SCENARIO THINKING FOR STRATEGIC URBAN DEVELOPMENT

(Picture: Mlefter, 2012)

How public value conflicts are mitigated in municipal strategic urban development processes

Analysing the case of the Feyenoord City Project

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Colophon |

P5 Report | MSc Graduation Thesis

April 10th 2025

Scenario Thinking for Strategic Urban Development | How public value conflicts are mitigated in municipal strategic urban development processes

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Preface |

Before you lies the Master Thesis “Scenario Thinking for Strategic Urban Development: How public value conflicts are mitigated in municipal strategic urban development processes”. Written as part of the graduation process for the Master Management in the Built Environment at the Technical University Delft. With a subject chosen for its ability to help change the quality of life for many people.

Originating from a country experiencing much chaos and political unrest, it was important to me to educate myself on a subject that can positively impact many people's lives. The combination of a deep interest in urban real estate and public value management made doing this research a pleasure. This journey has been a challenging but fulfilling experience that has taught me many new skills and knowledge about strategic urban development.

As you read this Master’s Thesis I urge you to think about all the people you interact with in your daily life and how you can impact their life in a positive way, so we can all make this world a better place for one another. I want to thank my supervisors, Prof. Dr. Willem Korthal Altes and Dr. Angela Greco, for assisting me through this research process and giving me grace through a very loaded period.

Additionally, I thank the academic experts and the practitioners I have talked to as part of this research. Their insights and perspectives have shaped this piece before you and my understanding of the complexity within the field of strategic urban development. This research is my way of having an academic impact on the world and how it operates.

Finally, I want to thank my family and friends for their immense patience with me during this time. Having to focus on the final stretch of my Master's, while life around me goes on, has been a test of our bond. I am grateful we can say that we made it through.

I hope to one day implement this knowledge in my home country of Sudan.

Zaynab Quraishi

Delft, April 10th, 2025

Abstract |

This research addresses the question: *How can strategic scenario thinking be integrated into Rotterdam's urban development process, and what potential does it hold for addressing politically sensitive urban development projects, particularly in the case of Feyenoord City?*. The study employs a methodology that combines literature review, case study analysis, stakeholder interviews, and interactive sessions. This combination takes elements from the method of 'action research' (Coghlan, 2019), which is chosen for its ability to reflect upon the implementation of new tools within existing organisations and its processes. The interviews with municipal project managers, urban planners, project opposition, and academic experts provide qualitative insights into the challenges faced during the Feyenoord City project. The data is analysed through coding and a cross-reference method to identify gaps for the implementation of scenario thinking within Rotterdam's municipal strategic urban development process.

By answering the main research question, this research developed a framework for implementing strategic scenarios, which are grounded in the theories from Börjeson et al. (2006) (scenario definitions) and Lindgren & Bandhold (2009) (scenario formulation). The data analysis reveals key gaps where scenario thinking could improve the strategic urban development process. These gaps include the lack of clear scenario definitions and a focus on short-term outcomes over long-term strategic thinking. These gaps highlight the need for clearer frameworks and more inclusive decision-making processes, especially for a politically sensitive project like Feyenoord City.

The case study demonstrated that scenario thinking could enhance adaptability, mitigate risks, and address community opposition and regulatory complexities. The research concludes with a proposal to integrate strategic scenario thinking into Rotterdam's urban planning process, emphasizing iterative reflection and improving stakeholder collaboration to manage political sensitivities and uncertainties, offering a replicable model for other cities.

KEYWORDS | Strategic Scenario Thinking, Municipal Urban Development Process, Politically Sensitive Urban Development Projects

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1 Introduction |

Urban development in the Netherlands is becoming increasingly complex, presenting significant challenges for practitioners and decision-makers. These challenges encompass the simultaneous need to expand the housing stock and the integration of trends such as compact urban design, innovative technologies, and the imperative for resilience in the face of crises like the COVID-19 pandemic (Ooms et al., 2020; Bibri et al., 2020). This complexity is further amplified by the political challenges that urban development projects face, a decision making must navigate conflicting stakeholder interests, power dynamics and varying levels of support for environmental policy integration (Runhaar et al., 2009).

As urban environments grow more dynamic and uncertain, scenario thinking is one approach gaining global traction. This method facilitates the exploration of multiple potential futures, enabling city planners to craft adaptable and resilient strategies (Manganelli et al., 2020).

Major urban planning initiatives, like the Feyenoord City project in Rotterdam, exemplify the growing complexity of urban projects in the Netherlands. This large-scale development faced significant challenges, including political discord among stakeholders, which led to the withdrawal of key parties that undermined the project's viability. The Dutch Council of State (Afdeling bestuursrechtspraak, Raad van State) identified the combination of financial shortfalls as a result of stakeholder misalignment as a central factor in its decision to overturn the project's zoning plan approvals[1]. This result underscores the necessity of incorporating strategic flexibility into urban development processes, particularly in environments marked by high uncertainty and competing interests.

Globally, scenario thinking has been successfully adopted to address such challenges (Kornberger, 2013; Loorbach et al., 2016). It has been used to integrate long-term adaptability into urban strategies, ensuring that projects can withstand and respond to changing circumstances.

This research focuses on how scenario thinking can effectively enhance the strategic flexibility of urban development projects in the Netherlands, particularly in the case study of Feyenoord City. By exploring the principles of scenario thinking and lesson-learned from global applications, this study aims to provide actionable insights for Dutch urban planners and policymakers, enabling them to anticipate and navigate the multifaceted challenges of contemporary urban development.

1.1 Problem statement

Municipalities in the Netherlands face increasingly complex challenges in urban development driven by climate change, resource limitations, and socioeconomic inequalities. Addressing these multifaceted issues requires strategic flexibility—adapting and shifting approaches as conditions evolve. Despite the extensive body of literature on municipal strategy development, there is a lack of scientific research on

[1] ABRvS 26 oktober 2022, ECLI:NL:RVS:2022:3090, r.o. III.

selecting and transitioning between different approaches, especially at the strategic level (van der Berg, 2023; AMS Institute, 2021; Fila et al., 2024).

Recent studies underline this gap. For example, Amsterdam's Climate Adaptation Strategy highlights the critical need for adaptability in urban planning and notes the need for frameworks that guide municipalities in pivoting strategies effectively (AMS Institute, 2021). Similarly, the municipality of Rotterdam has emphasised the value of scenario thinking in managing six identified crises, including the climate and biodiversity crises. The implementation of scenario-based planning within municipal structures remains a significant challenge (Municipality of Rotterdam, 2022).

Globally, scenario thinking has been recognised as a powerful tool to embed flexibility in urban strategies, yet its integration into Dutch municipal practices is limited. The European Environment Agency acknowledges (European Environment Agency, n.d.) the success of scenario thinking on a European scale, but highlights the strategic need to be more utilised within the Dutch context. The municipality of Rotterdam expressed ambition to adopt scenario thinking demonstrates a growing interest. However, this interest has yet to translate into systematic research or application within Dutch municipalities (Municipality of Rotterdam, 2022). Correspondingly, a study, commissioned by the municipality of Rotterdam, on the lessons learned from the project Feyenoord City highlighted the need for better decision-making frameworks (Arcadis, 2021).

In conclusion, practitioners identify a strategic gap in municipal frameworks, like the ones used in cities like Rotterdam, to manage the dynamic interplay of environmental, infrastructural, and social factors of urban development projects. As municipalities face mounting pressures to adapt, the need for research into the implementation of scenario thinking at a strategic level becomes increasingly urgent. Simultaneously, practitioners identify the potential of scenario thinking as a tool to manage the increased complexity. This research aims to address this gap and explore the potential of scenario thinking, offering actionable insights to help municipalities integrate scenario thinking into their urban development strategies, fostering resilience and adaptability in uncertainty.

1.2 Global use of scenario thinking

Scenario thinking has become an essential tool for urban planners worldwide, helping cities navigate the complexities of growth, sustainability, and uncertainty. By creating and analysing multiple possible futures, urban practitioners can design adaptive strategies that address challenges like climate change, technological disruption, and population growth (Bibri et al., 2020).

An example of scenario thinking is seen in Sydney, Australia, where the city urban planners used the tool to engage its citizens with the projects key visions (Kornberger, 2013). This was important to manage political and urban development challenges. The tool was used to reconcile conflicting urban priorities, such as balancing population growth with environmental sustainability. By incorporating variables like

political influences, planners in Sydney were able to foster collaboration among diverse stakeholders and design strategies that enhanced the city's resilience (Kornberger, 2013). This approach allowed the city to plan for various potential outcomes, ensuring long-term sustainability.

Globally, cities have increasingly turned to scenario thinking as a way to address uncertainties and develop flexible strategies for the future (Loorbach et al., 2016). This approach is particularly valuable in regions grappling with rapid urbanisation and environmental degradation. By imagining various future scenarios, urban planners can identify opportunities and risks, preparing for future changes that might otherwise be overlooked (Kornberger, 2013; Loorbach et al., 2016).

Scenario thinking also plays a crucial role in urban planning education. Studies show that scenario-based exercises in planning studios help students develop strategic thinking, creativity, and foresight (Xie & Wang, 2024; Sedrez et al., 2024). By working in multidisciplinary teams, students engage with real-world challenges and learn to craft innovative solutions. This educational approach mirrors its professional use, where it enhances the ability to design adaptable, long-term urban strategies.

Ultimately, scenario thinking supports more inclusive and participatory urban development, as scenarios can be shared with stakeholders such as policymakers, developers, and the public. This collaborative approach ensures that diverse perspectives inform planning processes, leading to more resilient and sustainable urban environments (Loorbach et al., 2016; Xie & Wang, 2024; Sedrez et al., 2024).

1.3 Scenario Thinking Definition and Typologies

Scenario thinking is a strategic tool for exploring potential futures by considering various influencing factors. It is beneficial in contexts where future developments are uncertain, allowing decision-makers to understand and prepare for various possible outcomes (Chakraborty & McMillan, 2015). Scenario thinking provides a framework for assessing different pathways and their implications, helping organisations and planners make informed choices in the face of complexity and unpredictability.

However, the term scenario thinking is defined in various ways depending on the expertise and background of the practitioners involved. Given the diversity, it is important to differentiate between different scenario types to ensure clarity and applicability in the following research. Börjeson et al. (2006) proposed a structured framework for scenario categorization known as the Possible, Probable, and Desirable (PPD) Futures method. This method provides a classification of different scenario typologies which differentiates between three main categories: predictive, explorative, and normative scenarios. Each of these categories have to subtypes and addresses different aspects of future-oriented thinking.

1.3.1 Predictive Scenarios (Probable Futures)

Answer the question: *What will happen?* | These are predictive scenarios that aim to forecast future developments based on existing trends, data, and known factors. They are crucial in preparing for anticipated changes and mitigating potential risks (Börjeson et al., 2006).

Forecast Scenarios
These project likely developments under the assumption that current trends persist. They help policymakers and planners assess expected future conditions and potential challenges.

What-if Scenarios
These explore the consequences of specific events or conditions, examining how potential disruptions or significant changes could impact future developments. Unlike simple forecasts, what-if scenarios introduce fundamental variations in key external factors, offering insights into multiple possible outcomes.

1.3.2 Explorative Scenarios (Possible Futures)

Answer the question: *What can happen?* | These scenarios are designed to investigate a range of plausible futures by analysing various uncertainties and external influences. Unlike predictive scenarios, explorative scenarios do not seek to determine what is most likely but instead focus on understanding a spectrum of possibilities (Börjeson et al., 2006).

External Scenarios
These examine factors beyond the control of decision-makers, such as global economic shifts, climate change, or technological advancements. They provide a framework for organizations and governments to develop resilient strategies that can withstand different external developments.

Strategic Scenarios
These focus on how actions taken by policymakers or stakeholders influence future outcomes. They integrate internal decision-making processes with external possibilities, helping actors assess the potential consequences of strategic choices.

1.3.3 Normative Scenarios (Desirable Futures)

Answer the question: *How can a target be reached?* | Unlike predictive and explorative scenarios, which analyse what could or is likely to happen, normative scenarios focus on preferred future states and the pathways to achieve them. These scenarios are goal-driven and often align with policy objectives or sustainability targets (Börjeson et al., 2006).

Persevering Scenarios
These examine how a specific target can be met within the existing structures and conditions. They focus on incremental changes and cost-efficient solutions to reach predefined goals. In urban planning, this approach is commonly used to enhance sustainability or economic stability without radical transformation.

Transforming Scenarios
These are employed when existing structures hinder necessary changes. This approach includes two subtypes: optimizing and backcasting. **Optimizing** scenarios seek the most efficient means to achieve a target, while **backcasting** scenarios work backward from a desired future state to determine the steps necessary to reach it. Backcasting is particularly relevant in long-term planning, though it may require significant short-term investments or structural changes.

1.4 Scenario Thinking Cases in Literature

Using the search tool researchrabbitapp studies are found who have applied the scenario thinking method from Börjeson et al. (2006). Out of 991 research papers citing Börjeson et al. (2006), 79 specifically focus on urban planning. These studies utilise scenario thinking to explore potential futures, evaluate policy implications, and assess governance structures (Mannucci et al., 2023; Enault et al., 2021; Letcher & Britton, 2023; González-González et al., 2023; Bibri, 2020). This section highlights key studies that assess urban planning and policy processes, focusing on how scenario thinking can contribute to urban planning practices.

These case studies highlight the diverse applications of scenario thinking in urban planning, showcasing how it can be used to assess transformative visions, evaluate future risks, and generate adaptive strategies for complex urban systems. However, even by having displayed its usefulness in these areas, none of the stated studies employ scenarios as a tool to support strategic urban development projects. The studies primarily focus on only urban planning, utilizing scenario thinking to explore potential futures of one particular urban planning concept like smart cities. Other studies do evaluate policy implications, however, they do not analyse governance structures.

A significant example is Berbés-Blazquez et al. (2023), who use qualitative tools to assess transformative visions in urban planning. The use of normative scenario type allows for exploring alternative policy pathways and identifying potential barriers to policy implementation. The study uses transformative scenarios to enable participants to craft imagined futures through dialogue, producing narratives reflecting the issues and opportunities actors perceive at various governmental scales. The research compares priorities at each scale, focusing on 11 visions from village (or borough) and regional (or metropolitan) levels. In Phoenix, Arizona, the findings reveal that both village- and regional-level visions prioritise resilience-building, though with different emphases: village visions focus on social dimensions, equity, and participation, while regional visions align more with green sustainability goals (Berbés-Blazquez et al., 2023, pp. 9-14).

In another study, Mannucci et al. (2023) apply a "what if" predictive scenario approach to simulate flood risk in urban areas. Running 5,000 computational experiments, the research explores urban growth patterns under uncertain conditions and identifies decision-relevant clusters. These scenario narratives help urban planners understand complex systems and devise adaptive strategies aligned with future dynamics, demonstrating the utility of scenario thinking in managing uncertainties in urban planning (Mannucci et al., 2023, pp. 8-13).

1.5 Societal and Scientific Relevance

Research into the application of scenario thinking for strategic urban development holds both societal and scientific significance. As cities confront multifaceted challenges—ranging from climate change to political challenges—there is an increasing need for urban planning processes to anticipate future uncertainties. Scenario thinking offers a tool to envision various potential futures, enabling city planners and policymakers to make informed decisions and build adaptive strategies for sustainable urban development.

The Municipality of Rotterdam's decision to incorporate scenario thinking into its 2022-2027 strategy reflects a growing desire to improve the efficiency of urban development processes (The Municipality of Rotterdam, 2022). This desire is rooted in recognising the need to learn from past planning failures and respond proactively to new challenges. The COVID-19 pandemic, in particular, has accelerated the push for systematic changes in planning, emphasising the importance of resilience and flexibility in urban governance (The Municipality of Rotterdam, 2022).

From a societal perspective, scenario thinking's relevance is underscored by ongoing changes in European spatial planning practices. The European Commission's reports (Nadin et al., 2021) reveal a shift towards more strategic, integrated, and flexible urban planning systems. Governments are increasingly adopting collaborative approaches, encouraging the involvement of multiple actors across different sectors. This trend highlights the need for tools like scenario thinking that can address the complexities of urban challenges by fostering collaboration, encouraging flexibility, and anticipating future developments.

Scientifically, there is a gap in research regarding how scenario thinking can be strategically applied within urban development processes. Comparative studies, such as Berisha et al. (2021), identifies the Dutch urban planning system as market-driven, where market influences play a significant role in driving spatial development. However, while there is a degree of government involvement, few to none scientific studies have been conducted in exploring how tools like scenario thinking van enhance planning practices. This research aims to address this gap by exploring how scenario thinking can be integrated into strategic urban development, offering insights for practitioners and scholars in the field.

1.6 Case study

To understand and analyse case studies that can be used as a practical basis for this research, a case study analysis is conducted. This study can be found in appendix I. The case study of the Feyenoord City project stands out as it is a known politically sensitive development project in Rotterdam due to its massive scale, significant investment, and potential community impact. Feyenoord City involves the construction of a new football stadium, large-scale residential and commercial spaces, and infrastructure, with an overall investment exceeding €1.5 billion (Steentjes, 2024). The project has raised

concerns about gentrification, displacement of residents, and environmental sustainability (Salzano, 2017; Schrama, 2021).

The project's political sensitivity is heightened by the cultural significance of the Feyenoord football club, which has strong local support. The club's eventual withdrawal from the project, stemming from disagreements over its development, further emphasised the complexity of stakeholder engagement and the challenges in balancing competing interests (LOLA, 2024). This makes Feyenoord City distinct from other urban renewal projects in Rotterdam, which, although substantial, have not faced the same political controversy.

For example, the initiative to create seven new city parks, which focuses on transforming former port areas into green spaces, has been a more localised effort with fewer socio-political conflicts (Lynch, 2022). Similarly, the Wilhelminapier revitalisation and the 'City Lounge' strategy, which aim to modernise specific urban areas and improve infrastructure, have involved less intense public scrutiny and political disagreement compared to Feyenoord City (Lynch, 2022).

The Feyenoord City project serves as a critical case study in urban renewal. It highlights the challenges of managing large-scale projects with deep community ties and diverse stakeholder interests. It underscores the need for careful consideration of both social and political factors in urban development.

1.7 Research aim

The primary aim of this research is to explore the potential of scenario thinking within Dutch municipal urban development processes, focussing on managing politically sensitive urban development strategies. The framework will be designed to help navigate the complexities that arise from switching between strategies in response to changing urban needs and uncertainties. The research addresses how municipalities can effectively manage diverse interests, balancing the broader social goals with provincial and national priorities while adapting to dynamic urban environments.

A key component of this study is the development of retrospective scenarios and a proposal on how to integrate scenarios within the municipal strategic urban development process. As previously stated, scenario thinking can allow municipalities to (1) anticipate uncertainties, (2) formulate possible futures and (3) develop strategies that can influence project conditions to help navigate the desired future. This research will assess the implementation of scenario thinking by (1) understanding what is needed to implement scenario thinking and (2) identifying its potential.

Unlike previous studies that focus on retrospective evaluations of strategies, this research will propose a forward-looking decision-making process for selecting appropriate strategies for urban development, demonstrating that scenario thinking can consider political and social complexities associated with large-

scale urban renewal projects. Furthermore, this research will investigate how scenario thinking can provide a tool for addressing uncertainties.

By contributing to the growing body of literature on scenario thinking in urban planning, this thesis aims to provide municipalities with practical insights into using scenario planning as a method to design more robust, flexible, and sustainable urban development strategies. The findings will be particularly relevant for municipalities seeking to address the uncertainties inherent in contemporary urban planning, especially in politically sensitive projects like Feyenoord City.

1.8 Research Questions

The research questions in this study aim to explore both the potential of scenario thinking for politically sensitive urban redevelopment projects and the integration challenges within the context of the Dutch municipality of Rotterdam. The following research questions are set up based on Blaikie and Priest's (2019) method of designing social research. It addresses the following: (1) identifying political challenges, (2) the practicality of its integration into municipal processes, and (3) its effectiveness in strategic urban planning.

MAIN RESEARCH QUESTION: *How can strategic scenario thinking be integrated into Rotterdam's urban development process, and what potential does it hold for addressing politically sensitive urban development projects, particularly in the case of Feyenoord City?*

RESEARCH SUB-QUESTIONS:

1. What strategic scenarios can retrospectively be formulated for the case of Feyenoord City?
2. What type of challenges in politically sensitive urban renewal projects, such as those in Feyenoord City, could be mitigated through strategic scenario thinking?
3. What are the key mechanisms for integrating strategic scenario thinking into the existing urban planning and decision-making processes of Rotterdam's Department of City Planning?

Since this research is written for the Master Management in the Build Environment, under the Department of Architecture and the Build Environment, an organisational integration of scenario thinking other than the urban development processes falls outside the scope of this research. Thus, an exploration of the deeper understanding of the organisational, cultural and technical factors of the department that may impact the integration of scenario thinking, is excluded from this research.

1.9 Report Structure

This research is organized into eleven chapters, each contributing to the understanding of integrating scenario thinking into urban development, particularly for politically sensitive projects like Feyenoord City in Rotterdam.

CHAPTER 2: Literature review – Defines key concepts of the research and conducts a comprehensive literature review. The academic background of scenario typologies and politically sensitive policies are analysed to pinpoint the relevant scenario type for this research. This chapter also includes a theoretical framework to assess the data collected.

CHAPTER 3: Methodology – Outlines the research methodology, emphasizing the dual importance of evaluating both the retrospective scenario formulation and the strategic process proposal of implementing scenarios within the strategic municipal process. This combination follows elements of the method of 'action research' (Coghlan, 2019), which is chosen for its ability to reflect upon the implementation of new tools within existing organisations and its processes. This includes the method of interactive sessions and in-depth interviews.

CHAPTER 4: Case Study: Feyenoord City Project – Examines the Feyenoord City project as a case study, exploring the role of key stakeholders, local and national visions for the area's development, the project course, the legal requirements placed upon the project, and the role of the Council of State

CHAPTER 5: Strategic Scenarios: Feyenoord City Project – Focuses on formulating retrospective scenarios for the Feyenoord City Project, by using Börjeson et al.'s (2006) definition of strategic scenarios to address key uncertainties and challenges like stakeholder conflicts and financial risks. This chapter answers the first research sub-question: *What strategic scenarios can retrospectively be formulated for the case of Feyenoord City?*

CHAPTER 6: Strategy Process Proposal – Focusses on proposing a strategy process that includes the use of scenario thinking. The proposal is set up through literature review and is assessed through the interactive sessions. Through answering the second sub-question, *What type of challenges in politically sensitive urban renewal projects, such as those in Feyenoord City, could be mitigated through strategic scenario thinking?*, this chapter analyses the strategic steps and the advantages the proposed strategic process has for practitioners.

CHAPTER 7: Data analysis and assessment – This chapter presents key-mechanisms as a results of the data, which is coded through Atlas.ai, whereafter it is analysed through the proposed data assessment framework as proposed in the literature review. Through the data analysis the third sub-question, *What are the key mechanisms for integrating strategic scenario thinking into the existing urban planning and decision-making processes of Rotterdam's Department of City Planning?*, is answered.

CHAPTER 8: Discussion – This chapter discusses the key results of the research, interprets their significance, outlines their implications, discusses limitations, and provides further research recommendations.

CHAPTER 9: Results – This chapter provides an observational objective view on the results derived from de data analysis.

CHAPTER 10: Conclusion – This chapter concludes the research by answering the main research question: *How can strategic scenario thinking be integrated into Rotterdam's urban development process, and what potential does it hold for addressing politically sensitive urban development projects, particularly in the case of Feyenoord City?*

CHAPTER 11: Academic reflection – This chapter reflects upon the graduation project's research process, methodology, and outcomes. It evaluates the effectiveness of the approach, including the theoretical expansion of existing frameworks and how insights from experts and practitioners helped shape the content of the research.

2 Literature review |

This chapter provides a literature review that forms the theoretical basis for the research methodology. After defining foundational concepts, such as municipal strategies, politically sensitive urban renewal projects, and strategic urban development processes, this chapter goes on to establish a theoretical framework that can assess the collected data. The chapter also determines the relevant scenario type by examining: (1) the crucial components of political sensitivity in urban renewal projects, drawing from various academic sources. An analysis identifies the most relevant scenario type for this research, with a focus on its implementation in urban development contexts. The data assessment framework includes an exploration of key components for implementing scenario thinking, based on literature by Chakraborty & McMillan (2015), and introduces a cross-reference table to guide the assessment of the collected data.

2.1 Key concepts and definitions

This subchapter clearly explains the foundational concepts relevant to this research. Municipal strategies, politically sensitive urban renewal projects, and strategic urban development processes are central to addressing the complexities of urban planning in the Netherlands. By defining these key terms, the study establishes a shared framework for analysing how municipalities can adopt scenario thinking to enhance adaptability and resilience. These definitions ensure conceptual clarity and set the stage for exploring strategic flexibility's practical and theoretical implications in navigating politically and socially sensitive urban challenges.

2.1.1 Municipal strategies

In the Netherlands, municipal **strategies are often designed to align with regional and national policies**, incorporating robust public consultation processes and collaborative governance. This approach reflects the Dutch commitment to creating adaptive, resilient urban spaces that balance economic development with environmental stewardship (Van der Krabben & Jacobs, 2013).

2.1.2 Politically Sensitive Urban Renewal Projects

Refers to development initiatives or public policy decisions that **invoke significant political debate and public scrutiny due to their potential impact** on stakeholders, local communities, or the environment. These projects often involve high-profile or controversial topics, such as large-scale infrastructure, environmental conservation, urban redevelopment, or immigration policies, where political actors, the media, and citizens closely monitor decision-making processes. The sensitivity arises from competing interests, values, or potential social and economic implications, leading to intensive political negotiation and deliberation (Zeemering, 2012).

2.1.3 Strategic Urban Development Process

Refers to the **structured sequence of planning, design, and implementation activities to transform urban spaces** to support sustainable growth, housing, infrastructure, and community needs. This process is characterised by multi-stakeholder collaboration involving local governments, private developers, citizens, and other interest groups, emphasising spatial quality, environmental sustainability, and social inclusivity (Buitelaar & Bregman, 2016).

2.2 Relevant scenario type

2.2.1 Crucial component of political sensitivity

Urban renewal projects often involve politically sensitive issues, where power dynamics, community interests, and societal values intersect. "Political sensitivity" refers to the complex relationship between governance, societal values, and the challenges posed by political correctness. These projects are shaped by competing interests and political pressures, making decision-making processes more intricate and controversial. This chapter examines politically sensitive urban renewal by categorizing the issues into politically sensitive societies, policies, and issues. Through case studies, it explores how governance, financial factors, and political influences impact urban planning.

Academic discussions on politically sensitive urban renewal projects encompasses three primary categories: politically sensitive societies, policies, and issues. This categorization will serve, in this chapter, as a framework for analysing the complex dynamics involved in these projects.

2.2.1.1 Politically sensitive societies

Alsaid (2021) examined the application of performance metrics in the governance of smart cities, particularly in politically sensitive environments like Egypt, focusing on the New Cairo city council. The research delved into how these metrics influence political decision-making, stressing the importance of standardized performance indicators at the local level of city councils and their role in ensuring accountability in smart urban development (p. 12). The study revealed that political pressures and military influences significantly affect the adoption of performance measurement systems in smart city governance. It highlights how institutionalized performance metrics shape political choices at the city council level (p. 3), aiding in managing internal tensions and supporting smart urban development, with implications extending beyond purely economic considerations (p. 3). Moreover, the study's findings indicate the pivotal role of performance measurement systems in addressing internal conflicts within city councils, fostering smart urban development, and influencing political decisions beyond economic factors (p. 35). Lastly, the research underscores the significance of performance measurement systems in smart city governance, advocating for their integration of economic, social, and political dimensions to enrich urban development and ensure accountability.

2.2.1.2 Politically sensitive policies

Brorström & Styhre (2021) focus on an ethnographic study of a Swedish city's harbour area renewal project, emphasizing the importance of being present to understand the planning process fully. It started in 2011 with the drafting of a vision for the harbour area, leading to the initiation of work in 2012. The project involved multiple stakeholders managed by a collaborative organization. A total of 81 interviews and extensive observations were conducted over nine years, with a particular focus on the steering group and events related to the New Harbour District project between August 2017 and December 2018. The study sheds light on the challenges faced in translating visionary plans into actionable strategies in urban renewal projects (p. 6).

The study's findings indicate a significance of governance devices and accurate information in realizing projects, especially when faced with politically sensitive decisions and financial complexities (p. 1). Governance devices, such as business plans and calculative practices, are crucial tools in urban renewal projects to ensure alignment with political and economic objectives, preventing unfavourable outcomes and project risks (p. 3). Accurate information is essential for bridging the gap between visionary plans and actual implementation, highlighting the importance of introducing calculative practices to effectively transform illiquid assets into investment objects like housing (p. 5). These governance practices are vital in managing politically sensitive decisions and financial complexities, ensuring transparency, realistic goal-setting, and successful project realization (p. 1, 9).

The link between visionary plans and governance devices lies in their role in translating ambitious visions into actionable strategies, especially when faced with politically sensitive decisions and financial complexities (p. 5, 3). However, implementing visionary plans in urban renewal projects without detailed financial calculations, advocating for the introduction of calculative practices to bridge this gap effectively (p. 13). This discrepancy between visionary narratives and practical concerns can lead to difficulties in decision-making, collaboration, and project progress, hindering the realization of ambitious goals in complex urban renewal projects (p. 12).

2.2.1.3 Politically sensitive issues

Savini et al. (2015) examine the political and financial influences on urban development in Amsterdam, Milan, and Paris, analysing the roles of national governments, core cities, and market investors in shaping spatial planning and large-scale projects in metropolitan areas' inner peripheries (p. 5). The study reveals how electoral strategies, political conflicts, and business interests affect peripheral development outcomes, highlighting evolving relationships among these stakeholders (p. 4). In Amsterdam, the northwest waterfront redevelopment emphasizes incremental housing production and mixed land-use mixes (p. 12), while Paris focuses on reconnecting the city with its banlieue through social housing and improved transport (p. 7). Milan's Territorial Government Plan prioritizes major projects along corridors, emphasizing new spatial qualities and sustainability (p. 6).

The types of peripheral developments include cross-border collaborations in Paris, where local politics, market actors, and national governments work together for inner periphery redevelopment (p. 14). In Amsterdam, an organic approach focuses on incremental housing production and mixed land-use mixes in the northwest waterfront area (p.12). Milan showcases isolated scenarios with left-wing groups and a left-wing government, facing challenges due to political fragmentation and lack of planning synergies (p.14).

2.2.2 Relevant scenario type analysis

Since municipalities are legally prohibited from developing real estate themselves (Bruggeman et al., 2010), their authority lies with the establishment of policies. This means that within the context of urban renewal projects, the political sensitivity lies within municipal policies. In this sub-chapter, the crucial components for politically sensitive policies are cross referenced against the different scenario approaches studied in the previously stated literature review, as shown on table 1. Resulting in that **strategic scenario strategies** are most suitable for dealing with politically sensitive urban renewal project. The following components are found crucial from the literature review and can be implemented in the strategy proposal in this research.

Summary of key-components: politically sensitive policies

- Importance of governance devices and accurate information in realizing projects.

- Challenges in translating visionary plans into actionable strategies.
- Role of governance devices such as business plans and calculative practices.
- Significance of accurate information in bridging the gap between visionary plans and actual implementation.
- Link between visionary plans, governance devices, and successful project realization.
- Advocacy for the introduction of calculative practices to bridge the gap between visionary narratives and practical concerns.

Table 1: Cross-reference table crucial components for dealing with politically sensitive urban renewal projects against scenario thinking approaches (own work)

		Predictive		**Explorative**		**Normative**	
Crucial components for dealing with politically sensitive urban renewal projects		*Forecasts*	*What-if*	*External*	*Strategic*	*Preserving*	*Transforming*
1	Importance of governance devices and accurate information in realizing projects.	-	-	x	x	x	x
2	Challenges in translating visionary plans into actionable strategies.	-	-	-	x	-	x
3	Role of governance devices such as business plans and calculative practices.	-	-	x	x	x	x
4	Significance of accurate information in bridging the gap between visionary plans and actual implementation.	-	-	x	x	x	x
5	Link between visionary plans, governance devices, and successful project realization.	-	-	x	x	x	-
6	Advocacy for the introduction of calculative practices to bridge the gap between visionary narratives and practical concerns.	-	-	x	x	x	x

2.2.3 Definition of strategic scenarios

Börjeson et al., 2006 definition of explorative scenarios is: to examine how (1) *decisions* might play out under different (2) *future conditions*, providing a (3) *range of possible outcomes*. On figure 1 a visual representation of this definition is displayed. Taken into account that strategic scenarios focus on how actions are taken by policymakers or stakeholders influence future outcomes, the following definition can be considered to define scenario thinking within municipal urban development processes: The (1) *decision* is represented by the project start decision signed by the municipal executive board (Dutch: het college van Burgemeester en Wethouders) and the determination of a project's high risk status; the (2) *future conditions* are represented by the strategic steps the project team makes to influence the conditions uncertainties can occur in; and the (3) *range of possible outcomes* is represented by the futures scenarios of the project.

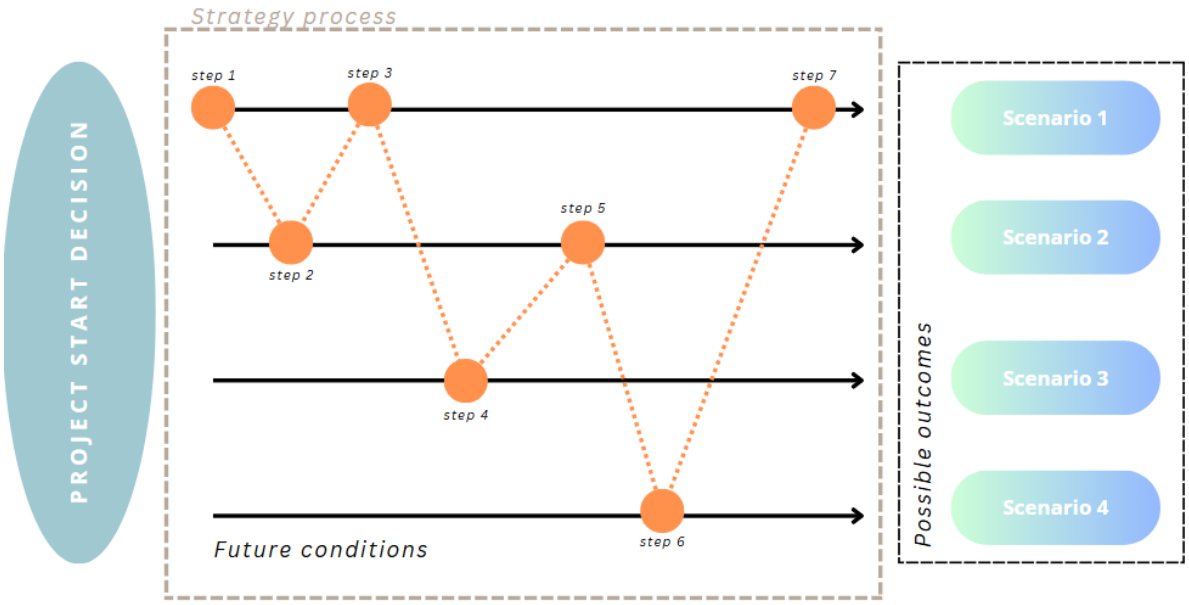

Figure 1 | Visual representation of strategic scenario thinking (own work)

2.2.4 Scientific scope of the research

As previously stated, this research aims to give guidance to municipal decision-makers about navigating politically sensitive urban development projects. It does so by proposing a process that integrates strategic scenarios within the existing urban development process, specifically in the context of the municipality of Rotterdam. That means that the research theoretically assesses how to set up the process to navigate to the desired outcome. It produces retrospective scenarios and gives a theoretical strategy process proposal.

The production of strategies, the practical implementation of the proposed strategy process and a reflection on the project start decision and the determination of a project's high risk status falls outside the scope of this research.

2.3 Data assessment framework

This sub-chapter provides a data assessment framework that analyses the collected data. To answer the main research question it is important to have a clear understanding on what is needed for urban planners to implement scenarios (derived from various literature that use Börjeson et al.'s (2006) method.) and what organisational structure fits best (derived from Chakraborty & McMillan's (2015) nine key components). The derived data from this research is therefore assessed through this proposed framework to find the gap between literature and practice.

2.3.1 Crucial components for implementing scenario type (derived from various literature)

Through a search on researchrabbitapp.com, research papers were found that cited Börjeson et al. (2006) method. From the 991 research papers cited the literature, 79 papers were connected with urban planning. Many of these studies use the Börjeson et al. (2006) method to explore potential futures

(Mannucci et al., 2023; Enault et al., 2021) and as a tool for backcasting future scenarios to explore policy, market and governance implications (Letcher & Britton, 2023; González-González et al., 2023; Bibri, 2020). However, this part of the literature review will focus on research papers that either assess (a part of) an urban planning and policy processes or compares different urban planning processes. From this perspective, important characteristics of the method, in relation to the urban planning process, can be identified for further implementation in this research proposal.

Berbés-Blazquez et al. (2023) use qualitative tools for the assessment of *transformative* visions. This normative scenario type fits into the urban planning process by allowing for the exploration of alternative policy pathways, identifying potential barriers to proposed policies, and building robustness for future uncertainty (p. 2). The research uses transformative scenarios by allowing participants to build their imagined visions through conversation, resulting in narratives reflecting issues and opportunities perceived by actors at different government scales (p. 15). This further emphasizes the already methodological approach of understanding how scenarios work at different government scales. This is done by the method of assessing 11 visions from the scales of village (or borough) and regional (or metropolitan) in the context of urban planning and future visioning (p. 1).

There are differences in priorities and emphases between the two scales, highlighting the political nature of visioning and the need to explore interactions across different scales (p. 9, 14). In the case study of the city Phoenix, Arizona, the main findings show in both levels of visions the prioritization of building resilience. However, the village-visions focus more on social dimensions, equity mechanisms and participation, while regional visions align with a green sustainability agenda (p.9, 14).

Furthermore, Munnucci et al. (2023) uses the predictive “what if” scenario approach to generate five-thousand computational experiments that describe the possible shape of a flood risk urban area (p. 13). This way the utility of the approach is to explore potential futures under uncertain conditions in the urban planning through scenario planning. The aim of the study is to simulate urban growth patterns considering uncertainties like the implementation of new poles of attraction (p.8). By conducting the computational “what if” experiments, the study generates an ensemble of scenarios to explore different outcomes and responses within the complex system, leading to the identification of decision-relevant clusters (p.8).

The research claims that planners need a nuanced understanding of the complex system’s behaviour is an imperative component for urban planners. The tool used in this research is scenario narratives, where different behaviours under different futures are associated with uncertainties. It depicts, through a Scenario Discovery selection process, how variables interact and offer insight into plausible evolutions of the system (p. 11). By translating complex analytical results into accessible narratives, planners can

make informed decisions, develop adaptive strategies, and devise contingency plans aligned with the system's dynamics (p. 11)

Summary of the crucial components

The following components are found crucial from the literature review:

- Urban planners need a clear definition of scenarios within urban planning to align internal understanding
- Scenarios are part of the strategic urban planning process and several tools can be used to set up scenarios.
- Use of scenario narratives help depict how variables interact and offer insight into potential system evolutions.
- The scenarios implemented can differ depending on the government scale (village/borough and regional/metropolitan) they are implemented
- Practical implications for urban planning, includes the translation of complex analytical results into accessible narratives for informed decision-making
- Frequent assessments of the evolving dynamics of the urban environment, including demographic, economic, environmental, and social changes, help urban planners to recognize emerging challenges and opportunities

2.3.2 Nine key components for scenario implementation in organisations

For the positioning of scenario thinking within urban strategies, Chakraborty & McMillan (2015) nine key components are analysed. The researchers note the importance of understanding the position of scenarios and the tools they use within the strategic urban process. According to the literature, scenario planning is a component within this strategic planning process, that allows for creative thinking about the future by combining technical and participatory planning approaches (p.2). Urban planners benefit from understanding the following nine key components (p. 11):

1. Organizational structure: Unitary, strong leader, or loose coalition;
2. Scope: single issue, comprehensive, or problem-oriented;
3. Scenario type: Normative, predictive, or explorative;
4. Outcome: awareness, vision, or policy recommendation;
5. Stakeholder Engagement: General public, government agencies, or interest groups;
6. Participation extent: Inform only, seeking feedback, or joint fact finding;
7. Engagement medium: Web-Based, Face-to-Face, or hybrid;
8. Scenario Construction analysis tools: Qualitative, Planning Support Systems, or Computer Modelling;
9. Resources: statutory or recurring, opportunity-based, fundraised;

(Chakraborty & McMillan, 2015)

This systematic approach helps planners address complex planning situations, improve traditional urban planning techniques, and integrate scenario planning into broader planning processes successfully (p.

11). By using the typology, planners can create transparent, participatory, and effective scenario-planning processes, integrating technical and participatory planning approaches systematically for future-oriented urban planning (p. 11).

By using the developed typology with nine major components and subcomponents, planners can create transparent, participatory, and effective scenario-planning processes for future-oriented urban planning (p. 11). Planners should carefully analyse the trade-offs between these components to make informed decisions, highlighting the connection between project scope and involved parties (p. 11).

2.3.3 Cross reference table for data assessment

The cross-reference table displays the crucial components derived from the different literature and Chakraborty & McMillan (2015) nine key components to integrate scenarios within an organisational structure, see table 2 on the following page. The boxes where there is an “x” it means that there is expected to be a connection between the data and the literature. The boxes with an “-“ mean that there is no expectation of a connection.

Table 2: Cross-reference table crucial components against Chakraborty & McMillan (2015) nine key components (own work)

		Chakraborty & McMillan (2015) nine key components (p. 11)								
	Crucial components	*Organizational structure: Unitary, strong leader, or loose coalition*	*Scope: single issue, comprehensive, or problem-oriented*	*Scenario type: Explorative*	*Outcome: awareness, vision, or policy recommendation*	*Stakeholder Engagement: General public, government agencies, or interest groups*	*Participation extent: Inform only, seeking feedback, or joint fact finding*	*Engagement medium: Web-Based, Face-to-Face, or hybrid*	*Scenario Construction analysis tools: Qualitative, Planning Support Systems, or Computer Modelling*	*Resources: statutory or recurring, opportunity-based, fundraised*
1	Urban planners need a clear definition of scenarios within urban planning to align internal understanding	X	X	X	X	X	-	-	-	-
2	Scenarios are part of the strategic urban planning process, and several tools can be used to set up scenarios.	X	X	X	X	X	-	X	X	x
3	Use of scenario narratives help depict how variables interact and offer insight into potential system evolutions.	X	X	X	X	X	-	X	X	X
4	The scenarios implemented can differ depending on the government scale (village/borough and regional/metropolitan) they are implemented	X	X	X	X	X	-	-	X	X
5	Practical implications for urban planning, includes the translation of complex analytical results into accessible narratives for informed decision-making	X	X	X	X	X	X	X	X	-
6	Frequent assessments of the evolving dynamics of the urban environment, including demographic, economic, environmental, and social changes, help urban planners to recognize emerging challenges and opportunities	X	X	X	X	X	X	X	X	X

3 Methodology |

This chapter presents the methodology designed to explore the integration of scenario thinking within municipal strategic urban development processes, with a focus on the politically sensitive Feyenoord City project in Rotterdam. To answer the main research question it is important to recognise the importance of both the formulation of retrospective scenarios and the strategic process proposal to implement the scenarios within municipal strategic urban development process. Therefore, the research employs a framework grounded in Coghlan's (2019) theory of 'action research'. The approach combines literature review, case study analysis, interactive sessions, and interviews with stakeholders to ensure a theoretical foundation and practical relevance. Findings are evaluated through a strategy improvement assessment, offering actionable recommendations for embedding scenario thinking into urban planning frameworks, particularly in complex, politically sensitive contexts like the Feyenoord City project.

3.1 Research Method

The methodology follows six core phases: (1) literature review, (2) products, (3) data collection, (4) interview analysis, (5) assessment, (6) results and conclusion. Figure 2 displays the six core phases and the research steps that each phase consists of.

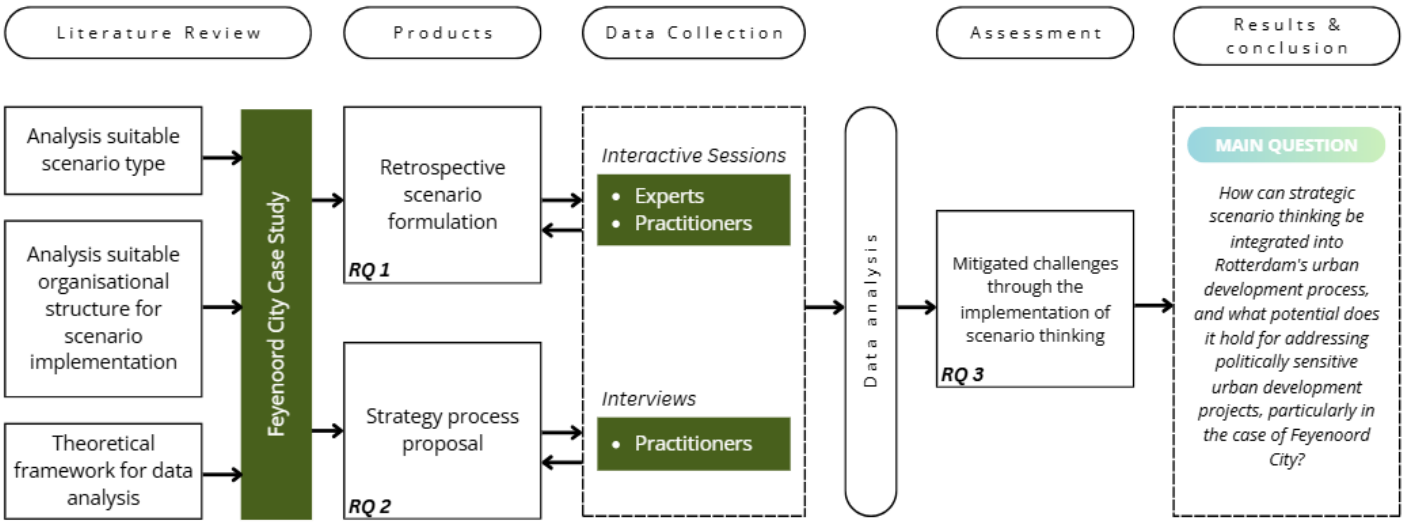

Figure 2 | Methods Research Question Framework (own work)

3.1.1 Literature Review and Theoretical Framework

The first step in the research involves a literature review to establish the theoretical underpinnings of the study and to shape the proper context for this research. During this step an examination is done on a suitable scenario type for politically sensitive projects and the organisational barriers of scenario implementation. To analyse the use of scenario thinking within municipal urban development processes a theoretical framework for data analysis is set up.

Furthermore, a theoretical framework is set up based on crucial components that are found in literature that uses Börjeson et al. (2006) techniques for using scenarios and Chakraborty & McMillan (2015) nine key components for integrating scenario thinking within an organization. The theoretical framework will be used to analyse the data and to determine the mitigated challenges, and therefore answering sub-question 3.

3.1.2 Products: Development of Strategic Scenarios

The foundation for the data collection is formed by the formulation and development of strategic scenarios. By formulating retrospective scenarios and integrating these steps into the municipal strategic process the analysis of this research can be conducted. The retrospective scenario formulation draws from Dewulf et al.'s (1999) methodology on generating scenarios. This method pays particular attention to uncertainties with high impact and low steering opportunities and systematically analyses the uncertainties that can uncontrollably derail the project. These steps are then placed within the municipal strategic development process, from which they form the strategy process proposal. This step answers the first and second research sub-question and the results can be read in chapter 5 (specific scenario steps) and chapter 6 (the strategy process proposal).

3.1.3 Data collection

The data collection for this research involved two main approaches: interactive sessions and in-depth interviews. The interactive sessions were conducted with experts and practitioners actively engaged in Rotterdam's urban planning processes. These experts included members of an academic reflection team involved in a lessons-learned evaluation commissioned by the municipality of Rotterdam and conducted by Arcadis (Arcadis, 2021). Complementing these sessions, in-depth interviews were conducted with practitioners; (1) a municipal project manager and an urban planner directly involved the Feyenoord City project, (2) a municipal urban project manager who was part of the supporters against the Feyenoord City project. The interactive sessions and interviews are recorded and transcribed. The informed consent form can be found in appendix II; the framework of the interactive session can be read in appendix III; the interviews protocol can be read in appendix IV; and the interactive session presentation can be found in appendix V.

3.1.4 Data analysis, assessment and validation

The interactive sessions and interviews provided qualitative insights into the practical challenges of the uncertainties that arose during the Feyenoord City project. To understand this data through the lens of scenario thinking, and how it can be implemented within the strategic process, a data analysis is conducted. The data analysis steps are defined in the theoretical framework, as part of the literature review in chapter 2. This step starts with coding the transcriptions of the interactive sessions and de interviews. Then, as part of the assessment, this data is used in the cross-reference table of the

theoretical framework. This step answers the third research sub-question and the results of this step can be read in chapter 7. Also part of this step is the validation of the analysis which can be read in the discussion of this research, this can be read in chapter 8.

The findings from the assessment are used to address the third research sub-questions. This highlights the mitigated challenges through the implementation of scenario thinking. Which demonstrates, specifically for the Feyenoord City project, the relevance of scenario thinking to politically sensitive project and it's challenges and opportunities.

3.1.5 Results and conclusion

The study concludes with the results of the assessment and by answering the main research question. This results in a proposal with actionable recommendations. This proposal focuses on embedding scenario thinking into Rotterdam's strategic urban planning process, particularly emphasising its application for politically sensitive projects.

3.2 Case Study Methodology

The case study methodology is particularly well-suited for this research as it allows for an exploration of the politically sensitive urban renewal project of Feyenoord City. The scope of this exploration is to understand the strategic urban development process and is part of chapter 3 (Case study). Chapter 3 explores the Feyenoord City project as a case study, focusing on the generating phase of scenario thinking. It examines the main stakeholders, local and national visions, and key strategic themes—such as international appeal, economic growth, sports, sustainability, and social inclusivity—derived from vision documents.

The chapter then outlines the project's trajectory, from its designation as a high-risk project in 2017 to its discontinuation in 2024, highlighting key challenges like stakeholder withdrawal and legal setbacks. It concludes with an analysis of the legal framework, explaining governance mechanisms and oversight.

The Feyenoord City project was selected through a comparative analysis of various urban renewal projects in Rotterdam, including the Seven New City Parks, Wilhelminapier Revitalization, and the 'City Lounge' strategy. These projects illustrate the intersection of urban planning with political, social, and environmental challenges. Feyenoord City was chosen due to its high political sensitivity, significant community impact, and complex stakeholder dynamics, including the withdrawal of Feyenoord football club. For the full comparative analysis, see Appendix I.

3.3 Data collection

Data collection for this research is designed to gather comprehensive insights into Feyenoord City's urban development challenges, uncertainties and stakeholder perspectives. Since scenario thinking is not widely used in municipal strategic urban development, the data collection is chosen to abstract

information from the participants while simultaneously giving them understanding about scenario thinking. Therefore, elements of Coghlan's (2019) doing action research is implemented in forming this step.

In this research action research is facilitated through interactive sessions and in-depth interviews. Both methods prioritises qualitative data to capture the nuanced perspectives of participants, ensuring the findings are deeply rooted in the realities of urban planning in Rotterdam. Additionally, the use of the participatory method of interactive sessions, aligns with the strategic scenario process, emphasising collaboration and the inclusion of diverse viewpoints.

The participants who took part in the interactive sessions were experts that were members of an academic reflection team involved in a lessons-learned evaluation commissioned by the municipality of Rotterdam and conducted by Arcadis (Arcadis, 2021). These interactive sessions were expanded with the in-depth interviews for practitioners. The practitioners were (1) a municipal project manager and an urban planner directly involved the Feyenoord City project, and (2) a municipal urban project manager who was part of the supporters against the Feyenoord City project.

3.3.1 Interactive Sessions

Interactive sessions are conducted with experts and practitioners in urban planning to identify key trends, uncertainties, and decision-making factors. These sessions form the core of the generating phase, where participants collaboratively brainstorm and map out the variables shaping Feyenoord City's future. By drawing on the expertise of stakeholders involved in Rotterdam's urban planning processes, these workshops provide valuable qualitative data on the context-specific challenges and opportunities associated with the project. The framework and the presentation for the interactive sessions are found in appendix III and V.

3.3.2 In-Depth Interviews

Semi-structured interviews with practitioners provide detailed insights into the integration of scenario thinking into Rotterdam's decision-making processes. These interviews focus on identifying barriers to adoption, the value of scenarios in mitigating political challenges, and practical mechanisms for embedding scenario thinking into institutional frameworks. Interviews also explore specific challenges tied to politically sensitive projects, such as regulatory complexities and competing stakeholder interests. The framework for the interviews is found in appendix IV.

3.4 Data analysis

The data analysis process is structured to ensure that the findings are both comprehensive and actionable. Thematic analysis processes the qualitative data collected through interactive sessions and interviews. The interactive sessions and interviews are transcribed after which they are coded.

The coding process of the analysis is conducted using Atlas.ti, allowing for a structured approach to identifying key components of scenario thinking within Feyenoord City's strategic process. The codes used in this analysis are derived from Chakraborty & McMillan's (2015) nine key components for integrating scenario thinking within organisations. These components include engagement medium, organisational structure, outcome, participation extent, resources, scenario construction analysis tools, scenario type, scope, and stakeholder engagement.

The transcriptions of the interactive sessions and interviews are coded based on these predefined categories, ensuring a systematic classification of qualitative data. This step enables the identification of patterns and relationships between different aspects of scenario thinking in practice.

Following the coding process, the results are compared to the crucial components identified in literature that applies Börjeson et al.'s (2006) techniques for using scenarios. This comparison helps to assess the alignment between theoretical approaches and the practical implementation of scenario thinking in the Feyenoord City project.

3.5 Research Outputs

The deliverables include a set of strategic scenarios specifically tailored to Feyenoord City. These scenarios provide a structured analysis of uncertainties. Additionally, the research will deliver a process proposal for integrating scenario thinking into the City of Rotterdam's planning processes, offering practical guidance for municipal decision-makers and stakeholders.

3.6 Data Management Plan

The data collection methods for this research will include semi-structured interviews, workshops (interactive sessions), and a literature review. All interview recordings and transcripts will be securely stored on password-protected and encrypted devices to prevent unauthorised access. To ensure participant confidentiality, identifying information will be removed from transcripts, and pseudonyms will be assigned to participants. Any identifiable details shared during the interviews or workshops will be anonymised or redacted in the final transcripts. Research data—including recordings, transcripts, notes, and other materials—will be stored on password-protected servers with access limited to the researcher.

In accordance with institutional guidelines and ethical standards, the research data will be retained for a specified period and archived securely upon the project's conclusion. Data protection regulations will be strictly followed, and participant confidentiality will remain a priority. Anonymised and aggregated data may be disseminated, but individual participant data will not be made publicly available without explicit consent. Requests for data access will be evaluated on a case-by-case basis, ensuring privacy and confidentiality.

This data management plan protects participants' rights and privacy while upholding the integrity of the research process and ensuring the reliability of the findings.

3.7 Ethical Considerations

This research prioritises ethical principles to ensure the protection of participants' rights and well-being. Participation is entirely voluntary, with participants free to withdraw at any time without consequence. Before participation, participants will be informed about the research's purpose, how their data will be used, and their right to confidentiality. Informed consent will be obtained, ensuring participants understand that their identities will be anonymised, and no direct quotes will be used without consent.

All collected data, including interview transcripts, will be anonymised to safeguard privacy by removing identifying information. Pseudonyms will be used in place of real names, and access to the data will be restricted to the authorised researcher.

The research will also ensure reliability by including diverse participants and addressing potential biases through consistent interview questions. This approach fosters an open and non-coercive environment where participants can freely share their perspectives. The study will transparently discuss findings and acknowledge any limitations in the data.

To ensure ethical compliance, an application to the Human Research Ethics Committee (HREC) was submitted, including a Data Management Plan, Informed Consent Form, and Ethics Review Checklist. This ensured adherence to institutional ethical standards throughout the study.

4 Case Study: Feyenoord City Project |

The Feyenoord City project was chosen due to its high political sensitivity, significant community impact, and complex stakeholder dynamics, including the withdrawal of key stakeholder, Feyenoord football club (stadion Feijenoord). This large-scale initiative highlights the challenges and complexities of translating ambitions into reality. The project provides a unique opportunity to examine how stakeholders anticipate and prepare for different future outcomes by exploring various strategic pillars drawn from vision documents and analysed through scenario thinking. These pillars represent the fundamental bases for which projects are set up, shape how decisions are made and how to weigh conflicting interests.

This chapter the context of the Feyenoord City case is analysed. To comprehend the political and administrative context, the analysis includes the project's trajectory—shaped by shifting priorities, legal challenges, and stakeholder dynamics—demonstrating the importance of flexible, adaptive planning. This case study offers valuable insights into how the occurrence of uncertainties can inform decision-making and after the course of a project.

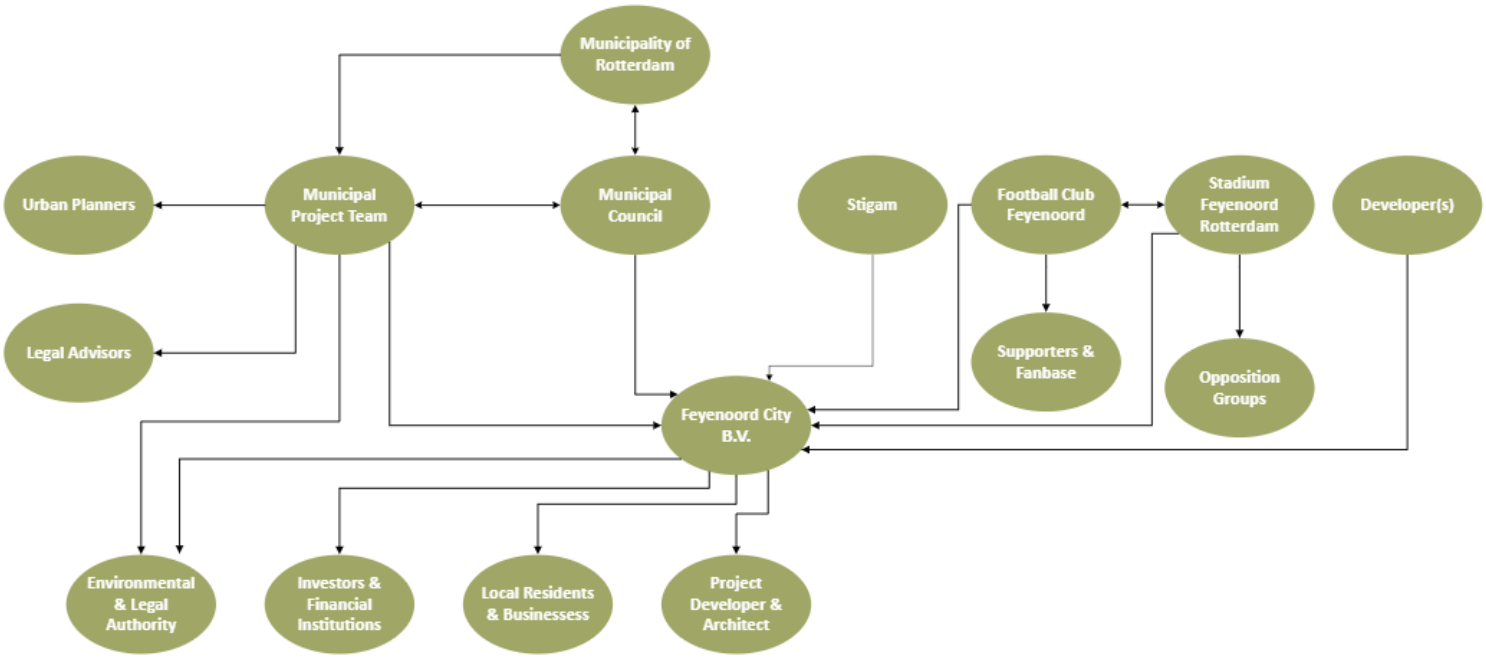

Figure 3 | Main stakeholders Feyenoord City project analysis graph (own work)

4.1 Main Stakeholders

The Feyenoord City project involved a network of stakeholders and actors, each with distinct interests, roles, and influences. The Municipality of Rotterdam functioned as the central governing entity, coordinating with the project team, financial backers, and developers. At the same time, public stakeholders, opposition groups, and legal authorities played key roles in shaping the project's trajectory. Figure 3 displays the various stakeholders and their connection to one another. By analysing these relationships, this chapter highlights the intricate interplay between governance, finance, urban planning, and public sentiment in large-scale urban projects. Understanding the stakeholder and actor network is crucial for analysing the project's decision-making processes, implementation strategies, and potential conflicts. This chapter presents a structured analysis of the key stakeholders and actors, their roles, and interconnections within the Feyenoord City project.

Feyenoord City B.V. was founded in 2016 to manage the development of a new stadium and surrounding urban area in Rotterdam. Key stakeholders included Stadion Feijenoord N.V., the Municipality of Rotterdam, a foundation called '*Stichting Gebiedsontwikkeling aan de Maas (Stigam)',* and a consortium of developers. Stadion Feijenoord N.V. was a primary initiator and shareholder, while the municipality supported the project through land and infrastructure contributions via a framework agreement with Stigam. Contractual relationships among the stakeholders were formalized through development agreements, financial contracts, and shareholder arrangements, aligning responsibilities and ensuring coordination throughout the project. This network of contractual arrangements ensured alignment between public and private interests and regulated the financial and spatial responsibilities of each actor.

4.1.1 Role divisions

The Feyenoord City project represents a large-scale urban development initiative in Rotterdam, with significant financial, political, and social implications.

The Municipality of Rotterdam plays a central role in the project's trajectory, planning, and regulatory oversight. The municipality embodies two key entities:

- Rotterdam Municipal Council: The political body responsible for approving and monitoring large-scale urban projects.
- Municipality Project Team: A specialised unit tasked with managing the practical implementation of the project, coordinating with other stakeholders, and ensuring regulatory compliance.

To facilitate the execution of the project, the Municipality Project Team engages with various internal experts and external companies, including:

- Urban Planners: Responsible for zoning, land use, and architectural design, ensuring alignment with Rotterdam's spatial planning policies.
- Construction Companies: Tasked with building the new stadium and related infrastructure.
- Legal Advisors: Provides legal counsel on contracts, regulatory requirements, and dispute resolution.

Feyenoord Rotterdam, as the primary sports entity involved, had significant stakes in the project due to its potential impact on stadium facilities and financial growth. The club's influence extended to its Supporters & Fanbase, a crucial stakeholder group with divided opinions about the redevelopment.

Feyenoord City B.V., the dedicated project developer, oversaw the planning, funding, and execution of the project. Its key interactions include:

- Investors & Financial Institutions: Provided financial backing for the project, expecting long-term returns.
- Project Developers & Architects: Responsible for designing and implementing the stadium and surrounding infrastructure.
- Opposition Groups: Often challenged the development on grounds of heritage conservation, financial risk, and social impact.

The existing Football club (Stadion Feijenoord) owner held economic and sentimental interests in the project. The debate over preserving or replacing the historic De Kuip stadium influenced public sentiment and decision-making.

Local residents and businesses were directly affected by the project, raising concerns about potential gentrification, economic opportunities, and infrastructure development. These concerns were addressed through public consultations, but opposition groups, including heritage conservation advocates, formalized their resistance through legal challenges and protests.

Regulatory bodies, including the 'Raad van State' (Council of State), ensured that the project adhered to environmental laws, zoning regulations, and urban planning policies. They played a critical role in reviewing disputes, environmental impact assessments, and legal approvals.

Financial feasibility was a critical factor in the project's progression. Key financial stakeholders include:

- Investors & Financial Institutions: Provided capital and funding strategies, influencing decision-making and project viability.
- Project Developers & Architects: Working with urban planners and construction companies to design and build the stadium and adjacent infrastructure while adhering to budget constraints.

4.2 Local and national visions for the area's development

The following pillars represent key themes that will be the foundation for the subsequent strategy formulation (also seen on figure 4). During the strategic phase, these pillars are analysed and prioritised to identify the necessary criteria and processes for achieving the strategic objectives. Understanding

Figure 4 | Municipal strategic pillars: Feyenoord City project (Own work, based on documents from the municipality of Rotterdam (own work)

these pillars helps us understand which politically sensitive uncertainties can arise. This subchapter will explain each pillar and highlight the project's focus areas, as articulated by the project manager and experts. It is important to note that while these pillars are developed as part of this research, the information underpinning them is drawn from various regional and national vision documents, including the Feasibility study (Dutch: Haalbaarheidsstudie) Feyenoord City, Position Paper Feyenoord City, Concept Masterplan Feyenoord City, National Spatial Planning and Environmental Strategy, and the National Vision for Rotterdam. Understanding these pillars through the lens of scenario thinking enhances the project's ability to adapt and respond to dynamic environmental, social, and economic factors.

4.2.1 Iconic Development and International Appeal

Iconic Development and International Appeal scenario aims to establish Feyenoord City and its new stadium as a globally recognised landmark, enhancing Rotterdam's reputation as a leader in urban innovation, sports, and culture. It emphasises external visibility and global competitiveness, prioritising international tourism, economic growth through events, and architectural prestige. While it supports urban living and economic development, its primary focus is creating a landmark with far-reaching recognition. This makes it particularly relevant to international investors, event organisers, and tourism agencies, distinguishing it from scenarios focused on local socioeconomic or environmental objectives.

4.2.2 Integrated Urban Living and Economic Growth

Integrated urban living and economic growth scenario aligns with Rotterdam's ambition to attract middle- to high-income residents and create jobs, fostering economic stability and growth in Rotterdam-South. The project aims to create a mixed-use environment providing residential, commercial, and recreational opportunities, reinforcing Rotterdam's goal of retaining talent and supporting local economic development. Rotterdam's plans for socioeconomic transformation in the south highlight the need for increased housing diversity and employment opportunities. By integrating residential and

commercial spaces within Feyenoord City, this scenario directly contributes to these objectives. It would increase housing for various income levels and support job creation, adding value to the local economy.

4.2.3 Sport and Leisure-Focused Development

Sport and leisure-focused development aligns with Rotterdam's image as a "City of Sports" and meets local ambitions to create an engaging, healthy environment. Establishing Feyenoord City as a leading sports hub supports the development of an active, sports-centred lifestyle while increasing Rotterdam's attractiveness for events and tourism. Rotterdam has invested in branding itself as a sports capital, and Feyenoord City could become the flagship location for this ambition. The scenario builds on local culture and attracts sports enthusiasts, benefiting both residents and visitors. However, while it strengthens Rotterdam's image, the direct economic and social inclusivity impacts are less significant than the first two scenarios.

4.2.4 Sustainability and Social Inclusivity-Centric Development

Sustainability and social inclusivity align directly with Rotterdam's local goals and national policy directions. Rotterdam-South faces distinct socioeconomic challenges, and Dutch national policies emphasise reducing inequality, improving quality of life, and advancing environmental sustainability in urban areas (Municipality of Rotterdam, 2022). Rotterdam is interested in developing Feyenoord City as a model for inclusive growth that bridges social gaps. By focusing on affordable housing, accessible public spaces, and environmentally sustainable design, this scenario could provide broad benefits to local residents while demonstrating national leadership in sustainable urban planning.

4.2.5 Feyenoord City Project Focus

The vision documents position the Feyenoord City project as a cornerstone of Rotterdam's strategic vision to enhance its identity as a modern, innovative, and globally recognised city. Both the Start Document for the Zoning Plan and Environmental Impact Report (Lammens & Gemeente Rotterdam, 2017) and the Position Paper (Gemeente Rotterdam, 2017) underscore the ambition to transform the development into a prominent architectural icon along the river the Maas, drawing parallels with internationally renowned waterfront landmarks like the Sydney Opera House and London's O2 Arena.

The Start Document (2017) highlights the new stadium's centrality as the project's centrepiece, designed to reinforce Rotterdam's image as a "sports city" and foster international visibility and civic pride. The Masterplan (OMA et al., 2019) elaborates on this vision by framing Feyenoord City as a hub for international events and tourism. It envisions integrating waterfront development and urban infrastructure to establish the area as a destination for global visitors, aligning economic, cultural, and architectural objectives with the city's broader ambitions for international appeal.

4.3 Project Course

Understanding the course of the Feyenoord City project is critical for grasping the intricacies of managing high-risk urban development initiatives. Tracking the project's trajectory—from its designation as high-risk in 2017 to its formal discontinuation in 2024—offers valuable insights into the decision-making processes, stakeholder dynamics, and challenges faced along the way. It illustrates how unforeseen obstacles, such as stakeholder withdrawal and legal verdicts, can reshape project outcomes (see the overview on figure 5 below). By analysing these developments, urban planners, policymakers, and stakeholders can identify key lessons in adaptability, risk management, and the importance of building resilient frameworks for future projects. This perspective highlights how documenting a project's course provides essential learning opportunities for addressing complex urban challenges.

Figure 5 | Feyenoord City project course overview (own work)

4.3.1 Initial Designation as a High-Risk Project

In July 2017, the Feyenoord City project was designated as high-risk by the Rotterdam City Council. This classification necessitated adherence to the Rotterdam High-Risk Projects Regulations (2012) (Dutch: Regeling Risicovolle Projecten Rotterdam 2012). The regulation provides the council with enhanced oversight responsibilities to ensure effective direction and control of the project. The oversight structure involved two key committees: the Responsibility Committee, tasked with monitoring and implementation, and the Process Guidance Committee, responsible for facilitating procedural tasks. This regulatory framework influenced the decision-making process, ensuring rigorous assessment and stakeholder involvement from the outset.

4.3.2 Rising Opposition and Stakeholder Withdrawal

As the project progressed, it encountered significant opposition. By early to mid-2022, high-profile stakeholders organised and amplified their pressure on both the city council and other involved parties. This opposition culminated in a pivotal event on October 22, 2022, when Feyenoord, the project's primary stakeholder responsible for the flagship initiative—a new stadium—formally withdrew from the project. This withdrawal destabilised the project, highlighting vulnerabilities in its strategic framework, particularly the overreliance on a single stakeholder and the absence of binding contractual conditions.

4.3.3 Legal Challenges and Annulment of the Zoning Plan

The project faced further setbacks on October 26, 2022, when the Raad van State (Council of State) annulled the zoning plan along with associated permits and decisions. The ruling emphasised the project's lack of feasibility due to the primary stakeholder's unrestrained withdrawal ability. Furthermore, the council identified unresolved issues, including a substantial funding gap for the stadium and unmet preconditions outlined in the city council's Position Paper. This legal decision underscored the project's systemic risks and financing uncertainties, compounding its challenges.

4.3.4 Termination of High-Risk Project Status

In light of these developments, the Rotterdam City Council formally discontinued the project's high-risk designation on February 15, 2024. This decision annulled all prior commitments and positions associated with the Feyenoord City initiative. The council recognised that the original vision, particularly the inclusion of a new stadium, was no longer viable. By clarifying past decisions, the council aimed to provide a stable foundation for future development plans, reflecting a pragmatic shift in focus to align with current realities.

4.3.5 Adapting to New Realities

Despite the significant setbacks, the project team demonstrated resilience and adaptability. The decision to continue area development without a new stadium marked a pivotal shift in the project's trajectory. Drawing on prior studies, land availability, and community insights, the team quickly devised a new concept plan within four to five months. This revised approach maintained core development objectives while addressing specific challenges, such as balancing high-rise construction with neighbourhood concerns about sunlight and views.

Stakeholder engagement remained a cornerstone of the project, with established trust allowing for streamlined community interactions. The move to a private area development model, with key parties united in a foundation, further facilitated progress. Although the project no longer included a new stadium, integrating police coordination and supporter flows into the development framework underscored its continued relevance and alignment with urban planning priorities.

4.3.6 Lessons Learned and Future Directions

The Feyenoord City project serves as a case study in navigating complex urban development challenges. Its trajectory highlights the importance of adaptive management, robust stakeholder frameworks, and contingency planning. The legal and financial obstacles underscore the critical need for cohesive policy frameworks that address competing priorities, such as economic vitality and social equity, as described by Greco and Long (2022). Moreover, the paradoxes inherent in sustainable urban development, as articulated by Hahn et al. (2018), further complicate such initiatives.

By transitioning to a more flexible development model, the Feyenoord City project illustrates how urban planners can reframe setbacks as opportunities for innovation. The project team's ability to preserve core objectives while recalibrating strategies exemplifies the resilience required for large-scale urban development in dynamic and contested environments.

4.4 Local legal requirements project

Understanding the legal requirements governing high-risk projects is essential for ensuring transparency, accountability, and the successful execution of large-scale urban developments. In the case of Feyenoord City, the project's designation as high-risk under the Rotterdam High-Risk Projects Regulations (2012) imposed stringent procedural and oversight obligations. These legal frameworks are designed to mitigate significant financial and societal risks, ensure adherence to administrative laws, and safeguard the interests of diverse stakeholders. Examining these requirements provides critical insights into the governance and regulatory mechanisms that shape complex urban projects, offering lessons on compliance, risk management, and stakeholder coordination.

4.4.1 High-Risk Project Designation and Legal Framework

The Rotterdam High-Risk Projects Regulations Act 2012 was established to enable effective council oversight of large-scale projects with substantial financial and societal risks. As Article 2 of the Act outlines, the framework emphasises monitoring and steering in terms of time, cost, quality, and results. The Feyenoord City project was designated as high-risk due to uncertainties in financing, feasibility, and potential impacts on the city and surrounding neighbourhoods (Rekenkamer Rotterdam, 2024). Projects meeting the following criteria in Article 3 are eligible for high-risk designation:

1. Non-routine, time-limited activities.
2. Sole or majority municipal responsibility.
3. Involvement of multiple stakeholders.
4. Substantial financial impact and/or significant execution risks.
5. Significant societal or municipal organisational consequences.
6. Application of novel technologies or financing structures.
7. Complex governance and execution processes.

4.4.2 Procedural and Process Implications

High-risk designation under the Act imposes a structured reporting and oversight process for Feyenoord City. These measures were designed to enhance accountability, ensure regulatory compliance, and mitigate risks. Key procedural requirements included:

1. Notification and Committee Oversight: Upon designation, the council chair notified the municipal executive (Article 4), and a responsible committee oversaw project management and control (Article 5).
2. Process Guidance Committee: This committee advised on regulation applications, monitored information quality, and assessed financial compliance (Article 6).
3. Appointment of a Rapporteur: A rapporteur was appointed to ensure thorough oversight and communication of progress (Article 7).
4. Mandatory Reporting: A baseline report outlining objectives had to be submitted within three months, forming the basis for oversight. Biannual progress reports tracked developments (Article 8).

4.4.3 Role of the Council of State

The Dutch Council of State played a pivotal role in the legal oversight of Feyenoord City, particularly regarding the permit for the zoning plan. As the highest administrative court in the Netherlands, it ensures compliance with legal and procedural standards for zoning plans and permits

1. Spatial Planning and Permits: he project required a revision of the zoning plan for the new stadium and redevelopment. After approval, stakeholders could file objections and appeals with the Raad van State.
2. Public Participation and Appeals: Following the approval, stakeholders raised objections during the public participation phase. Unresolved objections were escalated to the Raad van State, which assessed compliance with laws like the Spatial Planning Act (*Wet ruimtelijke ordening*) and the General Administrative Law Act (*Algemene wet bestuursrecht*).
3. Judicial Review: The Raad van State reviewed whether the municipality followed legal procedures, including assessing financial feasibility and adherence to statutory requirements.
4. Final Decision: In October 2022, the Raad van State annulled the zoning plan and permits, citing the withdrawal of a key stakeholder and unresolved financial uncertainties. This ruling halted the project's progress and underscored the importance of strong legal and procedural frameworks in urban development.

Retrospective Scenario Formulation |

Answering the first research sub-question: ***What strategic scenarios can retrospectively be formulated for the case of Feyenoord City?***

5 Strategic scenarios: Feyenoord City Project |

This chapter addresses the first sub-question: *What strategic scenarios can retrospectively be formulated for the case of Feyenoord City?*. To answer this sub-question it is important to refer back to the primary goal of strategic scenarios (Börjeson et al., 2006): to examine how (1) *decisions* might play out under different (2) *future conditions*, providing a (3) *range of possible outcomes*. In the case of the Feyenoord City project, the (3) *outcome* can retrospectively be explained through this definition: (3) *outcome* is represented by the annulment of the zoning plan by the Council of State; the (2) *future condition* can be pointed out as the appeals from the opposition and the degree of validity in their points[2]; the (1) *decision* is therefore represented by the municipalities decision to start with the project.

By formulating strategic scenarios, this chapter examens what indicators the municipality could have had before making the decision to proceed with the zoning plan. This analysis includes a study on possible different (2) *future conditions*, that could've played a role in the municipal strategic urban development process. In scenario thinking this is done by analysing uncertainties that can arise during the (strategic) process. The scenarios themselves are part of (3) *the range of possible outcomes* and have key performance indicators that practitioners can use to reflect upon during the project process.

The process of formulating scenarios should have its place within the municipal urban development process. This chapter demonstrates the steps needed to formulate scenarios, the next chapter is dedicated to place this process within the municipal urban development process.

5.1 Study of future conditions

In this subchapter, the future conditions that is focused upon are the conditions which the municipality has low impact on. These type of conditions represented by uncertainties and are formulated through desk research and feedback from the interactive sessions. After which they are analysed through Dewulf et al.'s (1999) methodology to form the basis for the scenario formulation. This section examines four key sources of uncertainty: political instability, stakeholder conflicts, financial viability, and public opinion.

1. Political Instability and Shifting Priorities | The scale and political sensitivity of urban development projects can play a role in the political debate within municipalities (Schulders, 2022). The Feyenoord City project was labelled a high-risk project, which put it under municipal regulations. This gave the municipal council extra oversight on the project's process. In addition, the project spanned multiple election cycles, during which changes in political leadership frequently altered. Each new administration can introduce new outlooks on the trajectory in which decisions should be made (Ornstein, 2019). However, the municipality can embed core objectives within binding policy documents or foster

[2] ABRvS 26 oktober 2022, ECLI:NL:RVS:2022:3090, r.o. III.

consensus among political factions, ensuring continuity and stability in strategic ambitions despite shifts in leadership (UN Economic & Social Council, 2018).

2. Stakeholder Conflicts and Diverging Interests | Collaboration among diverse stakeholders—including private developers, local citizens, and political representatives—are both essential and challenging (Fasth et al., 2020). In addition, competing priorities between the Feyenoord supporters and the BVO often led to conflicts that eventually influenced the trajectory of the project (Logger & Van Eijck, 2019). While these interests and the autonomy are part the external stakeholder's organisation and lie outside the municipality's direct control, their effects are profound. The Raad van State underscored this complexity by invalidating project approvals due to unresolved stakeholder conflicts. This highlights the need for collaborative frameworks that, while recognizing these tensions, seek to align stakeholder objectives more effectively.

3. Financial Viability and Budgetary Risks | Financial uncertainties were a recurring theme given the large scale of Feyenoord City stadium. Risks arose from funding dependencies, unfavourable market conditions, and government budget constraints, compounded by broader economic trends such as post-pandemic recovery. No feasible agreement was reached between the municipality and the BVO, making long-term investments uncertain (Municipality of Rotterdam, 2022b). Municipal control over such uncertainties was limited, which resulted in the Raad van State's decision to nullify project approvals based on financial ambiguities. This underscores the importance of robust financial planning and adaptive strategies that account for external economic variability.

4. Public Opinion and Participation | Public sentiment played a crucial role in shaping the project's political optics, introducing a wide spectrum of opinions. Balancing diverse community input while maintaining a cohesive vision was a persistent challenge (Liu & Zhang, 2022). Proactively addressing this through transparent communication, structured participation processes, and responsiveness to community concerns allowed municipal leaders to align public aspirations with strategic project goals (Gagan Deep, 2023). This engagement not only built support but also mitigated uncertainties related to public opinion, fostering trust and ensuring a more inclusive approach to urban renewal.

5.1.1 Analysis

Based on the information about the relevant uncertainties, the scenario matrix analysis is as follows (see figure 6). First, the steering opportunity and the impact of each uncertainty is analysed (left graph). The uncertainties with the lowest steering opportunity and highest impact will be analysed based on their level of predictability and impact (right graph). The uncertainties with the lowest predictability and highest impact will be used to formulate the scenarios.

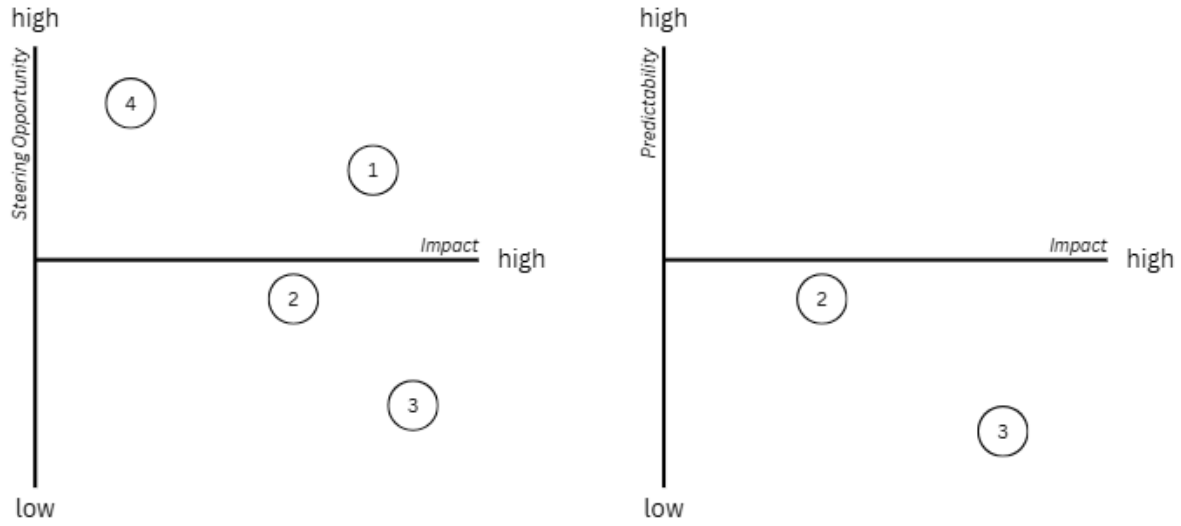

Figure 6 | Scenario Matrix analysis

Political priorities (1), though shaped by electoral cycles and leadership changes, can be influenced through strategic advisory roles performed by the project team. By providing well-informed advice to aldermen and political bodies, the project team can guide decision-making toward continuity and alignment with overarching urban strategies. Additionally, embedding long-term objectives in binding policy frameworks or cultivating cross-party consensus can mitigate disruptions caused by political shifts.

Public engagement (4) is another domain where proactive measures by the project team can reduce uncertainty. Structured public participation activities, such as workshops, consultations, and transparent communication channels, allow project leaders to align community aspirations with project goals. These efforts not only build trust but also reduce resistance, creating a foundation for public support that strengthens the project's strategic direction.

In contrast, stakeholder conflicts (2) are often shaped by the diverse and autonomous nature of the parties involved. Private developers, government entities, community groups, and activists bring differing priorities to the table, making alignment complex. Municipal authorities and project teams have limited influence over these dynamics, as competing interests and varying decision-making processes create a high degree of unpredictability. For example, the Dutch Council of State identified unresolved stakeholder conflicts as a key factor in invalidating project approvals, highlighting the constraints posed by external decision-making autonomy.

Financial risks (3), similarly, are highly influenced by external economic conditions, including market fluctuations, stakeholder funding availability, and macroeconomic trends such as post-pandemic recovery. Long-term investments are vulnerable to changing financial environments if not carefully covered by agreements. While adaptive funding strategies and phased implementation can provide some stability, the inherent uncertainties tied to external economic factors remain significant challenges.

5.2 Possible outcomes: scenario formulation

The following scenarios combine the uncertainties of stakeholder satisfaction and financial coverage (see figure 7). The Feyenoord City project highlights the difficulty of balancing these dimensions, with outcomes often leaning toward "Funded but Fractured" or "Contentious and Underfunded" due to tensions between financial goals and stakeholder expectations. This can be demonstrated in the case of the Feyenoord city project, where a key stakeholder's decision to remove themselves from the project lead to a risk to the financial goals. The reliance of stakeholder funds was one of the grounds on which the Council of State nullified the zoning plan.

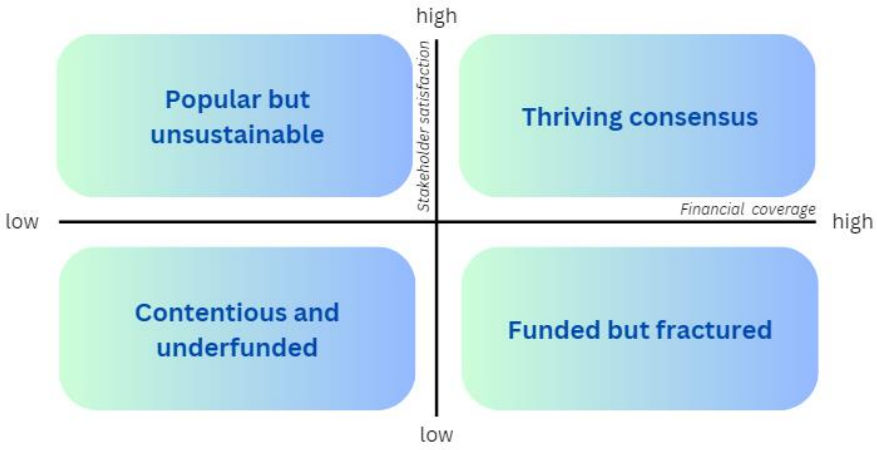

Figure 7 | Scenario axes (own work)

5.2.1 Thriving consensus

An ideal scenario where the project enjoys broad stakeholder satisfaction alongside strong financial backing. Stakeholders feel engaged and aligned with the vision, and financial risks are well-managed. If the project successfully balances the local community's needs, the club's legacy, environmental sustainability, and robust financial planning, it could achieve this optimal scenario. Strong collaboration across public and private sectors would be a key performance indicator.

5.2.2 Funded but fractured

The project is financially secure and backed by robust investments or funding commitments, but stakeholder dissatisfaction creates obstacles. This can include public protests, lack of political buy-in, or negative media coverage that damages trust and collaboration. The heavy focus on commercial aspects (e.g., stadium development) might have secured private funding but alienated key stakeholders, such as fans who opposed the direction and feared losing the cultural essence of the Feyenoord club.

5.2.3 *Popular but unsustainable*

Stakeholders are largely satisfied, with strong public and political support, but the financial basis is weak. The project struggles with funding gaps, potentially putting long-term execution at risk. Efforts to align with community desires, such as emphasising cultural heritage and affordable housing, could lead to high satisfaction but fail to attract enough private investors or manage escalating costs effectively.

5.2.4 *Contentious and underfunded*

The project lacks both sufficient financial resources and broad stakeholder support. Stakeholders like local communities, fans, and environmental advocates may feel excluded or dissatisfied with the decision-making process. Financial challenges, such as insufficient investment or unforeseen cost overruns, exacerbate the issue. This scenario mirrors the project's earlier stages, where public resistance (e.g., concerns from local residents) combined with scepticism about financial viability, leading to delays and dissatisfaction.

5.2.5 *Key Performance Indicators*

The following key performance indicators are a range in which the possible outcomes can occur. These percentages can differ in reality, however, stating these indicators as part of the scenarios can give direction of possible acceptable outcomes. This way the project group can reflect upon the conditions with these desired outcomes. See table 3 for the proposed KPI's.

Table 3 | Key Performance Indicators for retrospective scenarios Feyenoord City Project (own work)

KPI/Scenario	Thriving census	Funded but fractured	Popular but Unsustainable	Contentious and underfunded
Stakeholder satisfaction index	**High (80 – 100%)** Strong alignment with community, club, and investors	**Low (30 – 50%)** Dissatisfaction from key groups like fans, media, or politicians	**High (70 – 90%)** Strong community and political support but some concerns about the financial sustainability	**Very low (0 – 30%)** Widespread dissatisfaction from all major stakeholder groups
Financial stability score	**High (80 – 100%)** Well-funded with strong financial planning	**High (80 – 100%)** Secured funding but at the cost of stakeholder support	**Low (30 – 50%)** Struggles with funding gaps and long-term viability	**Very low (0 – 30%)** Severe financial issues, no secure investment
Public & political support	**High (80 – 100%)** Broad support from public, government, and media	**Low (30 – 50%)** Political and public resistance	**High (70 – 90%)** Strong political and public backing	**Very low (0 – 30%)** Resistance from all sides (public, politicians, environmental groups)
Collaboration strength	**High (80 – 100%)** Effective public-private partnerships and stakeholder engagement	**Medium (50 – 70%)** Strond private sector collaboration but weak public trust	**Medium (50 – 70%)** Public and political unity, but lack of private sector commitment	**Very low (0 – 30%)** Minimal collaboration, conflicts between key groups

Strategy Process Proposal |

Answering the second research sub-question: *What type of challenges in politically sensitive urban renewal projects, such as those in Feyenoord City, could be mitigated through strategic scenario thinking?*

6 Strategy process proposal |

This chapter places the process of formulating scenarios within the municipal urban development process by proposing a strategic framework. This framework is assessed through an analysis that answers the second sub-question: *What type of challenges in politically sensitive urban renewal projects, such as those in Feyenoord City, could be mitigated through strategic scenario thinking?*. The strategy proposal is displayed on figure 8 and highlights national and regional visions, incorporates collaboration from internal and external actors and stakeholders, evaluates scenarios on internal and external factors, and emphasises continuous reflection to ensure adaptability and alignment with long-term goals.

The proposed strategy process is meant to be used after the *project start decision (and determination of a project's high risk status)* is made by the municipal executive board (Dutch: het college van Burgemeester en Wethouders).

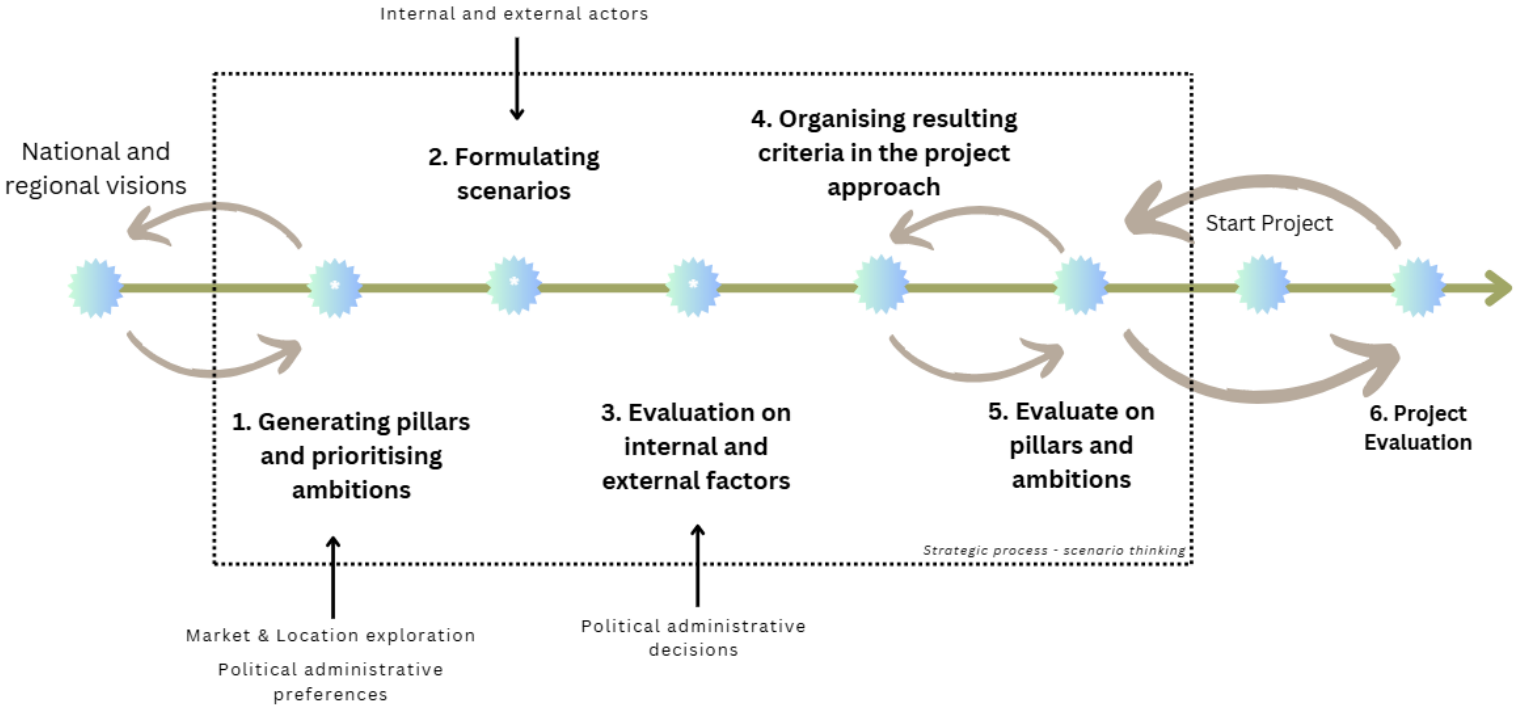

Figure 8 | Strategic Urban Development Process (Own work)

6.1 Key mechanisms integrating Scenario Thinking

The proposed process draws from the framework of Börjeson et al. (2006) for strategic scenario planning and incorporates scenario development steps outlined by Dewulf et al. (1999). The proposed strategic process displays the chronological steps of a municipal strategic process with an integration of the scenario set-up. Furthermore, the proposed strategic process also integrates the practical knowledge and insight shared by the participants of the interviews and interactive sessions.

This approach creates a comprehensive strategic framework that addresses the complexities of urban development while ensuring alignment with broader societal values.

Dewulf et al. (1999) emphasise that the development of strategic scenarios begins by identifying a wide range of trends significantly impact urban development but are often beyond the steering control of municipalities. Since municipalities are public bodies they have a particular focus on public values, which are further demarcated in the context of urban renewal. A wide range of public values are stated within national and regional vision documents. These documents have legal value, which make them binding for municipalities. These documents shape long-term strategic outcomes and are included in the process proposal as a reference point for reflection. This aligns with the broader context of strategic scenario development, which seeks to explore both the internal decisions made by municipalities and the external uncertainties they face. These external uncertainties, like public values, are often unpredictable but impactful, making them a priority in any strategic scenario planning process.

In the Börjeson et al. (2006) framework, the scenario planning process is divided into three key phases—Generating, Integrating, and consistency—each aligning with specific steps in the proposed framework. The Generating Phase corresponds to ***Steps 1 and 2*** in the implementation framework, which focus on setting the foundation for scenario development by generating pillars, prioritising ambitions, and formulating scenarios. Both frameworks emphasise participatory methods such as workshops, where stakeholders collaborate to identify key uncertainties, trends, and variables shaping the future.

In the Integrating Phase, Börjeson et al. (2006) advocate synthesising the diverse insights gathered in the Generating phase into coherent scenarios. This process aligns with ***Steps 3 and 4*** of the implementation framework. In this stage, the focus shifts to integrating internal and external factors, evaluating political and stakeholder commitments, and refining the strategic approach to ensure the scenario development process is actionable and aligned with the overall vision. Similarly, Lindgren and Bandhold's (2009) approach highlights the importance of clustering trends into themes and analysing their interconnections, which informs the development of robust and adaptable scenarios.

The final phase in both frameworks is the Consistency Phase, where the developed scenarios are evaluated for logical soundness and alignment with the initial goals. This phase corresponds to ***Steps 5 and 6*** in the implementation framework, ensuring that the scenarios remain consistent with the strategic pillars established in Step 1 while also reflecting political, administrative, or environmental changes. Both frameworks stress the importance of continuous evaluation and post-implementation reflection to ensure the strategies remain adaptable and aligned with long-term objectives, considering new challenges and opportunities.

Ultimately, the proposed framework draws from the well-established concepts of Börjeson et al. (2006) and Dewulf et al. (1999) and adds practical value through the iterative and inclusive process of engaging stakeholders at every stage. This enables a dynamic and responsive approach to urban planning, where strategic objectives and external uncertainties are continuously reassessed to inform decision-making.

The link between these frameworks underscores the importance of integrating analytical techniques with participatory methods to navigate the complexities of urban planning and policy implementation.

6.2 Strategic Steps

The proposed strategic framework outlines a comprehensive, step-by-step approach to scenario implementation, from the initial phase of generating strategic pillars to the post-project evaluations. Each phase is designed to ensure alignment with long-term goals, foster collaboration, and enable continuous adaptation to emerging challenges.

Step1: Generating Pillars and Prioritising Ambitions, establishes the foundation for the entire process by aligning strategic priorities with national and regional visions. It focuses on understanding political and administrative preferences, exploring market opportunities, prioritising ambitions, and ensuring the project remains consistent with broader development agendas. The iterative collaboration between stakeholders is crucial here, as it ensures alignment across various levels of governance and helps identify strategic objectives early in the process.

In the Step 2: Formulating Scenarios phase, knowledge gathered from Step 1 is used to identify and analyse key trends, cluster them into themes, and develop scenario matrices. As a result of making the scenario's, relevant uncertainties will be addressed and organised within the KPI's. This phase emphasises the use of network learning, where multi-stakeholder collaboration—encompassing public, private, and social sectors—ensures the inclusion of diverse perspectives and helps anticipate uncertainties. Stakeholders reflect regularly on the process, facilitating a dynamic, flexible approach to scenario development.

Step 3: Evaluation on Internal and External Factors, focuses on assessing the feasibility of the scenarios, integrating political, administrative, and risk management considerations. Political support and preferences play a key role in shaping the prioritisation of strategies. The evaluation ensures that risks are mitigated early and stakeholders are committed to the process, ensuring a solid foundation for the subsequent phases.

Step 4 aims to organise the Resulting Criteria in the Project Approach. Here, the outputs of scenario formulation and evaluation are translated into an actionable project plan. The criteria developed in earlier steps are refined and structured into clear tasks, enabling the project to transition from conceptual planning to practical implementation.

Step 5: Evaluating Pillars and Ambitions, revisits the original pillars and ambitions established in Step 1. The project is evaluated following political decision-making to ensure it remains consistent with these initial goals. Adjustments may be made to project criteria or solutions, but the core ambitions remain

constant. This reflective process ensures that strategic objectives continue to guide project execution and that decisions are aligned with long-term goals.

Finally, **Step 6: Post-Project Start Evaluation,** ensures that strategic alignment is maintained throughout the project lifecycle. Periodic evaluations, often involving external evaluators, provide continuous reflection on progress, allowing the project to adapt to emerging challenges. These evaluations extend beyond critical decision-making moments, providing opportunities for calm reflection and fostering sustained alignment with the project's objectives.

Each step is interconnected, creating a dynamic, iterative process allowing flexibility, continual feedback, and alignment with broader strategic goals. The comprehensive approach ensures that practitioners can navigate uncertainties, foster collaboration, and maintain a clear focus on long-term success.

6.3 Mitigated challenges of the Proposed Framework for Practitioners

In theory, the proposed framework streamlines the practical steps municipal practitioners need to take to effectively achieve their previously set-up goals. The framework highlights a number of advantages.

1. **Enhanced stakeholder collaboration:** Including network learning throughout the process strengthens stakeholder engagement by incorporating diverse perspectives. This ensures that strategies are both inclusive and adaptable to a wide range of viewpoints. Practitioners benefit from stronger partnerships and a shared sense of ownership.
2. **Risk awareness and political alignment:** Practitioners can proactively address potential challenges by integrating risk management and political evaluation into the framework. Steps 3 and 5 enable them to balance political preferences with strategic objectives, ensuring feasibility and minimising disruptions.
3. **Iterative and flexible evaluation:** The framework emphasises regular evaluation during and after project initiation (Steps 5 and 6). This enables practitioners to adjust strategies in response to changing circumstances while aligning with core ambitions.
4. **Actionable and structured outcomes:** The transition from strategic formulation (Step 4) to implementation is seamless, as criteria are translated into actionable tasks. This structured approach ensures clarity in project execution, providing practitioners with a clear roadmap.
5. **Long-term reflection and sustainability:** Unlike Börjeson et al.'s model, this framework integrates post-project evaluations, allowing continuous reflection and improvement. This ensures that strategic goals are revisited regularly, maintaining relevance over time.
6. **Practical feasibility:** The framework bridges the gap between theoretical scenario development and practical implementation. Practitioners can ensure strategies are grounded in real-world conditions by addressing political, administrative, and operational factors.

Data Analysis and Assessment |

Answering the third research sub-question: ***What are the key mechanisms for integrating strategic scenario thinking into the existing urban planning and decision-making processes of Rotterdam's Department of City Planning?***

7 Data analysis and assessment |

This chapter presents the results of the interactive sessions and in-depth interviews with the academic experts, practitioners from the municipality and practitioners from the supporters side. The framework of the interactive sessions are found in appendix III, the presentations used during those sessions are found in appendix V. The in-depth interview protocol can be read in appendix IV. The coding report can be made available upon request. In this chapter, the third sub-question is answered: *What are the key mechanisms for integrating strategic scenario thinking into the existing urban planning and decision-making processes of Rotterdam's Department of City Planning?*

The data is analysed using transcription-derived data through coding in Atlas.ai. Subsequently, key mechanisms are identified by extracting quotations from Atlas.ai and processing them in Unriddle.ai. To facilitate analysis, these key mechanisms are then systematically organised in the cross-reference table (as setup in the theoretical framework) for further examination.

This chapter answers the third sub-question by formulating the key-mechanisms that are retrieved from the data. Subsequently, these key-mechanisms are analysed by understanding the perspectives of the different stakeholder groups. Finally, the gap between the key-mechanisms and the theoretical assessment is shown in the cross-reference table.

7.1 Key mechanisms

There are 40 key mechanisms identified from the conducted interactive sessions and interviews. These key mechanisms are placed in the analysis (see table 7), but are explained in the table below.

Table 4 | Key mechanisms retrieved from conducted interactive sessions and interviews

	Identified key mechanism	
1	Sequential Strategy Development	A structured, sequential process is foundational for integrating strategic scenario thinking. This involves distinct steps: generating and defining strategies, prioritizing them based on political and administrative preferences, and subsequently using these priorities to formulate scenarios. Such prioritization ensures alignment with the city's governance frameworks and provides a clear foundation for scenario development.
2	Modular Project Structuring	Dividing projects into smaller components or sub-projects enhances flexibility and scalability. This modular approach allows urban planners to *"divide the scale into smaller bites,"* reducing the complexity and interdependencies that often hinder large-scale urban initiatives.
3	Avoiding Over-Complexity	Finally, maintaining simplicity within urban planning processes is essential. Overly complex plans with excessive interdependencies can lead to delays and vulnerabilities. As the experts cautioned, *"if you link too many things together in a very large plan, you create all kinds of dependencies. And that can turn against you."*

4	Formal Evaluation Points	Formal decision-making moments, such as Municipal Council approvals for zoning plans, serve as critical junctures for embedding strategic evaluations. By tying reflection and assessment to these legal and administrative milestones, planners ensure that strategic thinking aligns with broader urban governance structures.
5	Future-Oriented Planning Tools	Scenarios are positioned as tools for future-oriented planning, guiding how developments will be managed: *"how developments in the future will be directed, how you will deal with them"* (30). This forward-looking approach supports proactive and adaptive planning in dynamic urban environments.
6	Directional Rather Than Fixed Scenarios	Scenarios are understood as directional frameworks, offering flexibility and adaptability. This approach emphasizes the importance of maintaining a range of options to support informed decision-making: *"a scenario is a directional way of thinking and working…you have multiple scenarios and you can choose"*.
7	Development in Chunks	Development is also discussed in terms of incremental phases or "chunks," where projects are not completed in their entirety at once, but developed in stages. Each phase includes detailed planning, from environmental considerations to area visioning: *"residential areas are also developed in chunks. A residential area is never developed in its entirety. There is of course a plan for an area, a master plan, a legal, an environmental plan and an area vision"*. This staged approach ensures flexibility and responsiveness to changes during the development process.
8	Multiple Strategic Levels	The strategic scenario process also involves prioritizing strategies at multiple levels, incorporating both local and broader political considerations: *"strategies and these defining them. That you prioritize them afterwards. Based on this prioritization, you can formulate scenarios. The prioritization involves political administrative preferences"*. By considering different strategic levels, the process allows for alignment with political goals and practical feasibility.
9	Local and Regional Considerations	Another important aspect of strategic scenario thinking is its incorporation of both local and regional scales. The formulation of strategies involves synthesizing various documents and national visions, ensuring that the local plans are integrated into the broader regional and national planning context: *"I have formulated a number of strategies based on the feasibility study, the precision paper, concept masterplan, but also the national visions for Rotterdam and the national strategy for Spatial Planning and Environment"*. This ensures that local strategies are not developed in isolation but are informed by wider frameworks and goals.
10	Breaking Down to Manageable Scales	One key mechanism is the division of large-scale projects into smaller, more manageable sub-projects or sub-areas: *"at the start of the project, there was thought about tackling it in sub-projects, sub-areas. Then of course you divide the scale into smaller bites"*. This approach allows for focused planning and evaluation at each level, making complex projects more feasible and ensuring that detailed attention is given to specific aspects of the development.

11	Transition Between Strategies	Lastly, the strategic process recognizes the importance of managing transitions between strategies. The scenario framework allows for evaluating how shifts between strategies might affect various components of the project, including objectives, stakeholders, and processes: *"what happens when we have to act from the first strategy to the second strategy? And this naturally has consequences for how you will do your work, but also about the objectives and ambitions, the stakeholders, the procedures and processes"*. This consideration of transitions ensures that the project remains adaptive to changing circumstances and strategic shifts.
12	Continuous Evaluation, Not Just Critical Moments	Evaluation should occur consistently, not just during critical decision-making moments. Regular and calm reflection during non-urgent periods ensures strategic alignment without external pressures: *"Do that not only just before such a hot issue, when a certain important decision has to come to the city council. But also in between"*.
13	External Evaluation	Engaging external evaluators is a recommended practice. Bringing in outside perspectives can offer fresh insights and help identify potential blind spots: *"Bring in people from outside who reflect with you. That would also be possible that you say well sometimes strange eyes compel so"*. This ensures objectivity in evaluating the effectiveness of strategies.
14	Network-Wide Reflection	Effective evaluation extends beyond the municipal level to include a broad network of stakeholders. Engaging both public and private parties, as well as social organizations, ensures diverse input on the strategy's effectiveness: *"You don't just organize it as a municipal actor within the municipality, but you also organize network learning"*.
15	Regular Reflection and Evaluation Periods	Frequent opportunities for reflection and assessment are essential, especially for long-term projects. It is advised that planners periodically assess progress to ensure alignment with the initial strategy: *"It's good to take a step back occasionally with these very long-term projects and say where are we now and are we on the right track"*. This helps adjust strategies if necessary and stay focused on project goals.
16	Annual and Ad-Hoc Evaluations	Scheduled evaluations, such as annual reviews, allow for a structured approach to monitoring progress: *"Once a year anyway or if things are going badly"*. These evaluations, particularly when involving external parties, can reveal whether adjustments are needed. The frequency and timing of these evaluations should also be flexible, allowing for ad-hoc checks when needed, such as when progress is slower or faster than expected.
17	Understanding Participation Requirements	The text differentiates the need for participation based on the type of strategy being pursued. For flagship projects or economically-driven strategies, traditional participation processes may not be required: *"For that second scenario, for that economic growth scenario for housing, you don't need participation either"*. Instead, these projects often emerge from overarching visions rather than grassroots involvement.
18	Linking Stakeholder Engagement to Strategic Decisions	The integration of scenario thinking necessitates recognition of how strategic decisions influence stakeholder relationships, objectives, and processes: *"It naturally has consequences for the objectives and ambitions, for the stakeholders, but also for the procedures and processes"*.

19	Addressing Dependency Risks	Scenario planning must carefully evaluate dependencies on specific stakeholders, as over-reliance can create significant risks. For example, reliance on a single public party for a critical component, like a stadium, can undermine the entire development: *"If you depend on a public party for the continuation of a stadium, which is again a main component for your entire area development... then you make yourself vulnerable"*.
20	Ensuring Stakeholder Commitment	The need for strong commitment from private stakeholders is emphasized as essential to the success of scenario-based planning. The absence of such commitment creates vulnerabilities, as stakeholders can disengage from the process: *"Commitment from various private parties is very important. That's probably the biggest lesson there is. That's what was missing here. Parties could too easily say no, I'm stepping out"*.
21	Establishing Clear Agreements	Formal agreements between project developers and municipalities are crucial to maintaining alignment and mitigating conflicts. These agreements ensure projects only progress under agreed conditions: *"Agreements are made between project developers and municipalities. And those will only start running if there are no shortages"*.
22	Broader Stakeholder Analysis	To address the risks of overlooking key stakeholders, the text recommends conducting thorough stakeholder analyses: *"There is a risk that you look too much at the known actors and you should actually do a kind of stakeholder analysis of: yes, who else is involved? Who has influence on this whole process?"*.
23	Addressing Unexpected Stakeholders	The potential for significant influence from previously unanticipated stakeholders is a critical consideration. Activist groups or environmental organizations, for instance, can affect strategic processes if their involvement is not accounted for early on: *"Activist groups or nature conservation program groups can have a very large impact while they were not included beforehand, or those signals were not taken into account"*.
24	Limited Participation in the decision for Flagship Projects	In the decision to make a flagship project, participation is often minimal, as these initiatives are typically driven by overarching visions rather than direct stakeholder involvement. The text explains: *"I have never seen a city set up a participation process to make a flagship. That just doesn't happen. That is done from a vision. And for that second scenario, for that economic growth scenario for housing, you don't need participation either"*.
25	Consequences of Missing Signals	The absence of attention to critical participation signals can have substantial repercussions for project outcomes, as noted: *"Those signals were completely missed, had a big impact and I see that quite often with large projects"*.
26	Recognizing Societal Signals	Signals from society can intervene and shape decision-making processes in unexpected ways. This highlights the importance of being attuned to societal dynamics and incorporating them into planning: *"Signals from society that intervened in the decision-making process. And they also, as our research showed"*.
27	Engagement at Formal Decision Points	Formal decision moments act as structured engagement opportunities, ensuring that stakeholder input aligns with critical stages of the planning process. The text emphasizes their importance: *"That needs to happen at formal moments when a decision has to be made or when certain legal zoning plan approval has to come from the Municipal Council"*.

28	Network-Based Engagement	A network-oriented approach broadens participation across public, private, and social actors. This method supports collective learning and iterative refinement of strategies: *"You don't just organize it as a municipal actor within the municipality, but you also organize network learning. So within the whole of involved public, private, social parties, also asking that reflection: are we still on the right track with our strategy, or do we need to make adjustments?"*.
29	Modular Engagement	Breaking projects into smaller, manageable components enables more focused and practical stakeholder interaction. This approach facilitates targeted discussions and reduces complexity: *"At the start of the project, there was thought about tackling it in sub-projects, sub-areas. Then of course you divide the scale into smaller bites"*.
30	Interactive Sessions for Reflection and Evaluation	Interactive sessions serve as a central engagement medium, enabling structured reflection and evaluation of strategies and scenarios. These sessions help identify important criteria for decision-making: *"The purpose is to develop a more structured decision-making framework through the introduction of scenario thinking... This through reflecting on and evaluating strategies and scenarios. Through this, the interactive session brings out the important criteria"*.
31	Sequential Analytical Steps	The process relies on a systematic sequence of steps to define and analyse strategies. This includes generating strategies, prioritizing them based on political and administrative preferences, and then formulating scenarios: *"Generating strategies and defining them. That you prioritize them afterwards. Based on this prioritization, you can formulate scenarios"*.
32	Criteria Organization Tools	A crucial preparatory step involves organizing decision-making criteria to guide the project approach from the outset: *"The resulting criteria should be organized in the project approach before you even start with the project"*.
33	Forward-Thinking Evaluation	Scenario-based evaluation tools facilitate anticipatory analysis, allowing stakeholders to project the potential success of urban initiatives: *"Through the scenarios thinking ahead, the success of the project can be analysed in advance"*.
34	Structured Decision-Making Framework	The foundation of the approach lies in a structured decision-making framework designed to manage the complexity of urban developments. This framework emphasizes scenario thinking as a means of selecting and managing strategies: *"The purpose is to develop a more structured decision-making framework through the introduction of scenario thinking... for selecting and managing strategies for complex urban developments"*.
35	Transition Analysis Tools	Transition analysis tools ensure smoother shifts between strategies. These tools pre-emptively identify success factors, embedding them in the initial strategy to facilitate future transitions: *"You can write down and develop success factors in your strategy, so that this is already taken into account in the first strategy. So that when you need to switch to another strategy, you have actually already taken measures"*.
36	Budgetary Alignment with Strategic Decisions	Budgetary considerations are integrated into the decision-making process, allowing for adaptive responses to evolving scenarios: *"Do we have budget for that? Are there certain other things that we need to incorporate in that?"*.
37	Acknowledgment of Resource Limitations	Recognizing the finite resources of stakeholders is crucial for realistic planning: *"Such a municipality of Rotterdam and those private parties involved don't have infinite money. So that has to*

		be firmly in place". Balancing ambitions with available funding helps to maintain feasible project scopes.
38	Scaled Project Management	Breaking projects into manageable phases aids resource distribution. For example, *"residential areas are also developed in chunks. A residential area is never developed in its entirety"*. This approach aligns financial investments with incremental development goals.
39	Financial Commitments	A foundational requirement is securing clear financial commitments before formal planning stages: *"Before you really start that planning towards formal plans like an environmental plan, it must be financially hard...If it's not there, then there's simply no viable business case"*. This ensures project viability and supports subsequent scenario-based decisions.
40	Risk Management	Scenario thinking helps mitigate financial risks, particularly in projects heavily dependent on private stakeholders. Mechanisms include provisions to recover preliminary investments if a stakeholder withdraws: "If a party steps out, that you then get back some of your preliminary investments".

7.2 Data analysis

The coding results provide a structured insight into the engagement of three stakeholder groups—Academics, Municipality Representatives, and Supporters—across various themes. A total of 600 coded references were identified, as seen on table 5 and are distributed as follows: Academics (259 references), Municipality Representatives (142 references), and Supporters (199 references). This distribution indicates varying degrees of engagement with the identified components.

The most frequently coded themes were Outcome (125 references) and Organizational Structure (113 references), suggesting a primary focus on results and structural frameworks. Academics contributed the highest number of references (58) to Outcome, while Municipality Representatives (39) and Supporters (28) also engaged significantly. Organizational Structure was notably addressed by both Academics (56) and Supporters (47), underscoring its perceived importance in both theoretical and practical applications.

Other key components included **Resources (77 references)** and **Stakeholder Engagement (72 references),** reflecting concerns about financial, human, and collaborative capacities. In contrast, **Participation Extent (20 references)** and **Scenario Type (25 references)** received the least attention, suggesting a lower priority in discussions.

Table 5 | Code-Document Analysis (retrieved from own document in Atlas.ai)

	Academics 3 96	Municipality... 1 52	Supporters... 1 60	Totals
Engagement medium 37	12	7	18	37
Organizational structure 113	56	10	47	113
Outcome 125	58	39	28	125
Participation extent 20	9	6	5	20
Resources 77	29	13	35	77
Scenario Construction a... 66	34	15	17	66
Scenario type 25	7	8	10	25
Scope 65	20	28	17	65
Stakeholder Engagement 72	34	16	22	72
Totals	**259**	**142**	**199**	**600**

7.2.1 Interpretation of gaps in the data

The gaps in coding distribution reveal potential areas of limited engagement or lower perceived relevance. Participation Extent, with only 20 references, suggests a lack of emphasis on the degree to which stakeholders are involved in decision-making. Given the participatory nature of many governance and planning processes, this could indicate a missed opportunity for deeper engagement analysis.

Similarly, Scenario Type (25 references) was infrequently mentioned, indicating that stakeholders may not be considering different possible futures in their discussions. This could be attributed to a focus on immediate practical concerns rather than long-term scenario planning.

Moreover, the Municipality Representatives had the lowest total references (142), which could imply either a lack of engagement in the data collection process or a more selective focus on specific topics. Their relatively lower contribution to Organizational Structure (10 references) suggests they may not be deeply involved in theoretical discussions about governance frameworks, instead prioritizing more immediate operational concerns.

7.2.2 Importance of key components for each stakeholder group

A more detailed examination of stakeholder engagement in specific themes highlights distinct priorities for each group:

- Academics (259 references) emphasized Outcome (58) and Organizational Structure (56) the most, reflecting their theoretical and analytical approach to understanding governance and implementation. Their significant engagement with Scenario Construction (34 references) further indicates their focus on conceptual modelling and long-term planning.

- Municipality Representatives (142 references) contributed most to Outcome (39) and Scenario Construction (15), suggesting a pragmatic interest in assessing the results of governance initiatives while also considering structured planning approaches. Their relatively low engagement with Organizational Structure (10 references) indicates a preference for practical applications rather than theoretical frameworks.
- Supporters (199 references) were particularly engaged in Organizational Structure (47) and Resources (35), highlighting a focus on operational feasibility and structural efficiency. Their engagement with Stakeholder Engagement (22 references) suggests an interest in ensuring broad-based participation, albeit not at the level expected for a participatory process.

7.2.3 Code Co-occurrence analysis

	Engagemen... 37	Organizatio... 113	Outcome 125	Participatio... 20	Resources 77	Scenario Co... 66	Scenario type 25	Scope 65	Stakeholder... 72
Engageme... 37		24	23	6	14	10	5	12	10
Organizati... 113	24		59	9	45	30	16	25	44
Outcome 125	23	59		9	44	37	13	50	46
Participati... 20	6	9	9		5	4		5	5
Resources 77	14	45	44	5		20	6	23	41
Scenario C... 66	10	30	37	4	20		20	19	7
Scenario ty... 25	5	16	13		6	20		5	2
Scope 65	12	25	50	5	23	19	5		15
Stakeholde... 72	10	44	46	5	41	7	2	15	

Table 6 | Code co-occurrence analysis (retrieved from own document in Atlas.ai)

The code co-occurrence table reveals distinct patterns in the distribution of coded references across thematic categories, highlighting specific areas of emphasis and potential gaps in stakeholder discussions. The coding intensity in these categories indicates the extent to which different topics were considered in the analysed data.

A notable finding is the high frequency of coding in **Outcome (125 references), Organizational Structure (113 references), and Resources (77 references)**. The strong emphasis on Outcome suggests that discussions across stakeholders are largely centred on the implications and effectiveness of initiatives. Similarly, the prominence of Organizational Structure indicates a preoccupation with governance mechanisms, decision-making frameworks, and institutional processes.

the relatively low frequency of coding in **Participation Extent (20 references) and Scenario Type (25 references)** highlights potential gaps in discussions. The limited engagement with Participation Extent suggests that the role and degree of stakeholder involvement in decision-making processes may be undervalued or underexplored. Additionally, the modest number of references under Scenario Type

indicates that alternative future trajectories and strategic planning approaches receive comparatively little attention, potentially constraining long-term adaptability and resilience.

7.3 Cross-reference data analysis

On table 7 the cross-reference analysis is shown. The boxes where there is an “x” means that there was expected to be a connection, but the interactive sessions did not provide the specific information. The boxes with an “-“ means that there was no expectation of a connection and the data reflected that. This analysis will specify the crucial components that have two or more missing connections.

Scenario-based urban planning serves as a strategic tool for navigating complex and uncertain urban futures. However, an analysis of the implementation process reveals critical gaps across key components. Table 7 highlights several missing connections, particularly in crucial areas.

Table 7 | Cross-reference data analysis

		Chakraborty & McMillan (2015) nine key components (p. 11)								
	Crucial components	*Organisational structure: Unitary, strong leader, or loose coalition*	*Scope: single issue, comprehensive, or problem-oriented*	*Scenario type: Explorative*	*Outcome: awareness, vision, or policy recommendation*	*Stakeholder Engagement: General public, government agencies, or interest groups*	*Participation extent: Inform only, seeking feedback, or joint fact finding*	*Engagement medium: Web-Based, Face-to-Face, or hybrid*	*Scenario Construction analysis tools: Qualitative, Planning Support Systems, or Computer Modelling*	*Resources: statutory or recurring, opportunity-based, fundraised*
1	Urban planners need a clear definition of scenarios within urban planning to align internal understanding	x	x	x	x	(17) Understanding Participation Requirements	-	-	(31) Sequential Analytical Steps	-
2	Scenarios are part of the strategic urban planning process, and several tools can be used to set up scenarios.	(1) Sequential Strategy Development	x	(7) Development in chunks	(12) Continuous Evaluation, Not Just Critical moments	(18) Linking Stakeholder Engagement to Strategic Decisions	(22) Broader Stakeholder Analysis	(27) Engagement at Formal Decision Points	(32) Criteria Organisational Tools	(36) Budgetary Alignment with Strategic Decisions
3	Use of scenario narratives help depict how variables interact and offer insight into potential system evolutions.	x	(5) Future-Oriented Planning Tools	(8) Multiple Strategic Levels	(13) External Evaluation	(19) Addressing Dependency Risks	(23) Addressing unexpected Stakeholders	(28) Network-Based Engagement	(33) Forward-Thinking Evaluation	(37) Acknowledgment of Resource Limitations
4	The scenarios implemented can differ depending on the government scale (village/borough and regional/metropolitan) they are implemented	(2) Modular Project Structuring	x	(9) Local and Regional Vision Considerations	(14) Network-Wide Reflection	x	(24) Limited Participation in the decision for Flagship Projects	(29) Modular Engagement	x	(38) Scaled Project Management
5	Practical implications for urban planning, includes the translation of complex analytical results into accessible narratives for informed decision-making	(3) Avoiding Over-Complexity	(6) Directional Rather Than Fixed Scenarios	(10) Breaking Down to Manageable Scales	(15) Regular Reflection and Evaluation Periods	(20) Ensuring Stakeholder Commitment / (21) Establishing Clear Agreements	(25) Consequences of Missing Signals	x	(34) Structured Decision-Making Framework	(39) Financial Commitments
6	Frequent assessments of the evolving dynamics of the urban environment, including demographic, economic, environmental, and social changes, help urban planners to recognize emerging challenges and opportunities	(4) Formal Evaluation Points	x	(11) Transitions between strategies	(16) Annual and Ad-Hoc Evaluation	x	(26) Recognizing Societal Signals	(30) Interactive Sessions for reflection and Evaluation	(35) Transition Analysis Tools	(40) Risk Management

8 Discussion |

The purpose of this discussion is to analyse the key findings of the study, interpret their significance, and assess their implications for urban renewal strategies. By exploring the thematic priorities identified in the data analysis—such as governance structures, financial constraints, and stakeholder participation—this chapter aims to provide a deeper understanding of the challenges and opportunities in scenario-based urban planning. Additionally, the discussion highlights the study's limitations and offers recommendations for future research to enhance adaptive and inclusive urban development practices.

8.1 Summary

The data analysis of politically sensitive urban renewal projects, such as Feyenoord City, reveals significant insights into stakeholder engagement, thematic emphasis, and key challenges in scenario-based planning. The coding results highlight the differing priorities of academics, municipality representatives, and supporters, with academics demonstrating the highest level of engagement. The most frequently coded themes—Outcome (125 references) and Organizational Structure (113 references)—suggest a strong focus on governance mechanisms and project results. However, Participation Extent (20 references) and Scenario Type (25 references) received minimal attention, indicating a lower emphasis on inclusive decision-making and long-term strategic planning.

Furthermore, gaps were identified in scenario definition, multi-scale implementation, and the assessment of external dynamics. These gaps suggest a need for more structured and comprehensive scenario-based planning approaches to enhance adaptability and stakeholder alignment. The transition of the Feyenoord City project from a "Thriving Consensus" phase to a "Contentious and Underfunded" phase further demonstrates the risks of inadequate financial and stakeholder planning, highlighting the necessity for proactive strategic adjustments.

8.2 Interpretations

The coding distribution underscores distinct stakeholder priorities, with academics focusing on theoretical and analytical aspects, municipality representatives prioritizing pragmatic governance concerns, and supporters emphasizing structural feasibility and resource management. The limited engagement in Participation Extent suggests that participatory governance may not be fully integrated into the planning process, potentially limiting stakeholder buy-in and long-term project sustainability.

Moreover, the weak connections between organizational structure, scope, scenario type, and outcome highlight a fundamental challenge in scenario clarity and alignment. This misalignment can lead to inefficiencies and reduced stakeholder commitment. Similarly, the lack of a structured approach to incorporating external societal and political factors raises concerns about the project's ability to adapt to evolving urban dynamics. The resistance from local residents regarding stadium relocation further

underscores the importance of embedding public values—such as cultural identity and community attachment—into scenario-based planning.

The shift in Feyenoord City's trajectory also suggests that urban renewal projects must balance financial viability with social legitimacy. The financial instability of the project, coupled with stakeholder opposition, emphasizes the need for a modular and flexible planning framework that allows for iterative adjustments based on changing economic conditions and public sentiment. Scenario planning should integrate contingency measures to manage unforeseen challenges effectively.

8.3 Implications

The findings suggest that urban renewal projects risk inefficiencies, misaligned expectations, and potential stakeholder conflicts without stronger scenario definition and engagement strategies. The lack of emphasis on Scenario Type implies that stakeholders may focus on short-term solutions rather than developing flexible, future-proof strategies. Additionally, the absence of a structured multi-scale implementation approach limits the ability to adapt strategies at different governance levels, potentially affecting the scalability of urban renewal initiatives.

To mitigate these risks, urban planners and policymakers should integrate structured scenario definition processes, enhance stakeholder engagement, and systematically assess external dynamics. The adoption of Future-Oriented Planning Tools, Modular Project Structuring, and Network-Based Engagement can help improve long-term project resilience and effectiveness. Additionally, urban governance should incorporate network learning, where continuous knowledge exchange between stakeholders fosters adaptive decision-making and mitigates risks associated with unforeseen obstacles.

Balancing financial and social objectives is another key consideration. The concerns of local residents regarding large-scale developments indicate a pressing need for an inclusive governance model that ensures early stakeholder alignment. More participatory planning processes, where communities have a formalized role in shaping development trajectories, can improve project acceptance and long-term sustainability.

8.4 Limitations

Several limitations must be acknowledged in this study. First, the coding distribution indicates an uneven level of stakeholder engagement, with municipality representatives contributing fewer references than academics and supporters. This discrepancy may affect the representativeness of the findings. Second, the reliance on qualitative coding analysis through Atlas.ai and Unriddle.ai means that interpretations are inherently subjective, despite systematic efforts to ensure consistency.

Additionally, the study focuses primarily on Feyenoord City, limiting the generalizability of the findings to other urban renewal projects with different socio-political contexts. Future studies should expand the

scope to include comparative analyses of multiple urban renewal initiatives to validate the applicability of the identified mechanisms. Furthermore, while the study highlights financial constraints as a major factor in scenario breakdowns, a deeper quantitative analysis of budgetary dynamics could provide further insights into the financial vulnerabilities of large-scale projects.

Finally, by retrospectively analysing the case study, the research is limited to information biases and theoretical frameworks. The full ability of action research has not been implemented, limiting the research to desk-research and expert and practitioner verifications.

8.5 Recommendations for further studies

As stated in the scientific scope of the research (see chapter 2.2) (1) the production of strategies, (2) the practical implementation of the proposed strategy process and a (3) reflection on the project start decision (and determination of a project's high risk status) falls outside the scope of this thesis. To fully understand the implementation of scenario thinking within urban development processes, these three parts are recommended for future studies.

1. The production of strategies: Part of formulating scenarios KPI's are determined. These KPI's form the basis for strategy formulation and project course interventions. The process to formulate effective strategies is recommended for further research, especially in relation to the proposed strategic process proposal.
2. The practical implementation of the proposed strategy: In action practical implementation of the proposed strategy process.
3. Reflection upon the project start decision: This research correlates the project start decision in relation to the determination of a project's high risk status. The process to come to this decision and the correlation between successful projects can be further studied.

Important to not is that not one project is exactly the same and the political context can differ, which limits a homogeneous research approach. Understanding this limitation, the following studies are also recommended:

1. Exploring scenario planning in diverse urban contexts: Future studies could investigate how scenario thinking is applied in different types of urban renewal projects across various geographic and political settings. This would help identify the most effective tools and strategies for managing risks and stakeholder conflicts in different contexts.
2. Expanding stakeholder engagement research: Further research should explore how urban renewal projects can better integrate stakeholder perspectives, especially in politically sensitive or highly contested projects. This could involve examining how to involve local communities in

decision-making processes in a way that balances technical, economic, and social considerations.

3. Evaluating the impact of public values on project success: Future studies should focus on how integrating public values—such as social inclusion, environmental sustainability, and cultural preservation—affects the overall success of urban renewal projects. This could involve case studies that examine the long-term outcomes of projects that prioritise public values in their design and implementation.
4. Improving scenario planning tools and methods: More research is needed to refine scenario planning techniques, particularly their practical application in urban renewal projects. This could involve developing guidelines for effectively using scenario tools in real-world planning and decision-making contexts.
5. Exploring the organizational integration of scenario thinking: Since this research is conducted under the Master of Management in the Built Environment, within the Department of Architecture and the Built Environment, the exploration of organizational, cultural, and technical factors impacting the integration of scenario thinking beyond urban development processes was excluded. Future studies could delve deeper into these factors to understand how scenario thinking might be more broadly integrated within the department and other organizational structures.

Results and Conclusion |

Answering the main research question:

How can strategic scenario thinking be integrated into Rotterdam's urban development process, and what potential does it hold for addressing politically sensitive urban development projects, particularly in the case of Feyenoord City?

9 Results |

This chapter discusses the results of the data analysis and assessment, as stated in chapter 7. By addressing key insights, urban planners can enhance the robustness and adaptability of scenario-based planning, ensuring a more comprehensive and integrated approach to future urban development.

9.1 Key insights

Incorporating strategic scenario thinking into Rotterdam's urban development process can help the city develop more adaptive, inclusive, and future-ready plans. By addressing the gaps in stakeholder engagement, scenario definition, and long-term planning, Rotterdam can create a more resilient framework for politically sensitive projects like Feyenoord City. This approach not only ensures better preparedness for future uncertainties but also promotes greater collaboration and legitimacy, essential for the success of large-scale urban renewal projects.

9.1.1 Clearer Scenario Definitions and Methodologies

A key insight from the results is the **lack of clear scenario definitions** in urban planning discussions, particularly in relation to organizational structure, scope, and other critical elements. This gap limits the ability to explore multiple future pathways, a key feature of strategic scenario thinking. For Rotterdam, clarifying and formalizing **scenario-building methodologies** would enable a more comprehensive and structured approach to long-term urban planning. For projects like Feyenoord City, where diverse political and social interests are involved, defining multiple scenarios based on different potential futures can help anticipate risks, manage uncertainties, and prepare for evolving circumstances. This process would make planning less reactive and more proactive, ensuring that the municipal urban development is prepared for a range of future scenarios.

9.1.2 Enhanced Stakeholder Engagement

The analysis also reveals gaps in **stakeholder engagement**, particularly in terms of the **extent of participation** in scenario planning. Many stakeholders, particularly municipal representatives, engaged more with short-term operational concerns and less with the long-term process of scenario construction. For politically sensitive projects like Feyenoord City, this limited engagement could create conflicts or result in decisions that do not reflect the needs of all relevant parties. The results suggest a need for **structured, inclusive stakeholder engagement**, ensuring that all groups—whether local residents, developers, or political representatives—have a voice in the planning process. By improving participation, Rotterdam can foster a more **collaborative, transparent decision-making process**, which is essential for building legitimacy and gaining broad support for complex urban projects.

9.1.3 Shifting to Process-Oriented Planning

The analysis highlights a tendency toward **outcome-driven discussions**, focusing on immediate results rather than long-term planning processes. For Feyenoord City and similar projects, this outcome-driven approach can limit adaptability and create planning frameworks that are less flexible in the face of political or social changes. The results advocate for a shift toward a **process-oriented approach**, where scenario thinking guides ongoing planning and adjustments rather than just focusing on the end result. A process-oriented approach allows for continuous learning, reassessment, and adaptability, which are critical for navigating politically sensitive developments. By fostering this shift, Rotterdam could ensure that its urban development strategies remain resilient to external pressures and evolving conditions.

9.1.4 Addressing External Dynamics and Governance Scales

Finally, the analysis identifies challenges in integrating **external factors** (e.g., economic, environmental, social changes) and adapting scenario planning across **different governance scales**. For projects like Feyenoord City, it is essential to consider not just local issues but also broader regional, national, and even global dynamics. Addressing these gaps would allow Rotterdam to develop **scalable, adaptable urban plans** that are responsive to both local needs and broader external shifts. This is especially important for politically sensitive projects, where external factors can dramatically influence the success or failure of development plans.

10 Conclusions |

The strategy process proposal theoretically offers significant potential to create more adaptive, inclusive, and future-proof urban plans. The results of the data analysis underscore several critical gaps in the current strategic process, each of which presents an opportunity to strengthen the integration of scenario thinking and improve how politically sensitive projects are addressed. This research concludes with answering the main research question:

How can strategic scenario thinking be integrated into Rotterdam's urban development process, and what potential does it hold for addressing politically sensitive urban development projects, particularly in the case of Feyenoord City?

10.1 Integration of Strategic Scenario Thinking into Rotterdam's urban development process

Lack of Clear Scenario Definition: The analysis identifies a significant gap in the absence of clear scenario definitions. This gap in defining scenarios in relation to organizational structure, scope, and other key elements limits the ability to develop coherent and adaptable long-term strategies. By emphasizing the need for clearer definitions of scenarios, the results highlight how strategic scenario thinking can be better integrated by making these definitions central to the planning process.

For the municipality of Rotterdam, incorporating clearer definitions of scenarios means building long-term, adaptable strategies that go beyond immediate concerns and provide a framework for dealing with future uncertainties. This approach could be particularly helpful in the context of Feyenoord City where different stakeholders and political forces demand a flexible, yet structured, framework.

Focus on Long-Term Strategic Thinking: The results emphasize that there is a low reference to Scenario Type (25 references), suggesting that stakeholders are more focused on immediate outcomes rather than exploring long-term, multiple future pathways. This presents a key opportunity to integrate strategic scenario thinking, which is about considering different possible futures and planning accordingly. For Rotterdam's urban development process, this means shifting from short-term operational concerns to long-term planning that considers various scenarios and how different factors (demographic, economic, environmental) may evolve.

10.2 Potential for addressing politically sensitive urban development projects

Stakeholder Engagement: The results highlight that there are gaps in participation extent and stakeholder engagement, particularly from Municipality representatives, suggesting a lack of active involvement in decision-making. This gap is significant in politically sensitive projects like Feyenoord City,

where ensuring diverse stakeholder voices are heard is essential for project legitimacy and long-term success.

To address this, the results advocate for more structured stakeholder inclusion, which would ensure that decision-making is not dominated by short-term operational concerns but includes long-term, inclusive planning. The engagement of key stakeholders in the planning process, through clearer scenario building, could help mitigate political risks by creating a framework that accounts for the different needs and interests of all parties involved.

Shift from Outcome-Driven to Process-Oriented Planning: The analysis notes a heavy focus on Outcome (125 references) over the planning process. This suggests that the urban planning process in Rotterdam may be too focused on delivering immediate results, neglecting the importance of continuous, adaptive planning. In politically sensitive developments like Feyenoord City, outcomes alone are not enough—there is a need to incorporate a more process-oriented approach, where the planning itself is flexible, evolving, and responsive to changing political and social dynamics.

Adopting a scenario-building methodology could foster a planning environment that is less reactive and more proactive, anticipating potential challenges and political shifts that could impact the success of urban projects like Feyenoord City.

External Dynamics and Political Sensitivity: The results also point to a gap in the integration of external factors (e.g., demographic, economic, environmental, and social changes), which is crucial for addressing politically sensitive projects. Feyenoord City, for example, is likely to be influenced by these factors, and failing to integrate them could lead to fragmented or shortsighted planning.

By strengthening the integration of external dynamics into urban planning, the municipality could create a more adaptive framework that is capable of responding to unforeseen changes, a necessity for managing politically sensitive projects that may face opposition or require compromise over time.

10.3 Reflection on the Research Process

This study used a case study approach to explore the integration of strategic scenario thinking into Rotterdam's urban planning process. By examining the Feyenoord City project, the research identified key mechanisms that facilitate the application of scenario thinking in complex urban projects. These mechanisms—such as stakeholder engagement, modular planning, and outcome evaluations—were shown to play a crucial role in enhancing the flexibility and adaptability of urban planning. The case study also demonstrated that, although challenging, integrating scenario thinking into politically sensitive urban projects can lead to better outcomes for the city and its residents.

10.4 Contributions to the Field

This research contributes to urban planning by comprehensively analysing how strategic scenario thinking can be effectively applied to politically sensitive urban development projects. The study underscores the importance of proactive planning, stakeholder engagement, and adaptability in addressing the uncertainties often accompanying large-scale urban renewal projects. By providing a detailed exploration of the Feyenoord City case, this study also highlights the practical benefits of scenario thinking, such as improved stakeholder coordination, better resource management, and enhanced project resilience. This research can serve as a model for other cities dealing with politically sensitive urban development, offering insights into how scenario thinking can help navigate complex planning processes while achieving long-term goals.

Building upon the Arcadis reflection research (*Adriaansens et al., 2023)*, this study deepens the understanding of the Feyenoord City project's lessons by introducing scenario thinking as a tool to address the identified challenges. *Adriaansens et al.* (2023) emphasised the importance of organisational learning and stakeholder collaboration, focusing on both successes and shortcomings in the project. This research extends those findings by applying scenario thinking to proactively manage risks, increase adaptability, and foster alignment among diverse stakeholders. The integration of strategic scenario thinking reinforces the lessons learned and provides a framework for improving resource management, anticipating political resistance, and ensuring long-term sustainability in future urban developments. Therefore, this research contributes to the ongoing conversation on urban planning in Rotterdam and offers a forward-thinking approach that can be applied to similarly complex projects globally.

10.5 Closing Remarks

In conclusion, integrating strategic scenario thinking into Rotterdam's urban development process offers a powerful tool for managing politically sensitive urban projects, particularly those with high social and political stakes like Feyenoord City. By fostering flexibility, inclusivity, and proactive decision-making, Rotterdam can leverage scenario thinking to address the complexities of urban planning while ensuring that diverse stakeholder interests are considered. The findings of this study provide a roadmap for future urban development initiatives, ensuring that projects are resilient, adaptable, and aligned with political priorities and public values. This approach positions Rotterdam as a leader in adaptive urban planning, offering valuable insights that can be applied to similar projects in other cities worldwide.

11 Reflection |

This academic reflection examines my graduation project's research process, methodology, and outcomes, focusing on integrating scenario planning in politically sensitive urban development projects. It evaluates the effectiveness of my approach, including the theoretical expansion of existing frameworks and the incorporation of insights from experts and practitioners. Through a critical review of feedback from mentors and lessons learned, the reflection also explores the project's academic and societal value and the proposed scenario process's transferability to other urban development contexts.

11.1 Reflection looking back

Throughout the research process, I found that the chosen approach effectively answered the research questions and achieved the objectives. By expanding upon the theoretical models used in the Real Estate Management course (Lindgren & Bandhold, 2009) and integrating them with feedback from experts and practitioners, I created a robust methodology tailored to politically sensitive urban development processes

Engaging with experts and practitioners, including a project manager involved from the beginning, allowed for a richer understanding of how scenarios can be applied in real-world settings. This approach provided a comprehensive view of the urban development process, combining theory with practical insights.

However, through the interviews and interactive sessions understanding of the "how and why decisions are made" deepened. The theoretical frameworks used were expanded to reflect the complexity of real-world urban projects, particularly those involving political sensitivity. This allowed me to appreciate the broader implications of scenario planning in urban development, not only as a theoretical tool but also as a practical strategy for guiding decisions in complex environments. By interviewing practitioners on both sides (municipality and supporters) and the academic experts, I could see firsthand how these theoretical concepts work in practice and how they can be adapted to fit the specific needs of urban projects.

My mentors played a critical role in shaping the research. Their feedback helped me refine my methodology and clarify the application of strategic scenario processes within the urban development context. The feedback from my mentors encouraged me to think more critical about how to present the analyses and the theoretical foundation of the data. The pushback I received was invaluable in helping me rephrase certain research elements, ensuring that my decisions were well-supported and clearly articulated. This feedback ultimately led to a stronger, more cohesive final result.

I translated the feedback from my mentors into practical adjustments in the methodology and how I presented the research. For instance, I enhanced the explanation of how the strategic scenario model

aligns with real-world urban development processes, particularly emphasising its relevance in politically sensitive projects. I also refined how I connected theory with practice, ensuring that the final proposal was academically rigorous and grounded in the practical realities faced by urban planners and decision-makers. The mentors' feedback prompted me to focus on key aspects critical to the research's success, such as the involvement of practitioners in the process.

This research process has taught me to reflect critically on my approach and methodology. One of the key lessons I learned was the importance of clear communication. As someone who often thinks about the big picture but tends to express ideas in a fragmented manner, I recognised the need to structure my research and arguments more clearly to effectively communicate complex ideas. Additionally, I learned that while theory provides a foundation, the real value of research lies in its practical application. The discussions with practitioners made me realise the significance of scenario planning as a tool for navigating urban development's political and strategic complexities.

Throughout the research process, I found that the approach I chose provided a valuable way to understand the integration of strategic scenario thinking into Rotterdam's urban development process. By combining both interactive sessions and in-depth interviews with experts, urban planners, and other stakeholders, I was able to effectively bridge the gap between theoretical concepts and real-world urban planning challenges, especially in politically sensitive projects like Feyenoord City. The perspectives shared by these stakeholders, along with feedback from the academic reflection team, provided a comprehensive understanding of the political sensitivities and uncertainties that shape urban planning in Rotterdam. I saw firsthand how these diverse viewpoints underscored the need for a more flexible, adaptable planning approach, which scenario thinking can offer.

11.2 Looking forward

My graduation project is closely related to my master's track in Management in the Built Environment (MBE) as it addresses the complexities of urban development, particularly focusing on politically sensitive projects. The MSc AUBS program provided me with a deep understanding of strategic Management, urban planning, and the built environment, all essential to developing the framework used in my research. The project integrates theoretical and practical aspects of urban planning, offering a multidisciplinary approach to solving real-world problems in urban development.

The data collection process significantly influenced the design and recommendations, as the initial theoretical frameworks were refined based on the insights gained through expert and practitioner interviews. The recommendations I developed were informed by the complexities of the political and strategic dimensions of urban development, ensuring that they were both practical and aligned with the needs of stakeholders. Conversely, the design and structure of my research were shaped by the need to

create a scenario integration process that would be usable and valuable in real-world urban planning scenarios.

My approach of combining theoretical models with insights from practitioners was effective in addressing the research objectives. The input from the interactive sessions and interviews with practitioner allowed me to develop a methodology that is both theoretically grounded and practically applicable. This holistic approach not only enhanced the depth of the research but also ensured that the outcomes were relevant to the challenges faced by urban planners and decision-makers in politically sensitive projects.

Academically, this project contributes to the ongoing discourse on scenario planning within urban development. By integrating theoretical models with real-world insights, the research offers a unique perspective on how scenario planning can be applied in politically sensitive contexts. Societally, the research can potentially improve decision-making processes in urban development, enabling municipalities to design more inclusive and sustainable projects. The research emphasises the importance of considering diverse stakeholder interests, helping to prevent conflicts and ensuring that urban projects benefit the community.

The scenario integration process proposed in this research is highly transferable to other urban development projects and municipalities. Its adaptability allows it to be applied in various political, social, and economic contexts. Testing the methodology in other politically sensitive urban projects could further validate its effectiveness and refine the approach. Additionally, the findings from this research could inform future studies on the role of scenario planning in urban development, contributing to a broader understanding of its applicability across different types of projects.

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P4 Report | MSc Graduation Thesis

December 6th 2024

Scenario Thinking for Strategic Urban Development | How public value conflicts are mitigated in municipal strategic urban development processes

Appendix I: Case Study Analysis |

In this case study analysis, multiple politically sensitive urban renewal projects that have been/are part of the municipalities urban strategy are analysed. The analysis is based on the crucial components found in the literature review on scenario approaches.

Case studies

Rotterdam is an exemplary case for analysing politically sensitive urban renewal projects due to its diverse range of high-profile redevelopment initiatives that have sparked controversy and debate. The city has undertaken significant urban regeneration efforts, such as the Feyenoord City project and the transformation of former port areas into green spaces, which highlight the challenges and sensitivities involved in balancing urban development with social equity, inclusiveness, and the prevention of gentrification (Nieuwland & Lavanga, 2020; Custers & Willems, 2024). In the international Journal of urban Policy and Planning Custers & Willems (2024) mention in their article "Rotterdam in the 21st century: From 'sick man' to 'capital of cool'", the following politically sensitive projects:

- FEYENOORD CITY PROJECT: A large-scale redevelopment initiative in Rotterdam South, which faced controversy and the eventual withdrawal of the football club Feyenoord.
- SEVEN NEW CITY PARKS: An initiative to transform former port areas and major transport axes into green spaces, aimed at improving liveability.
- WILHELMINAPIER REVITALIZATION: A project to transform a former harbour area into a mixed-use development with residential and commercial uses, a new bridge, a metro station, and a tram line.
- 'CITY LOUNGE' STRATEGY: Launched in 2008 to revitalize the outdated modernist city centre with new iconic buildings, such as the indoor market De Markthal and the mixed-use office building De Rotterdam.

Case study analysis

The case study analysis is seen on table 3. While each of these projects contributes to Rotterdam's urban renewal, they do not encounter the same level of political complexity, broad impact, and public scrutiny as the **Feyenoord City project**. The Feyenoord City project is the most politically sensitive urban renewal initiative in Rotterdam due to its massive scale, substantial investment, and significant community impact. The project, which involves a new stadium and large-scale housing and commercial spaces with a total investment of over €1.5 billion, raises concerns about gentrification, resident displacement, and environmental issues (Salzano, 2017; Schrama, 2021). The withdrawal of the football club Feyenoord due to project disagreements underscores its contentious nature and the complexities of stakeholder engagement (LOLA, 2024). Additionally, the cultural significance of the club and its strong local support further amplify the project's political sensitivity.

X Table 1: Cross-reference table crucial components against politically sensitive urban renewal projects (own work)

		Politically sensitive urban renewal projects			
Crucial components		*Feyenoord City Project*	*Seven new city parks*	*Wilhelminapier revitalization*	*'City Lounge' strategy*
1	Urban planners need a clear definition of scenarios within urban planning to align internal understanding	The Feyenoord City project underscores the necessity for clear scenario definitions to ensure cohesive understanding among stakeholders. This involves delineating the project's scope, objectives, and potential outcomes to harmonize the diverse perspectives and expectations of the involved companies (Salzano, 2017; Lynch, 2022)	For the initiative to create seven new city parks, clear scenario definitions are crucial to ensure all stakeholders understand the project's objectives, potential benefits, and logistical requirements (Lynch, 2022)	The revitalization of Wilhelminapier required precise scenario definitions to align stakeholders, including developers, investors, and the municipality, ensuring a unified approach to transforming the area (Lynch, 2022)	The 'City Lounge' strategy necessitated clear scenario definitions to align the efforts of municipal planners, architects, and developers towards the goal of modernizing Rotterdam's city center (Lynch, 2022)
2	Scenarios are part of the strategic urban planning process and several tools can be used to set up scenarios.	The strategic urban planning process for Feyenoord City has employed various tools such as master planning, stakeholder consultations, and feasibility studies. These tools facilitate the creation of comprehensive scenarios that guide the project's development and address potential challenges (Lynch, 2022)	Various tools, including environmental impact assessments, community consultations, and land use planning, are used to develop scenarios for the park transformations. These tools help anticipate and plan for potential challenges and benefits (Lynch, 2022)	Strategic planning tools such as economic feasibility studies, architectural designs, and transportation planning were used to create viable scenarios for Wilhelminapier's redevelopment (Lynch 2022)	Tools such as urban design frameworks, economic impact analyses, and stakeholder engagement workshops were employed to create robust scenarios for the 'City Lounge' initiative (Lynch, 2022)
3	Use of scenario narratives help depict how variables interact and offer insight into potential system evolutions.	Scenario narratives have been pivotal in the Feyenoord City project, illustrating interactions between infrastructure developments, economic activities, and social programs. These narratives provide a clearer picture of how different variables such as housing, commercial spaces, and public amenities might evolve and influence each other (Salzano, 2017; Schrama, 2021)	Scenario narratives in this initiative illustrate the interplay between urban green spaces, community health, and environmental sustainability. These narratives help stakeholders understand the long-term benefits and interactions of the parks within the urban ecosystem (Lynch, 2022)	Scenario narratives helped stakeholders visualize how the new mixed-use area, transportation links, and public spaces would interact, providing insights into the potential evolution of the area over time (Lynch, 2022)	Scenario narratives illustrated the interactions between new buildings, public spaces, and economic activities, providing a comprehensive view of potential developments and their impacts (Lynch, 2022)
4	The scenarios implemented can differ depending on the government scale (village/borough and regional/metropolitan) they are implemented	The implementation of scenarios for Feyenoord City varies significantly between local (Rotterdam-Zuid) and regional (greater Rotterdam) scales. Local scenarios focus on immediate community benefits and infrastructure improvements, while regional scenarios emphasize broader economic impacts and connectivity enhancements (Salzano, 2017)	The implementation of scenarios varies with the scale of governance, with local plans focusing on immediate community impacts and regional plans addressing broader environmental and recreational benefits (Lynch, 2022)	Implementation scenarios varied from local impacts on the immediate harbor area to regional considerations of improved connectivity and economic growth (Lynch, 2022)	Scenarios for the 'City Lounge' varied from local enhancements within the city center to broader implications for Rotterdam's regional attractiveness and economic vitality (Lynch, 2022)

5	Practical implications for urban planning, includes the translation of complex analytical results into accessible narratives for informed decision-making	Translating complex analyses into accessible narratives is crucial in Feyenoord City's planning. This involves simplifying technical data and projecting future developments into understandable formats that aid decision-makers in crafting effective policies and strategies (Lynch, 2022)	Translating analytical results into accessible narratives helps policymakers and the public grasp the significance of the park initiative, fostering informed decision-making and community support (Lynch, 2022)	The project's success hinged on translating complex planning data into compelling narratives that informed decision-makers and secured support from various stakeholders (Lynch, 2022)	The strategy's success depended on making complex urban planning results accessible and understandable to decision-makers, ensuring informed and effective policy decisions (Lynch, 2022)
6	Frequent assessments of the evolving dynamics of the urban environment, including demographic, economic, environmental, and social changes, help urban planners to recognize emerging challenges and opportunities	Regular assessments of changing demographics, economic conditions, environmental factors, and social dynamics are integral to the Feyenoord City project. These assessments help planners identify emerging trends, address potential issues proactively, and seize new opportunities to enhance the project's success (Salzano, 2017; Schrama, 2021)	Regular evaluations of demographic shifts, economic trends, environmental conditions, and social changes are essential to adapt the park initiative to meet evolving needs and maximize its positive impact (Lynch, 2022)	Ongoing assessments of urban dynamics ensured that the revitalization efforts could adapt to changing conditions and emerging opportunities, enhancing the project's sustainability and success (Lynch, 2022)	Regular evaluations of the city's evolving dynamics were crucial to adjust the 'City Lounge' strategy to new challenges and opportunities, ensuring its continued relevance and effectiveness (Lynch, 2022)

Appendix II: Informed Consent Form

Delft, [XX] November 2024

Geachte heer/mevrouw,

U bent uitgenodigd om deel te nemen aan het onderzoek genaamd ‘Strategisch scenario denken als tool voor gemeenten’. Dit onderzoek wordt uitgevoerd door Zaynab Quraishi, master student van de opleiding Management in the Built Environment aan de TU Delft. Strategisch scenario denken kan in theorie gemeenten helpen om toekomstgericht en robuuste strategieën voor complexe projecten en stedelijke gebiedsontwikkelingen ontwikkelen. Met uw deelname levert u bijdragen aan nieuwe inzichten om dit proces met praktijkkennis vorm te geven.

Het doel van dit onderzoek is om doormiddel van een interactieve sessie op verschillende strategieën en scenario’s te reflecteren met betrekking tot het project Feyenoord City te Rotterdam. Tijdens deze sessie verkennen we met visuele middelen en oefeningen verschillende strategieën en scenario’s.

De data zal gebruikt worden ten behoeve van het voorstel voor de implementatie van strategische scenario’s voor gemeentelijke gebiedsontwikkelingen. Het onderzoek zal ongeveer 60 minuten in beslag nemen.

Het minimaliseren van de risico’s op databreuk doen we door de gegevens volledig anoniem te verwerken. Er worden geen persoonlijke gegevens, zoals email adressen, genoteerd. Na de analyse worden alle ruwe gegevens geanonimiseerd en opgeslagen volgens de TU Delft-richtlijnen voor gegevensbeveiliging. Alle data worden veilig opgeslagen op een beveiligde server van de TU Delft en uitsluitend voor onderzoeksdoeleinden gebruikt. De resultaten van dit onderzoek worden gepubliceerd in de TU Delft Repository, waarbij alleen geaggregeerde en geanonimiseerde gegevens worden gebruikt.

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. U kunt binnen vier weken na deelname verzoeken om uw data te laten verwijderen. Na deze periode worden alle gegevens geïntegreerd in de onderzoeksresultaten, waarna individuele gegevens niet meer geïdentificeerd of verwijderd kunnen worden.

Als u vragen heeft over dit onderzoek, kunt u contact opnemen met: Zaynab Quraishi (email: z.quraishi@student.tudelft.nl).

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

Met vriendelijke groet,

Zaynab Quraishi

	Ja	Nee
(1) Ik verklaar dat ik de informatiebrief d.d. 18 april 2025 heb gelezen of deze brief is aan mij voorgelezen. Ik heb deze informatie begrepen. Daarnaast heb ik de mogelijkheid gekregen om hier vragen over te stellen en deze vragen zijn naar tevredenheid beantwoord.	□	□
(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. Ik begrijp dat het meedoen aan dit onderzoek betekent dat mijn antwoorden worden bewaard.	□	□
(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.	□	□
(4) Ik begrijp dat de opgeslagen gegevens onder een code worden bewaard en anoniem worden verwerkt.	□	□
(5) ik geef hierbij apart toestemming dat de geanonimiseerde gegevens in de toekomst ook door andere onderzoekers mogen worden gebruikt.	□	□

Ik heb dit formulier gelezen of het formulier is mij voorgelezen en ik stem in met deelname aan het onderzoek.

Plaats: Datum:

_ (Volledige naam, in blokletters)

_ (Handtekening geïnterviewde)

'Wij hebben toelichting gegeven op het onderzoek. Wij verklaren ons bereid nog opkomende vragen over het onderzoek naar vermogen te beantwoorden.'

Naam onderzoeker(s): Zaynab Quraishi

Appendix III: Framework Interactive session |

Cities like Rotterdam face multifaceted challenges, such as climate change, population growth, and technological advancements, which demand flexible and innovative solutions that go beyond traditional planning methods or static predictions (Healey, 2009). Integrating Strategic Scenario Thinking into city planning requires practical testing, collaborative input, and continuous adaptation due to the dynamic and complex nature of urban environments. In this context, interactive sessions provide a framework for exploring the implementation of strategic scenario thinking, as it focuses on solving practical problems through an iterative process of collaboration and reflection (Coghlan, 2021).

In these sessions, experts share insights on established strategies, discuss findings, and collaboratively develop solutions. They encourage active participation, guiding participants through stages of observation, reflection, and idea generation. Although these sessions align with the iterative nature of action research, they differ in structure, as participants are not directly involved in or responsible for the project. Instead, they contribute as experts sharing lessons learned.

Interactive Session Title:

'Strategic Scenario Thinking' as a tool for municipal urban development strategies.

Duration:

1 hour

Overall Goal:

To collaboratively assess strategies and to formulate strategic scenarios for Rotterdam's Feyenoord City project, address key city planning challenges.

Key Tools and Techniques:

- Scenario Matrix: Map out scenarios based on key strategic variables
- Stakeholder Analysis: Identify roles, responsibilities, and power dynamics each strategy and when switching strategies (scenario).
- Feedback Loops: Ongoing cycles of reflection and adjustment, based on real-world feedback (expert intel).
- Tools: presentation

Outcomes:

- Multiple future scenarios for Rotterdam's urban development.
- Actionable strategies that are flexible and adaptive to changes in urban dynamics.
- A framework for continuous assessment and decision-making processes (including criteria)

Framework Interactive Session

	Description and connection to assessment	Questions (in Dutch)	Duration (in minutes)
1. General + Graduation thesis introduction	• Thanking participants for their time and participation • Asking them if they have read the informed consent form and ask permission for recording the session		5

2. Exercise 1: Assessing strategies	• Presenting pre-formulated strategies
	• Reflection and completeness of total strategies
	  • Organisational structure
	  • Scope
	  • Outcome
	
	Explanation: For this first exercise the four pre-formulated strategies presented and reflected upon. First, the experts are asked to think about the strategies and if there are any missing from the list and why they should be included in the list. Second, the experts are presented with the different organisational structures, scope and outcomes for each strategy.
	• Verifying strategies narratives
	• Assessing completeness and practical implications
		1. Is het relevant om de ambities en doelstellingen om te zetten in strategieën?
		2. Heeft de gemeente Rotterdam bij de verkenning aan verschillende strategieën gedacht? Zo ja, op welke manier?
		3. Naar jullie inzicht, zijn er nog strategieën die missen? En waarom?
			20

4. Exercise 2: Strategy prioritisation	• Deliberation on strategy prioritisation
	• Assessment on scenarios and practical implications
	  • Stakeholder engagement
	  • Participation extent
	  • Engagement medium
	  • Analysis tools
	  • Resources
	  • Outcome
	
	Explanation: Following the strategic scenario process, the strategy prioritisation is deliberated on. Experts are asked to use the “lessons learned” from the case to build upon the argument for the chosen prioritisation. After the prioritisation is (somewhat) agreed upon then the scenarios
		1. Hoe zouden jullie de strategieën voor het project prioriteren en waarom?
		2. Ik hoor een aantal aspecten voorbij komen, welke criteria kunnen er nog meer verstandig zijn?
		3. Welke lessen uit de praktijk wegen mee in de prioritering en hoeveel wegen deze mee voor de uiteindelijke keuze?
		4. Als we kijken naar de scenario’s die volgen uit de prioritering; wat zijn de belangrijke aandachtspunten vanuit het perspectief van de geleerde lessen of zijn er dilemma’s waar de prioritering rekening mee moet houden? (vraag door naar stakeholderbetrokkenheid, participatie uitbreiden, betrokkenheidsmedium, analysetools)
			20

	outline is set. Subsequently, experts will be asked to talk about stakeholder engagement, participation extend, engagement medium, analysis tools, resources and outcome for the top two scenarios. • Assessing variables and potential system evolution • Assessing completeness and practical implications		
5. Final questions	• Frequent assessment • Strategic scenario scales and stakeholder involvement <u>Explanation:</u> 1. Frequent assessments of the evolving dynamics of the urban environment, including demographic, economic, environmental, and social changes, help urban planners to recognize emerging challenges and opportunities. Experts are asked about the frequency of these assessments and the implications they can have on the strategy(/strategic process) 2. The scenarios implemented can differ depending on the government scale (village/borough and regional/metropolitan) they are used for. The scenarios, as intended in these exercises are part of an area development. However, the experts are asked to reflect upon this scale and the impact it has on the strategic formulation process. • Assessing contextual influences and practical implications	1. In een van de toekomstgerichte lessen wordt er gesproken over een gebrek aan periodieke reflectie, evaluatie en bijsturing. Dit kan in het strategisch proces een plek krijgen. Welke inzichten uit de praktijk kunnen dan meegenomen worden? En welke criteria zijn daarbij belangrijk om mee te nemen? 2. Op welke manier kan dit in het proces vormgegeven worden? 3. In de oefening hebben we gesproken over de gehele gebiedsontwikkeling. Kan de schaal van de ontwikkeling bepalen of het proces anders ingericht moet worden? Bijvoorbeeld op wijk niveau?	15
Total			60

Appendix IV: Interview Protocol (in Dutch) |

Geinterviewde	Functie
Interviewer	Zaynab Quraishi
Datum	
Tijdsduur	Ongeveer 30 minuten

INTRODUCTIE | Bedankt dat u de tijd neemt om deel te nemen aan dit interview. Mijn naam is Zaynab Quraishi, en ik voer dit gesprek als onderdeel van een onderzoek naar hoe strategisch scenariodenken kan worden geïntegreerd in stedelijke ontwikkelingsprocessen, met specifieke aandacht voor projecten zoals Feyenoord City. Het doel van dit gesprek is om meer inzicht te krijgen in uw ervaringen en perspectieven rondom dit project.

Voordat we beginnen, wil ik u vragen of u de toestemmingsverklaring heeft gelezen en of u akkoord gaat met deelname. Daarnaast wil ik vragen of ik dit gesprek mag opnemen, zodat ik uw antwoorden nauwkeurig kan analyseren. De opname wordt vertrouwelijk behandeld en alleen gebruikt voor onderzoeksdoeleinden. U mag natuurlijk op elk moment besluiten om te stoppen met het interview.

Heeft u hierover nog vragen voordat we van start gaan?

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1. Belangen afwegingen over Publieke Waarden
    - Kunt u de belangrijkste belangen afwegingen over publieke waarden beschrijven die tijdens het strategisch planningsproces van Feyenoord City zijn ontstaan?
    - Wat was volgens u de impact van deze belangen afwegingen op het strategische proces als geheel?
    - Hoe hebben deze belangen afwegingen de besluitvorming, de betrokkenheid van belanghebbenden of de projectplanning beïnvloed?
2. Rol van de Gemeente bij het Sturen op Onzekerheden
    - Hoe heeft de gemeente onzekerheden rondom het project aangepakt of verminderd?
    - Welke specifieke strategieën of hulpmiddelen zijn ingezet om het proces te sturen te midden van deze onzekerheden?
    - Waren er bepaalde scenario's of interventies met belanghebbenden die hebben geholpen om deze onzekerheden te beheersen?

3. Milieufactoren en Woningbouw

    - Wat waren de belangrijkste milieufactoren waarmee rekening werd gehouden tijdens de planning van de woningbouwfase van Feyenoord City?
    - Hoe heeft de gemeente deze milieufactoren aangepakt in het ontwerp en de uitvoering van het project?
    - Waren er conflicten of uitdagingen bij het balanceren van milieueisen en bouwdoelen? Hoe zijn deze opgelost?

Aanvullende Reflecties

- Zijn er specifieke lessen uit uw betrokkenheid bij het Feyenoord City-project die nuttig kunnen zijn voor toekomstige projecten van vergelijkbare aard?
- Denkt u dat strategisch scenariodenken de uitkomsten van het project heeft beïnvloed? Zo ja, op welke manier?

Dank u wel voor uw tijd en waardevolle inzichten. Uw antwoorden zullen een belangrijke bijdrage leveren aan het onderzoek en helpen om beter te begrijpen hoe strategisch scenariodenken kan worden toegepast in stedelijke ontwikkelingsprojecten zoals Feyenoord City.

Als u geïnteresseerd bent, kan ik de uiteindelijke onderzoeksresultaten met u delen zodra deze beschikbaar zijn. Nogmaals, ik wil benadrukken dat alles wat u heeft gedeeld vertrouwelijk wordt behandeld. Als u later nog aanvullende gedachten of opmerkingen heeft, kunt u mij altijd bereiken via mijn email.

Nogmaals hartelijk dank, en ik wens u een fijne dag verder!

Appendix V: Interactive session presentation |

TU Delft Graduation

Zaynab Quraishi | 5511135 | 1st mentor Willem Korthals Altes | 2nd mentor Angela Greco

(Mlefter, 2012)

INTERACTIEVE SESSIE

Verbetering van gemeentelijke strategische stadsontwikkelingsprocessen voor politiek gevoelige projecten door implementatie van scenario denken.

(Van Helleman, 2021)

INHOUD SESSIE

Introductie

- Doel van het onderzoek en de interactieve sessie

Strategische scenarios

- Oefening 1: strategie formulering
- Oefening 2: strategie prioritisering
  - Strategische scenarios: scenario formulatie

Afsluitende vragen

- Concept - Strategisch Proces

Introduction

(Stad Van De Toekomst, n.d.)

Introductie

DOEL VAN HET ONDERZOEK & DE INTERACTIEVE SESSIE

Ontwikkelen van een gestructureerd besluitvormingskader door de introductie van scenario denken

Om gemeenten te begeleiden bij het selecteren en beheren van strategieën voor complexe stedelijke ontwikkeling

Reflecteren en beoordelen van strategieën en scenario's

Achterhalen van belangrijke criteria vanuit de geleerde lessen

Strategische scenarios

(Gemeente Rotterdam, 2017)

Oefening 1

STRATEGIE FORMULERING

Flagship ontwikkeling en Internationale Status

Doelstelling: Feyenoord City vestigen als een wereldwijd erkende bezienswaardigheid en toeristische bestemming

Ontwikkeling gericht op Sport en Recreatie

Doelstelling: Feyenoord City tot het belangrijkste sport- en recreatiecentrum van Rotterdam maken

(Strategie)

Doelstelling:

Geïntegreerd Stedelijk Leven en Economische Groei

Doelstelling: Feyenoord City positioneren als woon- en economisch groeicentrum

Duurzaam en Sociaal Inclusieve Ontwikkeling

Doelstelling: Feyenoord City ontwikkelen tot een duurzame, sociaal inclusieve wijk.

(Strategie)

Doelstelling:

Zaynab Quraishi | 5511135 | 1st mentor Willem Korthals Altes | 2nd mentor Angela Greco

Oefening 2

STRATEGIE PRIORITERING

Flagship ontwikkeling en Internationale Status

Doelstelling: Feyenoord City vestigen als een wereldwijd erkende bezienswaardigheid en toeristische bestemming

Ontwikkeling gericht op Sport en Recreatie

Doelstelling: Feyenoord City tot het belangrijkste sport- en recreatiecentrum van Rotterdam maken

(Strategie)

Doelstelling:

Geïntegreerd Stedelijk Leven en Economische Groei

Doelstelling: Feyenoord City positioneren als woon- en economisch groeicentrum

Duurzaam en Sociaal Inclusieve Ontwikkeling

Doelstelling: Feyenoord City ontwikkelen tot een duurzame, sociaal inclusieve wijk.

(Strategie)

Doelstelling:

Strategische scenarios

SCENARIO FORMULATIE

1

Flagship ontwikkeling en Internationale Status

Doelstelling: Feyenoord City vestigen als een wereldwijd erkende bezienswaardigheid en toeristische bestemming

2

Geïntegreerd Stedelijk Leven en Economische Groei

Doelstelling: Feyenoord City positioneren als woon- en economisch groeicentrum

Doelstellingen en ambities
De nieuwe nadruk zal liggen op het ontwikkelen van woonwijken die de lokale economie stimuleren en tegelijkertijd een visueel aantrekkelijke omgeving behouden.

Initiatiefnemers, belanghebbenden en belangengroepen
Deze transitie vereist hernieuwde betrokkenheid van lokale gemeenschapsvertegenwoordigers, woningontwikkelaars en bedrijven.

Procedures en processen
Procedures zullen moeten worden aangepast om uitgebreidere gemeenschapsconsultaties, zoneringaanpassingen en economische beoordelingen te omvatten

Succesfactoren voor de huidige strategie

Gemeenschapsintegratie: ontwikkel kaders die gemeenschapsdeelname aan planning aanmoedigen om ervoor te zorgen dat nieuwe ontwikkelingen voldoen aan lokale behoeften en tegelijkertijd een iconische aantrekkingskracht behouden.

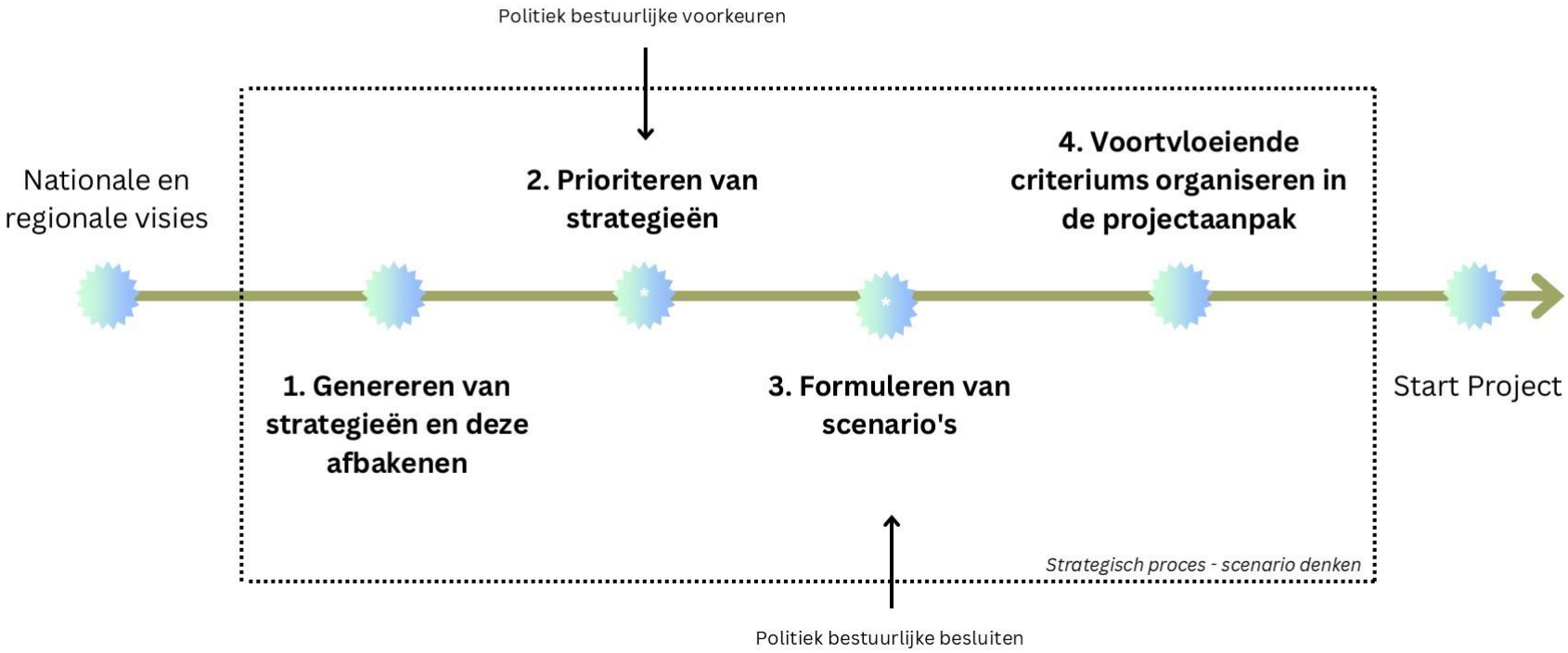
Economische effectbeoordelingen: beoordeel regelmatig de economische implicaties van de geïntegreerde leefruimtes en zorg voor afstemming op bredere stadsdoelstellingen voor groei.

Afsluitende vragen

(Gemeente Rotterdam, 2017)

Strategisch process

CONCEPT - STRATEGISCH PROCES



Zaynab Quraishi | 5511135 | 1st mentor Willem Korthals Altes | 2nd mentor Angela Greco

THANK YOU

(Architectenweb, n.d.)