see a lot of people who just have the guts to do things the way they think is good." (Transcript #7, 7:36)

Original quote:

"We zijn politie, dus we geven centjes uit van de gemeenschap en als je dat doet, zeker als je bijna een miljard uitgeeft dan zal je daar gewoon checks and balances in moeten hebben. Dat is gewoon wettelijk verplicht. Dus ja als je iets controleert kost dat tijd, maar dat is ook nodig." (Transcript #4, 4:18)

Translated quote:

"We are the Police. Therefore, we spend money of the community, and if you do that, especially when you almost spend a billion euros, you have to have checks and balances. That is just legally required. If you check something it takes time, but it is necessary." (Transcript #4, 4:18)

Original quote:

"Zeker in een organisatie met 60.000 man. Er zijn oneindig veel ideeën, er moet van alles en de politiek vraagt van alles. Als we daar geen orde in aanbrengen zijn we met van alles bezig en bereiken we niks. Dat is voor mij eigenlijk het basale belang." (Transcript #1, 1:26)

Translated quote:

"Especially in an organization with 60.000 employees, where there are infinite ideas and where there are different demands from the politics. If we do not have an order or process, we will not accomplish anything. For me, that is the basal importance." (Transcript #1, 1:26)

Original quote:

"Je hebt portfolio management nodig. Portfolio management voor mij draait om keuzes maken. De link leggen naar je strategische doelstellingen en we hebben zoveel keuzes die moeten er gemaakt worden, want er zijn zoveel innovaties in ons korps of vernieuwingen of dingen die nog beter kunnen. Het is zo'n omvangrijke organisatie dat je wel een proces moet inrichten dat is dan portfolio management." (Transcript #5, 5:5)

Translated quote:

"You need portfolio management. For me, portfolio management involves making choices, and linking the choices to strategic objectives. We have so many choices to make because there are so many innovation in our Corps or things that can improve even more. It is such an extensive organization that you need to have a process, which in this case is portfolio management." (Transcript #5, 5:5)

Original quote:

"Ik denk dat we gewoon mooi in een grote en complexe organisatie." (…) *"Is het heel goed dat we dit proces hebben."* (Transcript #6, 6:38)

Translated quote:

"I think that in a big and complex organization." (…) *"It is really good we have this process."* (Transcript #6, 6:38)

Original quote:

"Kijk portfolio management in theorie is dat een aanpak om rationeel de beste keuze te maken waar je je geld in stopt." (Transcript #1, 1:4)

Translated quote:

"Look portfolio management in theory is an approach to rationally make the best choices where you spend your money on." (Transcript #1, 1:4)

Original quote:

"Ik hoor veel termen als zandbak. Waar je dus in vast loopt." (…) *"Als je heel goed voorbereidt bent en je hebt er de tijd voor, dan is het portfolioproces prima, maar die tijd heb je niet altijd en dan verwacht je wel dat er dingen kunnen gebeuren."* (Transcript #2, 2:23)

Translated quote:

"I hear a lot of terms, such as sandbox. Where you crash into." (..) *"If you prepare very well and you have got the time for it, then the portfolio process is fine. However, you do not always have the time but you do expect that things can happen."* (Transcript #2, 2:23)

Original quote:

"Als ik mijn portefeuillehouder vraag wat hij van portfolio management vindt dan zegt hij van dat is systeemwereld, daar wil ik niks mee te maken hebben, veel succes." (…) *"Ze hebben daar helemaal niks mee"* (Transcript #3, 3:39)

Translated quote:

"If I ask my portfolio holder what he thinks of portfolio management he will say that it is part of the system world, and wants nothing to do with it and wishes me luck." (…) *"They do not want to have to do anything with it."* (Transcript #3, 3:39)

Original quote:

"Je loopt tegen bureaucratische problemen aan, dat management vaak vraagt wanneer is wat klaar, wat natuurlijk lastig is bij innovatie, dat past niet bij innovatie." (Transcript #2, 2:33)

Translated quote:

"You walk into bureaucratic problems, such as that the management asks when something is done. However, that is tricky with innovation, and does not suit innovation." (Transcript #2, 2:33)

Original quote:

"Ik heb genoeg strepen op mijn schouder om die keuze te maken en zonder de samenhang met andere belangen te zien." (Transcript #6, 6:21)

Translated quote:

"I have enough stripes on my shoulder to make my own decisions regardless of the consistency with other concerns." (Transcript #6, 6:21)

Original quote:

"Daar zitten nog verschillen in, aanzienlijke verschillen, maar we zijn wel bezig om daarvoor formats voor te maken om dat meer te kanaliseren. Probleem daarvan is een beetje van hoe kritisch gaan we nu kijken naar wat er nu opgeleverd wordt." (Transcript #1, 1:32)

Translated quote:

"There are some differences, significant differences but we are busy to construct formats to cannibalize. The problem is how can we examine critically what is being delivered." (Transcript #1, 1:32)

Original quote:

"Eigenlijk zien we dat 90% van het werk helemaal niet langs de checks and balances gaat." (Transcript #4, 4:20)

Translated quote:

"Actually, we see that 90% of the work does not go through any kind of checks and balances." (Transcript #4, 4:20)

Original quote:

"Ik zie innovaties niet op voorhand gekozen worden, omdat ze passen binnen de strategische doelstellingen. Ik zie heel veel innovaties naar boven komen, omdat ze leuk zijn en als leuk worden ervaren." (Transcript #7, 7:43)

Translated quote:

"I do not see that innovation is selected in advance based on the strategic objectives. I see a lot of innovations rise because they are fun and are experiences as fun." (Transcript #7, 7:43)

Original quote:

"Op dit moment lopen de keuzes nog aardig willekeurig en door elkaar." (Transcript #2, 2:2)

Translated quote:

"At the moment the choices are pretty random and pell-mell." (Transcript #2, 2:2)

Original quote:

"We hebben eigenlijk niet genoeg geld, maar het is wel goedgekeurd." (Transcript #1, 1:21)

Translated quote:

"We do not have enough money but it is still approved." (Transcript #1, 1:21)

Original quote:

"We zijn eigenlijk vrij aardig tegen elkaar, we snappen heel snel waarom het niet klopt of waarom het nog niet volledig is, dus de professionaliteit in dat hele traject mag wel wat omhoog." (Transcript #1, 1:33)

Translated quote:

"We are pretty nice to each other and we understand when something is off or why something is not complete yet, therefore the professionality in the whole trajectory could rise." (Transcript #1, 1:33)

Original quote:

"Voor de portfolio zelf. Binnen die jaar systematiek die ik net beschreef, proberen we eigenlijk viermaands een update te doen van wat is er klaar, wat komt erbij, wat moet er bijgesteld worden, dat is vrij administratief." (Transcript #1, 1:39)

Translated quote:

"For the portfolio itself. Every year we have a do a quarterly update of what is ready, what is added, what needs to be adjusted, which is pretty administrative." (Transcript #1, 1:39)

Original quote:

"Het is een heel formeel proces en een keer in de vier maanden mag je een project gaan indienen." (Transcript #5, 5:32)

Translated quote

"It is a really formal process and ones every quarter you can add a new project." (Transcript #5, 5:32)

Original quote:

"We zijn heel erg aan het worstelen met het overzicht creëren, maar we zijn er wel met z'n allen van overtuigd dat het nodig is." (Transcript #1, 1:47)

Translated quote:

"We are really struggling to create an overview but we are all together convinced that it is necessary." (Transcript #1, 1:47)

Original quote:

"We hebben denk ik niet echt een gedeeld beeld met elkaar van zo doen we het." (Transcript #1, 1:49)

Translated quote:

"We do not have a shared perspective on how we need to do things together." (Transcript #1, 1:49)

Original quote:

"Er wordt wel gekeken of er al elders een dergelijk initiatief loopt. Dat is lastig, niet alle inzicht hebben we of er ergens al een innovatie loopt. Er is een lijst met 600 innovaties, een Excel lijstje, waar ze mee bezig waren. Dat waren technische innovaties, procesdingen, innovatiedingen. Dus alles door elkaar. Niet overzichtelijk." (Transcript #3, 3:25)

Translated quote:

"We try to map if there is a similar initiative somewhere else. That is tricky because we do not have the insights what runs somewhere else. There is a list that consists of 600 innovations, an Excel list, where they are working on. Those were technical innovations, process stuff, innovation stuff. Thus, everything compiled together. Not clear." (Transcript #3, 3:25)

Original quote:

"Ik vind dat er iets moet gebeuren, op het terrein van de inzichtelijkheid en beweging in innovatie." (Transcript #7, 7:28)

Translated quote:

"I think that something needs to happen in the field of overview and movement in innovation." (Transcript #7, 7:28)

Original quote:

"Als nu iemand zou kunnen zeggen ik weet precies wat er aan innovaties loopt binnen de politie... nou die is er niet. Want dat overzicht hebben we niet." (Transcript #3, 3:27)

Translated quote:

"If there is someone now who knows exactly which steps are taken in the field of innovation within the Police… well that someone does not exist. Because we do not have that kind of overview." (Transcript #3, 3:27)

Original quote:

"Ze weten niet wat inhoudelijk de fase is waar een project zich in bevindt, wat er in een sprint heeft gezeten, wat er in de volgende sprint zit, waar de voorbereidingen voor gemaakt worden, wat er nu klaar is, wat er over een jaar klaar is, wat er over een maand klaar is, geen idee." (Transcript #4, 4:17)

Translated quote:

"They do not know in which stage a projects finds itself, and what is put into a sprint, what is in the next sprint, for what preparations are being made, what is done, what is done in a year, what is done in a month, no idea." (Transcript #4, 4:17)

Original quote:

"*We hopen er zelfs naartoe te gaan als het management erom vraagt, dat we eigenlijk meteen de huidige stand van zaken kunnen geven, want dan is het veel makkelijker om het portfolio te sturen. Want als je na vier maanden pas ziet dat je achterloopt en het niet gaat halen, dan is het gewoon te laat. Dan heb je er niet zo heel veel aan. Op het niveau van het realiseren wil je eigenlijk veel frequenter dan die vier maanden rapporteren."* (Transcript #6, 6:33)

Translated quote:

"We hope that we can achieve that when the management asks for the current state of affairs we can give them that because then it is a lot easier to manage the portfolio. Because when you notice you are behind after a quarter than you are just too late. And then it has no point anymore. On the level of implementation, you even want to review and be transparent much more frequently." (Transcript #6, 6:33)

Original quote:

"We zijn wel heel slecht in het verkopen van onze portfolio resultaten." (Transcript #6, 6:34)

Translated quote:

"We are very bad in selling our own portfolio results." (Transcript #6, 6:34)

Original quote:

"Soms wordt door de korpsleiding weleens gezegd dat ze niet zo goed zicht hebben op wat er gebeurt in het proces, dus dan is het weleens een black box." (Transcript #6, 6:39)

Translated quote:

"Sometimes the Corps leaders state that they do not have a clear view on what is happening in the process, so that is kind of a black box." (Transcript #6, 6:39)

Original quote:

"Je ziet dat de meeste initiatieven ook overal goed voor zijn, dat ze aan elke strategische doelstelling bijdragen. Dat kan niet waar zijn." (Transcript #1, 1:14)

Translated quote:

"Most initiatives are perceived as good for everything, that they are good for every strategic objective. That of course cannot be true." (Transcript #1, 1:14)

Original quote:

"Altijd wel valt het onder het strategisch kompas van de politie. Maar die zijn zo algemeen, als wij met z'n tweeën gaan zitten kunnen we alles verbinden aan het strategisch kompas van de politie. Dat is ook wel weer makkelijk." (Transcript #3, 3:10)

Translated quote:

"Everything can always be placed under the strategic compass from the Police. They are so general, that if the two of us sat down we could connect everything to the strategic compass from the Police. But then again that also makes it easy." (Transcript #3, 3:10)

Original quote:

"Omdat innovaties vaak redelijk impulsief omdat innovaties vaak redelijk impulsief op tafel komen en er dan pas wordt gezocht naar verbinding met een succesvol programma of project of portefeuille. Maar dus niet geredeneerd vanuit de, wat leuk we hebben vijf strategische doelen en laten we die vijf strategische doelen er op voorhand tegenaan leggen of ze daarbinnen passen." (Transcript #7, 7:17)

Translated quote:

"Innovation is often impulsive because innovations are put impulsively on the table. Therefore, afterwards there will be searched for a connection to a successful program, project or portfolio. However, the reasoning does not start at, for example, five strategic objectives, which are evaluated consistent with the innovation." (Transcript #7, 7:17)

Original quote:

"Het is niet duidelijk wat nu de strategie is, waar we nou gas op willen geven." (Transcript #4, 4:21)

Translated quote:

"It is not always clear what the strategy is, thus where we want to accelerate upon." (Transcript #4, 4:21)

Original quote:

"Daarvoor komen allerlei initiatieven over binnen en daar hebben wij een formulier voor. Dat noemen wij een factsheet realisatie." (…) *"Het is ook een techniek die komt uit de methode management of portfolio (MOP) en MOP is de methode die we hanteren binnen de organisatie binnen portfolio management."* (Transcript #6, 6:2)

Translated quote:

"A lot of initiatives come in and we have a form for evaluating. We call this a factsheet for realization." (…) *"There is also a technique that comes from the method management of portfolio (MOP), and MOP is a method that we apply within the organization, within IPPM."* (Transcript #6, 6:2)

Original quote:

"Nou het proces is dat we een gevalideerd intakeformulier hebben, waarin een aantal metingen zitten. Dat voorstel voor de innovatie wordt dan uitgewerkt en dat wordt dan bij de innovatietafel behandeld en toegelicht en dat gaat het verder het proces in." (Transcript #7, 7:29)

Translated quote:

"The process is that we have a validated intake form, which consists of several measurements. The proposition for innovation will be elaborated, explained, and discussed at the innovation table. Afterwards it will continue in the process." (Transcript #7, 7:29)

Original quote:

"Een eenduidiger proces, dus meer vrijheid dan in het klassieke proces waar alles wordt voorgeschreven". (Transcript #2, 2:31)

Translated quote:

"An unambiguous process, which has more freedom than the classic process where everything is prescribed." (Transcript #2, 2:31)

Original quote:

"Portfolio management voor mij zit bij innovatie vooral aan de achterkant, omdat innovatie… op het moment dat ik met een innovatie bezig ben heb ik nog niet zoveel te maken met portfoliomanagement. Omdat het vrij administratief is. Dat past niet bij innovatie aan de voorkant. Zodra je capaciteit nodig hebt, moeten de innovatieprojecten wel naar het portfolio om zo capaciteit te krijgen." (Transcript #3, 3:29)

Translated quote:

"Portfolio management for me with regard to innovation is especially on the rear end because innovation… when I am busy with an innovation I am not really involved yet with portfolio management because it is pretty administrative. That does not suit innovation on the fuzzy front end. As soon as you need capacity innovation projects need to go to the portfolio to get the capacity needed." (Transcript #3, 3:29)

Original quote:

"Innovatie is natuurlijk iets van ons allemaal en de kracht van innovatie zit lokaal, bij de mensen, in de teams, in de eenheden, eenheid is zo'n beetje de grootste eenheid die echt samenwerken. Hoe meer landelijk je gaat, dan is het net alsof je de grindbak in rijdt." (Transcript #4, 4:24)

Translated quote:

"Innovation is something from all of us and the power of innovation is located locally, with the people, the teams, the units, the units are kind of the biggest units who really work together. The more national you go, the more it is like you get stuck in the dirt." (Transcript #4, 4:24)