

MSc Management in the Built Environment

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Colophon

Title Alignment in Public Real Estate

Sub-title A study on implanting a(n) (improved) case-specific PAS design

and decision-making method to enhance the real estate management of the office portfolio of the Netherlands Police

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Preface

This thesis marks the end of my studies at the University of Technology in Delft. During my seven years at Delft, I gained a great deal of knowledge and insight, and above all, I came to understand my true interests. When I first arrived in Delft, I had the ambition of becoming an architect. During my undergraduate studies, however, I came to realise that my passion for the built environment lay more in creating places that offer maximum value for everyone. This passion is reflected in my thesis, in which I aim to provide a recommendation for the police to manage their office portfolio in such a way that it results in a working environment that reflects the interests of all those involved as much as possible. This thesis represents the culmination of my studies on the Master's track in Management in the Built Environment at Delft University of Technology.

I would like to express my gratitude to my mentors, Monique Arkesteijn and Hanneke Veldhuis, for their guidance and support. They always made time for my questions and provided detailed feedback on my work, which I found very helpful. My mentors were always encouraging me to explore the material in more depth and to challenge myself. I would also like to extend my gratitude to the Board of Examiners, Stavros Kousoulas, who was present until my P3, and Ype Cuperus, who supervised the progress meetings during P4 and P5.

I would also like to extend my gratitude to the Police Policy Implementation and Development team for their warm welcome to the team. I am extremely grateful to them for sharing their expertise, their willingness to help me whenever I needed it, and their flexibility. I would also like to extend my gratitude to Casper Bovy, my mentor from the police, whose guidance and support were invaluable during my graduation. His advice and support were of great help to me, both in terms of substance and in providing me with much-appreciated mental support.

I would also like to extend my gratitude to all the individuals who participated in the interviews. I am grateful to them for being available at short notice, which made scheduling easy. I also found their openness during the interviews to be very valuable. I am extremely grateful to them for their invaluable input, which has been instrumental in enabling me to write this thesis.

Finally, I would like to express my gratitude to my friends, family, and roommates for their support during the writing of my thesis. I am extremely grateful for their kind words, understanding, and motivation. I would also like to express my gratitude to my father, mother, and sister, whose dedication helped me greatly. I am truly and deeply grateful to them.

I am aware that without the assistance of all those mentioned, this thesis would not have been completed. I would like to express my sincerest gratitude to everyone who was involved. I hope that the reader will enjoy reading this thesis!

Emma Swens Rotterdam, 4 Juli 2024

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Management Summary

Introduction

I. Context

The Netherlands Police (henceforth the police) are a public organisation for whom the main goal is to preserve the security and the rule of law in The Netherlands. To pursue this goal, 63,161 FTE personnel were deployed in 2022. The employees are the most important capital of the police; "police work is people's work" (Politie, 2022, p. 48). Besides sufficient personnel, the police need sufficient equipment which includes accommodation. Accommodation creates the spatial-physical conditions for the primary processes of an organisation and is, therefore, an indispensable business asset (Voordt et al., 2022). By the end of 2022, the portfolio of the police consisted of 824 buildings with a total GFA (gross floor area) of over 1.9 million m² (Politie, 2022). The portfolio of the police consists of different types of buildings such as offices, cell complexes, police stations, laboratories, control rooms, educational buildings, training locations, garages (to repair vehicles), and horse stables.

II. Problem Statement

In order to remain visible and accessible to citizens and to function optimally in society, the police require effective and future-proof accommodation. The current office portfolio consists of 692,000 m² GFA (Gross Floor Area) of which approximately one-third of the portfolio has to be divested before 2040 (Figure 1.3). According to the new accommodation policy, the size of the future portfolio is between 403,000 m² GFA to 535,000 m² GFA, with the size of the portfolio varying according to the outlined scenarios. Furthermore, the portfolio must be sustainable, the investment volume must be realistic, the exploitation costs must be manageable and all buildings must meet a certain level of quality (Directie FM en sector Huisvesting, 2023a).

To address the aforementioned accommodation challenge, a multi-year portfolio of projects has been drawn up within the police (Landelijk Portefeuillemanagement, 2024). The multi-year portfolio includes projects with the highest priority, that make the greatest contribution to the long-term need, and that ensure that the target portfolio is future-proof (Landelijk Portefeuillemanagement, 2024). The portfolio includes the projects currently envisaged. However, the future is unpredictable. What occurs when unforeseen alterations, such as financial constraints on a project, a shift in governmental policy, or an even more significant shortage of construction workers, arise? To guarantee that the pace of renewal remains realistic and feasible, despite all unforeseen changes, compromises have to be made. Currently, decisions regarding the accommodation of the police are made by real estate managers based on their expertise and judgment. To provide a more objective substantiation, there is a need for a tool that can support the current decision-making process.

III. Appliance of the PAS Method in the Police Context

In 2022, a pilot was initiated with the Preference-based Accommodation Strategy (PAS) method (Arkesteijn, 2019), a tool that supports the design and decision-making of real estate portfolios. With the help of the PAS method, different alternatives of real estate portfolios can be designed and chosen by stakeholders. Followed by the assessment of the value addition of the newly designed real estate portfolios by the stakeholders (Arkesteijn, 2019). The pilot has been applied to police OBT locations, which are educational buildings where the physical, mental and moral knowledge of officers is refreshed. The pilot of the PAS method at the OBT locations (henceforth OBT pilot) represents the initial

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step taken by the police to implement the PAS method and thus provides an objective tool that supports the decision-making process. The scope of the OBT pilot encompasses 27 buildings (van Staveren et al., 2022b).

The PAS method is discussed with great enthusiasm within the police. Nevertheless, the method has not yet been incorporated into the police's current accommodation procedures. The subsequent step in the implementation process of the PAS method within the police is to test the PAS method on a larger scale and for that, the office portfolio was chosen. The objective of this study is to assist the police in integrating the PAS method, thereby enhancing the objectivity of the decision-making process in the field of real estate management. The objective of this research is to ascertain the feasibility of implementing a case-specific PAS design and decision-making method within the police organisation, to optimise the real estate management of the police office portfolio. The research question addressed in this study is as follows:

How can a(n) (improved) case-specific PAS design and decision-making method support the real estate management of the office portfolio of the Netherlands Police?

Methodology

This study is conducted in the form of empirical research and is qualitative in nature. Research is qualitative when the view of people on an explicit phenomenon is researched (Merriam, 1998). The data is collected through a case study, which is supported by a literature review. The research problem under investigation is specific to the police organisation. Consequently, the OBT pilot, is the case study that is the focus of the research. A case study consists of the elements (1) understanding of the context, and (2) an in-depth analysis. Before commencing the in-depth analysis, it is essential to provide a detailed outline of the context within the case study (Jochems, 2005; Saunders et al., 2011).

The analysis of multiple sources within case studies can increase the accuracy of the study, it provides a broader understanding of the case study and it increases reliability. In this study, three different types of sources are used document analysis, exploratory interviews and in-depth interviews. Following, the findings of the case study are subjected to a review. Expert interviews are conducted with real estate managers of the police, during which the findings are presented. These interviews serve to validate the research by allowing the real estate managers to assess the findings through experience.

The findings of the study will provide recommendations and a framework to support the accommodation transition of the police. The main deliverables of this research are:

- 1. Evaluation of the OBT pilot that identifies the area of strengths and improvements
- 2. Identification of the benefits for the use of the PAS method for the office portfolio
- 3. An Office Accommodation Policy Framework

Police Case

In 2005, it was found that the police organisation was highly fragmented, with the police not forming a unified unit (Jacobs, 2014). There were significant differences in task performance, working methods, management and operations between the police forces, which led to the introduction of the National Police (Nationale Politie (NP)) (Inspectie der Rijksfinanciën, 2015). On 1 January 2013, the current Police Act 2012 came into force, resulting in the reorganisation of the police. The 25 regional police forces

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were transformed into one national police organisation, led by one chief of police, comprising 10 regional units and the National Police Force (Inspectie der Rijksfinanciën, 2015).

I. The Accommodation Policy of the Police

The Strategic Accommodation Plan 2013-2025, developed by the Accommodation Sector, was created as a framework for the realisation of an appropriate accommodation portfolio to support the launch of the National Police (Directie Facility Management, 2023). In addition to establishing a single organisation, the objective was to work towards a joint real estate portfolio comprising the existing regional portfolios. Ten years later, it is now possible to complement the longer-term vision with a medium-term strategy and a steering model that focuses on agility and decision-making, enabling annual adjustments to be made.

For this purpose, a scenario analysis was conducted to determine future demand, which is described in the *Accommodation Vision 2040*. The future supply was then described in the *Target Portfolio*. To achieve the transformation from the current supply to the future supply, the *Real Estate Strategy* was developed. Finally, the document *Frameworks & Rules* was established, which serves as the context within which to operate. Table 0.1 provides an overview of all police policy documents.

Title	Author	Release date	Pages	Version	Status
Huisvestingvisie 2040	Directie Facility	August 2023	33	1.0	Final
	Management				
Streefportefeuille &	Directie FM en sector	October 2023	72	1.0	Final
Vastgoedstrategie	Huisvesting				
Kaders & Spelregels	Directie FM en sector	October 2023	20	1.1	Final
	Huisvesting				

Table 0.1. Overview of all police policy documents (author).

Literature Review

I. Public Real Estate Management

The real estate owned, managed and used by both public organisations and corporate businesses is called accommodation. Accommodation is defined as: "accommodation consists of various accommodation components - locations, buildings, interiors, forms of financing, utilisation principles and building-related facility services - which together provide spatial-physical support for a given organisation, the people who work or visit it and the activities that take place there" (Voordt et al., 2022, p. 24). Accommodation is essentially about optimally matching the supply and demand of real estate, which is referred to as alignment (Heywood & Arkesteijn, 2018). The components of accommodation must be closely aligned with and supportive of the organisation, its employees and clients. The accommodation strategy is guided by the organisational strategy.

When real estate is leased or owned by governments, municipalities or other public bodies, it is called public real estate management (PREM). PREM is defined as: "Adding value to performance by balancing organisational, financial, functional and physical perspectives, variables and performance criteria in every decision about PRE portfolios, matching supply and demand in time, connecting operational and strategic processes." (Den Heijer, 2021, p. 23). Den Heijer (2005) transformed the aforementioned perspectives into a model that classifies stakeholders for PREM. The concept of corporate real estate management, which involves balancing supply and demand through operational and strategic level, is

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reflected in this model. The objective is to optimally align real estate with an organisation's performance. This model shows demand on the left and supply on the right, with the top half reflecting the strategic level and the bottom half the operational level. The public real estate manager in the middle has to balance all the stakeholder preferences. To conclude, all four perspectives of PREM must be considered when real estate decisions are made. When a design and decision-making model is developed, all four perspectives and their relationship to the operational and strategic focus and to supply and demand must be included.

The perspective focused on humans preferences is crucial to ensure that accommodation meets the needs of the individual users. Taking stakeholder preferences into account is particularly important in public real estate management, where a large number of stakeholders often results in conflicting preferences or values. Despite these conflicts, it is crucial to balance or optimize the preferences and values of all stakeholders. This is challenging because public values are often non-measurable and incompatible, a situation known as internal value pluralism (Kuitert, 2021).

II. Preference Measurements Models in the Built Environment

When a decision-maker has to make a complex decision, where own experience and judgement fall short, models can support the decision (Anderson et al., 2014). In the built environment, several models have been developed for preference measurement. These models are Preference Based Design (PBD), Designing with PFM and a priori optimization, Preference-Based Portfolio Design (PBPD) and Preference-Based Accommodation Strategy (PAS) (Wechsler, 2022). The models are all based on the Preference Function Modelling theory of Barzilai (2010). He argues in his study that preference should be mathematically quantifiable. PFM uses preference as an empirical object, which is scaled by PFM to match the preference measure score as the mathematical object. This makes it possible to choose the best option by using a quantitative evaluation system to compare different options based on stakeholders' preferences (Barzilai, 2010). Of the aforementioned models, Arkesteijn's Preference-Based Accommodation Strategy (PAS) (2019) is the only preference measurement model applicable to real estate portfolio design.

III. Preference-based Accommodation Strategy Design and Decision-making Method

The PAS method consists of six steps, before the implementation of the steps of the PAS method, it is necessary to select the relevant stakeholders who will participate in each of the distinct phases. Arkesteijn (2019, p. 167) describes the selection of stakeholders as being conducted by the four perspectives outlined by Den Heijer (2011). The inclusion of all perspectives ensures the inclusion of all relevant information, thereby allowing for the greatest possible value to be added. The final version of the PAS method consists of the following six steps (Arkesteijn, 2019, p. 164):

Step 1. Defining the Decision Variables

The first step of the PAS method involves stakeholders defining the decision variables. The decision variables are specified by the stakeholders according to their interests. The variables defined in this step are the only variables used during the performance of the PAS method

Step 2. Stakeholders Score their Preferences

In this step, the preferred scores are established. For this purpose, the PAS method uses Lagrange curves. These curves are formed by an upper and lower reference alternative, with a third alternative determining the shape of the curve (see e.g. Figure 0.1).

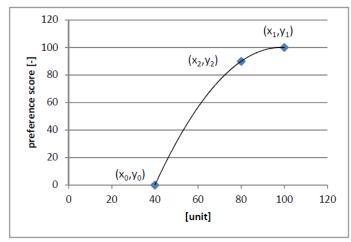


Figure 0.1. Example of a Lagrange curve (Arkesteijn, 2019, p. 159).

Step 3. Assign Weights to the Decision Variables

The step after establishing the preference involves the stakeholders assigning weights to each decision variable (Arkesteijn, 2019). These weights reflect the relative importance of each variable. When multiple stakeholders are involved in the process, assigning weights also reflects indirectly the power between the stakeholders (Arkesteijn et al., 2015, p. 105). To make the procedure transparent, a subject owner assigns weights to the different stakeholders.

Step 4. Define Design Constraint(s)

Now the design constraints are identified by the stakeholders. The constraints determine the feasibility of a design variant (Arkesteijn, 2019). These constraints are an upper and/or lower limit assigned to one or more of the identified decision variables.

Step 5. Creating the Portfolio Alternatives

The fifth step of the procedure involves creating portfolio alternatives (Arkesteijn, 2019). These alternatives are based on the allowed interventions as defined by the stakeholders, as well as the amount of buildings in the portfolio. All alternatives are then tested against the constraints identified in Step 4 to determine their feasibility.

Step 6. The Selected Design Alternative is Confirmed

The PFM algorithm is used to evaluate each of the alternatives generated in step 5 against the preference scales and weights developed in steps 1-4. This leads to a ranking of all alternatives based on the preference rating. The alternative with the highest rating most closely matches the stakeholders' requirements and the added value of the new accommodation strategy can be explicitly expressed as the difference between the valuation of the proposed and the current portfolio. This difference shows the extent to which the new portfolio better meets the organisation's needs (Arkesteijn, 2019).

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Research Findings

I. OBT Pilot Evaluation

The PAS method is an suitable approach for addressing the accommodation issue within the police. The application of the method resulted in the creation of a portfolio that included all relevant stakeholders preferences. The proposed portfolio achieved a higher preference score than before, and all parties involved in the process concurred with this design proposal. The portfolio was designed in an objective manner, without any bias towards the stakeholders. During the process, stakeholders gained insights into each other's criteria, which they had never previously experienced. The evaluation of the OBT pilot has presented a number of recommendations designed to address the found areas of development while maintaining the aforementioned strengths.

It is suggested that the following advice could be beneficial for the experts of the PAS method when piloting the PAS method on a larger scale:

- 1. Quantification is perceived as challenging, despite the examples, exercises and a video have already been used during the pilot. It is therefore vital to maintain the use of these tools and provide ongoing guidance and support to stakeholders. Experts should be available to answer questions and provide practical assistance in quantifying criteria.
- 2. The PAS methodology was found to have a lengthy overall turnaround time. The overall turnaround time of the PAS method was dependent on the planning of police accommodation plans. The planning process was presented and explained in detail during the workshops. Going forward, it is crucial to ensure that participants are even better informed about the turnaround time involved in police planning and keep repeating the reasoning behind the turnaround time.

In addition, it may be beneficial to consider implementing the following advice into the police's governance when piloting the PAS method on a larger scale:

- The workshops were designed to ensure that all stakeholders were involved in the design of
 the different portfolio alternatives. Those stakeholders who were unable to attend the
 workshops were unable to participate in the design of the different variants while the value of
 collaboration with all stakeholders was highlighted by all participants. It is therefore crucial for
 the police to spread this message and ensure that all stakeholders attend.
- 2. The results of the OBT pilot are intended to provide guidance for the balancing sessions, rather than to be definitive. It became evident that this information was not clearly communicated to stakeholders, or that they had forgotten it. It is therefore important to communicate more clearly in the future what happens to the workshop results and whether the PAS method is used as a decision-making tool or decision-support tool.
- 3. A smaller scale was deliberately selected for the pilot to facilitate adjustments based on initial feedback and results. The rationale behind the selected portfolio was outlined during the workshop presentations. However, it is essential to communicate to all stakeholders that this is a pilot project and that certain decisions, such as limiting the scope to a manageable size, have been deliberately made. Additionally, it would be beneficial to ensure that this communication is even more thorough than it has been in the past.
- 4. Although the OBT case was not deemed suitable as a test case for the method, it was selected following careful consideration with the assistance of police employees. The OBT case has been categorised by the police as a 'special'. Despite the facilitator's extensive considerations in

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selecting the OBT case, it is advised to select a case that is more subject to standardisation for a pilot study.

In the context of organising a portfolio-level PAS pilot, it is important to consider the above-mentioned strengths and areas of development and apply the corresponding advice. In light of the insights from the previous OBT pilot, it is crucial to distinguish between OBT-specific and more broadly applicable strengths and areas of development for the applicability on a larger scale, specifically the office portfolio, of these insights. This is further elaborated in the next chapter.

II. Application of the PAS Method to the Office Portfolio

Three experts from the National Portfolio Management Team of the police were asked to share their thoughts on how the PAS method could be further developed when applying the PAS method to the office portfolio. It is concluded, that when applying the PAS method on the scale of the office portfolio,

- it is recommended that proposed boundaries for each real estate portfolio should include the new police accommodation policy of the police. The criteria from the specific the stakeholder groups involved will be extended with the criteria from the accommodation policy.
- o automation and standardisation can be applied to establishing criteria during interviews.
- o it is important to keep creating space for emotional expression during the PAS process.
- keep conducting individual interviews with stakeholders to gain a understanding of their diverse perspectives and to identify ways to optimise their impact for a focused and effective outcome.
- o engage the appropriate stakeholders to guarantee success.
- o involve no chain partners, the accommodation task of the police is complex enough with all the internal stakeholders.
- the PAS method is an appropriate method for the police. The workshops can facilitate the dialogue within the police regarding concessions that need to be made.
- it should be clearly communicated in advance that in case of absence, a replacement should be arranged or the workshop have to be postponed.
- it is advisable to conduct interviews with consulting stakeholders and decision-making stakeholders for the workshops.
- o it is advisable that the method is integrated into the Corps' Portfolio Table of the police.
- o it is recommended that the use of a dashboard be continued.

Discussion with the two of the three experts on their requirements and aspirations for an office portfolio-level tool highlights the complexity of scaling up pilots and ensuring effective stakeholder involvement and engagement. The focus is on creating a transparent, objective and flexible model that facilitates informed decision-making while addressing the challenges of data preparation, stakeholder engagement and integration with broader portfolios. It aims to combine data insights with expert knowledge to provide a versatile tool for project management and decision making.

The next step in this research is the development of a framework based on the police's accommodation policy to guide all stakeholders within the PAS method. The framework is being developed to initiate the implementation of two of the recommendations listed above. These two recommendations with the intended purpose are as follows:

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- 1. The framework, specific to the office portfolio, should include the new police accommodation policy. During the interviews, the standardised framework with policies will be expanded to include specific criteria from the stakeholder groups involved. This will ensure that the policy is consistently applied and adapted to the specific requirements of different stakeholders.
- 2. Guidelines and references should be facilitated to simplify the quantification of criteria.

Office Accommodation Policy Framework

The Office Accommodation Policy Framework is developed as a tool for implementing the accommodation into the PAS method to optimise the real estate management of the office real estate portfolio as revealed in Chapter 6. The framework translates the objectives from the accommodation policy into decision variables, which is useful for the implementation PAS method. The criteria described in the policy have been put into the PAS structure, to ensure that when the PAS policy is implemented, all goals and criteria as mentioned in the policy documents are listed. The list of goals and criteria, in addition to the criteria collected from all stakeholders during the interviews, can be incorporated into the model.

Finally, the developed framework needs to be simplified to be effective during stakeholder interviews. A simplified framework provides clear guidelines and reference points, which promotes communication and facilitates the collection of relevant information. Integrating governance into the framework is crucial, assigning specific goals and responsibilities to individuals to ensure role awareness and compliance with the accommodation policy.

Advice

The advices distinguishes between advice on the PAS method and police governance aspects. The PAS method offers a structured approach to design and decision-making. In contrast, police governance is concerned with the responsibilities, roles, and interactions between different stakeholders within their organisation. Making this distinction is essential because both aspects have provided different types of insights and recommendations. The separation of these two concepts allows for the optimal exploitation of the theoretical method's strengths while ensuring the effective and accountable implementation of the method through the application of good governance.

For a successful implementation of the PAS method within the police to support the office portfolio management, it is essential for the PAS method to address the following issues:

- 1. Continue using of the dashboard
- 2. Give explanations at every session
- 3. Use of the Office Accommodation Policy Framework

For a successful implementation of the PAS method within the police to support the office portfolio management, it is essential for the <u>police governance</u> to address the following issues:

- 1. Implement the PAS method into the Corps Portfolio Table
- 2. Ensure presence of all stakeholders
- 3. Involve the right stakeholders and avoid chain partners
- 4. Further develop the accommodation policy

Conclusion

This study focused on how a(n) (improved) case-specific PAS design and decision method can support the real estate management of the police's office portfolio. The study is based on qualitative research, which examines how the PAS method has been applied in the police in the past and how this experience can be used to support future implementation. This conclusion provides a systematic answer to the main question, which is derived from the analysis of the sub-questions. The research question addressed in this study is as follows:

How can a(n) (improved) case-specific PAS design and decision-making method support the real estate management of the office portfolio of the Netherlands Police?

A refined, case-specific PAS method can demonstrably enhance the real estate management of the office portfolio of the police. The PAS method can contribute to more efficient and effective real estate management by using a standardised framework specific to the office portfolio and ensuring the inclusion of accommodation policy, stakeholder involvement and clearly defined criteria. It is essential to implement regular updates to the framework to ensure its continued relevance and utility, given the dynamic nature of accommodation policies within the police. The integration of governance into the framework ensures that all stakeholders are aware of their roles and responsibilities, thereby facilitating the coherent and consistent application of the policy.

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Reading Guide

Chapter 1: Introduction

This chapter provides an overview of the context within which the study was conducted. Furthermore, the problem definition and the research question associated with sub-questions are presented.

Chapter 2: Research Method

This part describes the methodology used in this research.

Chapter 3: The Police Case

In this chapter, a detailed explanation of the contextual background of the police is provided. This includes an outline of the historical development of the police, an examination of the current accommodation policy, and an analysis of the decision-making process within the accommodation department.

Chapter 4: Literature Review

The literature review provides the foundation on which the various concepts in this study are explained. It is researched why it is necessary to use a method that incorporates stakeholder preferences and if there are other methods than the PAS method that can be applied to the problem of police accommodation at the portfolio level.

Chapter 5: Experiences with the OBT Pilot

The focus of this chapter is the evaluation of the OBT pilot, accompanied by the identification of associated lessons learned.

Chapter 6: Application of the PAS Method to the Office Portfolio

In this chapter, the need for the PAS method on a larger scale was researched. This was done by interviewing experts, who are responsible for the management of the office portfolio.

Chapter 7: Office Accommodation Policy Framework

This chapter describes how the Office Accommodation Policy Framework is developed.

Chapter 8: Discussion

The discussion analyses the interpretation of the research findings. The implications and limitations of the study are also considered. Additionally, suggestions for future research on the findings are presented.

Chapter 9: Advice

This chapter presents recommendations to the police for implementing the PAS method. Furthermore, recommendations are provided for the enhancement of a police-specific PAS method.

Chapter 10: Conclusion

The conclusion provides a systematic answer to the main question, which is derived from the analysis of the sub-questions.

Chapter 11: Reflection

The reflection offers an insight into the author's personal experiences in writing this thesis. This involves analysing strengths and weaknesses as well as lessons learned.

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1. Introduction

The Netherlands Police (henceforth the police) are a public organisation for whom the main goal is to preserve the security and the rule of law in The Netherlands. To pursue this goal, 63,161 FTE personnel were deployed in 2022. The employees are the most important capital of the police; "police work is people's work" (Politie, 2022, p. 48). Besides sufficient personnel, the police need sufficient equipment which includes accommodation. Accommodation creates the spatial-physical conditions for the primary processes of an organisation and is, therefore, an indispensable business asset (Voordt et al., 2022). By the end of 2022, the portfolio of the police consisted of 824 buildings with a total GFA (gross floor area) of over 1.9 million m² (Politie, 2022). The portfolio of the police consists of different types of buildings such as offices, cell complexes (Figure 1.1), police stations, laboratories, control rooms (Figure 1.2), educational buildings, training locations, garages (to repair vehicles), and horse stables.



Figure 1.1. Police jail in Houten (Sweegers en de Bruijn, 2015).



Figure 1.2. Central Operations Division in Apeldoorn (Politie, 2023).

1.1 Problem Statement

In order to remain visible and accessible to citizens and to function optimally in society, the police require effective and future-proof accommodation. These buildings need to meet the quality that fits the purpose. New viable accommodation plans, including the Framework & Rules (Directie FM en sector Huisvesting, 2023a), the Accommodation Vision 2040 (Directie Facility Management, 2023), the Real Estate Strategy & the Target Portfolio (Directie FM en sector Huisvesting, 2023b) and the decision-making process (Projectteam Governance en Sturing, 2023), have been formulated are currently being implemented. The objective of the accommodation policy is to guarantee that police buildings meet the quality that fits the purpose of the police buildings and to address long-term uncertainties such as rising building costs, constrained availability, international challenges in the supply of building materials (ABN AMRO, 2023), and rising energy costs (ENGIE, 2023).

The current office portfolio consists of 692,000 m² GFA (Gross Floor Area) of which approximately one-third of the portfolio has to be divested before 2040 (Figure 1.3). According to the new accommodation policy, the size of the future portfolio is between 403,000 m² GFA to 535,000 m² GFA, with the size of the portfolio varying according to the outlined scenarios. Furthermore, the portfolio must be sustainable, the investment volume must be realistic, the exploitation costs must be manageable and all buildings must meet a certain level of quality (Directie FM en sector Huisvesting, 2023a). It is important to note that not all desirable outcomes can be realised immediately (Directie FM en sector Huisvesting, 2023b). This is particularly relevant to the Accommodation sector, but also to the users and the market as a whole. Therefore, it is crucial to establish a realistic and feasible pace of renewal to achieve the desired outcomes.



Figure 1.3. Current and future office portfolio of the police (author).

To address the aforementioned accommodation challenge, a multi-year portfolio of projects has been drawn up within the police (Landelijk Portefeuillemanagement, 2024). The multi-year portfolio includes projects that are driven by operational necessity and sustainability considerations. These projects are given the highest priority, make the greatest contribution to the long-term need, and serve to ensure that the target portfolio is future-proof (Landelijk Portefeuillemanagement, 2024). The portfolio includes the projects currently envisaged. The portfolio has a national perspective and serves as a baseline for the start of the transition task within the police. This provides a realistic starting point against which plans can be tested (Landelijk Portefeuillemanagement, 2024) (Figure 1.4). The multi-year portfolio is in line with the recently introduced accommodation policy (Directie Facility Management, 2023; Directie FM en sector Huisvesting, 2023b; Projectteam Governance en Sturing, 2023), frameworks and rules (Directie FM en sector Huisvesting, 2023a) for the portfolio (Landelijk Portefeuillemanagement, 2024).

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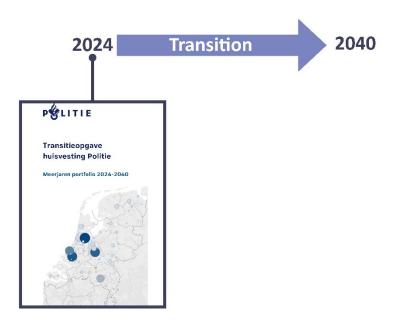


Figure 1.4. Multi-year portfolio as the baseline for the transition task (author).

However, the future is unpredictable. What occurs when unforeseen alterations, such as financial constraints on a project, a shift in governmental policy, or an even more significant shortage of construction workers, arise? To guarantee that the pace of renewal remains realistic and feasible, despite all unforeseen changes, compromises have to be made. Currently, decisions regarding the accommodation of the police are made by real estate managers based on their expertise and judgment. To provide a more objective substantiation, there is a need for a tool that can support the current decision-making process.

1.2 Appliance of the PAS Method in the Police Context

In 2022, a pilot was initiated with the Preference-based Accommodation Strategy (PAS) method (Arkesteijn, 2019), a tool that supports the design and decision-making of real estate portfolios. With the help of the PAS method, different alternatives of real estate portfolios can be designed and chosen by stakeholders. Followed by the assessment of the value addition of the newly designed real estate portfolios by the stakeholders (Arkesteijn, 2019). The pilot has been applied to police OBT locations, which are educational buildings where the physical, mental and moral knowledge of officers is refreshed. The pilot of the PAS method at the OBT locations (henceforth OBT pilot) represents the initial step taken by the police to implement the PAS method and thus provides an objective tool that supports the decision-making process. The scope of the OBT pilot encompasses 27 buildings (van Staveren et al., 2022b).

The PAS method is discussed with great enthusiasm within the police. Nevertheless, the method has not yet been incorporated into the police's current accommodation procedures. The subsequent step in the implementation process of the PAS method within the police is to test the PAS method on a larger scale and for that, the office portfolio was chosen. In this subsequent step of the implementation of the PAS method at the office portfolio scale, literature is used to (1) examine the potential benefits of using a design and decision-making method within a public organisation such as the police. Furthermore, (2) A number of alternative design and decision-making methods are reviewed in the literature to see if they might be more suitable for the problem outlined above. Also, it is essential to

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(3) identify the areas of strengths and for improvement within the OBT pilot. Furthermore, it is crucial to (4) identify the precise need for the use of the PAS method for the office portfolio. Additionally, a (5) framework needs to be established, comprising an overview of police policies, which forms a reference model for the PAS method during the conduct of a second pilot. The final three points are examined through the use of a case study. The objective of this case study is to assist the police in integrating the PAS method, thereby enhancing the objectivity of the decision-making process in the field of real estate management.

1.3 Societal & Scientific Relevance

To remain visible and accessible to citizens and to function optimally in society, the police require effective and future-proof accommodation. A modern working environment, tailored to the needs of the police and its partners is crucial (Directie FM en sector Huisvesting, 2023b). This research offers recommendations for both police governance and the PAS method. This advice contributes to the implementation of a(n) (improved) case-specific PAS method design and decision-making method for the real estate management of the police, which is essential for supporting and accelerating the development of the organisation. It also highlights the societal relevance of this work. Long-term focus on accommodation allows the police to continue to do their work in the best possible way.

The scientific relevance of this research lies in the recommendations of previous research. The research by Arkesteijn (2019, p. 368-369) recommends that the PAS method should be applied in several real-life pilots that are different in nature and involve a wide variety of stakeholders to further improve the method. This research provides recommendations on how the PAS method can be incorporated, in addition to the initial pilot study, into a pilot that is closely aligned with the realities of police accommodation involving a wide variety of stakeholders.

Furthermore, in the research of Arkesteijn (2019) it is also recommended that further research should be conducted on the use of a reference model when applying the PAS method. This is recommended because many stakeholders are only "incidentally" (Arkesteijn, 2019, p. 371) involved in accommodation problems. They lack knowledge of the models used for accommodation problems. The reference model developed in this study is the preparation for applying a reference model in a new context.

1.4 Research Questions

The objective of this research is to ascertain the feasibility of implementing a case-specific PAS design and decision-making method within the police organisation, to optimise the real estate management of the police office portfolio. The research question addressed in this study is as follows:

How can a(n) (improved) case-specific PAS design and decision-making method support the real estate management of the office portfolio of the Netherlands Police?

The following sub-questions are designed to facilitate an answer to the research question:

- **1.** What are the benefits of using a design and decision-making method to support real estate management?
- **2.** What design and decision-making method from the literature is most appropriate for the real estate management of portfolios of public organisations?
- **3.** What are the lessons learned from the experiences with the PAS method within the Netherlands Police?

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4. How can the experience gained with the PAS method contribute to its application to the office portfolio of the Netherlands Police?

The conceptual model of this research is shown in Figure 1.5 (on the next page).

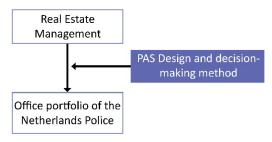


Figure 1.5. Conceptual model (author).

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2. Research Method

The primary objective of this study is to guide on how the PAS design and decision-making method can be implemented within the police to optimise the support provided to real estate management for the police office portfolio. To address the aforementioned objective, an abductive logic of inquiry is employed. Blaikie and Priest (2019) describe the abductive logic of inquiry as a method that searches for the best possible explanation that "produces understanding based on 'thick' descriptions and social scientific concepts that have been derived from everyday concepts and account" (Blaikie and Priest, 2019, pp. 112). The purpose is to understand social life in terms of social actors' meanings and motives. Abduction is explicitly used in design-oriented sciences (Blaikie & Priest, 2019).

This study is conducted in the form of empirical research and is qualitative in nature. Research is qualitative when the view of people on an explicit phenomenon is researched (Merriam, 1998). The data is collected through a case study, which is supported by a literature review. The literature review is conducted to provide a picture of the background to this study. The literature review and the context of this research, outlined through document analysis and exploratory interviews, are used to provide a strong foundation for the case study. Table 2.1 shows the main methods used within this research to answer each sub-question.

#	Sub-question	Method
1	What are the benefits of using a design and decision-making	Literature study
	method to support real estate management?	
2	What design and decision-making method from the	Literature study
	literature is most appropriate for the real estate	
	management of portfolios of public organisations?	
3	What are the experiences with the PAS method within the	Case study
	Netherlands Police?	Document analysis
		In-depth interviews
4	How can the experience gained with the PAS method	Case study
	contribute to its application to the office portfolio of the	Document analysis
	Netherlands police?	In-depth expert interviews

Table 2.1.Methods per sub-question (author).

Figure 2.1, on the next page, illustrates the research framework of this study. The framework demonstrates the interrelationship between the sub-questions, each with its methods, and the subsequent conclusion and recommendations. The conclusion and recommendations formulated based on this study address the identified research problem.

A graduate research position within the police organisation has been contracted. This was done for the following reasons:

- The contract, confidentiality agreement and Certificate of Conduct allow access to all police documents;
- o For direct contact with all employees of the police who participated in the OBT PAS pilot;
- This approach offers the potential for enhanced supervision within the research process;
- To gain insight into real estate management knowledge and experiences with the PAS method within the police;
- To get assistance in understanding the organisation and its context, which supports the case study.

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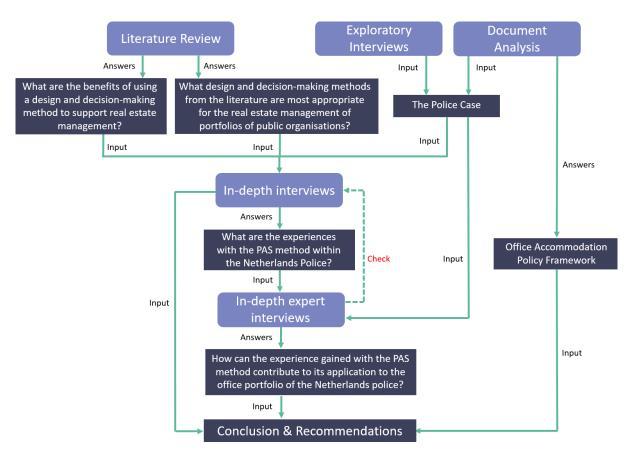


Figure 2.1. Research framework (author).

2.1 Type of Study

As previously stated, this research employs the case study method. The case study method is applied when a real-world situation or phenomenon is researched (Bryman, 2016; Yin, 2018). Furthermore, the research question evinces a case study, as this is a question that pertains to the "how" of the matter at hand. Case studies facilitate the comprehension of complex real-life events, offering insights that can be applied to everyday life. The in-depth analysis remains consistent, enabling the generation of new ideas and the support of existing findings. In addition, a case study can also examine an organisation, including the parties involved, their respective wishes and interests, and the consultation structures in place (Zijlstra & Boumeester, 2020). Crowe et al. (2011) posits that a case study entails a (1) understanding of the context and enables a (2) in-depth analysis.

- Understanding the context: Case studies enable researchers to gain a deeper understanding of situations or phenomena. This detailed insight into the research subject and its context allows them to capture complexities, dynamics and subtleties that may not emerge in other research methods.
- 2. In-depth analysis: Case studies enable an in-depth analysis of a specific case or scenario. Various aspects, factors and variables related to the case can be researched, allowing the researcher to get a profound view of the research topic.

The research problem under investigation is specific to the police organisation. Consequently, the OBT pilot is the case study that is the focus of the research. As previously stated, a case study consists of the elements (1) an understanding of the context, and (2) an in-depth analysis. Before commencing the in-depth analysis, it is essential to provide a detailed outline of the context within the case study

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(Jochems, 2005; Saunders et al., 2011). In this report, therefore, the context within which the police are situated will be described in detail in Chapter 3 before the study is conducted.

Following the completion of the case study, the findings are subjected to a review. Expert interviews are conducted with real estate managers of the police, during which the findings are presented. These interviews serve to validate the research by allowing the real estate managers to assess the findings through experience and their opinions. Figure 2.2, on the next page, illustrates the sequence of the different components of this research schematically. The first step is the outlining of the context, the second is the conducting of the case study, and the last step is the expert interviews.



Figure 2.2. Sequence of the different components of this research (author).

2.2 Case Study

Yin (2009) describes four different basic types of case study design. The case within this research, the OBT pilot within the police, is a single-design holistic case study. The single design lends itself well to further delineating future research, examining unique or extreme cases and revealing new phenomena not (often) explored (Bryman, 2016; Yin, 2009). Consequently, the OBT pilot within the police represents a holistic case study, as it does not distinguish between different subunits, such as departments within an organisation, but rather analyses social phenomena (Tubbing, 2020; Yin, 2009). The social phenomenon in this study is police accommodation.

2.2.1 Data Collection

The analysis of multiple sources within case studies can increase the accuracy of the study and it provides a broader understanding of the case study (Yin, 2018). Using multiple sources can also increase reliability. When a finding is corroborated by multiple sources, the finding is likely to be more reliable (Bryman, 2016). In this study, three different types of sources are used (Figure 2.3):

- Document analysis
- Exploratory interviews
- In-depth interviews



Figure 2.3. Findings corroborated by multiple sources (author).

Document Analysis

Document analysis is frequently employed in conjunction with qualitative research (Bowen, 2009). He also posits that the use of multiple documents serves to mitigate the risk of subjectivity. To gain a preliminary understanding of the context within which the police organisation operates, document analysis was conducted with the publicly available annual report for 2022 of the police (Politie, 2022). To delineate the parameters within which the police functions, four policy documents that are not

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publicly available were analysed. The documents analysed are shown in Table 2.1. Furthermore, documents from the OBT pilot were utilised. These documents, in the form of PowerPoint presentations and screenshots of the dashboard used during the OBT pilot, provide insight into the goals, progress and outcomes of the OBT pilot (van Staveren et al., 2022a, 2022b). Furthermore, the data obtained from the document analysis can be used to inform the formulation of interview questions and the development of the reference model, which is the Office Accommodation Policy Framework.

Exploratory Interviews

At the outset of a project, exploratory interviews are beneficial for identifying issues and gaining insight into the terminology and concepts employed by the organisation (Blaikie & Priest, 2019). Exploratory semi-structured interviews are employed to gain a deeper comprehension of the police organisation and the problem in practice. Exploratory interviews were conducted with three employees of the police. To obtain further information in the research areas, the interviewees are at liberty to respond in whatever manner they deem appropriate. A protocol for conducting the interviews was prepared in advance and can be found in Appendix A.

In-depth Interviews

In-depth interviews facilitate the clarification of objectives, the identification of constraints, the establishment of user requirements, and the establishment of specifications. They clarify the decision-making processes of individuals, the motivations underlying their behaviour, and the beliefs, perceptions, feelings, emotions, and meanings that inform their actions. They also uncover information on sensitive topics (Blaikie & Priest, 2019). The in-depth interviews will involve five employees of the police who participated in the OBT pilot and the two facilitators of the OBT pilot. The semi-structured format of the in-depth interviews will facilitate responses that are appropriate for each participant and allow for more in-depth exploration of certain aspects when it is deemed beneficial for both the interviewer and the participants. It is necessary to provide a framework that allows for flexibility in the way participants respond. The objective of the in-depth interviews is to provide insight into the third and fourth sub-questions. The protocol for the in-depth interviews can be found in Appendix C.

2.2.2 Selection of Interview Participations

Exploratory Interview Participants

Accommodation within the police is both abstract and concrete, depending on the context. It is abstract when it comes to vision, goals and policies, and very concrete when it is a single project. The different levels of abstraction require different types of decisions and different types of expertise. For prioritisation through all levels, the police have a decision-making process consisting of three tables; the Corps Strategy Table, the Corps Portfolio Table and the Corps Projects Table (Directie FM en sector Huisvesting, 2023a). The presence of representatives from all CREM perspectives (the strategic, functional, physical and financial perspectives (Den Heijer, 2011)) at the decision-making table ensures that all relevant issues can be identified and discussed from any perspective. For a detailed description of each table, see Chapter 4. To gain a deeper comprehension of the police organisation and the problem in practice, it is important to conduct exploratory interviews with individuals from each table. This amounts to three interviews, each lasting 45 minutes to an hour.

In-depth Interview Participants

It is important to select the most suitable stakeholders when applying the PAS method. Arkesteijn (2019) uses the CREM model of Den Heijer (2011) for stakeholder selection in the PAS method (see

Chapter 3.4.2). The inclusion of representatives from each perspective in a decision-making process ensures the inclusion of all relevant information and the addition of value in the broadest sense (see Chapter 3). It is recommended that each perspective is represented by an interview participant. The financial perspective is not represented by a stakeholder in the pilot. In addition, the functional perspective cannot be approached for interviews due to internal reasons. This means that the interview participants must represent either the physical or the strategic perspectives. Additionally, it is important to interview employees of the police who were in the project group so that information can also be retrieved about the process of the pilot. It would be optimal to interview all relevant stakeholders, but given the time constraints of this research, it was decided to conduct five in-depth interviews with police employees about the OBT pilot.

Furthermore, Joldersma and Roelofs (2004) state that the perspective of the 'observers' also needs to be taken into account when assessing an evaluation, and thus the facilitators of the OBT pilot are also interviewed. There were three facilitators during the OBT pilot. Due to a change in the career of one of the facilitators are two of the three facilitators interviewed.

2.2.3 Data Reduction

Documents

The documents subjected to analysis were read using three distinct methods: skimming, reading, and interpretation. Subsequently, the data was subjected to a process of reduction from the documents using the methodology of content analysis. In this process, categories were used to organise the information about the pertinent sub-question (Bowen, 2009).

The output of the data reduction process is as follows:

- 1. The Police Case
- 2. The reference model (the Office Accommodation Policy Framework)

Interviews

The interviews conducted during this study will be recorded. These recordings will then be transcribed and anonymised. Once transcribed, the recordings will be deleted. Section 2.7 provides further detail on the ethical considerations involved. In the anonymised transcriptions, relevant words, phrases, sentences or sections are labelled. These labels are categorised and then coded. The deductive-defined codes used are the evaluation categories of Joldersma and Roelofs (2004). The following codes were established before the interviews and are shown in Table 2.2.

Deductive codes
Experiences with the method
Attractiveness of the method
Participants' observations on the effectiveness of the method
Observers' perceptions of the method's effectiveness

Table 2.2. Deductive codes used during the reduction of data from the interviews (author).

Some codes that were not explicitly defined beforehand, emerged during the interviews. These are inductive codes and they are listed in Table 2.3 (on the next page). The connections within the different coded categories are then described.

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Inductive codes
Dashboard
Tool
Emotions
Understanding and support
Duration of the interviews
Interviews
Quantification
Duration of the workshops
Workshops
Duration of the process
Intensity of the process
Stakeholder engagement
Transparency
Initial lack of transparency
Insight into the criteria of others
Political-organisational influences
Presence of stakeholders
Knowledge of stakeholders
Scope
Case

Table 2.3. Inductive codes were used during the reduction of data from the interviews (author).

2.3 Expert interviews

Expert interviews are conducted with real estate managers of the police, during which the findings of the evaluation of the OBT pilot are presented and discussed. These interviews serve to identify the desired needs of the intended users of the PAS method on an office portfolio scale. The interviews will each last between 45 minutes to an hour. The protocol for the expert interviews can be found in Appendix E.

2.3.1 Selection of Expert Interview Participants

The individuals involved in the expert interviews are professionals specialized in real estate management. These participants are selected through expert sampling, a method that involves seeking opinions or evaluations from experts in the relevant field of study. The interviewees consist of professionals in real estate management who fulfil the following criteria.

- 1. The participant has been employed by the police for five years. Consequently, the participant is well acquainted with the organisation
- 2. The participant is employed in the accommodation sector, which means that their expertise is in accommodation.
- 3. The participant is familiar with the PAS method.

2.3.2 Data Reduction

The interviews conducted during this study will be recorded. These recordings will then be transcribed and anonymised. Once transcribed, the recordings will be deleted. Section 4.7 provides further detail on the ethical considerations involved. In the anonymised transcriptions, relevant words, phrases, sentences or sections are labelled. These labels are categorised and then labelled again. Finally, the connections within the different categories are described.

2.4 Data Analysis

Through the organisation, analysis, and interpretation of data gathered from the case study, interviews, and focus groups, researchers can recognize recurring themes and patterns. This methodology empowers them to tackle the research question effectively and highlight subjects in need of enhancement (Miles et al., 2014).

2.4.1 Case Analysis

The information gathered during the case study is compiled into a report. While writing the report, the information is not worked towards a solution; rather, it is collected in the broadest sense of the word. Both hard findings, such as the outcomes of the OBT pilot in figures, and soft findings, such as emotions that arose during the process or organisational culture, are collected.

2.4.2 Expert Interview Analysis

A thematic structured analysis is used to analyse the expert interviews. This was done using the themes in the diagram used during the interviews, which can be found in Appendix G. Given that only two expert interviews were conducted, it was decided to select and analyse the most pertinent statements for each theme. This analysis is then used to see if the results and conclusions of the evaluation carried out meet the needs of the office portfolio of the police.

2.4.3 Literature Discussion

The literature review in Chapter 2, the case study analysis as described above and the analysis of the results and conclusion of the expert interviews should provide sufficient information to implement the PAS design and decision-making method. With the implementation of the model, the real estate management of the police station portfolio can be optimally supported.

2.5 Research Output

2.5.1 Objectives & Deliverables

The objective of this study is to gain insight into the experiences of the OBT pilot. This includes identifying the aspects that were perceived as beneficial and those that require improvement. Additionally, the study aims to determine the most effective manner in which the PAS method can be applied to optimise the real estate management of the police office portfolio. The ultimate goal is to generate valuable insights that can inform the implementation of the PAS method within the police organisation. The findings of the study will provide recommendations and a framework to support the accommodation transition of the police. The main deliverables of this research are:

- 4. Evaluation of the OBT pilot that identifies the area of strengths and improvements
- 5. Identification of the benefits for the use of the PAS method for the office portfolio
- 6. An Office Accommodation Policy Framework

2.5.2 Dissemination & Audiences

The dissemination of this research is conducted via the TU Delft repository. Furthermore, the research is shared with all participants in this study, and the report is disseminated to the Accommodation Sector's policy implementation and development team. The results will also be disseminated in a presentation for this team. The audience of this research consists of (public) organisations facing changes in the area of accommodation. The changes these organisations want to go through can be wide-ranging and complex decisions that create added value within the real estate portfolio of the

organisation. It could be about divesting square metres, making the portfolio more sustainable or increasing user satisfaction with their real estate.

2.5.3 Personal Study Targets

Before the start of my graduation process, I had set myself some objectives. The first of these is to gain a deeper understanding of the concept of real estate management. Having already acquired a certain degree of knowledge about this during my master's studies, I now wish to pursue further studies in this area. My focus is on the public sector. I find this area of study particularly interesting because, within public real estate management, a greater number of factors come into play when decisions have to be made than in corporate real estate management. This research has provided the opportunity to delve deeper into the subject of public real estate management, which will expand my knowledge in this area.

My second goal is perhaps a bit obvious, but it is important to me that I have fun during my graduation. I do not want to do it just to receive a diploma. Sitting behind my laptop all week analysing and working on texts does not energise me. I do get energy from a varied week, in which I meet a lot of people. Consequently, I sought to undertake an internship at a company. This would enable me to interact with people in the office daily and engage in discussions with people with different perspectives on my graduation topic.

Finally, I aspire to gain insight into the method for conducting interviews. It is crucial to pose questions with precision during an interview, ensuring that there is no ambiguity between the interviewer and the interviewee, thereby enabling the collection of data that is pertinent to the study.

2.6 Data Management Plan

The FAIR principles have been applied to the data used in this research. This means that the data must be findable, accessible, interoperable and reusable (Wilkinson et al., 2016). The research data can be viewed from two perspectives in terms of its findability. Firstly, the sources must be traceable. To achieve this, sources are cited following the seventh edition of the American Psychological Association (APA) style. Secondly, the data must also be retrievable by researchers and students who may wish to use this research in the future. To achieve this, the results are published in the TU Delft Repository, which is accessible to all. In conjunction with the appropriate keywords, this also facilitates the second FAIR principle, accessibility. To adhere to the third principle, this study is written in English, which is the official language of academia. However, the interviews were conducted in Dutch, as this is the language used within the police organisation within which the study was conducted. This also applies to the documents used for the document analysis. The findings are presented in English in the final research report. To facilitate the greatest possible reuse, it was essential to write clearly and unambiguously and to provide explanations of any theoretical concepts that might be unfamiliar to the reader. The aforementioned Data Management Plan was compiled using the website www.dmponline.tudelft.nl of Delft University of Technology.

2.7 Ethical Considerations

In the context of research involving individuals, ethical considerations are an important part. This chapter will explain the four principles of Fleming and Zegwaard (2018) that should be borne in mind when conducting research.

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2.7.1 Ethical Expectations

The handling of personal data is conducted securely. Interviews are recorded and subsequently transcribed and anonymised. Once this process is complete, the recordings are deleted. When the data is processed in the research report, it is ensured that the data cannot be traced back to the participants. Additionally, participants' personal data is stored in a password-protected environment.

2.7.2 Informed Consent

Before their involvement in the study, participants are asked to read and sign a form of consent. This serves to inform them of the purpose, risks and participation requirements of their involvement, thereby enabling them to make voluntary and informed decisions about their participation in the study. Furthermore, participants must be made aware that they can withdraw at any time and that they are under no obligation to answer certain questions if they so choose. The form of informed consent used in this study can be found in Appendix G.

2.7.3 Risk of Harm, Anonymity and Confidentiality

Appropriate protection of the personal data of research participants should be ensured. To assess the risks and identify the most effective means of safeguarding this data, a template from the Human Research Ethics Committee (HREC) was used (HREC, 2023).

2.7.4 Conflict of Interest

Documents containing covert information, obtained from the police, were used during this investigation. To access these documents, a confidentiality agreement was signed and a Certificate of Conduct was submitted. Confidential information of the police must be safeguarded at all times.

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3. The Police Case

Before researching the problem outlined in the introduction, it is essential to provide a detailed explanation of the contextual background of the police. This includes the historical development of the police, an examination of the current accommodation policy, and an analysis of the decision-making process within the accommodation department. Lastly, to gain a deeper understanding of the police context, three exploratory interviews have been conducted.

3.1 History

Over the past 25 years, the police have undergone two major reorganisations (Inspectie der Rijksfinanciën, 2015). The first reorganisation occurred in 1994, with the implementation of the Police Act of 1993 (Inspectie der Rijksfinanciën, 2015). This merger resulted in the formation of 25 regional police forces and the National Police Services Corps ((Korps Landelijke Politiediensten (KLPD)), which combined the 148 municipal police forces and the National Police Force.

In 2005, it was found that the police organisation was highly fragmented, with the police not forming a unified unit (Jacobs, 2014). There were significant differences in task performance, working methods, management and operations between the police forces. This led to the introduction of the National Police (Nationale Politie (NP)), under the responsibility of the Minister of Security and Justice (Inspectie der Rijksfinanciën, 2015). The main task of the police is to ensure security in the Netherlands. On 1 January 2013, the current Police Act 2012 came into force, resulting in a reorganisation of the police. The 25 regional police forces were transformed into one national police organisation, led by one chief of police, comprising 10 regional units and the National Police Force (Inspectie der Rijksfinanciën, 2015).

Inspectie der Rijksfinanciën (2015) distinguishes between external and internal steering. External steering refers to the targeted influencing of the police organisation by other parties such as the Ministry of Security and Justice (Inspectie der Rijksfinanciën, 2015). This external steering falls outside the scope of this study. Internal steering is the steering within the police organisation and is divided into national, regional and local levels (Inspectie der Rijksfinanciën, 2015). At the head of the police organisation is the Chief of Police, who is supported by the Chief of Staff at the national level. Police operations, including accommodation, are organised at the national level in the Police Services Centre (PDC). The operation is conducted at the national level, with a subdivision of various districts. The structure of the police is shown in Figure 3.1.

The Strategic Accommodation Plan 2013-2025, developed by the Accommodation Sector, was created as a framework for the realisation of an appropriate accommodation portfolio to support the launch of the National Police (Directie Facility Management, 2023). In addition to establishing a single organisation, the objective was to work towards a joint real estate portfolio comprising the existing regional portfolios. The Accommodation Sector is part of the Police Services Centre in Figure 3.1. Ten years later, it is now possible to complement the longer-term vision with a medium-term strategy and a steering model that focuses on agility and decision-making, enabling annual adjustments to be made.

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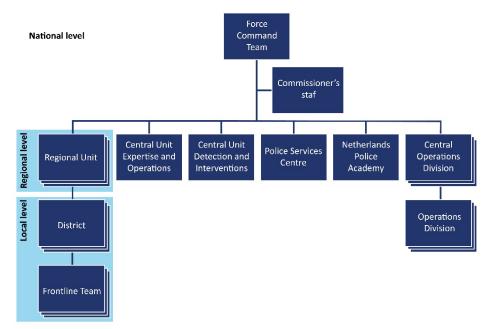


Figure 3.1. The organisational chart of the police (translated by the author based on Politie (2024)).

3.2 The Accommodation Policy of the Police

After a decade of the police, it is evident that several additional policy goals must be achieved (Directie FM en sector Huisvesting, 2023b). For instance, sustainability laws and regulations have been considerably tightened to align with the Paris Climate Agreement's goals for 2050, and there have been changes in the organisation and its accommodation needs. Additionally, there has been a heightened focus on the flexibility and marketability of police buildings. Finally, developments in spatial planning, such as the increasing scarcity of space and the increasing complexity of spatial processes, necessitate the implementation of more professional real estate management (Directie FM en sector Huisvesting, 2023b). This involves a critical examination of whether the intended function is appropriate to the location characteristics, both currently and in the future. It is also important to make decisive choices, as the feasibility and affordability of accommodation plans are under pressure. A more efficient infill is required to remain within the established boundaries (Directie FM en sector Huisvesting, 2023b).

The police have identified the following accommodation needs: "The police of tomorrow and the day after tomorrow need flexible, sustainable, affordable and manufacturable accommodation so that they can continue to do their work in the society of tomorrow and the day after tomorrow with dedication" (Directie FM en sector Huisvesting, 2023, p. 2).

Using the DAS framework, the police determined how they wanted to move from the current supply and demand to the future supply and demand of their accommodation. The DAS Framework describes a way to align goals (demand) and resources (supply) (Jonge et al., 2009). Initially, a scenario analysis was conducted to determine future demand, which is described in the *Accommodation Vision 2040* (Directie Facility Management, 2023). The future supply was then described in the *Target Portfolio* (Directie FM en sector Huisvesting, 2023b). To achieve the transformation from the current supply to the future supply, the *Real Estate Strategy* (Directie FM en sector Huisvesting, 2023b) was developed. Finally, the document *Frameworks & Rules* (Directie FM en sector Huisvesting, 2023a) was established, which serves as the context within which to operate. Figure 3.2 illustrates the alignment of the

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aforementioned policy documents within the DAS framework, while Table 3.1 provides an overview of all police policy documents. This subchapter explains all policy documents.

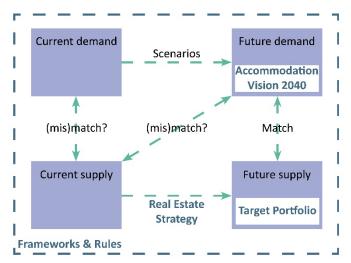


Figure 3.2. DAS framework with policy documents police (translated by the author based on Directie Facility Management, 2023, p. 4).

Title	Author	Release date	Pages	Version	Status
Huisvestingvisie 2040	Directie Facility	August 2023	33	1.0	Final
	Management				
Streefportefeuille &	Directie FM en sector	October 2023	72	1.0	Final
Vastgoedstrategie	Huisvesting				
Kaders & Spelregels	Directie FM en sector	October 2023	20	1.1	Final
	Huisvesting				

Table 3.1. Overview of all police policy documents (author).

3.2.1 Accommodation Vision 2040

In the Accommodation Vision 2040, the future demand is defined and was drawn up using trend scenarios, which led to six pillars (Directie Facility Management, 2023). The preconditions, subject to the pillars, are that accommodation needs to be qualitative, affordable and feasible. Below, the trend scenario for each pillar in the medium term (up to 2030) and the uncertainties in the long term (up to 2040) are described. The pillars and their associated preconditions are shown in Figure 3.3 (see next page).

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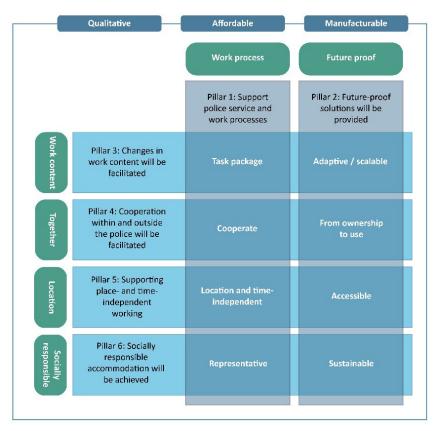


Figure 3.3. Six pillars (translated by the author based on Directie Facility Management, 2023, p. 7).

Pillar 1: Supporting Police Services and Work Processes

In the medium term, the police's tasks are changing due to changes in society. As a result, the police are going to switch to 'Different Working'. This means that police work is going to be place- and time-independent. Now all employees have a fixed workplace, in the future, they can choose to work from home or work at a police location closer to home. There will be a transformation from several large police locations, to several smaller police locations across the country. A long-term uncertainty is the extent to which working at home or elsewhere will replace working in the office.

Pillar 2: Future-proof Solutions will be Provided

Changes in society result in the police's need for flexibility in the medium term. Flexibility can be achieved by sharing offices with other public organisations, these are so-called cooperation partners ('ketenpartners'). There will be more cooperation with chain partners, in which the use of the buildings takes precedence over ownership. The aim here is for police real estate to be more adaptive and scalable. In addition, sustainability laws and regulations will at least be complied with and accessibility of the locations play a key role. Uncertain in the long term are technological developments. The goal of being energy-neutral by 2050 is a hard requirement.

Pillar 3: Changes in Work Content will be Facilitated

Most police work processes will be standardised. Besides being standardised, the police also want to be adaptive and scalable, by being able to quickly scale up to additional capacity. For this, the police want to deploy pop-up locations or expand locations temporarily. In doing so, the police want to keep up with developments in the digital field. In the long term, digital developments are uncertain. It is not

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yet known what role AI will play in future operations. The police want to have the change capability to keep up with all developments.

Pillar 4: Cooperation Within and Outside the Police will be Facilitated

In the medium term, the police will envisage cooperation with chain partners. These collaborations will be casual and support creative processes, where there is also going to be room for covert activities and operations. In the long term, the appropriate accommodation needs, which include providing accommodation for partnerships, are uncertain due to the changing nature of work, work processes and collaboration with parties.

Pillar 5: Supporting Place- and Time- Independent Working

The police will support place- and time-independent working ('werken waar het werk is'). Employees are going to work at home, with chain partners, at large police locations or smaller locations close to home. The accessibility of the locations will match the type of work. Police locations will be arranged with parking facilities at motorway exits or realised at public transport hubs. In the long term, the degree of location and time-independent working creates uncertainty in terms of location choice.

Pillar 6: Socially Responsible Accommodation will be Achieved

The police will fully implement sustainability, which means complying with all laws and regulations. All decisions around sustainability are going to be made from the principle of 'less is better'. In the long term, it is uncertain which laws and regulations apply.

3.2.2 Target Portfolio & Real Estate Strategy

The policy document Target Portfolio & Real Estate Strategy forms the concrete translation of the Accommodation Vision 2040. The target portfolio describes the ultimate goal towards which the police portfolio is moving (the 'what') and the real estate strategy indicates the path towards it (the 'how').

3.2.2.1 Current Sub-portfolios

The total current portfolio of the police consists of 1,890,000 m² GFA (Directie FM en sector Huisvesting, 2023b). Within the total portfolio, a distinction is made between four sub-portfolios. These sub-portfolios are offices, area-based police (GGP), specials and other. Figure 3.4 creates an overview of the sub-portfolios and their sizes.









*GGP = Area Based Police (Gebiedsgebonden politie)

Figure 3.4. Overview of the sub-portfolios of the police (author based on Directie FM en sector Huisvesting (2023b)).

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3.2.2.2 Office Types

As outlined in the problem statement in Chapter 1, the focus of this study is limited to the office portfolio of the police. The offices in the office sub-portfolio consist of a standardised building type within a regular working environment. The office portfolio consists of three office types, which are based on their accessibility profiles (Directie FM en sector Huisvesting, 2023b). The office types are:

Generic Offices

Generic offices are situated in public transport locations and are focused on optimal support of operations and serve the entire organisation.

Action Offices

Action offices are fast accessible for operational transport, including parking requirements and are focused on employees who perform basic generic office work, but also need to have the ability to quickly hit the road.

Specific Offices

Specific offices are buildings with an office function, but which for whatever reason do not fit within the generic office type or the action office type. Reasons could be, specific security requirements or covert activities. Specific offices require such a high level of customisation that there is no flexibility. Realising a specific office only takes place under great exception. Due to the high exception rate, this office type is excluded from the scope of this study.

The three office types include a wide range of buildings, each with its distinctive characteristics. This includes both older and newer buildings, as well as a large spectrum of sizes. Figure 3.5 and Figure 3.6 show reference pictures of generic offices and Figure 3.7 and Figure 3.8 show reference pictures of action offices. No reference images are collected for the specific offices due to security requirements and covert activities.



Figure 3.5. Generic office in Den Haag, de Nieuwe Uitleg 1 (Architectenweb, 2015).



Figure 3.6. Generic offices in Rotterdam, Doelwater 5 (Police, n.d.).

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Figure 3.7. Action office in Utrecht, Europalaan 93 (police, n.d.).



Figure 3.8. Action office in Rotterdam, Veilingweg 66 (Cepezed, n.d.; police, n.d.).

3.2.2.3 The Office Target Portfolio

The target portfolio represents the translation of the stated accommodation goals into concrete principles concerning the police buildings in 2040. The portfolio represents the idealised scenario, envisaging the optimal real estate outcome in 2040.

The police have divided the Netherlands into ten regional units to conduct an annual analysis of new trends and developments (Directie FM en sector Huisvesting, 2023a). The target portfolio is based on these trends and developments to guide police accommodation management (Directie FM en sector Huisvesting, 2023b). The target portfolio represents an idealised scenario, translating the six pillars of the Accommodation Vision 2040 into characteristics per office type to be met (Figure 3.9). This ensures that the bandwidth is sufficiently enough to accommodate all future scenarios. The current office portfolio comprises 692,000 m² GFA, with a significant proportion of this portfolio requiring divestment before 2040. This results in a portfolio with a size of 403,000 m² GFA to 535,000 m² GFA, with the size of the portfolio varying according to the outlined scenarios. Furthermore, the police want to have a clear distinction between generic functions and other functions in the future (Directie FM en sector Huisvesting, 2023b). Generic functions are relatively easy to adapt or to divest when necessary. Consequently, large offices are not combined with special building types. The accommodation of the police comprises a strategic stock, a basic stock and a flexible shell of buildings. The strategic stock is always used first, and the basic stock and flexible shell are deployed to address potential future uncertainties. This facilitates the organisation's ability to adapt to changes.

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Characteristics to be met	Generic offices	Action offices
Situated in public transport locations	Х	
Mainly on the periphery of the city		Х
Larger clusters of offices at concentration locations (The Hague, Utrecht, Amsterdam, Rotterdam, Zwolle, Eindhoven)	х	Х
Fast access for operational transport, including parking requirements		х
Visible locations therefore extra effort on visible sustainable measures	х	Х
Location with a lot of (parking) space, so commitment to sustainable measures on and around the building		х
Scale appropriate to the location context	Х	Х
Minimum 5,000 m ² GFA and maximum 15,000 m ² GFA	х	х
Space requirements are based on the number of FTEs	х	х
At least one office per region as part of the strategic core stock	х	х
Temporary offices in flexible shell	Х	Х
Other offices as part of the basic stock	Х	Х
Smaller offices with a logical spread throughout the country	Х	

Figure 3.9. Characteristics to be met per office type (author based on Directie FM en sector Huisvesting (2023b)).

3.2.2.4 The Office Real Estate Strategy

To achieve an efficient execution of the target portfolio, four sub-strategies have been formulated. The office portfolio is a substrate for the sub-strategy *Densification and Standardisation* (Directie FM en sector Huisvesting, 2023b). This implies that buildings will be used more optimally by accommodating multiple teams collectively. Optimisation occurs across unit boundaries, with a focus on standardisation, reduction of accommodation complexity, and assurance of consistency and interchangeability. This necessitates the establishment of a minimum number of locations per unit, to ensure sufficient geographical spread and an acceptable travel distance. The size of the office may vary depending on the tasks being performed, or, for example, the geographical location. To facilitate the required pace of renewal and to guarantee accommodation flexibility, it is essential to maintain the office stock in a generic and relatively simple state. Consequently, a significant proportion of the implementation process can be delegated to the market, thereby allowing limited internal resources to be allocated primarily to the acquisition of real estate that is specifically tailored to the needs of the police (Directie FM en sector Huisvesting, 2023b).

3.2.3 Framework & Rules

In the policy document Framework & Rules (Kaders & Spelregels), five accommodation goals (Figure 3.10) have been formulated by the police (Directie FM en sector Huisvesting, 2023a). Together, these portfolio goals indicate the scope within which the accommodation vision can be realised. This subchapter provides a detailed explanation of each accommodation goal.

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MSc Management in the Built Environment



More efficient accommodation



Sustainability in line with National Policy



Realistic and feasible pace of renewal



Manageable operation costs



Fit-forpurpose

Figure 3.10. Portfolio goals of the police (translated by the author based on Directie FM en sector Huisvesting, 2023a, p. 3).

More Efficient Accommodation

More efficient accommodation involves standardisation where possible and differentiation when necessary. To accelerate the alignment of the working environment with current work processes, the police drew up the 'Different Working (Anders Werken)' policy. Working differently facilitates working where the work is and more place- and time-independent working. Consequently, the amount of space used per employee decreases.

Sustainability in Line with National Policy

A set of laws and rules have been drawn up in the National Policy that contributes to sustainability. CO_2 must be reduced by 60% by 2030 compared to 1990 and 100% by 2050 compared to 1990 (Ministerie van Economische Zaken en Klimaat, 2023). All buildings must have at least energy label C by 2027, fossil energy consumption must be reduced by 22% and final energy consumption (the energy used by energy consumers for energy purpose (Centraal Bureau voor de Statestiek, 2023)) by 14% in the period from 2023 to 2027. In addition, the police facilitate sustainable mobility. They distinguish between Alocations that are located next to an intercity railway station, B-locations that are accessible both by public transport and by car and C-locations that are only accessible by car.

Realistic and Feasible Pace of Renewal

Renewal is needed to achieve more efficient accommodation and to reduce energy and maintenance costs. Projects must be prioritised, not everything can be done at the same time. The pace of renewal must be realistic and feasible. This is determined by the investment budget of €250 million per year (price level 2021).

Manageable Operation Costs

The established operating costs may not be exceeded. If it does, it will be at the expense of police capacity, which is not desirable. The structural operating cost has been set at €380 million per year (2021 prices). In 2024, this amounts to €387 million. This amount is set to the use of space, which for 2032 is set at 1,520,000 m² GFA (Gross Floor Area).

Fit-for-purpose

Accommodation supports work processes within the police. Accommodation contributes to meeting, communicating and cooperating with colleagues. The fit-for-purpose goal can be achieved through new construction projects, large-scale renovations and acquisitions, however, not all buildings can be realised at once, so the current buildings must be used optimally.

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3.2.4 Sub-Conclusion of the Accommodation Policy of the Police

The future demand is defined in the Accommodation Vision 2040 and was drawn up using trend scenarios, which led to six pillars. The portfolio goals in the document Framework & Rules indicate the scope within which the Accommodation Vision 2040 can be realised. The Target Portfolio & Real Estate Strategy forms the concrete translation of the Accommodation Vision 2040. These three documents serve as a foundation for the management of police real estate. It is therefore essential to reason from these documents when conducting this study.

3.3 The Decision-making Process within the Accommodation Sector

In addition to the introduction of the new accommodation policy, a new governance model has also been developed for accommodation control within the police. The rationale for adjusting accommodation control is that the current control of the accommodation portfolio is imbalanced (Projectteam Governance en Sturing, 2023). Realisation of real estate is strongly demand-driven and focused on the short-term needs of the organisation. By nature, accommodation is a 'product' that has to last for a long time and therefore has to fit the ever-changing use (Projectteam Governance en Sturing, 2023). The new governance model is described in the document Accommodation Governance System (Table 3.2) and is explained in this subchapter.

Title	Author	Release date	Pages	Version	Status
Stelsel sturing	Projectteam Governance	October 2023	9	1	Concept
huisvesting	and Sturing				

Table 3.2. Overview of the Accommodation Governance System Document (author).

3.3.1 Three Decision-making Tables

The focus on the long-term objectives of the strategy and the focus on the short-term objectives of the operation sometimes causes difficulties (Projectteam Governance en Sturing, 2023). For prioritisation through all levels, the police have developed a decision-making process consisting of three tables; the Corps Strategy Table, the Corps Portfolio Table and the Corps Projects Table (Directie FM en sector Huisvesting, 2023a). These three tables are shown schematically in Figure 3.11.

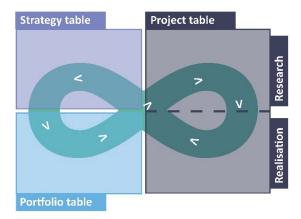


Figure 3.11. The three decision-making tables (translated and simplified by author based on Projectteam Governance en Sturing (2023, p. 1).

Corps Strategy Table

This table examines whether the current policies and frameworks are still applicable to the current situation in which the police find themselves. Furthermore, policies and frameworks are refined if

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necessary. At the strategic level, the objective is to visualise the contribution of the projects/portfolio to the strategic objectives (Projectteam Governance en Sturing, 2023).

Corps Portfolio Table

Within this table, the set of projects for the coming years is determined. The product of the portfolio table provides insight into the projects that will be invested in over the coming years (Projectteam Governance en Sturing, 2023). At the portfolio level, the objective is to identify the proposal that most effectively addresses the accommodation goals. Here, the required effort is balanced against the expected outcome. The main goal at the portfolio level is to prioritise the projects in question. This entails determining which projects must be completed immediately and which can be postponed to a later date (Projectteam Governance en Sturing, 2023).

Corps Project Table

Individual projects are monitored and adjustments can be made where necessary (Projectteam Governance en Sturing, 2023). It is not always the case that a project solution is the optimal solution. In certain instances, from the perspective of efficiency, pace, and complexity, a non-accommodation solution, such as optimising a schedule, might be the most effective means of addressing the need. This can be achieved more expeditiously and at a lower cost than the construction of a new office (Projectteam Governance en Sturing, 2023). The objective is to adjust individual projects so that they stay within the set framework to realise the portfolio.

Using these decision-making tables, problems are addressed and looked at from all levels. After this, the person in charge of the table can make a decision. By discussing problems at the tables, solutions are found within the frameworks, decisions are made transparently and collectively, there will be no surprises and the problem has been analysed from all perspectives at the table (see Figure 3.12).



Figure 3.12. Result of the decision-making process (Projectteam Governance en Sturing, 2023, p. 4).

3.3.2 The Real Estate Management Perspectives

Real estate management can be understood as a synthesis of four distinct perspectives: the Use and Functionality, Strategy, Finance and the Physical Building Perspective (Den Heijer, 2011). The perspectives have been adapted to the context of the police. One complicating factor for the police is the political-organisational context in which the police operate. The political-organisational context influences all perspectives and thus requires explicit consideration in decision-making (Projectteam Governance en Sturing, 2023). Figure 3.13 below illustrates the perspectives and the political-organisational context.

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Figure 3.13. The four perspectives within PREM (Projectteam Governance en Sturing, 2023, p. 4 based on Den Heijer (2011)).

From the user perspective, the focus is on the needs of the organisation for it to function optimally. The strategic perspective responds to the latest developments and the general interest of the police is pursued. The financial perspective ensures that all costs remain within the organisation's budgetary constraints, while the physical buildings perspective ensures that the project remains feasible and can be realised (Projectteam Governance en Sturing, 2023). In all of these perspectives, the political and governmental context in which the police find themselves plays a role (Projectteam Governance en Sturing, 2023).

3.3.3 Sub-Conclusion Decision-making Process within the Accommodation Sector

The study's central issue concerns the decision-making process at the portfolio level. To ensure that the pace of renewal remains realistic and achievable in the face of unforeseen changes, compromises on the project level must be made. This aligns with the primary objective of the Corps Portfolio Table, which is to prioritise the most relevant projects. It can thus be concluded that the objective of this study is to identify a design and decision-making method that is consistent with the Corps Portfolio Table. In which, it is important to consider the political and organisational context within which the police operate.

3.4 Exploratory Viewpoint per Decision-making Table

To get a better understanding of the police organisation and to get a better grip on the problem researched, exploratory interviews were held with three police employees. The interview participants are a Programme Director of Future-proof Accommodation, a Senior Strategic Policy Advisor and an Asset Manager. The interviewees all represent one of the three decision-making tables and they have participated in the OBT pilot. An overview of the interview participants, their function and the decision-making table they represent are shown in Table 3.3. The interview questions are provided in Appendix B.

Participant	Function	Represented decision-making table
Participant 1	Programme Director of Future-proof	Corps Portfolio Table
	Accommodation	
Participant 2	Strategic Policy Advisor	Corps Strategy Table
Participant 3	Asset Manager	Corps Project Table

Table 3.3. Overview interview participants exploratory interviews (author).

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3.4.1 Complexity of the Real Estate Management of the Police

Three elements are identified that influence real estate management within the police. Firstly, there are numerous perspectives to consider, including those of the political-organisational context, the operational units of the police force, and the long-term versus the short-term (participant 1). The second element that was identified is that real estate decisions tend to take longer than strategic decisions. For instance, the completion date of a project may be further away than the duration of the organisational strategy. Consequently, long-term real estate decisions must be made in consideration of short-term issues (participant 1). Finally, the police is a complex organisation in terms of management. In addition to the police itself, other decision-makers include the public prosecutor and mayors (participant 1). Other challenges that are discovered are the differences in interests within the organisation, accommodation (what is best for the work process is not always feasible, achievable or affordable), operations (pursuing what is best for the work process) and context, e.g. external developments (participant 3).

"Secondly, accommodation decisions last longer than strategic choices. Even the completion date of the real estate project is further away than the police's strategy. This means making long-term accommodation choices based on short-term issues." – Participant 1

3.4.2 The Demand for Real Estate

The demand for real estate within the police can be divided into two categories; the demand for preservation and the demand for transformation (participant 2). The demand for preservation can be defined as the act of maintaining a presence in the neighbourhood, in the network and the world. The presence of the police in a given neighbourhood can influence the availability of accommodation (participant 2). Furthermore, digitalisation is having a profound impact on the transformation of the office segment (participant 2). In addition to the need to preserve and transform, there are also the immediate needs of users, which are more tangible. These needs are also considered when planning accommodation (participant 2).

"Digitalisation is increasing tremendously within the police, ... This mainly affects the office segment and is about the type of employees, the locations of the offices and how to ensure proper distribution of your offices. It is more of a transformation question than a preservation question." – participant 2

3.4.3 The Current Performance of Real Estate

The current performance of the police is measured by the objective vision (participant 2; participant 3). The objective vision assesses buildings according to strategic objectives and issues such as quality level, accessibility, number of square metres and technical quality. Furthermore, BOEI inspections are conducted for all buildings, which entail mapping maintenance quality, sustainability, energy label obligation, and energy consumption (participant 1). Participant 3 concludes that the current performance measurement is inadequate. Issues such as employee satisfaction that are not currently being measured (participant 2).

"Currently, portfolio performance is not sufficiently measured, this is a work in progress." –

Participant 3

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3.4.4 The Real Estate Strategy of the Police

The demand side of police real estate is identified with the units, namely the Chief Operating Officer and the constituency (participant 1). The operational perspective, such as that of office workers and directors, has not yet been included in the creation of the real estate strategy. It is evident that users require accommodation, yet they lack an understanding of the technical implications of this necessity (participant 3). The supply side is currently dominated by real estate and finance professionals (participant 2). Other supply-side stakeholders include facility/technical management, building information, and environmental quality (participant 3).

"Users have an accommodation need, but they have no idea what that means technically." –

Participant 3

Furthermore, the current real estate strategy is focused on achieving immediate benefits, which can be achieved with minimal additional effort to improve manufacturability. This necessitates the simplification of the construction and renovation process and the utilisation of existing stock for an extended period. In addition, it is necessary to consider whether an adaptation at the accommodation level is truly necessary or whether redesigning or redesigning processes could also be a solution (participant 1).

Lastly, it is observed that policies such as the real estate strategy are theoretical and represent an ideal situation. The ideal situation does not exist in practice, which presents a challenge for the implementation of policies (participant 2).

3.4.5 A Design and decision-making Tool for Real Estate Management

The question was then posed as to what a design and decision-making tool for the real estate management within the police should look like. The answer was given that the five accommodation objectives should be quantified and the optimal solution should transparently represent the different perspectives within the police organisation in both the short and long term (participant 2). This requires a tool that serves as a basis for discussion. It must be acknowledged that the tool should not be implemented as a definitive decision-making instrument, but rather, as a decision-supportive instrument. It was proposed that variants should be discussed in a two-hour meeting and that the tool should be designed for non-experts (participant 2).

"A decision tool should support decisions, not make them. It should help to make trade-offs from different perspectives visible and discussable. This is more important than a tool that gives an outcome." – participant 1

Finally, the experience with the PAS method was discussed. It was deemed beneficial that the opinions and perspectives of all relevant stakeholders were incorporated into the process. Furthermore, it was deemed important to work with variants and to raise awareness (participant 2). Furthermore, the concept of weighing options is regarded as highly valuable (participant 3). Conversely, the process is notably time-consuming (participant 2). Finally, it was observed that individual users may be overly focused on operational details, perceiving even minor issues as significant. Consequently, users must be allowed to contribute at the most appropriate level (participant 3).

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3.4.6 Sub-conclusion Exploratory Viewpoint per Decision-making Table

The management of real estate within the police is inherently complex, influenced by various factors such as political and operational perspectives and the necessity to balance short-term and long-term decision-making. While strategic decisions are often made swiftly, real estate decisions require extensive long-term planning that also addresses immediate needs. This demand is divided between preservation, maintaining a presence, and transformation, adapting to changes such as digitalization, while also considering the immediate needs of users.

Currently, the performance of police real estate is measured against strategic objectives and technical quality, but important aspects like employee satisfaction are not adequately assessed, indicating a need for improvement. The existing real estate strategy focuses on immediate benefits and the practical use of existing stock, yet it often lacks comprehensive input from the operational perspectives of users, making practical implementation challenging.

A proposed design and decision-making tool should aim to quantify accommodation objectives and transparently present solutions that account for both short-term and long-term perspectives. This tool should support decisions rather than make them, facilitating discussions and trade-offs from different viewpoints. Effective management of police real estate requires a balanced approach that incorporates diverse perspectives and addresses both immediate and future needs, supported by effective tools and continuous stakeholder engagement.

3.5 Conclusion Police Case

The reorganisation of the police in 2012 has resulted in the emergence of a large, contemporary organisation that has not existed in its current form for a relatively brief period. In order to remain visible and accessible to citizens and to function optimally in society, the police require effective and future-proof accommodation. This means, in terms of real estate, that a significant transition needs to be achieved by 2040. The new accommodation policy, which comprises the documents Accommodation Vision 2040, Target Portfolio & Real Estate Strategy, and Framework & Rules has been formulated to establish a foundation for future police real estate. In addition, a new decision-making process has been implemented to rebalance the real estate portfolio at both the strategic, portfolio and project levels. The aforementioned accommodation policy and decision-making process serve as the foundation for this study. Furthermore, it was determined that the problem statement presented in Chapter 1.1 pertains to the decision-making process at the portfolio level. To ensure that the pace of renewal remains realistic and achievable in the face of unforeseen changes, compromises must be made at the project level. This is consistent with the primary objective of the Corps Portfolio Table, which is to prioritise the most relevant projects. This implies that the users of the Corps Portfolio Table are also the users of the results presented in this study. Finally, the exploratory interviews revealed several critical issues, including the presence of numerous stakeholders and the long-term real estate perspective in contrast to the shorter-term policy perspective. Furthermore, in the context of decisionmaking, external stakeholders are afforded a voice alongside internal stakeholders. These critical points must be taken into account when applying a design and decision-making method for police accommodation.

Having established a clear picture of the context in which the police operate, it is now time to conduct research using literature. The purpose of this research is to examine why there is a need for a design and decision-making method within the police. It will also be investigated with literature whether the

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PAS design and decision-making method is the most appropriate solution to the problem within the police or whether there may be other methods in the literature that better fit the police problem.

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4. Literature Review

Before proceeding with the case study, it is important to investigate, based on the literature, why it is beneficial to use a method that incorporates stakeholder preferences within an organisational context such as that of the police. In addition, the literature will be searched to see if there are methods other than the PAS method that can be applied to the problem of police accommodation at the portfolio level.

4.1 Real estate that supports an organisation

The real estate owned, managed and used by both public organisations and corporate businesses is called accommodation. Accommodation is defined as: "accommodation consists of various accommodation components - locations, buildings, interiors, forms of financing, utilisation principles and building-related facility services - which together provide spatial-physical support for a given organisation, the people who work or visit it and the activities that take place there" (Voordt et al., 2022, p. 24). Accommodation is essentially about optimally matching the supply and demand of real estate, which is referred to as alignment (Heywood & Arkesteijn, 2018). The components of accommodation must be closely aligned with and supportive of the organisation, its employees and clients. The accommodation strategy is guided by the organisational strategy. It is essential to periodically evaluate whether the chosen accommodation solutions are still in line with the organisation's strategy. A discrepancy between the chosen accommodation solutions and the organisation's strategy may lead to accommodation revision or adjustment of accommodation goals. Furthermore, existing accommodation can also influence organisational strategy. An example within the police is HUB50, where 'anders werken' was central to its realisation. This concept includes place-and time-independent working as part of the organisational strategy.

4.2 The Added Value of Real Estate

The recently renovated HUB50 police office building was selected to create an accessible and collaborative workspace for police employees and other police partners. This emphasis on accessibility and collaboration has resulted in HUB50 becoming a hub for inter-office interaction. Furthermore, the building and its operational practices have been designed to align with the principles of sustainability. The various spaces within the building will be used in a flexible and multifunctional manner, with a focus on flexible working practices. Figure 4.1 shows the recently renovated HUB50. The previous example of HUB50 shows how value can be added through accommodation. Jensen & Voordt's definition of added value of accommodation reads as follows: "The difference between the benefits of interventions and the costs, time and risks to realise these bites, both monetary and non-monetary" (2017, p. 114). Monetary costs and benefits are measurable in euros. Examples on the cost side include investment costs, operating costs, process costs for preparing and implementing accommodation changes and costs of absenteeism due to poor accommodation. Costs refer to both direct costs (investment costs, operating costs) and other costs related to accommodation, such as time and money for the preparation and implementation of changes (process costs), costs of absenteeism due to an unhealthy indoor climate, productivity loss due to excessive accommodation cutbacks, and extra investments due to long-term deferred maintenance (Jensen & Voordt, 2017). Examples of benefits are financial-economic returns, such as cost savings, profit maximisation, increased turnover and improved solvency. Examples also include investing in the appearance of buildings to increase employee satisfaction and attract and retain talent, or increasing labour productivity through a better indoor climate. In essence, benefits include everything that contributes to the optimal functioning of the organisation and its employees in the broadest sense.

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Figure 4.1. Atrium in office building HUB50, Utrecht (ZRi, n.d.).

4.3 Real Estate Management

In order to gain a comprehensive understanding of the real estate management, it is helpful to first explain the Strategic Alignment Model of Henderson and Venkatraman (1989) before diving into the Corporate Real Estate Model (Dewulf et al., 2000).

4.3.1 The Strategic Alignment Model

The Strategic Alignment Model (Henderson & Venkatraman, 1989) is a theoretical framework designed to understand the relationship between information technology (IT) and an organisation's business strategy (Figure 4.2). The model helps analyse and improve the alignment between IT and business objectives. It consists of four components. The first component is the Business Strategy, this refers to the extent to which IT strategy is aligned with the overall business strategy. The second component is the Organisational Infrastructure & Processes. This aspect concerns the degree of integration between different IT systems and processes within the organisation. The third component is Information Technology Strategy and this focuses on the flow of information within the organisation and how well it is shared and used. The last component, the Information System Infrastructure & Processes deals with the underlying technology base needed to support IT strategy. The purpose of the Strategic Alignment Model is to help organisations understand how IT (operation) contributes to their strategic objectives and how to improve this alignment. By paying attention to the four components mentioned, organisations can more effectively use their IT resources to gain a competitive advantage and achieve business objectives.

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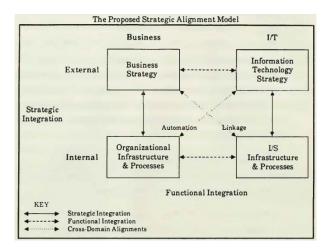


Figure 4.2. The Strategic Alignment Model (Henderson & Venkatraman, 1989, p. 5)

4.3.1 Corporate Real Estate Management Model

Eleven years later, Dewulf et al. (2000) translated the Strategic Alignment Model of Henderson and Venkatraman (1989) into a model that applies to corporate real estate management (CREM). CREM is defined as: "The management of a corporation's real estate portfolio by aligning the portfolio and services to the need of the core business (process), to obtain maximum added value for the business and to contribute optimally to the overall performance of the corporation" (Krumm et al., 2000, p. 32). Within the model of Dewulf et al. (2000), the four types of management, General Management, Asset Management, Facility Management and Cost Control play an important role. These four types of management are placed in a matrix with the corporate real estate manager in the middle. Horizontally, it shows the business versus the real estate perspective and vertically a strategic versus an operational focus (Figure 4.3).

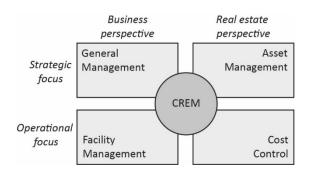


Figure 4.3. Balancing perspectives on managing a corporation's real estate portfolio (Dewulf et al., 2000, p. 32).

When internal or external circumstances change, the real estate portfolio should move with these changes. In many organisations, this does not happen. The current portfolio, in these organisations, is often a result of one-off measures for the specific buildings. Dewulf et al. (2000) call this a 'Chinese wall', a dividing wall between decisions on individual buildings and decisions on the real estate portfolio. Where a top-down approach is desirable, a bottom-up approach is the reality. In other words, many operational decisions are made without consulting the strategy, while the strategy should guide the decision at the level of individual buildings. This can be the result of not having a clear portfolio strategy and easily available operational knowledge. A clear portfolio strategy does not always

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contribute to making decisions based on the portfolio strategy. The content of the portfolio strategy may not be widely known in the organisation (Dewulf et al., 2000). Besides, high strategic flexibility is a requirement for the desired impact at the operational level (Lindgren & Bandhold, 2009). A durable strategy adjusts when internal or external circumstances change.

4.3.3 Alignment in Real Estate Management

When internal or external circumstances change, a portfolio should move with these changes. Portfolio adjustment should thus be a dynamic process, but in reality, it turns out that a portfolio is not dynamic at all (Cooke et al., 2019). The alignment of external circumstances and real estate management is a challenging phenomenon (Cooke et al., 2021; Cushman and Wakefield, 2017; Heywood & Arkesteijn, 2017, 2018). This is reflected by the definitions of alignment that vary widely in the literature (Heywood & Arkesteijn, 2018). The definition of Englert (2001) states that alignment is a two-dimensional concept that works both horizontally and vertically, which is also called the multi-stakeholder approach (Jonge et al., 2009). However Heywood and Arkesteijn (2017) state that alignment is more complex and pluralistic than the various individual alignment models make it seem. According to their research, it is stated that alignment forms a multi-valent relationship, knows different forms, a range of cognitive objects and several directions (Heywood & Arkesteijn, 2017). Nevertheless, they managed to translate the complex phenom alignment into four things:

- A clear *plan* or *strategy* for alignment, set out in a document;
- o A process, which includes a set of actions and management tasks to achieve better alignment;
- o A state, reflecting the current or future level of alignment;
- o *Behaviour*, emphasising strategic behaviours. This mindset helps achieve strategic goals, especially when dealing with day-to-day operational and tactical challenges.

4.4 The Police, a Public Organisation

For corporate businesses, profitability, and differentiation are often central (Kassel, 2010; Starling, 2010). Differentiation is a strategy that enables corporate businesses to differentiate themselves from their competitors and attract customers. This strategy also stimulates innovation by encouraging businesses to continually seek new ways to deliver value to their customers. Added values such as high customer satisfaction, labour productivity, creativity, innovation, cost efficiency, identity and risk management play an important role within corporate businesses (Van der Zwart, 2014). In public organisations that own, manage and use real estate, priorities frequently lie elsewhere, such as meeting social needs - including employment, mental development and physical and mental health (Sims, 2010). Examples of public organisations other than the police include governments, cultural institutions, education and healthcare. A corporate business may choose eye-catching buildings that attract potential customers, to increase the sale of their products. Entrance halls are designed to make visitors feel welcome and give the impression of visiting a successful organisation. Public organisations, which are primarily concerned with social issues, seek an inviting atmosphere, accessibility and, due to budget constraints, frugality and efficiency. Examples of entrance halls are shown in Figure 4.4 and Figure 4.5. Figure 4.4 is the entrance hall of the police, a public organisation and Figure 4.5 is the entrance hall of the Rabobank, a corporate business.

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Figure 4.4. Entrance hall police station (112 Vandaag, 2024).



Figure 4.5. Entrance hall Rabobank Office Campus (Kraaijvanger, n.d.).

4.4.1 Public Real Estate Management

When real estate is leased or owned by governments, municipalities or other public bodies, it is called public real estate management (PREM) instead of CREM. Schaaf (2002) states that CREM and PREM are closely related, but there are some significant differences which means that CREM and PREM cannot be managed in the same way. PREM is defined as: "Adding value to performance by balancing organisational, financial, functional and physical perspectives, variables and performance criteria in every decision about PRE portfolios, matching supply and demand in time, connecting operational and strategic processes." (Den Heijer, 2021, p. 23).

4.4.2 Public Real Estate Management Model

Den Heijer (2005) transformed the aforementioned CREM framework of Dewulf et al. (2000) (Figure 4.3) to a model that classifies stakeholders into four categories and corresponding perspectives for public real estate management (PREM) (Figure 4.6). The concept of corporate real estate management, which involves balancing supply and demand through operational and strategic level, is still reflected in this model. The objective is to optimally align real estate with an organisation's performance. The four perspectives in the model of Den Heijer (2005) are organisational, financial, functional and physical. This model shows demand on the left and supply on the right, with the top half reflecting the strategic level and the bottom half the operational level.

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The most important aspects within the PREM model of the physical perspective are the quantity and quality of current and future real estate, including site aspects, types of spaces, and state and stage of life of the building. From the functional perspective, important aspects are the amount and sort of users that have to be accommodated, the satisfaction with the current real estate, occupancy and frequency rates. The cost of real estate investments, resources that are put into the real estate and the value(s) the real estate represents are important from the financial perspective. Finally, from the strategic perspective, it is important how and to what degree the organisational objectives are supported, achieved or obstructed with the current real estate. The public real estate manager in the middle has to balance all the stakeholder preferences. To conclude, all four perspectives of PREM must be considered when real estate decisions are made. When a design and decision-making model is developed, all four perspectives and their relationship to the operational and strategic focus and to supply and demand must be included.

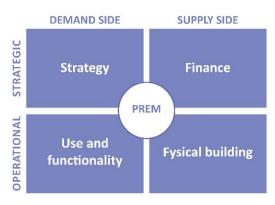


Figure 4.6. Public Real Estate Management model (Den Heijer, 2021, p. 22, 23)

4.5 Public Organisations and their Real Estate

The police is not the only public organisation that owns, manages and uses real estate. Another example of a public organisation with a real estate portfolio is the Ministry of the Interior & Kingdom Relations. Figure 4.7 illustrates the guidelines for real estate management of the office portfolio of the Ministry of the Interior & Kingdom Relations and the police side by side. Notably, the guidelines of both public organisations are closely similar and it is challenging to assign them to the corresponding public organisation without references. This analysis leads to the conclusion that the nature of real estate held by different public organisations is closely comparable. As a consequence of this similarity, frameworks are exchanged among themselves (Directie FM en sector Huisvesting, 2023b). Nevertheless, there is a notable discrepancy between the two sources in terms of the number of years. Both sets of guidelines are currently in use, and therefore it is possible to compare them.

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Guidelines of the Ministry of Interior & Kingdom Relations

The traditional office concept with fixed workstations need to be transformed into an activity-based model with a variety of flexible workstations has been introduced. It is aimed to create a working environment that is safe, healthy, sustainable and efficient, promoting flexible working and labour productivity, while also ensuring employee satisfaction Guidelines have been established for both the exterior and interior of offices, including organization visibility to the public through a uniform corporate identity.

Factsheet Fysieke Werkomgeving Rijk (FWR) (Ministerie van Binnenlandse Zaken & Koninkrijksrelaties, 2015)

Guidelines of the police

The standardisation of the working environment facilitates place- and time-independent working, and standardisation of security shells, making it easy to scale up and down (digitally). This offers a degree of internal flexibility, expandability, possibility to use strategic excess and partial disposal options. The basic principle for offices is to achieve optimum sustainability at natural moments, always meeting the minimum requirements in the sustainability roadmap for the real estate portfolio. The number of square metres must also be reduced by one third.

Streefportefeuille en vastgoedstrategie (Directie FM en sector Huisvesting, 2023b).

Figure 4.7. Office portfolio guidelines of the Ministry of the Interior & Kingdom Relations and the Police (author based on Ministerie van Binnenlandse Zaken & Koninkrijksrelaties (2015) and Directie FM en sector Huisvesting (2023b)).

4.6 The Preferences of Stakeholders

In the period from 2005 to 2015, the focus of real estate strategies shifted from a financial perspective to one emphasizing the addition of value to the organization (Jylhä et al., 2019). Wang et al. (2021) state that real estate managers now manage portfolios in a way that buildings contribute to the core business and the various departments within the organisation. As this focus has shifted, stakeholder preferences have gained importance in real estate management. Therefore, real estate managers must consider these preferences (Dewulf et al., 2000).

The perspective focused on human well-being is crucial to ensure that accommodation meets the needs of the individual users. People strive to work comfortably and productively in the office; otherwise, they prefer to work at home or in a co-working space nearby (Voordt et al., 2022). Users' preferences and needs do not always match the requirements from an organisational point of view. An example is the standardization of office spaces and workplaces to promote flexibility and a uniform look, this can clash with the psychological need of employees to have their own place where they can express their identity as individuals or as a group. It is therefore important to strike a balance between supporting organisational goals and meeting the individual desires and needs of users (Voordt et al., 2022).

4.6.1 Stakeholder Preferences in Public Real Estate Management

Taking stakeholder preferences into account is particularly important in public real estate management, where a large number of stakeholders often results in conflicting preferences or values. Despite these conflicts, it is crucial to balance or optimize the preferences and values of all stakeholders. This is

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challenging because public values are often non-measurable and incompatible, a situation known as internal value pluralism (Kuitert, 2021).

Internal value pluralism occurs both horizontally and vertically within an organization. Horizontally, it involves the different departments and professions, while vertically, it reflects the tension between top-down and bottom-up approaches and different scales. An example of this vertical tension is the conflict between short-term project objectives and the organization's long-term goals. To manage value dynamics effectively and protect public values, it is necessary to consider all factors rather than choosing one over the other when conflicts arise. Addressing value pluralism requires paradoxical reflection that overcomes contradictions (Jarzabkowski et al., 2013). Setting minimum or maximum standards, such as the introduction of energy labels, can assist in this.

Public values can be categorized into performance values and procedural values. Performance values focus on effectiveness and efficiency, such as safety and the prudent use of taxpayers' money. Procedural values emphasize the quality of the process, including integrity, transparency, and equality (de Graaf & Paanakker, 2014).

4.7 Preference Measurement Models in the Built Environment

When a decision-maker has to make a complex decision, where own experience and judgement fall short, models can support the decision (Anderson et al., 2014). In the built environment, several models have been developed for preference measurement. These models are Preference Based Design (PBD), Designing with PFM and a priori optimization, Preference-Based Portfolio Design (PBPD) and Preference-Based Accommodation Strategy (PAS) (Wechsler, 2022). The models are all based on the Preference Function Modelling theory of Barzilai (2010). In his research, on the mathematical foundations of decision theory, he showed that the decision theory of previous studies had mathematical errors. These errors were modified by him and with this modification, the main utility of PFM is that it can measure preferences on an individual basis. "Preference, or value or utility, is not a physical property of the object being valued, that is, preference is subjective, that is, i.e. psychological, property." (Barzilai, 2010, p 58). He argues in his study that preference should be mathematically quantifiable. PFM uses preference as an empirical object, which is scaled by PFM to match the preference measure score as the mathematical object. This makes it possible to choose the best option by using a quantitative evaluation system to compare different options based on stakeholders' preferences (Barzilai, 2010).

4.7.1 Preference Based Design (PBD)

Binnekamp (2010) developed the PBD technique relating PFM to architectural decision-making. The primary distinction between PFM and PBD is that, in PBD, design decisions change as the process progresses rather than being predetermined. Although the PBD technique has been researched within architectural design issues, it has not been tested in actual projects yet (Arkesteijn, 2019; Zhilyaev et al., 2022). "The concept of PBD is to 1) use constraints for expressing each decision maker's interests or criteria in terms of allowed decision variables value ranges and relationships between decision variables to define all feasible alternatives and 2) use PFM to select from these the alternative with the highest overall preference rating. A design alternative is then a combination of decision variable values and its feasibility is defined by the constraints" (Binnekamp, 2010, p. 86).

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4.7.2 Preference-Based Portfolio Design (PBPD)

Arkesteijn and Binnekamp (2012) transformed the PBD technique so that it is applicable at the portfolio level instead of the building level. This resulted in the Preference-Based Portfolio Design (PBPD), this method gives several options for a portfolio design. Furthermore, since the comparison is made based on three preference points, Lagrange preference curves were created. The PBPD was the foundation for the PAS method.

4.7.3 Designing with PFM and a Priori Optimization

In this study, the PBD technique is further developed into a design optimization technique. "The main objective of developing a novel method for integrated stakeholder-oriented building design optimization that is based on an iterative a priori approach for finding the best-fitting design solution." (Zhilyaev et al., 2022, p. 4). PBD was connected to an optimization program language to program stakeholder preference incorporate them into the final design with as result a "multi-criteria optimization and decision-making tool" (Zhilyaev et al., 2022, p. 15). It determines the best solution to a design challenge by taking into account the preferences of several stakeholders. This technique enhances group discussions and produces optimum designs, because stakeholders may immediately feel the design repercussions of their preferences (Zhilyaev et al., 2022). The flowchart of the method is shown in Figure 4.8.

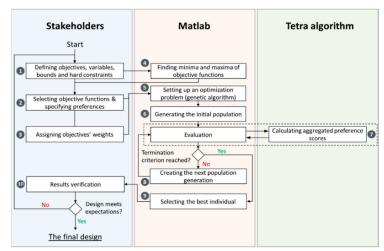


Figure 4.8. Flowchart of designing with PFM and a priori optimization (Zhilyaev et al., 2022, p. 4).

4.7.4 Preference-Based Accommodation Strategy (PAS)

PBPD is further developed into a Preference-Based Accommodation Strategy (PAS). PAS is described as, "a preference-driven approach to the design and decision-making process for the development of an accommodation strategy" (Arkesteijn, 2019, p. 35). Within the PAS method, stakeholder preferences serve as the basis for determining which design option produces a portfolio with the most value for the company. The aim is to align the portfolio with the activities and objectives of an organisation on an operational and strategic level. Based on this, different portfolios can be designed in an iterative process. Design options can be used to make portfolio-level decisions. The PAS method allows real estate managers to quickly assess the added value of an accommodation strategy. The method consists of activities and stakeholders, steps and a model (Figure 4.9) (Arkesteijn, 2019).

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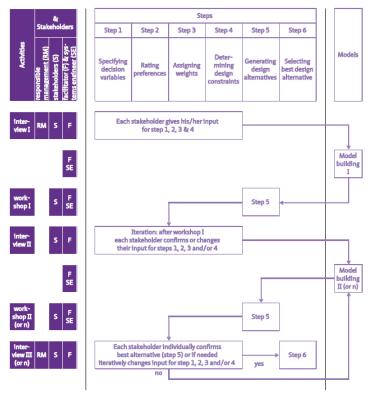


Figure 4.9. Flowchart of PAS (Arkesteijn, 2019, p. 237)

4.7.5 Conclusion Design and Decision-making Methods Researched

Figure 4.10 shows the connection between all design and decision-making models for the built environment examined in this research. For the sake of the readability of the conclusion, the different models are indicated in the text by methods 1.0 to 3.1 (Table 4.1 on the next page).

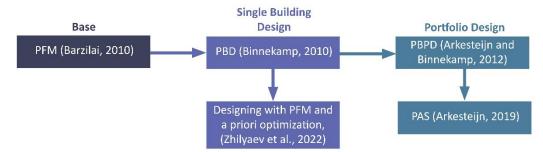


Figure 4.10. Design and decision-making models for the built environment (author based on Wechsler (2022)).

Model	Developer	Reference
Preference Function Modelling (PFM)	Barzilai (2010)	Method 1.0
Preference Based Design (PBD)	Binnekamp (2010)	Method 2.0
Designing with PFM and a priori optimization	Zhilyaev et al. (2022)	Method 2.1
Preference Base Portfolio Design (PBPD)	Arkesteijn and Binnekamp (2012)	Method 3.0
Preference-base Accommodation Strategy (PAS)	Arkesteijn (2019)	Method 3.1

Table 4.1. References in the conclusion per method (author).

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All models are based on method 1.0, which is why this model is referred to as the 'base' in Figure 3.6. Method 2.0 is a further development of method 1.0 and applies to single-building design. Method 2.1 and Method 3.0 are further developments of Method 2.0. Method 2.1 is also developed for single building design and method 3.0 is developed for application to portfolio design. Method 3.0 is then further developed as method 3.1. The challenge within the police organisation is to design portfolios. Method 2.1 does not apply to the challenge facing the police, which is the design of the office portfolio. Methods 3.0 and 3.1 are both applicable to portfolio design. Method 3.1 is a refined version of method 3.0, making method 3.1 the only method researched in this literature review that applies to portfolio design. Method 3.1 refers to the preference-based accommodation strategy design and decision-making method of Arkesteijn (2019).

4.8 Preference-based Accommodation Strategy Design and Decisionmaking Method

Before looking more closely at the implementation of the PAS method within the police, it is important that the application and all the steps of the method are clearly understood. The purpose of this paragraph is therefore to outline the PAS method.

4.8.1 What Preceded

The PAS method was created to put the Designing and Accommodation Strategy (DAS) framework of Jonge et al. (2009) into practice, improving the match between supply and demand. The DAS framework consists of several steps to determine the current balance between accommodation (supply) and organisational strategy (demand). An iterative process is applied to develop a strategy for the alignment of future accommodation, including the selection of real estate interventions based on stakeholder analysis and the translation of the organisational mission into accommodation objectives. The organisational strategy is translated into an accommodation strategy, taking into account various future scenarios (Jonge et al., 2009). However, there is a lack of definition on how to generate an overall preference score for the portfolio, so a model designer is needed to apply the framework. Another issue is the lack of measuring stakeholder preferences. Arkesteijn (2015) and Arkesteijn and Binnenkamp (2014) found that the models, used in accommodation management, used preference scales that did not use the mathematical operations of calculus and linear algebra. This led to the development of a clear, practical method called the Preference-based Accommodation Strategy (PAS).

4.8.2 Steps with Explanation of the PAS Method

Before the implementation of the steps of the PAS method, it is necessary to select the relevant stakeholders who will participate in each of the distinct phases. Arkesteijn (2019, p. 167) describes the selection of stakeholders as being conducted by the four perspectives outlined by Den Heijer (2011). The inclusion of all perspectives ensures the inclusion of all relevant information, thereby allowing for the greatest possible value to be added. The final version of the PAS method consists of six steps (Arkesteijn, 2019, p. 164). The six steps are shown in Figure 3.5 and are explained in detail in this paragraph.

Step 1. Defining the Decision Variables

The first step of the PAS method involves stakeholders defining the decision variables. The decision variables are specified by the stakeholders according to their interests. The variables defined in this step are the only variables used during the performance of the PAS method. An example of a decision variable is the accessibility of a building. The design variable value could be 60 if the unit is in minutes.

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Step 2. Stakeholders Score their Preferences

In this step, the preferred scores are established. For this purpose, the PAS method uses Lagrange curves. These curves are formed by an upper and lower reference alternative, with a third alternative determining the shape of the curve (see e.g. Figure 4.11). The mathematical calculation of the curve shape is obtained by solving the following formula:

$$P(x) = \left(\frac{(x - x_1)(x - x_2)}{(x_0 - x_1)(x_0 - x_2)}\right) * y_0 + \left(\frac{(x - x_0)(x - x_2)}{(x_1 - x_0)(x_1 - x_2)}\right) * y_1 + \left(\frac{(x - x_0)(x - x_1)}{(x_2 - x_0)(x_2 - x_1)}\right) * y_2$$

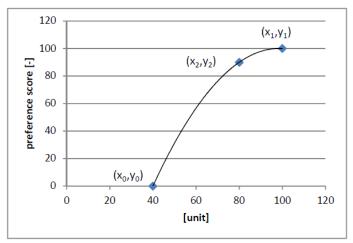


Figure 4.11. Example of a Lagrange curve (Arkesteijn, 2019, p. 159).

Each stakeholder scores their preferences for each decision variable as follows (Arkesteijn, 2019):

- a. The stakeholder defines the 2 outer reference alternatives on a Lagrange curve:
 - \circ The first reference alternative is the 'bottom' reference alternative (x₀, y₀). This reference alternative is the value that is least preferred as a decision variable and is scored at 0.
 - \circ The second reference alternative is the 'top' reference alternative (x₁, y₁). This reference alternative is the value that is most preferred as a decision variable and is scored at 100.
- b. The last point (x_2, y_2) on the Lagrange curve is determined by the stakeholder by scoring a preference for a reference alternative with a relative value of the decision variable in between the 'bottom' and 'top' reference alternatives.

Step 3. Assign Weights to the Decision Variables

The step after establishing the preference involves the stakeholders assigning weights to each decision variable (Arkesteijn, 2019). These weights reflect the relative importance of each variable. When multiple stakeholders are involved in the process, assigning weights also reflects indirectly the power between the stakeholders (Arkesteijn et al., 2015, p. 105). The difference in weight can lead to negotiations between stakeholders, often with the result that the stakeholder with the most power is trying to achieve a higher weight for his or her variables. To make the procedure transparent, a subject owner assigns weights to the different stakeholders.

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Step 4. Define Design Constraint(s)

Now the design constraints are identified by the stakeholders. The constraints determine the feasibility of a design variant (Arkesteijn, 2019). These constraints are an upper and/or lower limit assigned to one or more of the identified decision variables. This can be explained using one of the accommodation goals from Chapter 2.2.1 Sustainability in line with National Policy. Under the aforementioned policy, a constraint is that by 2027, all offices must have a minimum of label C (Directie FM en sector Huisvesting, 2023a).

Step 5. Creating the Portfolio Alternatives

The fifth step of the procedure involves creating portfolio alternatives (Arkesteijn, 2019). These alternatives are based on the allowed interventions as defined by the stakeholders, as well as the amount of buildings in the portfolio. All alternatives are then tested against the constraints identified in Step 4 to determine their feasibility. The parallel generation of design alternatives is done:

- a. Within groups of stakeholders who design alternatives, they use the design constraints to test the feasibility of the designed alternatives and apply the PFM algorithm with as a result an overall preference score of these feasible design alternatives.
- b. By the engineer who generates feasible design alternatives and uses the PFM algorithm to determine which of the feasible design alternatives has the greatest total preference score

Step 6. The Selected Design Alternative is Confirmed

The PFM algorithm is used to evaluate each of the alternatives generated in step 5 against the preference scales and weights developed in steps 1-4. This leads to a ranking of all alternatives based on the preference rating. The alternative with the highest rating most closely matches the stakeholders' requirements and the added value of the new accommodation strategy can be explicitly expressed as the difference between the valuation of the proposed and the current portfolio. This difference shows the extent to which the new portfolio better meets the organisation's needs (Arkesteijn, 2019).

4.8.3 Three Components of the PAS Method

The PAS method comprises three main components (Arkesteijn, 2019), as illustrated in Figure 4.12. In the component *steps*, the stakeholders' criteria are identified. The accommodation strategy is then formulated iteratively based on these criteria. This is done in a series of iterative sessions, where the criteria are subjected to testing and adjustment, leading to the finalisation of variants of real estate portfolios during workshops which bring together the criteria from the stakeholders. Lastly, the final real estate portfolio with the greatest added value is selected by the stakeholders (Arkesteijn, 2019). This variant is the most optimally aligned with the organisational strategy. During the PAS method, *stakeholders* engage in interviews and workshops. The following *activities* constitute the PAS method (Arkesteijn, 2019). The model builder constructs a *model* that incorporates all of the stakeholders' criteria (Arkesteijn, 2019).

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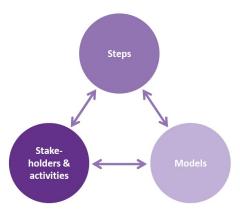


Figure 4.12. Three components of the PAS method (Arkesteijn, 2019).

4.9 Conclusion of the Literature Review

The first part of the literature review answers the first sub-question of this study. This sub-question is as follows:

"What are the benefits of using a design and decision-making method to support real estate management?"

It has been shown that in recent years, there has been a shift in real estate management where stakeholder preferences have been given an important position. Taking stakeholder preferences into account helps create value in real estate. In the context of public sector organisations, it is particularly important to consider the preferences of all stakeholders. The large number of stakeholders within public organisations increases the likelihood of conflicting stakeholder preferences or values (Kuitert, 2021). Therefore, it can be concluded that it is necessary to balance or optimise all preferences and values of the numerous stakeholders. This is challenging because public values are often immeasurable and incompatible. For the police, as a public organisation, it is therefore important to carefully select the right stakeholders and identify the preferences of all stakeholders when adding value through real estate management is desired. When selecting stakeholders, four perspectives of the Public Real Estate Model should be distinguished: organisational, financial, functional and physical (Den Heijer, 2021). This ensures that supply and demand are balanced at both operational and strategic levels. To enable effective real estate management within the complex police organisation, it is necessary to implement a design and decision-making methodology.

Furthermore, the literature review presented in this chapter addresses the second sub-question of this study, which is as follows:

"What design and decision-making method from the literature is most appropriate for the real estate management of portfolios of public organisations?"

Figure 4.13 shows the connection between all design and decision-making models for the built environment examined in this research. For the sake of the readability of the conclusion, the different models are indicated in the text by methods 1.0 to 3.1 (Table 4.2 on the next page).

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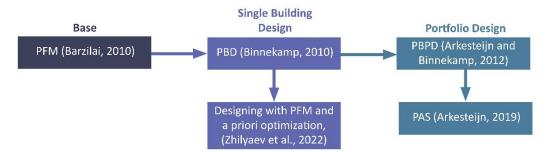


Figure 4.13. Design and decision-making models for the built environment (author based on Wechsler (2022)).

Model	Developer	Reference
Preference Function Modelling (PFM)	Barzilai (2010)	Method 1.0
Preference Based Design (PBD)	Binnekamp (2010)	Method 2.0
Designing with PFM and a priori optimization	Zhilyaev et al. (2022)	Method 2.1
Preference Base Portfolio Design (PBPD)	Arkesteijn and Binnekamp (2012)	Method 3.0
Preference-base Accommodation Strategy (PAS)	Arkesteijn (2019)	Method 3.1

Table 4.2. References in the conclusion per method (author).

All models are based on method 1.0, which is why this model is referred to as the 'base' in Figure 3.6. Method 2.0 is a further development of method 1.0 and applies to single-building design. Method 2.1 and Method 3.0 are further developments of Method 2.0. Method 2.1 is also developed for single building design and method 3.0 tais developed for application to portfolio design. Method 3.0 is then further developed as method 3.1. The challenge within the police organisation is to design portfolios. Method 2.1 does not apply to the challenge facing the police, which is the design of the office portfolio. Methods 3.0 and 3.1 are both applicable to portfolio design. Method 3.1 is a refined version of method 3.0, making method 3.1 the only method researched in this literature review that applies to portfolio design. Method 3.1 refers to the preference-based accommodation strategy design and decision-making method of Arkesteijn (2019).

Understanding the PAS method and its steps is crucial for effective implementation within the police. The method starts with stakeholders defining the decision variables, followed by the establishment of preference scores using Lagrange curves. Subsequently, weights are assigned to the decision variables to determine their relative importance. Following this, design guidelines are established to assess the feasibility of different design alternatives. In the fifth step, portfolios of alternatives are created and tested for feasibility. Finally, the optimal design alternative is selected based on a ranking that reflects the preferences of the stakeholders. The PAS method facilitates a more transparent and effective decision-making process for accommodation management in the police through the application of a structured approach and involving all stakeholders.

The previous chapters have provided a comprehensive overview of the context in which the police operate. It was also shown that the use of a design and decision-making method would be beneficial for the police because of the many stakeholders, each with their own set of preferences that should be optimally considered in future police real estate. It was further established that the PAS design and decision-making method is the most appropriate method for this purpose, as evidenced by the current

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literature. Based on a previously conducted pilot at the police OBT portfolio, an evaluation of the process of the PAS method as described above, is represented in the next chapter.

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5. Experiences with the OBT Pilot

This chapter addresses the sub-question: 'What are the experiences with the PAS method within the Netherlands Police?'. A pilot of the PAS method was conducted with the police at the OBT locations, which serve as educational venues for the refreshment of officers' physical, mental, and moral knowledge. The pilot proceeded following the full PAS procedure, as described in chapter 3.4. The subsequent assessment, accompanied by the identification of associated lessons learned, constitutes the focus of this chapter.

5.1 The Context of the OBT Pilot

Before presenting the results of the interviews, it is important to outline the context of the pilot. This section describes the course of the pilot and the deviations from the standard process described in section 3.4.2.

Key points of focus

The OBT pilot had several key focus areas. The need to ensure that the plan became a shared consideration that included the client's goals was a key area of focus within the OBT pilot (van Staveren et al., 2022a). The client includes trainees, units, the client and the director of operations (van Staveren et al., 2022a). An example of a goal of the client was that consideration was given to the need for a shift in resources when accommodation was cut. This included the provision of more vehicles for the driving instructors in optically recognisable vehicles and the arrangement of parking facilities at locations other than the OBT sites (van Staveren et al., 2022a). Another aspect was the reduction in CO₂ emissions through less new construction and disposal, which had implications for sustainable mobility such as more electric vehicles, buses and carpooling (van Staveren et al., 2022a).

Stakeholders

During the pilot, participants were divided into different stakeholder perspectives: 40% organisational, 40% functional and 20% technical. This included two stakeholders within the organisational perspective, two stakeholders within the functional perspective and four stakeholders within the technical perspective (van Staveren et al., 2022b). The financial perspective was excluded, as it was already fully represented within the boundary conditions (van Staveren et al., 2023).

Interview round 1

In the next step, all aforementioned stakeholders were interviewed to find out their preferences. In this initial interview round, all input for the PAS model was gathered. This yielded 13 preconditions, 21 objectives and 47 criteria (van Staveren et al., 2022b).

The information on some stakeholder criteria was not yet complete or the necessary data to include some criteria in the model was still missing. This was the case for 12 out of 47 criteria (van Staveren et al., 2022a). When calculating the overall preference scores, these criteria were not included and the weights were recalculated, keeping the ratio between them the same (van Staveren et al., 2022a). The importance of a category, in which several criteria were included, was determined by the sum of the relative weights of each criterion of all participants, and thus not the mean (van Staveren et al., 2022a). Examples of criteria that initially could not be included in the model include employee commuting time and the synergy opportunities with, for example, the Police Academy (van Staveren et al., 2022a).

Workshop 1

In the output situation, the OBT portfolio had an overall preference score of 59. Following the first workshop, a draft of the future portfolio emerged with a total preference score of 66 (van Staveren et al., 2022a). The distribution of the preference score across the different perspectives was as follows (van Staveren et al., 2022a):

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- Organisational: 19, an increase of 1 point compared to the previous situation;
- Functional: 34, a decrease of 1 point compared to the previous situation;
- Technical: 12, an increase of 6 points from the previous situation.

During workshop 1, two stakeholders were absent during the workshop, one from the organisational and one from the functional perspective, and no replacement was sent for these stakeholders (van Staveren et al., 2022a).

Follow-up steps after workshop 1

Following the workshop, a series of follow-up calls with all stakeholders were conducted in the week following to ascertain whether any adjustments were required to the criteria, weights and/or preference curves (van Staveren et al., 2022a). Over the following month, the PAS model underwent further refinement. On 8 December, workshop 2 was held to further optimise the preferred scenario, where possible (van Staveren et al., 2022a). The relocation of the balancing session resulted in a reduction in the allotted time for the second workshop, which was not as extensive as initially anticipated.

Comparing the OBT and the office portfolio pilot

Lastly the differences between the OBT and the office portfolio pilot of the PAS method. An important difference between the implementation of the OBT pilot and the pilot on the office portfolio of the PAS method is the accommodation policy. At the time of the OBT pilot, no accommodation policy provided guidance that the current accommodation policy provides, as outlined in Chapter 2. Furthermore, the police organisation has been in existence for 1.5 years longer, which has allowed it to mature further. This combination means that at the time of the OBT pilot, there were more uncertainties and frustrations than now.

Having established how the pilot was deployed and deviated from the standard PAS process, the next section of this chapter will analyse the results from the evaluation interviews to further identify insights into the application of the PAS method in the police.

5.2 Analysis of the Experiences with the OBT Pilot

The evaluation methodology adhered to the protocol established by De Visser (2016) and Arkesteijn (2019). However, given the unique nature of this pilot compared to previous ones, new interview questions were formulated for this case, the interview questions are provided in Appendix D.

The evaluation interviews at the OBT locations specifically focused on the decision support system and its developmental trajectory. Consequently, the assessment used the evaluation categories delineated by Joldersma & Roelofs (2004, pp. 697-698), encompassing:

- (1) experiences with the method;
- (2) attractiveness of the method;
- (3) participants' observations on the effectiveness of the method, and
- (4) observers' perceptions of the method's effectiveness.

The evaluation categories of Joldersma & Roelofs (2004) are in this research subdivided into several themes. The themes are based on the inductive codes described in section 4.2.3. The introduction of each theme is accompanied by a description of the inductive codes used.

Given that the final category necessitates input from the researchers, two in-depth interviews were conducted with the researchers who implemented the PAS method in the past. Meanwhile, the other three categories - experience, attractiveness, and effectiveness - were appraised during in-depth

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interviews with the five police employees involved in the pilot. In Table 5.1 an overview is given of the interview participants, including their function, role within the pilot and if they are a stakeholder to which CREM perspective (see Chapter 3.2) they belong.

Participant	Function	Role within the pilot	CREM Perspective
Participant 4	Police employee	Stakeholder	Strategic
Participant 5	Police employee	Stakeholder and participant project team	Physical
Participant 6	Police employee	Stakeholder	Physical
Participant 7	Police employee	Stakeholder	Physical
Participant 8	Police employee	Process manager	-
Participant 9	Researcher	Facilitator	-
Participant 10	Researcher	Facilitator and model developer	-

Table 5.1. Overview of participants, including their function and role within the pilot (author).

The analysis of the interviews revealed that, in addition to the analysis using the Joldersma & Roelofs (2004) evaluation categories and the inductive codes, there was an additional dimension, namely police governance. Therefore, the strengths and areas of development that emerged from the interviews were identified as specific to the PAS method or to police governance.

PAS-specific points are directly related to one of the components of the PAS method as described in section 4.8.3. For governance-specific elements, Bevir's (2012, p. 1) definition of governance is used, which states that "Governance refers to all processes of governing, whether undertaken by a government, market, or network, whether over a family, tribe, formal or informal organisation, or territory, and whether through laws, norms, power, or language. Governance differs from government in that it focuses less on the state and its institutions and more on social practices and activities." The breakdown of strengths and areas of development as specific to PAS or police governance is described and shown in all sections below.

Finally, the sections that follow present the strengths and areas of development identified by the participants of the interviews. Where a strength or point for improvement was mentioned by three or more participants, this is included as a learning point in the conclusion of this chapter.

5.3 Experience with the Method

The interviews with participants 4 to 8 sought to gain insight into their experiences of the PAS pilot. Participants were asked to share their thoughts on what they liked about the PAS pilot and any areas they felt could be improved.

5.3.1 Model

Inductive code(s)	Dashboard	Tool
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Table 5.2. Inductive code(s) of the theme model (author).

Interviewee statements on the dashboard

Two aspects with regard to the model stand out. Many interviewees said that the model with the help of on and off buttons, quickly provides valuable insights (participant 4; participant 5; participant 6; participant 7). The dashboard of the PAS method is seen as an effective communication tool for people who do not deal with accommodation daily (participant 4). It generates insights into the consequences of choices and creates awareness (participant 4; participant 5; participant 6; participant 8). Applying

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the method can also show that parties are not far apart in terms of wishes, but simply look at things from a different perspective (participant 4).

"It is nice that when you turn the switch, you see the effect right away." — Participant 8

Analysis of interviewee statements on the dashboard

The model, with its dashboard, was perceived in a highly positive manner by four of five participants interviewed. The model provides a rapid overview of all relevant criteria and functions effectively as a communication tool. The model with on and off buttons that quickly provides valuable insights is a strength of the PAS method.

Strengths of PAS method	Number of interviews where this was a recurring theme
Model with on and off buttons quickly provides valuable insights	4

Table 5.3. Strengths of PAS method of the theme dashboard (author).

Interviewee statements on the tool

One person noted that the model has limitations as some criteria [referring to the 12 of the 47 criteria that were not yet translated into the model during the first workshop as described in Chapter 5.1] were not yet translated into the model during the first workshop (participant 7). Another point of feedback was that building the model takes a lot of energy (participant 8).

Analysis of interview statements on the tool

Before going into detail, it is important to note that collecting all criteria during the first round of interviews is not a requirement. Due to the iterative nature of the PAS method, these criteria can also be collected at a later stage. However, there are two reasons that explain why not all criteria were translated into the model during the first workshop. Firstly, not all stakeholders had completed the input for the criteria after the first round of interviews. This was due to the time constraints imposed by the timetable to which the process was subject. However, during the pilot, the second round of interviews did not go as planned due to an unexpected change in the police timetable, which meant that not all the criteria were collected in this round either. Secondly, quantifying the criteria was not always possible because the data needed to quantify the relevant criteria was not available. This is because certain data is not monitored, so it is up to the police to decide whether they deem it necessary to monitor this data.

Furthermore, It was also observed that the construction of the model requires a significant amount of time, although this is primarily the responsibility of the modeller and not the responsibility of the stakeholders.

5.3.2 Emotions

Inductive code(s) Emotions

Table 5.4. Inductive code(s) of the theme emotions (author).

Interviewee statements on the emotions

Emotional aspects played a role, as highlighted by four interviewees (participant 4; participant 5; participant 7; participant 8). Some stakeholders did not feel heard in the past, with as result that some

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stakeholders were not immediately positive and constructive at the table (participant 4; participant 8). During the workshops, participants were able to acknowledge and process past frustrations. Once the requisite space had been created, the stakeholders were able to adopt a more positive attitude, although this did require time (participant 5).

"Everyone at the table has a story. If people have not felt heard before, they will not immediately sit at the table positively and constructively." — Participant 4

Analysis of interviewee statements on the emotions

It is crucial to allocate time at the outset of workshops for the discussion of past challenges. It turned out that the workshops served as an appropriate place to discuss these past frustrations. The opportunity for a discussion of past frustration ensures that previous frustrations are resolved and all participants can contribute constructively and positively to the design of the variants. Keep encouraging a constructive and positive attitude among stakeholders by allowing for emotional responses to be expressed during the workshops, given the history involved.

Strengths of PAS method	Number of interviews where this was a recurring theme
Allowing for emotional responses to be	4
expressed during the workshops	

Table 5.5. Strengths of PAS method of the theme emotions (author).

5.3.3 Understanding and support

Inductive code(s) Understanding and support

Table 5.6. Inductive code(s) of the theme understanding and support (author).

Interviewee statements on the understanding and support

The PAS method facilitated a deeper understanding between the participants, showing that their perspectives are not as disparate as they may appear. Instead, they are often shaped by different contexts and experiences (participant 4). Furthermore, the method is regarded as an effective communication tool, particularly for those who are not directly involved in the matter daily. The PAS method helps stakeholders to understand the impact of certain decisions. Furthermore, the PAS method has fostered support among accommodation employees of the police (participant 8). Consequently, the method has not only enhanced communication and understanding, but also fostered wider acceptance and support within the organisation.

However, it was noted by one of the respondents that support for the process has decreased, despite the increased total preference score (participant 5). The necessity of effective expectation management was also emphasised, and to achieve this the formulation of transparent agreements on the outcomes of the PAS method is necessary (participant 8). It is essential to have support and commitment before starting with the pilot (participant 8). Sometimes the pilot was not considered a priority by the participants, which reduced support. This sometimes seemed to lead to unfounded responses to 'get rid of it' (participant 8).

Analysis of interviewee statements on the understanding and support

The PAS method enhanced mutual understanding and communication between the participants, enabling them to gain insight into each other's perspectives and the impact of decisions according to

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two of the participants. Furthermore, the method fostered a supportive environment that enhanced acceptance and support within the organisation.

One of the participants noted that expectations should be managed at the outset regarding the outcomes of the method. From the presentations (van Staveren et al., 2022a, 2022b) given during the pilot, it can be seen that it was communicated that the outcomes of the PAS method serve as input for a balancing session. During the balancing sessions, the outcome of the PAS method, is taken into consideration and decisions are made based on this advice. Consequently, the outcomes of the PAS method are advisory in nature and not decision-making. Although only one interviewee explicitly stated in the interviews that expectation management with regard to the PAS method is needed, it would be beneficial to further explore how the other stakeholders feel about this.

5.4 Attractiveness of the Method

Subsequently, participants 4 to 8 were questioned regarding their experiences of the interviews and workshops. They were specifically asked to identify the aspects of the interviews and workshops that they found most appealing and to suggest potential areas for improvement. Finally, the participants were asked about the overall process of the pilot.

5.4.1 Interviews

Inductive code(s)	Duration of the interviews	Interviews	quantification	
	6.1 .1			

Table 5.7. Inductive code(s) of the theme interviews (author).

Interviewee statements on the interviews

The interviews lasted an hour, and this time was perceived positively by all participants (participant 4; participant 5; participant 6; participant 7; participant 8). The interviews were conducted in a professional and efficient manner, with participant 6 reporting a positive experience. The focus during these interviews was on quantifying data, which many stakeholders found challenging as they are not used to working in this way (participant 4; participant 5; participant 6). Some even regarded it as 'rough estimations' (participant 4). Furthermore, participant 6 suggested that it would have been helpful if there had been guidelines for quantifying the criteria.

"Making the curves was complicated, sometimes I thought "just do this curve". If you had asked me a day later, I could have just given up on something else." — Participant 5

Analysis of interviewee statements on the interviews

One area for development is the quantification of the criteria. This was perceived as challenging during the OBT pilot and this is also an observation that was evident from previous pilots conducted at other organisations (Arkesteijn, 2019, p. 306). The reason for this is that quantification is a new concept for stakeholders. Despite the use of examples, exercises and a video, stakeholders find this new approach difficult. It is therefore important to continue using examples, exercises and the video as a means of demonstrating the new way of working. Furthermore, it is essential that stakeholders continue to receive guidance and support from experts throughout the pilot. Experts are available to answer questions and provide practical assistance in quantifying criteria.

Strengths of PAS method	Number of interviews where this was
	a recurring theme

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Table 5.8. Strengths of PAS method of the theme interviews (author).

Area of development of PAS method	Number of interviews where this was a recurring theme
Support the process of quantifying criteria	3

Table 5.9. Area of development of PAS method of the theme interviews (author).

5.4.2 Workshops

Inductive code(s)	Duration of the workshops	workshops	
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Table 5.10. Inductive code(s) of the theme workshops (author).

Interviewee statements on the workshops

The workshops lasted a morning, this period was generally rated positively by all participants (participant 4; participant 5; participant 6; participant 7; participant 8). There was some time pressure during the workshop, but this was perceived positively (participant 5). The first workshop was experienced as interesting and fun, with all previous efforts of the stakeholders becoming concrete during this session (participant 5; participant 6; participant 8). The second workshop was generally perceived as less positive. Some stakeholders revisited previous statements and frustration arose from repeating previously discussed topics (participant 5; participant 8).

"In the second workshop, many stakeholders came back to previous statements. This workshop also did not feel right because we were going to bring up again everything we had discussed before." — Participant 5

Analysis of interviewee statements on the workshops

The first workshop and the duration of the workshops was met with a positive response, with the participants describing it as both interesting and fun. However, during the second workshop, topics from the first workshop are repeated or re-discussed to refine the design of the future portfolio. This purpose of the second workshop was presented to participants in presentations (van Staveren et al., 2022a, 2022b). It is important that this rationale behind the reassessment of the results continues to be given during the workshop, in order to avoid any confusion.

Strengths of PAS method	Number of interviews where this was a recurring theme
Duration of workshops	4
First workshop	3

Table 5.11. Strengths of PAS method of the theme workshops (author).

5.4.3 Duration and intensity of the process

Inductive code(s) Duration of the process Intensity of the process
--

Table 5.12. Inductive code(s) of the theme intensity and duration process (author).

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Interviewee statements on the process

Three interviewees stressed that the whole process was lengthy (participant 4; participant 6; participant 7). There was sometimes a lot of time between the different components in the pathway (participant 6). This led to moments when participants had to go back and remember where they had left off (participant 4; participant 7). As a result, the process was perceived as less lively (participant 7). On the other hand, one respondent felt that the overall process was too short and would have preferred it to last six instead of three months (participant 5). It was also suggested by one of the participants whether the trajectory could have been more global (participant 7), because the total process requires a significant investment of time and effort (participant 4; participant 7).

Analysis of interviewee statements on the process

It was observed by three interview participants that the overall turnaround time of the PAS method was lengthy. Sometimes there was a considerable time lapse between the various stages of the process, which meant that participants had to re-engage with previously discussed issues. The turnaround time of the overall process of the PAS method was linked to the planning of the police accommodation plans, with the results from the PAS method workshops being taken into account in the police accommodation plans. This linkage was presented and explained in the workshops. Going forward, it is important to ensure that participants are additionally informed about the turnaround time associated with police planning. This will help to avoid any confusion.

Area of development of PAS method	Number of interviews where this was a recurring theme
Provide extra clarification on the planning process	3

Table 5.13. Area of development of PAS method of the theme workshops (author).

Furthermore, two participants observed that the method requires a significant time and energy investment from the participants. It might be beneficial to conduct further research on this topic to ascertain whether this also applies to the other participants. When other participants also experience this, it might be worth considering working with a maximum number of criteria per participant to reduce the time and energy that needs to be invested. It might also be helpful if the police could inform their staff prior to the pilot that a pilot is approaching that will require considerable time and energy. In order to ensure that expectations are managed.

5.5 Participants' Observations on the Effectiveness of the Method

Finally, participants 4 to 8 were asked about their observations on the effectiveness of the method. The effectiveness of the pilot was evaluated from a number of different perspectives, including: stakeholder engagement, transparency, insight into the criteria of others, political-organisational influences, stakeholders and the scope of the case.

5.5.1 Stakeholder engagement

Inductive code(s) Stakeholder engagement

Table 5.14. Inductive code(s) of the theme stakeholder engagement (author).

Interviewee statements on the stakeholder engagement

The stakeholder engagement associated with the PAS method proved to be a success. An important aspect highlighted by all stakeholders was the added value of sitting at the table together to better

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understand each other's interests. This joint consultation gave them quick insight into the effects of the choices made (participant 4, participant 5, participant 6, participant 7, participant 8). Despite one participant finding the added value disappointing, the time investment was not considered wasted and it was interesting to see how everyone thought about the issues (participant 7). In theory, the methodology is seen as a good way to reach the right solution by including all interests of the parties (participant 8). Jointly discussing different preferences of all stakeholders within the methodology was also seen as valuable (participant 5).

Analysis of interviewee statements on the stakeholder engagement

The PAS method facilitated a meetings between the stakeholders to discuss the issues surrounding OBT's accommodation issue. In addition to addressing the issues at hand, the process of bringing all stakeholders together also facilitated a deeper understanding of each other's criteria. All stakeholders highlighted the value of these meetings, gaining new insights into each other's interests and perspectives.

Strengths of PAS method	Number of interviews where this was a recurring theme
Sitting together with all stakeholders	5

Table 5.15. Strengths of PAS method of the theme stakeholder engagement (author).

5.5.2 Transparency

Inductive code(s)	Transparency	Initial lack of transparency
inductive code(s)	панѕрагенсу	illitial lack of transparency

Table 5.16. Inductive code(s) of the theme transparency (author).

Interviewee statements on the transparency

The PAS methodology contributes to transparency about the different interests and their weighting. The methodology made the various preferences of all stakeholders concrete and tangible (participant 5), allowing everything to be viewed more objectively (participant 8). This ensured better understanding of the different interests among the participants and more transparent decision-making (participant 4, participant 5, participant 8).

Analysis of interviewee statements on the transparency

In the PAS method interview rounds, stakeholders were able to express their preferences regarding OBT's accommodation issue. During the workshops, stakeholders gained insight into each other's preferences, which led to greater transparency about the different interests and their relative importance. This enhanced the comprehension of the diverse positions and priorities within the project.

Strengths of PAS method	Number of interviews where this was a recurring theme
Transparent decision-making	3

Table 5.17. Strengths of PAS method of the theme transparency (author).

Interviewee statements on the initial lack of transparency

However, participant 4 highlighted the initial lack of transparency, noting that the process begins on an individual basis. The criteria and weighting of other stakeholders are only made clear at a later stage.

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Another respondent observed that different interviews addressed the same topics, which could have been avoided if an understanding of the different perspectives had been created earlier (participant 7).

Analysis of interviewee statements on the initial of transparency

The process commenced individually, according to one interview participant. However, this is part of the process and it is not possible to show the criteria of all stakeholders during the interviews. However, the criteria can be shared after the interviews but before the workshops. The weights of each stakeholder can be shared at the time of their assignment. It would be beneficial to further examine the advantages and disadvantages of sharing the weights and criteria at an earlier stage.

Furthermore, the second round of interviews covers the same topics as the first round, as participants now have the opportunity to adjust their criteria based on new insights. Consequently, it is logical for the interview to cover the same topics; this is unavoidable. Should participants not wish to make any adjustments, the interview will conclude within five to ten minutes.

5.5.3 Insight into the criteria of others

Inductive code(s) Insight into the criteria of others

Table 5.18. Inductive code(s) of the theme insight into the criteria of others (author).

Interviewee statements on the insight into the criteria of others

The interviews as part of the PAS method yielded valuable insights. Some participants reached certain insights quickly (participant 4) and found the interviews interesting, as they prompted them to think in a structured way about issues they normally do not think about so much (participant 7). The initial interviews created a lot of insight into the problem (participant 5) and the outcomes and possibilities for portfolio assessment were perceived as interesting and enlightening. This provided participants with a comprehensive understanding of the implications of their choices (participant 4; participant 5; participant 6).

"It was fun to do and I found the outcome and options for portfolio assessment interesting to see. It gave a good insight into your choices and the consequences of your choices." — Participant 6

Analysis of interviewee statements on the insight into the criteria of others

The interviews conducted as part of the PAS method provided significant insights for the participants. They swiftly gained understanding and found the process engaging, as it encouraged them to consider issues more systematically than they normally would. The initial interviews offered a thorough grasp of the problem, and the results and options for portfolio assessment were seen as both fascinating and illuminating, giving participants a clear comprehension of the consequences of their decisions.

<u>Strengths</u> of PAS method	Number of interviews where this was a recurring theme
Insight in criteria of others	3

Table 5.19. Strengths of PAS method of the theme insight into the criteria of others (author).

5.5.4 Political-organisational influences

Inductive code(s) Political-organisational influences

Table 5.20. Inductive code(s) of the theme political-organisational influences (author).

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Interviewee statements on the political-organisational influences

Political-organisational interests play a major role within the police, which made it difficult to make decisions based on the PAS method (participant 4; participant 5; participant 8). The lack of expectation management beforehand led to feelings of wasted effort. This did not benefit and support, the process or the outcome (participant 4). At the end of the process, the stakeholders had decided that a particular location was not needed. This location did eventually make it into the accommodation plan because of these political-organisational influences. This resulted in some disappointment among stakeholders, as different expectations had been set at the outset of the process (participant 8).

Analysis of interviewee statements on the political-organisational influences

In presentations (van Staveren et al., 2022a, 2022b) during the workshops it was made clear in advance that the results of the PAS method were not decisive but intended as advisory input for the balancing sessions. In the balancing sessions, accommodation-related decisions are made. This was apparently not clear to stakeholders or the stakeholders did not remember this. It may also be the case that stakeholders, who, for example, do not deal with real estate daily, did not understand what a balancing session is. Therefore, it should be even more clearly communicated in the future what happens with the results of the workshops and whether the PAS method is used as a decision-making tool or as a decision support tool.

Area of development of PAS method	Number of interviews where this was a recurring theme
Explain more clearly what will happen	3
with the results of the workshops	

Table 5.21. Area of development of PAS method of the theme workshops (author).

5.5.5 Stakeholders

Inductive code(s)	Presence of stakeholders	Knowledge of stakeholders		
Table 5 22 to dusting and (a) of the thouse status believe (suith an)				

Table 5.22. Inductive code(s) of the theme stakeholders (author).

Interviewee statements on the presence of stakeholders

Not all stakeholders were present at the workshops (participant 4; participant 5). Furthermore, one of the key stakeholders, namely the units, was missing (participant 8). The absence of stakeholders affected the completeness of the discussions (participant 8) and this probably negatively affected the quality and representativeness of the outcomes of the workshops.

In addition, input from key partners, such as Defence, the Royal Military Police and the Police Academy, was not included in the pilot (participant 7). This has resulted in a reduction in cooperation with the Police Academy, Defence and the Royal Military Police, which is viewed as a missed opportunity (participant 5). This may have resulted in a less comprehensive and integrated approach to the pilot, which has meant that valuable insights from these partners have been missed (participant 5).

Analysis of interviewee statements on the presence of stakeholders

Prior to the pilot, the police selected the stakeholders they considered most relevant to the project and who represented all perspectives. Two of the selected stakeholders were unable to attend the workshops. The workshops were designed to ensure that all stakeholders were involved in the design of the different portfolio alternatives. The stakeholders who were unable to attend the workshops were

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unable to participate in the design of the different variants. All participants emphasised the value of collaboration with all stakeholders during this evaluation (see Table 5.15). It is therefore crucial for the police to disseminate this message and ensure the presence of all stakeholders.

Area of development of police governance	Number of interviews where this was a recurring theme
Ensure the presence of all stakeholders	

Table 5.23. Area of development of PAS method of the theme stakeholders (author).

Chain partners were not involved in this pilot because starting a pilot with a complex composition of stakeholders is not optimal. Here, a conscious decision was made to exclude chain partners. If it appears that several stakeholders question why chain partners are not involved during the pilot, it might be helpful to communicate to the stakeholders that chain partners were not included in the pilot, to keep the scope of the pilot manageable.

Interviewee statements on the knowledge of stakeholders

Some stakeholders had the impression that for stakeholders that are not involved in accommodation daily, the method was too much out-of-the-box thinking. It was difficult for stakeholders to determine whether the criteria were of the right level (participant 4; participant 5). An example here is a discussion on the presence of a shooting range versus the presence of a printer. This group of stakeholders, in addition to their current work, invests extra time in the topic of accommodation (participant 4).

"For some stakeholders, accommodation is not their day-to-day business, so they were not the right people at the table. For them, it is too much out-of-the-box thinking and it is extra time they have to invest in accommodation." — Participant 4

Analysis of interviewee statements on the knowledge of stakeholders

It is crucial that the method incorporates stakeholders who are not directly involved in real estate daily. This ensures, for example, that the user's perspective is also represented. However, stakeholders who do not deal with real estate daily were not interviewed for this evaluation. It is therefore not possible to conclude with certainty that they actually perceived the method as complicated.

5.5.6 Scope of the Case

Inductive code(s)	Scope	Case
	•	

Table 5.24. Inductive code(s) of the theme scope of the case (author).

Interviewee statements on the scope

Three of the interviewees emphasised the importance of accurately defining the scope of the chosen portfolio before applying the PAS method. It was noted that the PAS method is a complex tool that is not suitable for projects that are too small (participant 6). Three respondents (participant 5; participant 6; participant 7) perceived the PAS method as too heavy for OBT locations. This emphasises the importance of carefully considering when and where to use the PAS method to ensure the tool is proportionate to the project.

Analysis of interviewee statements on the scope

Three stakeholders have expressed concern that the scope of the OBT pilot is of the right size. A smaller scale was deliberately chosen for the pilot to allow for quick adjustments based on initial feedback and

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results. This makes it easy to refine and optimise the approach before scaling up. In addition, a smaller scale allows for more accurate monitoring and evaluation, providing detailed insights and data that are essential for improving the project. This rationale for the chosen portfolio was explained during the workshop presentations (van Staveren et al., 2022a, 2022b). However, it is crucial to keep communicating that this is a pilot project and that, as such, certain choices must be made, such as limiting the scope to a manageable size.

Area of development of PAS method	Number of interviews where this was a recurring theme
Provide further clarification on the role	3
of the pilot and how this relates to the	
overall project	

Table 5.25. Area of development of PAS method of the theme scope of the case (author).

Interviewee statements on the case

The choice of OBT locations case was criticised by three respondents, suggesting that other cases would have been more appropriate (participant 5; participant 7; participant 8).

Analysis of interviewee statements on the case

Although the OBT case was not deemed suitable as a test case for the method, it was selected following careful consideration with the assistance of police employees (participant 9). The OBT case has been categorised by the police as a 'special'. Despite the facilitator's extensive considerations in selecting the OBT case, a case that falls under more standardisation was deemed more suitable for a pilot.

Area of development of PAS method	Number of interviews where this was a recurring theme
Select a case that is more subject to standardisation	3

Table 5.26. Area of development of PAS method of the theme scope of the case (author).

5.6 Observers' Perceptions of the Method's Effectiveness

In the interviews with participants 9 and 10, who acted as observers, the same questions were asked as to the participants working for the police (participants 4 to 8). This was done to understand the perception of the observers of the OBT pilot. The interviews are subjected to the inductive codes workshops, process and stakeholders. Consequently, the most relevant statements from both interviews were presented for analysis.

5.6.1 Workshops

Interviewee statements on the workshops

The application of the PAS method at police OBT locations brought several challenges and insights, as described by both the model developer and the facilitator of the process. Both experienced the pilot as positive and constructive (participant 9; participant 10). The model developer emphasised that the PAS method pilot was a small part of a larger accommodation issue within the police and that the outcomes of the pilot were being integrated into larger plans (participant 10). Although the workshops were constructive, the large number of criteria and preconditions proved challenging for the stakeholder according to the developer of the model (participant 10). Also, the composition of

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stakeholders sometimes led to discussions outside the intended scope of the model during the workshops, for example on the synergy between OBT and the police academy (participant 10).

"The thing that was actually most different about this pilot, compared to the pilots that I had done before, ... was that the piece that we were doing for the OBT was a piece of a much bigger puzzle that was happening at the level of the whole police organisation." – Participant 10

Analysis of interviewee statements on the workshops

In the preceding section, participants in the interview proposed that the trajectory could have been more global (participant 7), given that the overall process requires a significant investment of time and effort (participant 4; participant 7). The modeler noted that the extensive list of criteria and preconditions presented a significant challenge. To streamline the process and reduce the time and effort required of the stakeholder, it would be beneficial to explore the impact of imposing a limit on the number of criteria. It is important to critically examine the advantages and disadvantages of including an unlimited number of criteria versus a maximum number of criteria per stakeholder in the pilot.

5.6.2 Process

Interviewee statements on the process

The timing of the workshops was influenced by external processes, which required a degree of flexibility in planning and conducting the sessions (participant 9; participant 10). According to the model developer, this resulted in a noticeable shift from designing freely in the first workshop to finding more specific solutions during the second workshop, which somewhat limited the original objectives of the second session (participant 10).

Analysis of interviewee statements on the workshops

This corroborates the statements made by participants 5 and 8. They experienced the second workshop less positive then the first workshop. Some stakeholders revisited previous statements and frustration arose from repeating previously discussed topics (participant 5; participant 8). As it transpired, this was due to the rescheduling of the second balancing session. It is important to note that unexpected schedule changes can and do occur, and that every effort was made to anticipate them as best as possible.

5.6.3 Stakeholders

Interviewee statements on presence of stakeholders

The facilitator stressed the importance of carefully selecting the right stakeholders and dealing with changing boundary conditions during the process (participant 9). Involving all relevant stakeholders in the workshops was also seen as crucial, but the facilitator acknowledged the challenges involved in ensuring their participation (participant 9). Some stakeholders were unable to participate in the workshops due to other commitments, this affected the process and final outcomes (participant 9).

"There were three people who had done interviews, who did not attend the workshops. Yes, of course that has consequences." – Participant 9

Analysis of interviewee statements on presence of stakeholders

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The statement on the absence of stakeholders aligns with the observations made by police employees (table 5.23). They also noted that not all stakeholders could participate in the workshops. At the same time, they emphasised the value of collaboration with all stakeholders during this evaluation (see Table 5.15). It is therefore crucial for the police to disseminate this message and ensure that all stakeholders attend. This development point therefore aligns with the area of development from table 5.23 that stakeholder participation should be guaranteed.

Area of development of police governance
Ensure the presence of all stakeholders

Table 5.27. Area of development police governance of the theme stakeholders (author).

5.7 Conclusion Experiences with the OBT Pilot

The PAS method is an suitable approach for addressing the accommodation issue within the police. The application of the method resulted in the creation of a portfolio that included all relevant stakeholders preferences. The proposed portfolio achieved a higher preference score than before, and all parties involved in the process concurred with this design proposal. The portfolio was designed in an objective manner, without any bias towards the stakeholders. During the process, stakeholders gained insights into each other's criteria, which they had never previously experienced.

In Table 5.28 all strengths are shown that are discovered during the evaluation of the OBT pilot. The right-hand column indicates the number of interviews in which the relevant strength was identified. Only those strengths that were mentioned by more than half of the participants were included. This indicates that the strength was referenced in at least three interviews. The strengths are presented in descending order, from those mentioned the most (five times) to those mentioned the least (three times).

Strengths of PAS method	Number of interviews where this was a recurring theme
Sitting together with all stakeholders	5
Duration of interviews	5
Model with on and off buttons quickly provides valuable insights	4
Allowing for emotional responses to be expressed during the workshops	4
Duration of workshops	4
First workshop	3
Transparent decision-making	3
Insight in criteria of others	3

Table 5.28. Strengths of the PAS method (author)

It is also pertinent to note that the interviews were conducted with a specific focus on the PAS method. The absence of positive findings in the interviews on police governance does not imply the absence of such findings; rather, it is a consequence of the focus of the interviews.

Although the PAS method offers promising benefits, such as sitting together with all stakeholders, transparent decision-making and insight in criteria of others, its effectiveness within the police context can be further improved by addressing the areas for development identified during the evaluation. The areas of development are shown in Table 5.29 and Table 5.30. Furthermore, also in the right-hand

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column of the areas of developments the number of interviews in which the relevant area of development was identified is indicated. Only those strengths that were mentioned by more than half of the participants were included. This indicates that the strength was referenced in at least three interviews. The strengths are presented in descending order, from those mentioned the most (five times) to those mentioned the least (three times). Finally, a distinction has been made between areas of development of the PAS method (Table 5.29) and areas of development of the police government (Table 5.30).

Areas of development of PAS method	Number of interviews where this was a recurring theme
Support the process of quantifying criteria	3
Provide extra clarification on the	3
planning process	

Table 5.29. Area of development of the PAS method (author).

Area of development of police governance	Number of interviews where this was a recurring theme
Ensure the presence of all stakeholders	4
Explain more clearly what will happen	3
with the results of the workshops	
Provide further clarification on the role	3
of the pilot and how this relates to the	
overall project	
Select a case that is more subject to	3
standardisation	

Table 5.30. Area of developments of the police governance (author).

Before this conclusion can be drawn, it is important to discuss one of the limitations of this study. The results of this chapter are based on a reflection on events and experiences that took place a year and a half ago. The interviews and stories of people involved at the time may be subject to memory bias. Many of the opinions point to the need for clearer communication at the beginning of the project about what would happen with the results. Although this communication was explained in presentations about the components of the PAS method at the time, this information may not have been clear to all participants or may have been forgotten over time.

This chapter has presented a number of recommendations designed to address the areas of development while maintaining the aforementioned strengths. The recommendations therefore answer the third sub-question, which reads as follows:

'What are the lessons learned from the experiences with the PAS method within the Netherlands Police?'

It is suggested that the following advice could be beneficial for the experts of the PAS method when piloting the PAS method on a larger scale:

3. Quantification is perceived as challenging, despite the examples, exercises and a video have already been used during the pilot. It is therefore vital to maintain the use of these tools and

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- provide ongoing guidance and support to stakeholders. Experts should be available to answer questions and provide practical assistance in quantifying criteria.
- 4. The PAS methodology was found to have a lengthy overall turnaround time. The overall turnaround time of the PAS method was dependent on the planning of police accommodation plans. The planning process was presented and explained in detail during the workshops. Going forward, it is crucial to ensure that participants are even better informed about the turnaround time involved in police planning and keep repeating the reasoning behind the turnaround time.

In addition, it may be beneficial to consider implementing the following advice into the police's governance when piloting the PAS method on a larger scale:

- 5. The workshops were designed to ensure that all stakeholders were involved in the design of the different portfolio alternatives. Those stakeholders who were unable to attend the workshops were unable to participate in the design of the different variants while the value of collaboration with all stakeholders was highlighted by all participants. It is therefore crucial for the police to spread this message and ensure that all stakeholders attend.
- 6. The results of the OBT pilot are intended to provide guidance for the balancing sessions, rather than to be definitive. It became evident that this information was not clearly communicated to stakeholders, or that they had forgotten it. It is therefore important to communicate more clearly in the future what happens to the workshop results and whether the PAS method is used as a decision-making tool or decision-support tool.
- 7. A smaller scale was deliberately selected for the pilot to facilitate adjustments based on initial feedback and results. The rationale behind the selected portfolio was outlined during the workshop presentations. However, it is essential to communicate to all stakeholders that this is a pilot project and that certain decisions, such as limiting the scope to a manageable size, have been deliberately made. Additionally, it would be beneficial to ensure that this communication is even more thorough than it has been in the past.
- 8. Although the OBT case was not deemed suitable as a test case for the method, it was selected following careful consideration with the assistance of police employees. The OBT case has been categorised by the police as a 'special'. Despite the facilitator's extensive considerations in selecting the OBT case, it is advised to select a case that is more subject to standardisation for a pilot study.

In the context of organising a portfolio-level PAS pilot, it is important to consider the above-mentioned strengths and areas of development and apply the corresponding advice. In light of the insights from the previous OBT pilot, it is crucial to distinguish between OBT-specific and more broadly applicable strengths and areas of development for the applicability on a larger scale, specifically the office portfolio, of these insights. This is further elaborated in the next chapter.

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6. Application of the PAS Method to the Office Portfolio

The previous chapter has shown that the evaluation of the OBT pilot has identified both areas of strengths and development. The next step in integrating the PAS method within the police is to apply the PAS method on a larger scale. As indicated in the problem statement (Chapter 1) the office portfolio of the police has been chosen for this purpose. Before implementing the PAS method within the office portfolio, it is essential to identify the desired needs of the intended users of the PAS method on the office portfolio scale. The National Portfolio Management team within the police is the intended user. They are responsible for the management of the office portfolio and they are therefore experts on portfolio management within the police. To understand their needs for the PAS method on a larger scale, three experts from the National Portfolio Management team were interviewed. Two experts were interviewed together in a duo-interview and a third expert was interviewed separately. Table 6.1 lists the participants in the interviews. The interview questions, posed during the interviews are provided in Appendix G.

Participant	Type of interview Function within police	
Participant 11	Duo interview	National Portfolio Management
Participant 12	Duo interview	National Portfolio Management
Participant 13	Individual interview	National Portfolio Management

Table 6.1. Participants expert interviews (author).

The participants of the expert interviews (Table 6.1) were asked whether they anticipate that the same strengths and areas of development will be relevant when applying the PAS method to the office portfolio, or whether the points in question are specific to the OBT portfolio. When a point is deemed to be case-specific, it will not be included in the recommendation for the implementation of the PAS method at the office portfolio scale. With regard to the points that are pertinent to the office portfolio, the participants were asked to indicate how they envision the implementation of these points at the office portfolio scale. Furthermore, the participants were asked to consider the potential benefits, challenges and risks associated with implementing the PAS method without taking into account the findings of the evaluation of the previous chapter.

Subsequently, the results are included in the recommendation for the implementation of the PAS method at the scale of the office portfolio. Before conducting interviews with experts, it is essential to refer to the various components of the PAS method. The PAS method comprises three main components (Arkesteijn, 2019), as illustrated in Section 4.8.3. The various components, that together shape the PAS method, are used during the expert interviews to identify the needs for support on the scale of the office portfolio.

6.1 Steps

During the expert interviews, questions were posed regarding the steps of the PAS method. This encompasses all the steps within the process. It starts with the interviews to find out the criteria and extends to the confirmation of the design of the portfolio with the highest preference score (Arkesteijn, 2019).

6.1.1 Provide further clarification on the role of the pilot and how this relates to the overall project

Prior to the implementation of the PAS method, it is essential to define the scope of the project. In doing so, it is important to focus at both micro and macro level. By analysing specific aspects of a

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portfolio while considering the broader picture, it becomes evident which actions are appropriate and which are not. This facilitates the organisation of accommodation and the formulation of informed decisions regarding the entire portfolio (participant 12).

Participant 13 proposes the development of an appropriate framework for each real estate typology within the accommodation policy. In addition to these frameworks, there is room for the implementation of flexible solutions on a case-by-case basis (participant 13). The OBT case study is distinctive and not representative of standard processes, making it an exception within the organisation. However, from the perspective of demand, it may be of interest to apply a specific method to the OBT case from an operational standpoint. With regard to standardisation and repeatability, the office portfolio is generally considered to be a more suitable option (participant 13).

When applying the PAS method on the scale of the office portfolio, it is recommended that proposed boundaries for each real estate portfolio should include the new police accommodation policy of the police. The criteria from the specific the stakeholder groups involved will be extended with the criteria from the accommodation policy.

6.1.2 Support the process of quantifying criteria

The use of structured interviews is part of the activities and is appreciated because it activates people and helps to clarify their criteria for a project (participant 12). This is seen as an effective way of clarifying the true purpose of a project. However, quantifying criteria is not always easy and it is not always practical to apply this to an entire portfolio, so there is a need for automation and standardisation (participant 13). The implementation of automation and standardisation could result in the creation of universal and consistent data sets for use across all portfolios. This data can be prepared once for use in the model. Further, automation and standardisation refers to a tool can that can be created to rapidly collect and convert stakeholders' preferences into the model.

When applying the PAS method on the scale of the office portfolio, automation and standardisation can be applied for establishing criteria during interviews.

6.1.3 Allowing for emotional responses to be expressed during the workshops

It is argued that the police's new accommodation policy affects the steps in the process. The cause is the emotional history of those involved, which also affects the office portfolio (participant 12). This policy has been in place for 1.5 years now, but the way of working creates uncertainty. The accommodation plans in the policy are definitely for the next few years, but the further away, the more uncertain they are. Nevertheless, there is a gradual acceptance of this new approach. This is also the message we [referencing to the team National Portfolio Management] must convey to all stakeholders on each occasion (participant 12). It is therefore essential to secure commitment and develop a compelling plan from the outset.

"It might take some time to adjust to the new way of working. We are now making choices at the national level rather than at the unit level. This is an important change since the last few years." – Participant 12

When applying the PAS method on the scale of the office portfolio, it is important to keep creating space for emotional expression during the PAS process. This point will also be of relevance to other processes within the police in addition to the PAS method. It is essential to communicate that

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uncertainty in the distant future is an inherent aspect of the new way of working (working with the new accommodation policy) and to provide an explanation for this. During presentations during workshops, it is advisable to include a slide with this message and to allow for discussion.

6.2 Stakeholders & Activities

6.2.1 Transparency

To facilitate understanding of diverse perspectives and encourage constructive discussion within the office portfolio, transparency is a crucial factor. This is considered essential for wider acceptance of the final proposed portfolio (participant 11). It is essential to establish clear frameworks and conditions for weighing and managing stakeholder influence, which is crucial for managing expectations within the organisation. Furthermore, it is advisable to engage in one-on-one conversations with all stakeholders at the outset, as the discussions will differ from those conducted when everyone is familiar with each other's criteria (participant 12).

When applying the PAS method on the scale of the office portfolio, keep conducting individual interviews with stakeholders to gain a understanding of their diverse perspectives and to identify ways to optimise their impact for a focused and effective outcome.

6.2.2 Stakeholder Engagement

During the activities it is crucial that the right stakeholders are involved for projects to succeed (participant 11; participant 12; participant 13). Securing the participation of the right stakeholders in such a large portfolio as that of the offices, represents a significant challenge (participant 11). This is a significant challenge within the police, because the user perspective is important and all users have a significant impact on decision-making (participant 12; participant 13). In addition, It is important not to give the impression that perfection is possible everywhere and therefore everything that is asked for will not be achieved. Instead, people should make choices about what is acceptable on average and where to excel or make concessions. This conversation about balance and priorities is often underestimated, which can complicate the process (participant 13).

When applying the PAS method on the scale of the office portfolio, engage the appropriate stakeholders to guarantee success. It is important to communicate clearly that perfection is not possible in all cases and to encourage discussions about balance and priorities in order to make realistic choices.

6.2.3 Cooperation with Chain Partners

All experts stress that the accommodation task is already complex enough for the organisation itself (participant 11; participant 12; participant 13). Involving external parties can further complicate this process. Specific wishes should mainly be expressed by the users directly involved or on the basis of their usage typology. In complex situations, it can sometimes make sense to involve chain partners in in-depth discussions, but only if the direction and goals are clear (participant 13). At portfolio level, cooperation partners are not involved in decision-making to manage complexity.

When applying the PAS method on the scale of the office portfolio, involve no chain partners, the accommodation task of the police is complex enough with all the internal stakeholders.

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6.2.4 Insight into the Criteria of Others

In managing the office portfolio, it is essential to understand and provide insight into the diverse perspectives of stakeholders (participant 11). This promotes constructive dialogue and ensures wider acceptance of the final design (participant 11). The conversation about where concessions can be made often does not take place sufficiently within the police but is necessary for a realistic and effective process (participant 13). It is important to determine what is acceptable, where more can be invested and where less, to create realistic expectations (participant 13).

When applying the PAS method on the scale of the office portfolio, the PAS method is an appropriate method for the police. There is a lack of dialogue within the police regarding concessions that need to be made. The workshops facilitate an understanding of the criteria of others and provide an opportunity for discussion about the allocation of scarce resources and have conversations about where concessions can be made to create realistic expectations.

6.2.5 Ensure Presence of Stakeholders

If someone is absent, he or she loses the right to speak, which indicates that the issue was apparently not important enough. Once a decision has been made, absentees cannot regain their influence. It is important to reach out to everyone in the beginning, to invite them and to communicate clearly about the system and how it works to give everyone a chance to be involved in the decision-making process (participant 13). However, participant 11 mentions that it is important for planning that all stakeholders are present. This is seen as a difficult point.

When applying the PAS method on the scale of the office portfolio, it should be clearly communicated in advance that in case of absence, a replacement should be arranged or the workshop have to be postponed.

Senior management and portfolio holders are regarded as key stakeholders (participant 13). Consequently, it is of importance that interviews and workshops are organised in an efficient manner, given the limited time available for these top stakeholders. It is proposed by participant 12 that the PAS method could be employed during the Corps Portfolio Table [for further details on the Portfolio Table see Chapter 3]. It is recommended that prior to the Corps Portfolio Table, thorough preparation is undertaken, including individual interviews. It is suggested that assigned advisers prepare a set of criteria for each perspective. The assigned advisers do not have decision-making authority within the police. However, they may include individuals with expertise in technology, real estate, or sustainability. Subsequently, all sets of criteria are then presented to the decision-makers during the workshops. If the criteria are prepared by advisors of all perspectives, it is mainly an advice. When it finally reaches the decision-makers, it is a decision (participant 12). If the results of the PAS method are not desirable, there is a perspective that has not been taken into account (participant 11).

When applying the PAS method on the scale of the office portfolio, it is advisable to conduct interviews with consulting stakeholders and decision-making stakeholders for the workshops. Integrating the workshops into the Corps Portfolio Table ensures that key stakeholders are available to make decisions.

6.2.6 Provide Extra Clarification on the Planning Process

Building on the idea of integrating the PAS method into the Corps' Portfolio Table, the criteria developed by the consultants representing all perspectives are mainly advisory in nature. After receiving the above advice, decision-makers are then in a position to make a decision (participant 12).

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By integrating it into an existing process of the police, involvement is sought at the front end and a compelling plan is produced, as suggested by participant 13. It is evident that there is trust between representatives and other stakeholders, who are not involved in the portfolio table, to ensure that decisions are widely supported and accepted (participant 11; participant 12). In this regard, participant 12 notes that it is assumed that the right stakeholders are present at the portfolio table. Participant 13 suggests that criteria can also be set at the beginning by using online tools.

"If it is prepared by an advisor, then it is mainly an advice. If it eventually reaches the decision-makers, then it is decision-making, because then you have everyone on board." – Participant 12

When applying the PAS method on the scale of the office portfolio, it is advisable that the method is integrated into the Corps' Portfolio Table of the police. This approach aligns well, ensures greater commitment and promotes the integration of the solution into overall accommodation plans.

6.3 Models

6.3.1 Dashboard

The model builder constructs a model that incorporates all of the stakeholders' criteria (Arkesteijn, 2019). Stakeholders can then see what the model is doing through a dashboard. The dashboard would be highly valued for the management of the office portfolio because it directly shows the impact of changes, which helps to concretise the impact of decisions (participant 11). This enables stakeholders to better understand and support decisions by providing tangible and immediate insight into the consequences (participant 13).

"It is also beneficial to be able to see the effect immediately and to be able to quantify it." —

Participant 11

When applying the PAS method on the scale of the office portfolio, it is recommended that the use of a dashboard be continued, as this facilitates the comprehension of the consequences of specific decisions and serves as an effective communication tool during the workshops.

6.4 A second pilot

Two of the experts were asked during the expert panel about the specific design of the office portfolio pilot and what this requires from a design and decision-making tool. Both experts were asked about their specific wishes and expectations for scaling up the pilot. They were then asked about the risks this might entail.

6.4.1 Specific Wishes and Expectations for the Scale-up of the Pilot

The main goal is to develop a model that facilitates decision-making, especially in situations such as financial constraints or project delays (participant 13). The method should be able to present different options to stakeholders, enabling transparent and objective comparisons. The input for the tool consists of preferences collected from stakeholders, and these preferences are then compared (participant 11).

The experts would like to see a user-friendly and partly automated tool, which can be used to collect preferences quickly and efficiently (participant 13). This tool will contribute to efficient input collection, while the final model will support plenary discussions without requiring too much capacity (participant

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13). The method may involve non-decision-makers collecting input with the described tool, after which this input is presented to decision-making bodies for final decisions (participant 11; participant 13).

This approach is considered useful because it helps discover solutions that might otherwise remain invisible, such as technical adaptations or limitations in user flexibility (participant 11; participant 13). By involving stakeholders, innovative solutions can emerge. Different stakeholders, such as users or engineers, should view the project from their perspective, depending on the project type (participant 13). For example, in projects related to security and indexing, it is crucial to understand the impact on the total cost.

Transparent and objective comparison of options can facilitate better decision-making at the portfolio level. This prevents imposed changes and promotes stakeholder engagement by asking stakeholders to provide solutions rather than imposing them (participant 11). The methodology should be developed with stakeholders and, once established, used by National Portfolio Management Team to make transparent proposals (participant 11). For example, presenting three possible interventions with their scores on different criteria at a portfolio or project table can facilitate informed decision-making.

Using experts to make assumptions where data is lacking could speed up the process (participant 11). This hybrid approach, combining data with expert knowledge, could lead to a faster but reliable model. The aim is to create a flexible tool in which decision-makers can adjust parameters and see the impact transparently, using the model more as a communication tool than as a rigid decision-making framework (participant 11; participant 13).

6.4.2 The Potential Risks

Preparation and data collection for the model takes a lot of time and money (participant 11). It is crucial to know the purpose, ensure accurate data and get commitment from decision-makers (participant 13).

The challenge is to ensure that people are committed to providing their input to get an accurate picture (participant 11; participant 13). If stakeholders do not commit to the model and prefer to make their own decisions, the effectiveness of the model diminishes (participant 13). Engagement can be promoted by involving stakeholders in both the exploratory and decision-making phases. Including stakeholder-proposed solutions in decisions ensures their investment in the outcomes. The challenge lies in engaging stakeholders early and ensuring that their suggestions are reflected in the final solutions (participant 13).

A key challenge is integrating the model within the wider portfolio so that it aligns with other projects and decisions (participant 11). The ideal scenario is a comprehensive model that covers the entire portfolio and facilitates integrated decision-making. Such a model would not only improve decision-making but also strengthen coherence and consistency within the organisation (participant 11).

6.5 Conclusion Application of the PAS Method to the Office Portfolio

During the expert interviews, the three components, (1) steps, (2) models and (3) activities & stakeholders, of the PAS method were used to analyse which strengths and areas of development found in Chapter 5 might influence the implementation of the PAS method on the office portfolio. Furthermore, the experts were asked to share their thoughts on how the points could be further

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developed when applying the PAS method to the office portfolio. These recommendations answer the fourth sub-question, which reads as follows:

'How can the experience gained with the PAS method contribute to its application to the office portfolio of the Netherlands police?'

The recommendations presented throughout the chapter are summarized below.

When applying the PAS method on the scale of the office portfolio,

- ... it is recommended that proposed boundaries for each real estate portfolio should include the new police accommodation policy of the police. The criteria from the specific the stakeholder groups involved will be extended with the criteria from the accommodation policy.
- ... automation and standardisation can be applied to establishing criteria during interviews.
- ... it is important to keep creating space for emotional expression during the PAS process.
- ... keep conducting individual interviews with stakeholders to gain a understanding of their diverse perspectives and to identify ways to optimise their impact for a focused and effective outcome.
- ... engage the appropriate stakeholders to guarantee success.
- ... involve no chain partners, the accommodation task of the police is complex enough with all the internal stakeholders.
- ... the PAS method is an appropriate method for the police. The workshops can facilitate the dialogue within the police regarding concessions that need to be made.
- ... it should be clearly communicated in advance that in case of absence, a replacement should be arranged or the workshop have to be postponed.
- ... it is advisable to conduct interviews with consulting stakeholders and decision-making stakeholders for the workshops.
- ... it is advisable that the method is integrated into the Corps' Portfolio Table of the police.
- ... it is recommended that the use of a dashboard be continued.

Discussion with the two of the three experts on their requirements and aspirations for an office portfolio-level tool highlights the complexity of scaling up pilots and ensuring effective stakeholder involvement and engagement. The focus is on creating a transparent, objective and flexible model that

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facilitates informed decision-making while addressing the challenges of data preparation, stakeholder engagement and integration with broader portfolios. It aims to combine data insights with expert knowledge to provide a versatile tool for project management and decision making.

The next step in this research is the development of a framework based on the police's accommodation policy to guide all stakeholders within the PAS method. The framework is being developed to initiate the implementation of two of the recommendations listed above. These two recommendations with the intended purpose are as follows:

- 3. The framework, specific to the office portfolio, should include the new police accommodation policy. During the interviews, the standardised framework with policies will be expanded to include specific criteria from the stakeholder groups involved. This will ensure that the policy is consistently applied and adapted to the specific requirements of different stakeholders.
- 4. Guidelines and references should be facilitated to simplify the quantification of criteria.

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7. Office Accommodation Policy Framework

The evaluation interviews discussed in Chapter 5 and the expert interviews in Chapter 6 show the need for a framework, based on the accommodation policy, that provides guidance. This chapter develops a framework, the Office Accommodation Policy Framework, that meets the aforementioned need. The framework functions like a reference model, which can be used by stakeholders to define their problem and is also known as a performance measurement system (De Leeuw, 2002). The framework translates the objectives from the accommodation policy into decision variables, which is useful for the implementation PAS method.

This chapter describes how the Office Accommodation Policy Framework was developed. The framework is a tool for implementing accommodation policy of the police within the PAS method. The accommodation policy is relative new and did not yet exist when the OBT pilot was conducted. It is designed as a practical tool that is specific to the office portfolio and it includes the new police accommodation policy. The criteria described in the policy have been put into the PAS structure, to ensure that when the PAS policy is implemented, all goals and criteria as mentioned in the policy documents are listed. The list of goals and criteria, in addition to the criteria collected from all stakeholders during the interviews, can be incorporated into the model. This guarantees that the police accommodation policy is taken into account when stakeholders are exploring portfolio variants during the workshops.

7.1 Step 1: Selecting the Accommodation Policy Documents

The initial stage in the preparation of the Office Accommodation Policy Framework is the selection of the policy documents for the analysis. Within the police, a new accommodation policy has recently been drafted. After 10 years of the police in its current form (for a detailed account of the historical origins of the police, see Chapter 2.1), it became evident that several additional policy goals needed to be achieved (Directie FM en sector Huisvesting, 2023b). For example, legislation and regulations on sustainable building practices were significantly strengthened to align with the objectives outlined in the Paris Climate Agreement. Concurrently, there have been shifts in organisational structures and associated accommodation requirements. Furthermore, there has been a heightened emphasis on the flexibility and marketability of police buildings. Finally, developments in spatial planning, such as the increasing scarcity of space and growing complexity in spatial processes, necessitate the implementation of more professional real estate management practices (Directie FM en sector Huisvesting, 2023b). To remain within the confines of established boundaries, it was necessary to develop a new accommodation policy.

7.1.1. The Accommodation Policy Documents

The new accommodation policy of the police consists of three documents. The Accommodation Vision 2040 (Directie Facility Management, 2023) and Target Portfolio & Real Estate Strategy (Directie FM en sector Huisvesting, 2023b) provide policy for the development of future-proof and long-term police accommodation. It guides the strategy, portfolio, and project levels regarding the selection of appropriate options. This is achieved within the parameters delineated in the policy document Framework & Rules (Directie FM en sector Huisvesting, 2023a). Below, a brief overview of the purpose of the policy documents is provided, with a more detailed description available in Chapter 2.

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Frameworks and Rules

The policy document Frameworks and Rules contains the portfolio targets and the frameworks within which the accommodation issue must be realised in the short (15 years) and medium (30 years) term (Directie FM en sector Huisvesting, 2023a).

Accommodation Vision 2040

The Accommodation Vision 2040 presents a long-term vision of the development of the police organisation. Furthermore, the impact of the long-term vision on accommodation is described based on some scenarios on the development of the police (possible futures) (Directie Facility Management, 2023).

Target Portfolio & Real Estate Strategy

The Target Portfolio & Real Estate Strategy comprises two parts, which collectively constitute the tangible manifestation of the Accommodation Vision 2040. The first part, the Target Portfolio delineates the ultimate objective towards which the police portfolio is evolving (the 'what'). The second part, the Real Estate Strategy delineates the path towards it (the 'how').

The aforementioned documents are provided with details in Table 7.1.

Title	Author	Release date	Pages	Version	Status
Huisvestingsvsisie 2040	Directie Facility	August 2023	33	1.0	Final
	Management				
Kaders & Spelregels	Directie FM en sector	October 2023	20	1.1	Final
	Huisvesting				
Streefportefeuille &	Directie FM en sector	October 2023	72	1.0	Final
Vastgoedstrategie	Huisvesting				

Table 7.1. Accommodation Policy Documents Police (author)

7.1.2. The State of the Policy Documents

Table 7.1 illustrates that all documents have the status 'final'. Upon closer examination of certain aspects of the accommodation policy, it becomes evident that certain details still are under development. One example is the document Framework & Rules, which is still under development in terms of Fit For Purpose (Passende Kwaliteit). It is written here that: "The definitions of the different quality levels will be further developed in the coming period" (Directorate of FM and Housing Sector, p. 9, 2023a).

Furthermore, it is described that the policy is sufficiently robust and agile to lead to a reasonable outcome in all future scenarios of the Accommodation Vision 2040 (Directie FM en sector Huisvesting, 2023b). However, to accommodate organisational developments, it is important to keep the robustness under scrutiny. The starting points for the target portfolio are regularly reviewed and adjusted. This means that the content of a certain real estate segment or type can be adjusted or added to the target portfolio in the future (Directie FM en sector Huisvesting, 2023b).

Finally, the target portfolio is described in both quantitative and qualitative terms, with numbers stated in a relatively unchanging manner and formulated in a way that is as timeless as possible (Directie FM en sector Huisvesting, 2023b). The target portfolio encompasses the real estate segments and types that are defined (to varying degrees), this means that the target portfolio is not yet complete. For instance, the real estate segment designated as "other" within the context of the accommodation sector has not yet been incorporated into the target portfolio (Directie FM en sector Huisvesting, 2023b). Furthermore, some specific real estate types are also absent from the target portfolio, for

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example, the investigation and specialist animals, data centres and strategic storage locations (Directie FM en sector Huisvesting, 2023b). For these real estate types to be included in the target portfolio, it is necessary to gain further clarity on the organisation's long-term development vision and to gain a deeper understanding of its accommodation needs. Lastly, covert locations fall outside the scope of the target portfolio (Directie FM en sector Huisvesting, 2023b) and this study.

7.2 Step 2: Identification and Categorisation of the Objective

Building on the selected accommodation policy documents as described above, the second step in developing a framework was to identify and categorise objectives in the policy documents. The definition of 'objective' in the PAS method is based on a description by Dym and Little (2004). The definition is as follows: "Objectives describe what the designed artefact will be like, that is, what the final product will be and what qualities it will have. As such, objectives detail attributes and are usually characterized by present particles such as 'are' and 'be'. Objectives or goals are the design tries to achieve and are given in the client's language." (Arkesteijn, 2009, p. 104). The analysis in this chapter led to the identification of 43 objectives across the three documents. For each objective, it was indicated in which document it was found, to which category it belongs, on which page of the relevant policy document the objective is mentioned, what the objective entails, and whether the objective applies to the entire portfolio or specifically to the office portfolio. Table 7.2 illustrates how an objective is formulated.

Document	Categorisation Objective	Page		Total portfolio or office portfolio
Framework & Rules	Accommodation goal	4	More efficient accommodation	Total portfolio

Table 7.2. Example objective (author).

The analysis of the objectives in the accommodation policy documents revealed several insights regarding the formulation and elaboration of policy objectives. Firstly, there is considerable overlap in objectives between different documents. This repetition leads to the focus of all resources and energy on multiple goals that overlap rather than on one clearly defined goal. This makes it more difficult to achieve each of those goals effectively, as it may require the distribution of focus and resources. Secondly, a large number of goals are only superficially detailed, making policies difficult to implement. The lack of detail in the goals can lead to various interpretations of the policy, reducing consistency. Moreover, the targets are largely applicable only to the entire portfolio and lack specific targets for the office portfolio. Given the considerable diversity of the police portfolio, which encompasses both horse stables and data centres, it would be beneficial to differentiate between the respective objectives. The broad range of different real estate types needs targeted policies. A side note here is that the police organisation in its current form is unwieldy but new. The time required to create a detailed policy for a large organisation such as the police is considerable, and the time has not yet been available. The police have been in operation for a decade, which is an opportune moment to implement the aforementioned issues and align the policy.

7.2.1. Categorisation of the Objectives

Table 7.2 shows what information is included for each objective. The second column shows the categorisation of each objective. The categories have been adopted by the policy documents. Below the different categorisations are listed and a definition is given when available in the policy documents.

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Portfolio Goal

The portfolio targets indicate the degree of flexibility within which the accommodation vision should be developed over the short to medium-term (Directie FM en sector Huisvesting, 2023a).

Preconditions

Used in the Accommodation Vision 2040 (Directie Facility Management, 2023, p. 7), but undefined.

Pillar

The foundation of the accommodation vision delineates the parameters within which accommodation choices are made (Directie Facility Management, 2023, p. 7).

Guiding Principle ("Leidend principe")

The guiding principles provide direction for action in line with the aforementioned pillars (Directie Facility Management, 2023, p. 15).

Office Segment

The police office locations facilitate a place- and time-independent working across the entire organisation, encompassing its nature and scope. This enables the co-use of these locations by various entities, including force management and staff directorates, unit services, unit management and associated staff, Police Services Centra and network partners. The centrality of cooperation between teams within the police is a defining feature of this context. Furthermore, the police have a limited number of Police Services Centra locations in central locations that are easily accessible by public transport. Wherever feasible, office functions are consolidated, with due consideration for sufficient flexibility (Directie Facility Management, 2023, p. 17).

Objective

The objectives are a summary of the previously initiated policy (targets from the old accommodation policies and portfolio targets from the Frameworks and Rules policy document) supplemented by policy targets for the portfolio towards future-proof real estate (Directie FM en sector Huisvesting, 2023b, p. 13-15).

Guiding Principle ("leidend principe")

Guide the decision made regarding the target portfolio of the police (Directie FM en sector Huisvesting, 2023b, p. 17).

Strategy

Facilitate more efficient implementation towards target portfolio (Directie FM en sector Huisvesting, 2023b, p. 30).

It has been identified that the current category classification needs improvement. Firstly, not all categories are clearly defined, making consistency and use difficult. In addition, existing definitions are often unclear, which can lead to confusion in correctly categorising items or information. There is also overlap between definitions, which undermines the efficiency of the system by allowing the same items to appear in multiple categories. Furthermore, some categories are synonyms for each other, which raises the question of why a single term has not been chosen. All these points suggest that a revision of the category classification is necessary to improve the clarity and usability of the categorisation process.

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7.3 Step 3: Identification and Categorisation of the Decision Variable

The subsequent stage when making the framework is to identify and categorise the decision variables associated with the aforementioned objectives. Decision variables represent accommodation aspects that make the accommodation strategy tangible (Arkesteijn, 2019). The number of decision variables identified for each objective varies considerably, ranging from 1 to 11. Table 7.3 illustrates how an objective is formulated through the use of decision variables and sub-decision variables. The example objective has one decision variable and one sub-decision variable.

Objective	Categorisation decision variable	Decision variable	Sub-decision variable
Densify and standardise	Relevant objective	Reduce the size of the office segment in use and thus operating costs	Focus on reducing m ² in use by concentrating target groups as much as possible in the most suitable existing locations.

Table 7.3. Example of a decision variable (author).

7.3.1. Categorisation of Decision Variables

Table 7.3 shows what information is used with each decision variable. The second column shows the categorisation of each decision variable. It should be noted that not all decision variables are defined in the policy documents. The categories that are applied to the decision variables in the policy documents are listed below. In addition, a definition is given when available in the policy documents.

Framework

Used in the Framework & Rules (Directie FM en sector Huisvesten, 2023a, p. 3), but undefined.

Rule

Used in the Framework & Rules (Directie FM en sector Huisvesten, 2023a, p. 3), but undefined.

Guiding Principle ("uitgangspunt")

Used in the Accommodation Vision 2040 (Directie Facility Management, 2023, p. 7), but undefined.

Relevant Goals

Used in the Target Portfolio & Real Estate Strategy (Directie FM en sector Huisvesting, 2023b, p. 32), but undefined.

The decision variables mentioned in the polities are divided into categories by the authors of the policy. All categories for decision variables have been named within the accommodation policy, but the names of the categories are undefined. This can lead to ambiguity about their exact content and application. This lack of (clear) definitions has implications and may lead to inconsistencies in the application and interpretation of the policy. Nevertheless, the policy forms the basis for the PAS, and any items not yet defined in the policy documents should be included as a step in the implementation of the PAS process. Further, it appears that the framework and rules are interrelated. Viewed through the lens of the PAS method, the rules are secondary to the frameworks. This is because most frameworks are tangible and usually set concrete boundaries. The rules, on the other hand, are less tangible and therefore cannot be translated directly into the PAS method. If these are to be translated into the PAS method, it is necessary to concretise these decision variables.

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7.3.2. Define Sub-Decision Variable

While identifying the decision variables, it was noticeable that some of them had already been further developed. For some decision variables, this resulted in a more specific definition, while others were further developed in terms of numerical values. In the given example, as shown in the previous Table 7.3, the sub-decision variable provides a more detailed explanation of the main decision variable in the fourth column.

For a decision variable to be incorporated into the PAS method, it is essential that all decision variables, regardless of whether they are sub-decision variables, are defined and quantified. This ensures that the decision variable is sufficiently tangible. This is a stage that has yet to be completed with a significant proportion of the decision variables and sub-decision variables.

7.4 Step 4: An Office Accommodation Policy Framework in Excel

The subsequent stage in the formulation of an office accommodation policy framework is the translation of steps 1 to 3 into a comprehensive Excel document. This document incorporates the information from Table 7.2 and Table 7.3, which has enabled the subsequent tracking of the following columns:

- Column A: Document
- Column B: Categorisation objective
- Column C: Page number
- Column D: Objective
- Column E: Total portfolio or office portfolio
- Column F: Categorisation criteria
- Column G: Decision variable
- Column H: Sub-decision variable

A screenshot of a part of the office accommodation policy framework in Excel is shown in Figure 7.1 and the full office accommodation policy framework is shown in Appendix H.



Figure 7.1. Screenshot of a part of the office accommodation policy framework in Excel (author).

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7.5 Step 5: The Use of the Office Accommodation Policy Framework

The Office Accommodation Policy Framework serves as a tool for the implementation of the PAS method within the police, to optimise the real estate management of the office portfolio. The framework can be used in practice during interviews, although some observations need to be addressed regarding the framework's application before its implementation.

7.5.1 Concretisation of Decision-variables

A significant area of focus when using the framework is that the criteria currently included lack sufficient precision to be directly incorporated into a model. Consequently, these criteria require further elaboration to ensure an accurate and meaningful translation into the model. A comprehensive elaboration of the depth to be added for concretisation is presented in sections 7.2 and 7.3. It is imperative to develop detailed and clearly defined criteria that can be used directly within the model. This refinement ensures that the framework is not only theoretically effective in facilitating trade-offs within real estate management but also practically effective in doing so.

7.5.2 Practical Guidelines

Furthermore, the framework can be used as a practical tool during stakeholder interviews. Nevertheless, for the framework to fulfil its intended function, it must be simplified. Simplification is necessary to properly support those who do not deal with real estate daily and to improve usability. A simplified framework can facilitate interviews by providing clear guidelines and reference points, thereby facilitating communication between different stakeholders. The framework will be of particular benefit to stakeholders who are not engaged in real estate daily, such as building users or stakeholders with a management role. This will facilitate the gathering of pertinent information during the interviews.

7.5.3 Governance

If the police want to implement the PAS method, it is essential to integrate governance into the framework. The term "governance" refers to the establishment of a link between a specific goal or criterion and a designated person responsible. Within the PAS method, each goal must be assigned to responsible stakeholders. It is not possible to derive the linkage of criterion to stakeholders from the policy documents that are already available. The framework must identify which stakeholders are responsible for specific goals and criteria. This ensures that all stakeholders are fully aware of their respective roles and their relation to the accommodation policy.

7.6 Conclusion Office Accommodation Policy Framework

The Office Accommodation Policy Framework is developed as a tool for implementing the accommodation into the PAS method to optimise the real estate management of the office real estate portfolio as revealed in Chapter 6. The framework translates the objectives from the accommodation policy into decision variables, which is useful for the implementation PAS method. The criteria described in the policy have been put into the PAS structure, to ensure that when the PAS policy is implemented, all goals and criteria as mentioned in the policy documents are listed. The list of goals and criteria, in addition to the criteria collected from all stakeholders during the interviews, can be incorporated into the model.

During the development of the framework, it was noticed that the accommodation policy of the police is constantly evolving and regular updates of the framework are necessary to remain usable. The analysis of policy documents revealed considerable overlap and superficiality in policy objectives,

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making implementation difficult. The lack of detailed targets leads to different interpretations of the policy and reduces consistency. Specific targets for the office portfolio are lacking, while differentiation between the respective targets is essential for targeted policies.

The current categorisation system also needs improvement. Unclear and overlapping definitions undermine efficiency and create confusion in correctly categorising items or information. Some categories are synonyms of each other, highlighting the need for a single term. A revision of the categorisation system is needed to improve clarity and usability.

To include decision variables in the PAS method, they need to be defined and quantified. Many variables and sub-variables are not yet sufficiently elaborated. Moreover, the current criteria lack the precision to be directly included in a model and require further elaboration, as presented in sections 7.2 and 7.3.

Finally, the developed framework needs to be simplified to be effective during stakeholder interviews. A simplified framework provides clear guidelines and reference points, which promotes communication and facilitates the collection of relevant information. Integrating governance into the framework is crucial, assigning specific goals and responsibilities to individuals to ensure role awareness and compliance with the accommodation policy.

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8. Discussion

This discussion encompasses the interpretation of the results of the study, the limitations, suggestions for further research, and the implications and impact of the findings. A discussion of these aspects will provide a more comprehensive understanding of the effectiveness and applicability of the PAS method for accommodation management in the police.

1.1 Interpretation of the Results

This section of the discussion concerns the interpretation of the results obtained from this study. The results encompass the difficulties encountered in determining the preferences of stakeholders, the identification of areas of development, and the integration of the office accommodation policy framework.

8.1.1 Stakeholder Preferences

During this research, it became evident that it is crucial to consider the preferences of a significant number of stakeholders within public real estate management. The considerable number of stakeholders increases the probability of conflicting preferences and values. The literature review has demonstrated that values of the different stakeholders are often not quantifiable and, on occasion, even incompatible. In the public sector, this phenomenon is referred to as internal value pluralism (Kuitert, 2021). The internal value pluralism makes it challenging to balance or optimise the preferences and values of the numerous stakeholders involved. The non-measurable and incompatible nature of public values serves to further complicate the process. Despite these challenges, the research indicates that striving to balance all preferences and values is essential. This necessitates the implementation of a structured approach, such as the PAS method, which facilitates the comprehension of disparate interests and their integration into the decision-making process in a transparent manner. By facilitating a dialogue among stakeholders and providing space for discussions and explanations, the police can better address the diverse and conflicting values and preferences. This approach not only facilitates greater comprehension among stakeholders but also encourages more effective, inclusive and objective decision-making.

8.1.2 Areas of Development

The evaluation and expert interviews revealed several areas for improvement that contribute to the implementation of the PAS method for the office accommodation management within the police. Integrating all areas of development would strive for the optimal solution. However, given the limited resources available, the optimal solution is often not feasible in practice. Therefore, choices must be made as to which development points are to be addressed in order to achieve the optimal solution given the limited resources. The decision on which areas of improvement to address should be made jointly by the PAS experts and the police accommodation experts. An effective approach could be to give a weighting to both PAS-related items and governance aspects, so that a prioritisation emerges between the different areas for development. This prioritisation then determines the focus of the development points to be addressed. It is important that both governance and PAS method points are addressed during implementation. Conducting this discussion in a joint manner facilitates mutual comprehension, which is essential for the identification of a viable and supported solution.

8.1.3 The Office Accommodation Policy Framework

This study shows how a policy-based framework can support the implementation of the PAS method for the office accommodation management within the police. Despite the valuable overview of accommodation policy, there are three main areas of development. First, the current criteria in the

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framework are not precise enough to be directly translated into the framework. Further elaboration is needed to enable accurate translation into the model. Detailed criteria are essential to make the framework effective in practice. In addition, the framework can serve as a practical tool during stakeholder interviews, but for this it needs to be simplified. A simpler framework provides clear guidelines and reference points, which facilitates communication between different stakeholders. This is particularly useful for stakeholders who do not deal with real estate daily, such as users of the building and the higher management. Finally, the integration of governance is critical to the PAS method. For governance-specific objectives and criteria to work, they need to be linked to responsible individuals. The framework should clearly identify which stakeholders are responsible for specific goals so that everyone understands their role and relationship to the accommodation policy.

8.2 Discussion of Research

This section discusses the research in terms of limitations, suggestions for further research and implications and impact.

8.2.2 Limitations

Some limitations within this research affect the results of this study and should be carefully considered when interpreting the findings.

Part of a Wider Accommodation Task

Although this study focuses on the office portfolio, it should be noted that the office portfolio is only one part of a wider accommodation task within the police. The office portfolio is intertwined with other real estate projects and accommodation initiatives, meaning that decisions and changes in this part of the portfolio can influence, and be influenced by wider accommodation strategies and decisions. This integrated nature makes it difficult to fully separate the findings of this study from the wider context of the accommodation task facing the police.

Reflecting on the Past and Memory Distortions

Another limitation is the challenge of reflecting on events and experiences that took place a year and a half ago. The interviews and stories of people involved at the time may be subject to memory bias. Many of the opinions point to the need for clearer communication at the beginning of the project about what would happen with the results. Although this communication was explained in presentations about the components of the PAS method at the time, this information may not have been clear to all participants or may have been forgotten over time.

Complexity of Jargon

The complexity of jargon also plays a role. The jargon used within the police sometimes differs from that used in the literature. This difference in terminology can lead to differences in interpretation and misunderstandings in the implementation of models and methods described in the literature. These discrepancies can affect the consistency and accuracy of the application of the PAS method within the police. Examples are:

- Portfolio: In the context of the police, a project is considered to fall within the portfolio when
 it is scheduled for renovation, transformation, management, etc. In the academic literature, a
 portfolio is defined as comprising all the buildings of an organisation (Dewulf et al., 2000).
- Design: The design of a portfolio is a relatively unfamiliar phenomenon within the police. The term design is typically employed to refer to a single building.

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Future supply of the DAS-framework: the police have established a series of specifications, including a range of square metres, that must be fulfilled for the future supply. The literature refers to a concrete list of buildings (Jonge et al., 2009), but there is no such concrete list in the police.

Given these limitations, it is important to interpret the results of this study with caution and recognise that further research is needed to confirm and refine the findings. Addressing these limitations may help improve the reliability and applicability of the PAS method within the police in the future.

8.2.3 Suggestions for Further Research

To improve the applicability of the PAS methodology, several opportunities for further research are suggested. These suggestions are intended to explore new opportunities for optimisation and wider implementation.

Studies on a Larger Scale

The recommendations for implementation of the PAS method in this study are tailored to the specific needs of the police office portfolio. Exploring the scalability and adaptability of the method for larger or more complex scenarios would be beneficial to understand its flexibility and wider applicability. A suggestion emerges from this research is that the PAS method be scaled up for the entire police portfolio. This would test whether the model can handle a larger amount of data and greater complexity.

Validation in Different Public Contexts

The current research focuses on how an improved, case-specific PAS design and decision method can support the management of the police office real estate. While this provides valuable insights into the application of the PAS in a specific context, it is useful to validate the method in different public contexts to understand its generalisability and adaptability. Future research could explore the use of the PAS method in other public sector organisations with similar real estate management challenges, such as local government, healthcare institutions or the Ministry of Defence. The latter faces a huge task with more than 450 sites totalling 6 million square metres of buildings spread across the Netherlands. These include offices, barracks, army buildings, warehouses and much more. A very large proportion of these are severely outdated and in need of renovation, conservation and sometimes demolition (Ministerie van Defensie, 2022). The validation in different public contexts would help to determine whether the method could be generalised across different public organisations. A start has already been made with the application of the method within the Delft University of Technology (Arkesteijn et al., 2017) and the police.

Integration of Advanced Optimisation Techniques

The PAS method employs a mathematical model for decision-making. Further research could integrate this study's recommendations into a model for stakeholders. Incorporating advanced optimization techniques, such as machine learning or artificial intelligence, could enhance the model's predictive and responsive capabilities. Zhilyaev et al. (2022) researched this method for optimizing the design of single buildings by integrated stakeholders. It would be interesting to test this method on portfolio scale. Developing a machine learning model to analyse large datasets of real estate management activities could identify patterns and predict trends, optimizing decision-making in real time. Additionally, Al-based decision support systems could offer scenario analysis and recommendations, informing stakeholders and supporting more robust decision-making processes. However, the

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application of this suggestion in the police is currently complicated by the fact that there is a security aspect to working with such techniques.

Integration of Real-time Data

It might be beneficial to consider integrating real-time data into the study's decision-making model. This could potentially enhance responsiveness and accuracy. The integration of real-time data could enable more dynamic and timely decision-making, which would be beneficial in rapidly changing environments. One possible direction for this could be the use of Internet of Things (IoT) devices to collect real-time data on building usage, occupancy, energy consumption, and maintenance needs. This data could be fed into the PAS method model to provide up-to-date information for decision-making. It should be noted that one of the challenges within the police is the lack of general data. This is the first hurdle that must be overcome, and the next step is to implement real-time data.

By addressing these areas, future research can build on the foundations laid by current research, thereby enhancing the applicability and impact of the PAS design and decision-making method in real estate management.

8.2.4 Implications and Impact

The findings of this study suggest that a(n) (improved) case-specific PAS method could have an impact on the real estate management of the police office portfolio.

Practical Implications and Impact

This research contributes to existing knowledge by demonstrating the applicability of the PAS method within a public organisation, in particular the police. The research suggests that it is important to consider the preferences of stakeholders in real estate management and to adopt a structured approach to integrating these preferences into decision-making processes. This suggests that further exploration of the PAS method in real estate management in the police is beneficial.

Police Specific Implications and Impact

The framework, specific to the office portfolio, includes the new police accommodation policy. During the interviews, the standardised framework with policies will be expanded to include specific criteria from the stakeholder groups involved. This will ensure that the policy is consistently applied and adapted to the specific requirements of different stakeholders. The emphasis of the recommendations of this research on well-defined criteria and clear communication of the policy is conducive to more informed decision-making. This should result in the optimal use of resources and better management of the police portfolio. Furthermore, the recommendations for refining the office accommodation policy framework, such as the need to further elaborate criteria and simplify the framework for practical use, offer insights that could be applied directly to improve future implementations.

In conclusion, the findings of this study suggest that a(n) (improved) case-specific PAS method could be a valuable addition to effective police real estate management. It also has the potential to be applied in other organisations. The findings suggest that further refinement and research on the PAS method and the police governance could help to improve efficiency, and stakeholder acceptance.

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9. Advice

This chapter differentiates between advice on the PAS method and governance aspects. The PAS method offers a structured approach to design and decision-making. In contrast, police governance is concerned with the responsibilities, roles, and interactions between different stakeholders within their organisation. Making this distinction is essential because both aspects have provided different types of insights and recommendations. The separation of these two concepts allows for the optimal exploitation of the theoretical method's strengths while ensuring the effective and accountable implementation of the method through the application of good governance.

9.1 Advice for the PAS Method

For a successful implementation of the PAS method within the police to support the office portfolio management, it is essential to address the following issues:

1. Continue using the dashboard

 The dashboard has previously been regarded as a highly beneficial tool, offering significant advantages at a larger scale. It is therefore recommended that this tool be continued to be used to support the implementation process.

2. Give explanations at every session

- At the outset of every session, it is important to explain how the output of the PAS method is employed and the implications thereof in concrete terms. This entails an explication of terminology such as "balancing session" and the "Corps Portfolio Table," as well as a clarification that the PAS method is merely advisory, not decision-making, at this juncture.
- O Before every step of the method, it is crucial to communicate with clarity the objective is and how the results will be used. This avoids the potential for frustrations caused by repeated discussions about previous decisions. A brief summary of previous discussions can also be useful. It can be stated that these matters were previously discussed, and therefore, they will not be addressed again today.
- o It is important to provide a clear rationale for the specific weights attributed to different stakeholders and to disseminate this information at the outset of the process.
- It is important to communicate clearly that perfection is not always achievable and to encourage discussions on the relative importance of different factors to make realistic choices.

3. Use of the Office Accommodation Policy Framework

- Quantification was seen as a challenging aspect of the process. It is therefore recommended
 that the Office Accommodation Policy Framework be further developed as a tool to simplify
 this process, with a particular focus on stakeholders who do not deal with real estate daily.
- The framework translates the objectives from the accommodation policy into decision variables, which is useful for the implementation PAS method.

By following the aforementioned steps, the PAS method can be effectively implemented and integrated into police accommodation management, thereby facilitating more informed decision-making and more efficient resource utilisation.

9.2 Advice for the Police Governance

For the Dutch version, see Appendix I. (Voor de Nederlandse versie zie Appendix I).

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For a successful implementation of the PAS method within the police to support the office portfolio management, it is essential to address the following issues:

1. Implement the PAS method into the Corps Portfolio Table:

- o It is recommended that the PAS method be integrated into the Corps Portfolio Table to enhance stakeholder support and priority. This encourages the participation of stakeholders and ensures the integration of the PAS method across the police accommodation task. This integration makes the PAS method an integral component of the police's planning cycle, thereby eliminating external planning constraints on the PAS method.
- To ensure the availability of key stakeholders for decision-making and to facilitate the integration of the PAS method into overall accommodation plans, it is recommended that the workshops be integrated into the Corps Portfolio Table.
- o It is recommended that interviews be conducted with advisory stakeholders and workshops held with decision-making stakeholders to ensure the most efficient use of time and energy.

2. Ensure presence of all stakeholders:

 It is essential to communicate clearly in advance that in the event of a stakeholder's absence, a replacement should be sent to ensure continuity and commitment. Otherwise, the session must be rescheduled. In the context of the PAS method, the participation of all stakeholders is extremely important.

3. Involve the right stakeholders and avoid chain partners:

- It is important to engage the appropriate stakeholders to guarantee success. It is therefore
 essential to ensure that stakeholders from each perspective are present at all stages of the PAS
 process.
- o It is also crucial to conduct interviews with consultative stakeholders and workshops with decision-making stakeholders to use time and energy efficiently.
- The accommodation task of the police is complex enough without the additional involvement of chain partners. It is possible to involve chain partners at a later stage, once the police have established a clear direction for their portfolio.

4. Further develop the accommodation policy:

- It is recommended that the policy and documentation be improved of the accommodation policy. To deploy focus and resources effectively, it is necessary to avoid overlap in objectives between different documents by focusing on clearly defined goals.
- o It is recommended that categories of objectives be clearly defined to promote consistency and ease of use. It is important to avoid overlap and synonyms in categories to avoid confusion.
- It is necessary to specify and quantify all decision variables and sub-decision variables for the PAS methodology to ensure clear and consistent application.
- To implement the PAS method effectively, it is essential to integrate governance in the Office Accommodation Policy Framework by linking each objective to a responsible stakeholder, as this connection cannot be derived from existing policy documents. The framework must clearly identify which stakeholders are responsible for specific goals and criteria, ensuring everyone is aware of their roles concerning the accommodation policy.

By following the aforementioned steps, the PAS method can be effectively implemented and integrated into police accommodation management, thereby facilitating more informed decision-making and more efficient resource utilisation.

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10. Conclusion

This study focused on how a(n) (improved) case-specific PAS design and decision method can support the real estate management of the police's office portfolio. The study is based on qualitative research, which examines how the PAS method has been applied in the police in the past and how this experience can be used to support future implementation. This conclusion provides a systematic answer to the main question, which is derived from the analysis of the sub-questions. The research question addressed in this study is as follows:

How can a(n) (improved) case-specific PAS design and decision-making method support the real estate management of the office portfolio of the Netherlands Police?

The Need for a Design and Decision-making Method

A review of the literature reveals that in recent years, the preferences of stakeholders have become increasingly important in real estate management, particularly within public organisations such as the police. It is of the utmost importance to carefully select the most appropriate stakeholders and ascertain their preferences to create value with real estate. This encompasses the balancing of organisational, financial, functional and physical perspectives at both operational and strategic levels. This underscores the necessity for the development of a design and decision-making method to facilitate effective real estate management within the complex organisation of the police.

Existing Design and Decision-making Methods

A literature review reveals that there are four approaches to the design and decision-making processes in the built environment. All of the methods are based on Barzilai's (2010) Preference Function Modelling method. It was determined that the PAS design and decision-making method (Arkesteijn, 2019) is the sole method specifically suited to portfolio design and applicable within the context of the police.

Experiences with the PAS Method

The evaluation of the OBT pilot within the police revealed several strengths and areas for potential future development of the PAS method. A distinction was drawn between the areas of development of the governance of the police and those of the method itself. To optimise the potential of the PAS method in future projects, it is essential to address the areas of development, which are summarised in Table 5.29 and Table 5.30.

Application of the PAS Method to the Office Portfolio

Experts, who are responsible for the management of the office portfolio, were interviewed to understand the needs for the PAS method on a larger scale. These expert interviews revealed a set of recommendations for applying the PAS method on the scale of the office portfolio. It was determined that by developing a framework, two of the recommendations could be implemented. The framework was developed to support all stakeholders while conducting the PAS method, based on the police accommodation policy.

The Office Accommodation Policy Framework

The Office Accommodation Policy Framework serves as a tool for the implementation of the accommodation policy into the PAS method. The framework is based on the accommodation policy of the police and can be used in practice during interviews. The framework translates the objectives from the accommodation policy into decision variables, which is useful for the implementation PAS method.

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The criteria described in the policy have been put into the PAS structure, to ensure that when the PAS policy is implemented, all goals and criteria as mentioned in the policy documents are listed. The list of goals and criteria, in addition to the criteria collected from all stakeholders during the interviews, can be incorporated into the model. However, three observations need to be addressed regarding the framework's application before its implementation:

- 1. Criteria from the accommodation policy require further elaboration to ensure an accurate and meaningful translation into the model.
- 2. The framework needs to be simplified before it can be used as a practical tool during stakeholder interviews. This can be done by providing clear guidelines and reference points.
- 3. The individual criteria from the framework should be assigned to responsible stakeholders.

Conclusion

A refined, case-specific PAS method can demonstrably enhance the real estate management of the office portfolio of the police. The PAS method can contribute to more efficient and effective real estate management by using a standardised framework specific to the office portfolio and ensuring the inclusion of accommodation policy, stakeholder involvement and clearly defined criteria. It is essential to implement regular updates to the framework to ensure its continued relevance and utility, given the dynamic nature of accommodation policies within the police. The integration of governance into the framework ensures that all stakeholders are aware of their roles and responsibilities, thereby facilitating the coherent and consistent application of the policy.

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11. Reflection

At the start of the master's track Management in the Built Environment, you get the opportunity to choose from one of the themes presented in the first two weeks. My choice fell on the 'user perspective' theme, which focuses on user needs and preferences, with a good understanding of these being crucial for effective decision-making. This theme fits perfectly with my interest in how the built environment can optimise the user experience and how real estate can best be used.

In addition, my interests lie in the public sector and the complex challenges of real estate management within this sector. Such as balancing between cost control and maximising public value. Each project brings its own set of stakeholders with different, sometimes conflicting, interests and priorities. This complexity requires strategic approaches to ensure that each project is not only economically viable but also socially responsible. At the police, I was allowed to carry out my research.

At the police, they came up with several issues that play a role in their real estate management. Embedding the PAS method in the police organisation was one of these topics. After reading up on the method, I found out that the PAS method focuses on the preferences of stakeholders and that with the stakeholders' preferences, it searches for the portfolio design that best matches these preferences. This fits perfectly with my interests and last year I did not regret my choice.

In addition, it became clear to me how broad the social task facing the police is. The impact of organised crime on society is growing, with increasing threats, extortion and bribery, often related to drug crime and involving the use of force. The need for police deployment to guard and secure people and objects also continues to rise, with a record number of reports of serious threats to politicians and journalists in 2022. From over 800 buildings, the police are trying to manage these problems. I hope my thesis research has contributed to making better use of police real estate for these societal challenges.

11.1 Process

Having reached the end of my research process, I can say that I have completed a fairly unique journey. In good spirits, I began by defining my research problem, where my goal was to propose an improved version of the PAS method. This included identifying areas for improvement and then translating these into a Python model specific to the police. Given the complexity of the police organisation and accommodation challenges, this was not an easy task. Moreover, I tried not only to identify improvement proposals but also to implement them at the same time.

During the process, I noticed that I did not have a grip on my research, but I could not place exactly why. This uncertainty came to a head during my P3 presentation, where it was suggested that postponing my graduation until October might be wise. Since I perceived graduation as a stressful period and I am not particularly keen on doing research, I was determined to meet the July deadline at all costs.

The weekend after my P3, I reflected intensely and had conversations with friends, family and fellow students about my approach. This made me realise that my attempts to implement improvement proposals immediately were an impossible task. I then decided to focus my focus exclusively on thoroughly researching the improvement proposals. This meant I had to change my research method and completely rewrite it.

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With the decision to change the research method, my determination to still graduate in July and a new focus on carefully crafting the improvement proposals, I set to work. This turning point after my P3 was crucial; without this escalation, I could never have understood what went wrong in my research. Although the schedule was tight and a lot had to be done, I am satisfied with the final result, this report. This process only proved again that sometimes escalation is necessary to make progress.

11.2 Method

As part of my graduate course, I chose Operational Research Methods, where we learned the basics of modelling in Python. This course opened my eyes to the possibilities of modelling. During this course, my focus was very much on developing a model. After I changed my research method, my focus shifted from modelling to conducting interviews. Although learning to model gave me a lot of insight into the PAS method and the techniques used in it, I realised that I had not gained enough knowledge about interview techniques.

Interview techniques are a crucial part of qualitative research. I had underestimated the complexity and importance of these techniques. Therefore, I had to read up quickly and improve my skills. I learned how important it is to follow a structured approach, using codes, categorisations and quotes, for example. Thanks to this extra effort, I was still able to extract valuable information from the interviews, which ultimately contributed to a successful final result.

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Appendices

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Appendix A: Interview Protocol Exploratory Interviews



Geinformeerde toestemming

Delft, 14 december 2023

Geachte heer/mevrouw,

U wordt uitgenodigd om deel te nemen aan een onderzoek getiteld 'Portfolio Management of the Dutch Police: Alignment of office strategy and operation'. Dit onderzoek wordt geleid door Emma Swens, een studente aan de TU Delft, als onderdeel van haar afstudeerscriptie voor de master Management in the Built Environment. Het onderzoek wordt uitgevoerd in samenwerking met de Nederlandse Politie.

<u>Aanleiding</u>

De politie is een publieke organisatie met als hoofddoel het zorgen voor veiligheid en het handhaven van de rechtsstaat. Om dit doel na te streven wordt jaarlijks 63.161 fte aan personeel ingezet. Personeel is het belangrijkste kapitaal van de politie; politiewerk is mensenwerk. Naast voldoende personeel heeft de politie ook voldoende uitrusting nodig. Hieronder valt ook huisvesting. Eind 2022 had de politie 824 panden in beheer met een totaal bruto vloeroppervlak van ruim 1,9 miljoen m². Om richting de toekomst de huisvesting te kunnen blijven bieden die het werk van de politie optimaal ondersteunt, is het noodzakelijk vanuit huisvesting, focus te hebben op de lange termijn. De politie eist dat hun gebouwen aan hoge kwaliteitseisen voldoen, daarbij leidt vernieuwing tot efficiëntere huisvesting en verlaging van onderhoudskosten. Maar niet alles kan tegelijk. Niet voor de sector Huisvesting, maar ook niet voor de gebruiker en de markt. Hiervoor moeten afwegingen worden gemaakt op strategie-, portfolio- en projectniveau. De optelsom van ingrepen op projectniveau moet maximaal bijdragen aan de beoogde huisvestingsdoelen. Daarom is het van belang de juiste afweging te maken.

Doel

Dit onderzoek heeft als doel deze kenniskloof te overbruggen door zich te richten op de vraag: 'Hoe kan de strategische focus en de operationele focus van publiek vastgoed management van de kantoren van de Nederlandse Politie op elkaar worden afgestemd om de lange termijn doelen van de Nederlandse Politie te behalen?'.

Verkennende gesprekken

De vragen die vandaag aan u zullen worden voorgelegd, zijn samengesteld om inzicht te krijgen in de organisatie van de Nederlandse Politie, de huisvestingsstrategie, de vastgoedportefeuille en specifieker de portefeuille van de politiekantoren, waarbij de nadruk vooral ligt op het maken van beslissingen en het afwegen van voorkeuren. Het verkennende gesprek zal ongeveer 60 minuten in beslag nemen. De resultaten worden gebruikt voor het beantwoorden van de deelvraag: 'Hoe ziet publiek vastgoed management eruit in de organisatie van de Nederlandse Politie?'.

Protocol

Uw deelname aan dit onderzoek is volledig vrijwillig, en u kunt zich elk moment terugtrekken zonder reden op te geven. U bent vrij om vragen niet te beantwoorden.

Het interview zal – wanneer u daarmee akkoord gaat – worden opgenomen om het achteraf verwerken van de resultaten te vergemakkelijken. Mocht u anoniem willen blijven, dan dient u dit in de bijgaande verklaring aan te geven. Als u kiest voor anonimiteit, wordt de informatie uit

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uw interview geanonimiseerd en zullen geen persoonlijk identificeerbare gegevens worden vrijgegeven.

Het eindrapport van dit onderzoek zal naar verwachting worden gepubliceerd in juni/juli 2024 in de TU Delft repository. De onderzoeksresultaten zullen worden gepresenteerd op de universiteit en bij het stagebedrijf. Na het afstuderen van de student zullen zowel de audioopnames als de transcripties ervan zorgvuldig worden vernietigd, waarbij de vertrouwelijkheid van de gegevens wordt gewaarborgd.

Contactgegevens

Als u vragen heeft over dit onderzoek, kunt u contact opnemen met mij:

Emma Swens

E.E.Swens@student.tudelft.nl

+31 6 29162277

Of met mijn eerste begeleider:

Alexandra den Heijer A.C.denHeijer@tudelft.nl

, ,

Indien u mee wilt doen aan dit onderzoek, wilt u dan de bijgaande verklaring invullen en ondertekenen?

Met vriendelijke groet, Emma Swens

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Appendix B: Interview Questions Exploratory Interviews

The questions asked during the exploratory interviews are listed below. The questions are divided into the categories: general, current performance, future strategy and decision-making. The exploratory interviews were conducted in Dutch, the questions have been translated for this report.

Questions Exploratory Interview

General

- What is your function regarding to portfolio management in the police organisation?
- What makes your function and role, in relation to making trade-offs difficult, within the police?
- How are the accommodation needs of the police evolved, from the very beginning of the organisation to today?

Current performance

- Do you measure portfolio performance and needs? How do you measure, how often do you measure?
- What are 3 key KPIs (Key Performance Indicators) for accommodation within the police?
- Which stakeholders are included or should be included when measuring portfolio performance?
- How are the preferences of all stakeholders considered in the real estate supply that is provided?

Future strategy

- How did the current accommodation strategy emerge? Does it use a certain approach, e.g. certain steps or concepts?
- How does accommodation strategy relate to business strategy?
- How do you capture future change?
- How will it be ensured that the current strategy is implemented / delivered?

Decision-making

- Who is authorised to decide, what happens when a decisions is made?
- What is meant by 'quick wins' within the Target Portfolio & Real Estate Strategy and the Accommodation Vision? What are these quick wins?
- 'Quality level A' is defined as the 'highest level of quality'. What is meant by quality?
- What problems would a decision tool solve in your view?
- Have you participated in the PAS research and how did you experience it?

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Appendix C: Interview Protocol Evaluation Interviews



Geinformeerde toestemming

Delft, 23 april 2024

Geachte heer/mevrouw,

U wordt uitgenodigd om deel te nemen aan een onderzoek getiteld 'Alignment in Public Real Estate'. Dit onderzoek wordt geleid door Emma Swens, een studente aan de TU Delft, als onderdeel van haar afstudeerscriptie voor de master Management in the Built Environment. Het onderzoek wordt uitgevoerd in samenwerking met de Nationale Politie.

Aanleiding

De politie staat voor een enorme uitdaging die in 2040 moet zijn gerealiseerd. De huidige kantorenportefeuille bestaat uit $692.000~\mathrm{m}^2$ bvo en ongeveer $1/3^\mathrm{e}$ moet voor 2040 worden afgestoten, zodat er een portefeuille overblijft met een omvang van $403.000~\mathrm{m}^2$ bvo tot $535.000~\mathrm{m}^2$ bvo. Daarnaast is er een groot aantal eisen opgesteld, in de documenten huisvestingsvisie, streefportefeuille en vastgoedstrategie, waaraan de hele portefeuille moet voldoen. Maar niet alles wat wenselijk is, is betaalbaar of direct realiseerbaar. Niet voor de sector Huisvesting, maar ook niet voor de gebruiker en de markt. Een realistisch en haalbaar vernieuwingstempo is daarom belangrijk om de ambities daadwerkelijk te realiseren.

Om de genoemde huisvestingsopgave aan te pakken is binnen de politie een meerjarige projectenportefeuille opgesteld. De meerjarenportefeuille sluit aan bij het recent geïntroduceerde huisvestingsbeleid. De portefeuille heeft een landelijk perspectief en dient als baseline voor de start van de transitieopgave binnen de politie. De projecten van de meerjarenportefeuille zijn geïdentificeerd als de meest kritische, meest impactvolle en meest toekomstbestendige in termen van het vervullen van de streefportefeuille. De beoogde transitieopgave van de politiehuisvesting voor de komende 15 jaar is een belangrijk aandachtsgebied. De portefeuille bevat de projecten die op dit moment voor ogen staan. Dit biedt een realistisch uitgangspunt waaraan toekomstige plannen kunnen worden getoetst.

De toekomst is echter onvoorspelbaar. Wat gebeurt er als er onvoorziene veranderingen optreden, zoals financiële beperkingen op een project, een verschuiving in het overheidsbeleid of een nog groter tekort aan bouwvakkers? Om te garanderen dat het tempo van de vernieuwing realistisch en haalbaar blijft, moeten er compromissen worden gesloten. Op dit moment worden beslissingen over de huisvesting van de politie genomen door vastgoedmanagers op basis van hun expertise en inschatting. Om tot een objectievere onderbouwing te komen, is er behoefte aan een instrument dat het huidige besluitvormingsproces kan ondersteunen.

In 2022 is er een pilot geweest met de Preference-based Accommodation Strategy (PAS) methode (Arkesteijn, 2019), een tool die ontwerp en besluitvorming van vastgoedportefeuilles ondersteunt. Met behulp van de PAS-methode kunnen verschillende alternatieven van vastgoedportefeuilles worden ontworpen en gekozen door stakeholders. Gevolgd door de beoordeling van de waardetoevoeging van de nieuw ontworpen vastgoedportefeuilles door de stakeholders. De pilot is toegepast op OBT-locaties van de politie. De pilot van de PAS-methode als toepassing op de OBT-locatie (verder OBT-pilot) is de eerste stap die binnen de politie is gezet om de PAS-methode te implementeren. De scope van de OBT pilot omvat 27 gebouwen. Een volgende fase in het implementatieproces van de PAS-methode is het testen van de PAS-

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methode op grotere schaal. De kantorenportefeuille is geselecteerd om de PAS-methode op grotere schaal te testen.

Doel

Dit onderzoek heeft als doel de kloof te overbruggen tussen theorie en praktijk door zich te richten op de vraag: 'Hoe kan een (verbeterde) casusspecifieke PAS ontwerp- en besluitvormingsmethode het vastgoedbeheer van de kantorenportefeuille van de Nederlandse Politie ondersteunen?'.

Interviews

De vragen die vandaag aan u zullen worden voorgelegd, zijn zorgvuldig opgesteld om een diepgaand inzicht te verkrijgen in toepassing de PAS methode binnen de politie. De vragen zijn gericht op het onderzoeken van diverse aspecten die uit een evaluatie zijn gekomen van de toepassing van de PAS methode bij de OBT-locaties. Het interview zal ongeveer 45 minuten in beslag nemen. De resultaten zullen gebruikt worden voor het beantwoorden van de deelvraag: Wat is de behoefte aan ondersteuning van het vastgoedbeheer binnen de Nederlandse politie?'

Protoco

Uw deelname aan dit onderzoek is volledig vrijwillig, en u kunt zich elk moment terugtrekken zonder reden op te geven. U bent vrij om vragen niet te beantwoorden.

Het interview zal – wanneer u daarmee akkoord gaat – worden opgenomen om het achteraf verwerken van de resultaten te vergemakkelijken. Mocht u anoniem willen blijven, dan dient u dit in de bijgaande verklaring aan te geven. Als u kiest voor anonimiteit, wordt de informatie uit uw interview geanonimiseerd en zullen geen persoonlijk identificeerbare gegevens worden vrijgegeven.

Het eindrapport van dit onderzoek zal naar verwachting worden gepubliceerd in juni/juli 2024 in de TU Delft repository. De onderzoeksresultaten zullen worden gepresenteerd op de universiteit en bij het stagebedrijf. Na het afstuderen van de student zullen zowel de audioopnames als de transcripties ervan zorgvuldig worden vernietigd, waarbij de vertrouwelijkheid van de gegevens wordt gewaarborgd.

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Emma Swens

E.E.Swens@student.tudelft.nl

+31 6 29162277

Of met mijn eerste begeleider:

Monique Arkesteijn

M.H.Arkesteijn@tudelft.nl

Indien u mee wilt doen aan dit onderzoek, wilt u dan de bijgaande verklaring invullen en ondertekenen?

Met vriendelijke groet, Emma Swens

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Appendix D: Interview Questions Evaluation Interviews

Below are the questions asked during the stakeholder interviews for the PAS pilot. The evaluation interviews were conducted in Dutch, the questions have been translated for this report.

- 1. Can you say what your position is in the police?
- 2. Can you tell me what your role was in the PAS pilot?
- 3. What was your experience of the PAS pilot?
 - O What did you like and what could be improved?
- 4. Can you briefly explain in your own words what the PAS method is?

The process of the PAS method is explained with the help of a picture.

5. PAS pilot:

- o How did you find the interviews? What did you like, what could be improved?
- O What did you do in the workshops?
- o How did you find the workshops? What did you like, what are areas for improvement?

6. Outcome:

- o Were you satisfied with the outcome/result (the proposed portfolio) of the workshop?
- 7. Stakeholders:
 - Were the right stakeholders involved in the pilot?
- 8. Time:
 - What do you think was the total duration of the pilot, the duration of the different interviews and workshops? Why?

Below are the questions asked during the interviews with the researchers within the PAS pilot. The evaluation interviews were conducted in Dutch, the questions have been translated for this report.

- 1. Can you tell me what your role has been within the pilot?
- 2. How did you experience the OBT pilot?
- 3. Did the PAS procedure go by the book?
- 4. When in the pilot did the stakeholders get to understand each other's criteria?
- 5. What did you think of the workshops?
- 6. Were you satisfied with the outcome? And why?
- 7. Were the right stakeholders involved in the pilot?
- 8. What did you think of the duration of the pilot?
- 9. What are the objective functions and what are the constraints in the model of the pilot?

 Objective functions = the goals you optimise

Constraints = hard preconditions / defined frameworks

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Appendix E: Interview Protocol Expert Interviews



Geïnformeerde toestemming

Delft, 23 april 2024

Geachte heer/mevrouw,

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De politie staat voor een enorme uitdaging die in 2040 moet zijn gerealiseerd. De huidige kantorenportefeuille bestaat uit $692.000~\mathrm{m^2}$ bvo en ongeveer $1/3^{\mathrm{e}}$ moet voor 2040 worden afgestoten, zodat er een portefeuille overblijft met een omvang van $403.000~\mathrm{m^2}$ bvo tot $535.000~\mathrm{m^2}$ bvo. Daarnaast is er een groot aantal eisen opgesteld, in de documenten huisvestingsvisie, streefportefeuille en vastgoedstrategie, waaraan de hele portefeuille moet voldoen. Maar niet alles wat wenselijk is, is betaalbaar of direct realiseerbaar. Niet voor de sector Huisvesting, maar ook niet voor de gebruiker en de markt. Een realistisch en haalbaar vernieuwingstempo is daarom belangrijk om de ambities daadwerkelijk te realiseren.

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methode op grotere schaal. De kantorenportefeuille is geselecteerd om de PAS-methode op grotere schaal te testen.

Doel

Dit onderzoek heeft als doel de kloof te overbruggen tussen theorie en praktijk door zich te richten op de vraag: 'Hoe kan een (verbeterde) casusspecifieke PAS ontwerp- en besluitvormingsmethode het vastgoedbeheer van de kantorenportefeuille van de Nederlandse Politie ondersteunen?'.

Interviews

De vragen die vandaag aan u zullen worden voorgelegd, zijn zorgvuldig opgesteld om een diepgaand inzicht te verkrijgen in toepassing de PAS methode binnen de politie. De vragen zijn gericht op het onderzoeken van diverse aspecten die uit een evaluatie zijn gekomen van de toepassing van de PAS methode bij de OBT-locaties. Het interview zal ongeveer 45 minuten in beslag nemen. De resultaten zullen gebruikt worden voor het beantwoorden van de deelvraag: Wat is de behoefte aan ondersteuning van het vastgoedbeheer binnen de Nederlandse politie?'

Protoco

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Het interview zal – wanneer u daarmee akkoord gaat – worden opgenomen om het achteraf verwerken van de resultaten te vergemakkelijken. Mocht u anoniem willen blijven, dan dient u dit in de bijgaande verklaring aan te geven. Als u kiest voor anonimiteit, wordt de informatie uit uw interview geanonimiseerd en zullen geen persoonlijk identificeerbare gegevens worden vrijgegeven.

Het eindrapport van dit onderzoek zal naar verwachting worden gepubliceerd in juni/juli 2024 in de TU Delft repository. De onderzoeksresultaten zullen worden gepresenteerd op de universiteit en bij het stagebedrijf. Na het afstuderen van de student zullen zowel de audioopnames als de transcripties ervan zorgvuldig worden vernietigd, waarbij de vertrouwelijkheid van de gegevens wordt gewaarborgd.

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Of met mijn eerste begeleider:

Monique Arkesteijn

M.H.Arkesteijn@tudelft.nl

Indien u mee wilt doen aan dit onderzoek, wilt u dan de bijgaande verklaring invullen en ondertekenen?

Met vriendelijke groet, Emma Swens

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Appendix F: Interview Question Expert Interviews

During the expert interviews, Table 0.1 was shared with the participants. The evaluation interviews were conducted in Dutch, the questions and table have been translated for this report.

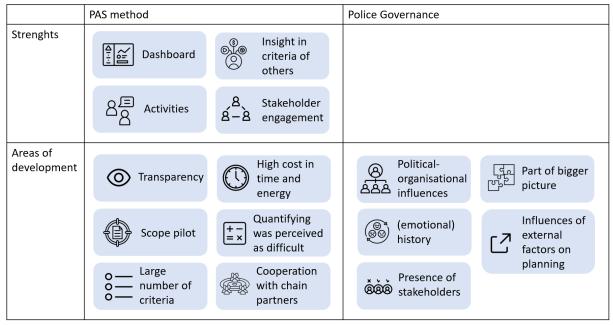


Table 0.1. Summarised strengths and development areas categorised as specific to the PAS method or the police governance (author).

For each point in Table 0.1, the following questions were posed:

1. Do you expect point ... will be relevant when applying the PAS method to the office portfolio, or is the point ... specific to the OBT portfolio?

If point ... is relevant to the scale of the office portfolio.

2. How do you envision the implementation of point ... at the office portfolio scale.

At a later moment, participants were queried, without taking into account the evaluation points of Table 0.1, as follows:

- 3. What are your specific wishes and expectations regarding the implementation of the PAS method?
- 4. What do you think are the biggest risks and how can they be avoided?

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Appendix G: Informed Consent Form

			Ja	/ Nee
100 300	informatie begrepen. Daarn	atiebrief d.d. 24 april 2024 of aan mij is voorgelezen. Ik heb dez aast heb ik de mogelijkheid gekreg en en deze vragen zijn naar tevred	gen	0
	(2) Ik verklaar hierbij dat ik vrijwillig meedoe aan dit onderzoek. Ik begrijp dat ik mag weigeren om vragen te beantwoorden en dat ik mijn medewerking aan dit onderzoek op elk moment kan stoppen zonder opgave van reden.			0
(3) Ik begrijp dat het geluidsmateriaal (of de bewerking daarvan) en de overige verzamelde gegevens uitsluitend voor analyse en wetenschappelijke presentatie en publicaties zal worden gebruikt.			0	
(4)	(4) Ik begrijp dat het meedoen aan dit onderzoek betekent dat mijn antwoorden worden bewaard tot het onderzoek is afgerond. Ik begrijp dat de opgeslagen gegevens - indien gewenst – anoniem worden verwerkt.			0
(5)	Ik wil graag anoniem blijver	n	0	0
(6)	(6) Graag ontvang ik aan het eind van het onderzoek het rapport met daarin de resultaten en conclusies van het onderzoek. Om deze reden verleen ik toestemming om mijn naam- en adresgegevens tot het eind van het onderzoek te bewaren.			0
	dit formulier gelezen of he me aan het onderzoek.	et formulier is mij voorgelezen e	n ik stem in met	
Naam deelnemer		Handtekening	 Datum	
	toelichting gegeven op het o over het onderzoek naar vei	nderzoek. Ik verklaar hierbij berei ·mogen te beantwoorden'.	d te zijn nog opkom	ende
Naam o	nderzoeker	——————————————————————————————————————	Datum	

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Appendix H: Office Portfolio Assessment Framework Excel

Due to covert information is the Office Portfolio Assessment a protected and separate document.

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Appendix I: Advies voor de Politie Goverance (Nederlands)

De politie is een Nederlandse organisatie waar Nederlands de voertaal is, daarom is het advies voor de politie governance ook in het Nederlands toegevoegd om ervoor te zorgen dat alle medewerkers de informatie gemakkelijk kunnen begrijpen en toepassen.

Voor een succesvolle implementatie van de PAS-methode bij de politie ter ondersteuning van het managen van de kantorenportefeuille, is het essentieel voor de politie governance om de volgende zaken aan te pakken:

1. Implementeer de PAS-methode in de Korps Portfolio tafel:

- O Aanbevolen wordt om de PAS-methode te integreren in de Korps Portfolio Tafel om de steun en prioriteit van belanghebbenden te vergroten. Dit stimuleert de deelname van belanghebbenden en zorgt voor integratie van de PAS-methode in de hele huisvestingsopgave van de politie. Door deze integratie wordt de PAS-methode een integraal onderdeel van de planningscyclus van de politie, waardoor externe planningsbeperkingen voor de PAS-methode worden weggenomen.
- Om ervoor te zorgen dat de belangrijkste belanghebbenden beschikbaar zijn voor de besluitvorming en om de integratie van de PAS-methode in de algemene huisvestingsplannen te vergemakkelijken, wordt aanbevolen om de workshops te integreren in de Korps Portfolio Tafel.
- Het wordt aanbevolen om interviews te houden met adviserende belanghebbenden en workshops met belanghebbenden met beslissingsbevoegdheid om te zorgen voor het meest efficiënte gebruik van tijd en energie.

2. Zorg ervoor dat alle belanghebbenden aanwezig zijn:

 Het is essentieel om van tevoren duidelijk te communiceren dat in geval van afwezigheid van een stakeholder een vervanger moet worden gestuurd om continuïteit en betrokkenheid te garanderen. Anders moet de sessie opnieuw worden gepland. In het kader van de PASmethode is de deelname van alle belanghebbenden zeer belangrijk.

3. Betrek de juiste belanghebbenden en vermijd ketenpartners:

- Het is belangrijk om de juiste belanghebbenden te betrekken om succes te garanderen. Het is daarom essentieel om ervoor te zorgen dat belanghebbenden vanuit elk perspectief aanwezig zijn in alle fasen van het PAS-proces.
- Het is ook cruciaal om interviews te houden met adviserende belanghebbenden en workshops met besluitvormende belanghebbenden om tijd en energie efficiënt te gebruiken.
- De huisvestingstaak van de politie is al complex genoeg zonder de extra betrokkenheid van ketenpartners. Het is mogelijk om ketenpartners in een later stadium te betrekken, zodra de politie een duidelijke richting voor haar portefeuille heeft bepaald.

4. Ontwikkel het huisvestingsbeleid door:

 Aanbevolen wordt om het beleid en de documentatie van het accommodatiebeleid te verbeteren. Om focus en middelen effectief in te zetten, is het noodzakelijk om overlap in doelstellingen tussen verschillende documenten te voorkomen door te focussen op duidelijk gedefinieerde doelen.

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- Het wordt aanbevolen om categorieën van doelstellingen duidelijk te definiëren om consistentie en gebruiksgemak te bevorderen. Het is belangrijk om overlap en synoniemen in categorieën te vermijden om verwarring te voorkomen.
- Het is noodzakelijk om alle beslissingsvariabelen en sub-beslissingsvariabelen voor de PASmethode te specificeren en te kwantificeren om een duidelijke en consistente toepassing te waarborgen.
- Om de PAS-methode effectief te implementeren, is het essentieel om governance te integreren in het beleidskader voor kantoorhuisvesting door elke doelstelling te koppelen aan een verantwoordelijke belanghebbende, aangezien deze koppeling niet kan worden afgeleid uit bestaande beleidsdocumenten. Het kader moet duidelijk aangeven welke belanghebbenden verantwoordelijk zijn voor specifieke doelen en criteria, zodat iedereen zich bewust is van zijn rol met betrekking tot het accommodatiebeleid.

Door de bovengenoemde stappen te volgen, kan de PAS methode effectief worden geïmplementeerd in het huisvestingmanagement van de politie, waardoor beter geïnformeerde besluitvorming en efficiënter gebruik van middelen mogelijk wordt.

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