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Urban densification through Flexibility

A study on the role of Procedural Flexibility within the Eindhoven municipality's high-rise implementation.

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Preface

This thesis is the final step in completing my master's degree in Spatial Planning at the University of Utrecht. Writing this thesis has been both valuable and time-consuming at times, something I could not have completed successfully without the advice and support of the people around me.

First, I would like to express my gratitude towards my supervisor, Josje Bouwmeester, who gave me helpful constructive feedback, new insights, and with whom I have always found the feedback sessions very pleasant. Your encouragement, insights, and quick responses helped me structure this thesis from the moment I started.

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Thank you all, and I hope you enjoy reading.

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Abstract

In response to rising urban growth and housing demand, cities such as Eindhoven are under increasing pressure to densify within their current urban boundaries. High-rise development has come up as a crucial strategy, but its implementation is influenced not just by technical planning tools, but also by institutional capacity to change. This thesis investigates how procedural flexibility in urban governance can enable or constrain the implementation of high-rise developments in the city centre of Eindhoven. The study uses a qualitative study approach, combining policy documents and semi-structured interviews with municipal professionals, to analyse flexibility as a governance practice rather than a formal policy reform. The study operationalises flexibility across four critical dimensions: the intake phase, interdepartmental coordination, project-specific interpretation, and individual dependence. These dimensions illustrate how planning actors navigate complex, often conflicting, spatial goals under pressure. While procedural flexibility enables for responsive and adaptable decision-making, the findings show its limitations, especially in term of consistency, equity, and long-term vision. The study contributes to a better understanding of flexibility in urban government and provides guidance for cities aiming to balance adaptability with planning accountability.

Contents

1. Introduction

Urban densification is becoming a significant challenge for cities worldwide as they face issues related to increasing population and the associated accommodation problems, including housing shortages, affordability concerns, and social exclusion. The United Nations (UN) states that 68% of the global population will live in dense urban areas by 2050, compared to 55% today, which puts more pressure on the need for sustainable and efficient urban planning (United Nations, 2018). Furthermore, additional challenges must be addressed in relation to this issue, such as urban sprawl, inefficient infrastructure, loss of agricultural land, and an increase in car dependency (Teller, 2021a). These obstacles increase environmental pollution, reduce social cohesion, and put pressure on municipal services (Teller, 2021a).

Densification models, such as the compact city model, which prioritises higher densities and efficient land use, could be critical in achieving urban sustainability (Bibri et al., 2020). High-rise buildings could play a crucial role in these strategies because they can accommodate a larger population within dense urban areas. However, high-rises must be planned carefully to prevent government challenges, such as zoning issues, a lack of policy, inefficiency, or unintended sprawl. This thesis will examine how institutional flexibility and adaptability can facilitate the efficient implementation of high-rises within the city centre of Eindhoven.

The acceptance of densification is closely tied to the institutional flexibility of the municipality. Scepticism and mistrust can arise when a one-size-fits-all densification model is applied without taking local circumstances into account (Wicki et al., 2022a). On the contrary, flexible institutions could overcome these issues and create acceptance because they can adapt to local circumstances, change zoning plans and listen to local feedback, which could then be used in new developments. The success of Eindhoven's future could therefore not only depend on its spatial plans but also on its ability to be responsive and adaptive to its challenges and to incorporate public values. This responsiveness must also be balanced with the city's long-term development goals, such as sustainability, social equity, and spatial quality, which are essential for securing support, legitimacy, and long-term liveability.
Institutional flexibility in this research is seen as the ability of governmental organisations to adapt, reinterpret, or reorganise its existing policies or frameworks as response to the changing spatial, political or economic conditions. The definition of institutional adaptability within this research refers to a governance system's ability to modify not just its operations, but also its frameworks and values in response to long-term and complex societal challenges. Unlike institutional flexibility, which lies in its focus on short-term responsiveness within current regulations, institutional adaptivity requires the ability to reorganise institutional frameworks (Van den Hoek et al., 2020).

The existing literature on urban densification shows that there is a consensus on the need for sustainable urban development but differences in the way to achieve this effectively; for example, some experts support incremental infill measures (soft densification), but others call for a large-scale vertical expansion (hard densification)(Pont et al., 2021; Teller, 2021b). Some High-rise buildings are named very often as essential to densification attempts because of their effective use of the

accommodation of big groups or residents within dense urban areas (Teller, 2021a). Scholars like Bibri (2020) argue that high-density development reduces urban sprawl, car use and optimise infrastructural use. At the same time, Abdi (2019) finds that the role of high-rise developments is essential for maximising land efficiency use. However, critics of high-rise densification cite challenges such as government inefficiencies, mistakes in land planning, and regulatory obstacles. Gehl (2010) emphasises that high-density developments that are planned poorly can lead to "vertical ghettos", where the shortage of integration with the urban surroundings could undermine liveability.

Another challenge to urban densification through high-rise is public resistance, which is driven by concerns over the character of a neighbourhood, the loss of sunlight, housing affordability, and traffic jams (Gehl, 2010; Wicki et al., 2022a). While high-rise buildings boost housing supply, they attract a specific kind of new resident with higher incomes due to higher building costs and central locations, which can lead to gentrification and even displacement (Teller, 2021b).
Besides economic concerns, environmental and cultural factors also create resistance. Residents of historical cities like Vienna and Paris argue that high-rises undermine the architectural identity of the city, which leads to strict design and height rules (Drozdz, 2017; Michels & de Graaf, 2010) .

Strict regulatory frameworks and inflexible planning policies, such as rigid zoning classifications, height limits or parking limits, could obstruct the timely approval and efficient implementation of high-rise projects, which could lead to delays in development and increased costs (Bibri et al., 2020). By having restricted zoning laws and outdated building codes, the adoption of innovative and sustainable buildings could be limited, which leads to a limitation of the benefits high-rises could have in urban city centres (Hajer & Versteeg, 2019). This issue is particularly noteworthy in Europe, where historical and established regulatory frameworks impose additional limitations on high-rise construction (Conticelli, 2019).
Furthermore, High-rise densification often provokes external resistance from local communities, stakeholders, and interest groups concerned with liveability, heritage, or affordability (Gehl, 2010). Understanding and addressing this resistance is crucial for ensuring public support and preventing delays in urban implementation (Wicki et al., 2022a).

The city of Eindhoven, positioned in Noord-Brabant, is one of the leading cities in the Netherlands, growing at a fast pace due to its position as the centre of innovative technology. The population is expected to increase from 235,000 to 300,000 residents by 2040, and an agreement has been made with the government to develop an additional 40,000 homes by the same year (CBS, 2022). With limited horizontal capacity for expansion, urban densification through high-rises is considered the most feasible plan to address the housing need within Eindhoven (Municipality of Eindhoven, 2023). The development of high-rise buildings, or the adjustment of these, is an essential part of the city's densification program, as written in the *Verdichtingsvisie van Eindhoven* (Municipality of Eindhoven, 2023). High-rise structures have many positive effects on urban life, but they also present challenges, such as privacy issues and a lack of daylight (Municipality of Eindhoven, 2023).

1.1 Research gap and research questions

Whilst high-rise buildings are being recognised as a vital tool for urban densification, existing literature has not fully explored the regulatory, institutional, and governance complexities of implementing these buildings in dense urban areas in a sustainable and effective manner. Multiple studies have examined the advantages of high-density models (Bibri et al., 2020) and vertical expansion in big cities (Yuen, 2007). A significant gap remains in understanding how challenges such as conflicting spatial policies, procedural rigidity, and fragmented governance structures influence the implementation of high-rise developments in urban areas.

The first research gap is the lack of understanding of how to implement high-rise developments in existing urban areas while maintaining liveability. While compact city models support high-rises (Albrechts & Balducci, 2013), they frequently fail to balance densification goals with urban quality and effective spatial integration (Teller, 2021a). This gap relates to the central theme of this research, which is how procedural flexibility in municipal planning within the municipality of Eindhoven could help to overcome these problems by allowing for adaptable and context-sensitive planning solutions.

The second gap in the literature is about the role of institutional frameworks and regulatory obstacles in shaping high-rise developments. The viability and efficiency of high-rises must be considered in terms of land use, urban policy, and zoning, particularly in cities that experience significant population growth but lack the resilience of other cities.

Geekiyanage et al. (2021) emphasise the need for participatory governance in urban planning; however, little research has been conducted on how stakeholder participation can facilitate the implementation of high-rise developments. Adding to this, existing studies have pointed out the potential benefits of institutional flexibility, which is the ability of planning institutions to adapt to the change in (political) conditions (Beunen et al., 2017). This flexibility is essential for high-rise development because they can face many changes in design, legal, or social aspects that require a municipality to make changes during the planning process. Yet little research has been done regarding the compromises between short-term flexibility and long-term stability. As high-rise developments require significant investments, frequent policy changes can create uncertainty for investors, developers, and residents (Bibri et al., 2020).

Lastly, while participatory planning models are being increasingly acknowledged as beneficial, there remains a shortage of research on how municipalities can adapt densification policies in response to public resistance, such as increased traffic, loss of local character, or affordability, without adjusting their urban development goals. Understanding the role of community participation in shaping flexible high-rise policies is crucial to guaranteeing both efficiency and public trust in urban governance (Conticelli, 2019). This participation could enhance policy flexibility by incorporating arguments from local resistance, such as concerns about height, location, or design.

This study will fill these gaps by researching how institutional flexibility can help high-rise buildings promote densification more efficiently rather than whether they can contribute to urban density or not. This is achieved by examining planning tools, such as interdepartmental coordination, project-specific interpretation of policies, and intake procedures for new development initiatives. It could offer an essential investigation into how high-rise buildings can be effectively integrated into dense urban areas without compromising urban sustainability. By analysing the flexibility of zoning regulations within the municipality of Eindhoven, this research can examine how cities create and implement densification policies more flexible, whilst maintaining the alignment with broader urban development goals. Governance mechanisms will be reviewed to assess the impact of policy enforcement, decision-making processes, and stakeholder engagement on high-rise implementation. The findings could help bridge the gap between high-rise theory and practice by offering significant insights into participatory planning approaches, regulatory adjustments, and effectiveness, which are necessary to implement densification efforts successfully.

This research addresses the previously named research gaps by linking them to the main research question: “How can procedural flexibility stimulate the efficient implementation of high-rise buildings in the city centre of Eindhoven?” In this thesis, efficient implementation refers to the municipality's capacity to translate planning policies and frameworks into actual, adaptive, and well-coordinated projects. The focus lies on how planning procedures and institutional flexibility influence the implementation of high-rises rather than their design or spatial integration.

To create more depth to this question, three sub-questions are also examined:
1. How flexible is the current zoning and land-use policy in Eindhoven regarding high-rise developments, and how does this influence urban densification strategies?
2. How does the municipality of Eindhoven balance its flexible policies with long-term urban development goals?
3. How does Eindhoven respond to external resistance to high-rise densification?

This research investigates the flexibility and adaptability of institutional frameworks that influence high-rise densification in Eindhoven. By addressing these three sub-questions, it will be examined how municipal policies and regulations handle urban growth pressure, what the balance is between short-term policies and long-term development goals, and how Eindhoven handles resistance to high-rise densification. By doing this analysis, the research can contribute to new theoretical insights into institutional flexibility in urban planning and governance.

1.2 Societal relevance

Urban densification has a positive impact on the housing shortage challenges, especially in growing cities like Eindhoven, where the demand for housing has led to plans to develop 40,000 extra houses (Municipality of Eindhoven, 2024). The municipality of Eindhoven aims to address societal aspects, including the environment, mobility, health, and housing, in its Environmental Vision (Municipality of Eindhoven, 2024). By developing and implementing high-rises effectively, these issues could be solved.

However, when not implemented correctly, high-rises could cause more problems for residents than they solve.

The relation between this thesis and its societal relevance is the difficulty of implementing high-rise policies within local governance institutions. This thesis examines how procedural flexibility within the municipality of Eindhoven can facilitate the implementation of high-rise developments in the city centre of Eindhoven. Achieving this encourages a more educated and adaptive approach to urban densification policies. When not implemented correctly, municipalities could create resistance to developing high-rises among their residents. Especially when those developments are costly or unsustainable, people may resist the development of these high-rises (Wicki et al., 2022b). With a municipality developing thousands of houses for its residents, this is a critical issue.

1.3 Scientifical relevance

This research can contribute to the established literature about institutional flexibility in urban planning by exploring how governance frameworks influence the successful implementation of high-rise densification within a city centre. Although there is much literature about urban densification in big cities such as Singapore, New York, or London (Bibri et al., 2020; Gielen & Tasan-Kok, 2010), There is a shortage of comprehension of how mid-sized cities, such as Eindhoven, navigate regulatory changes, policy trade-offs, and stakeholder participation to face urban growth challenges.

This study expands the theoretical concept of institutional flexibility in urban development by examining factors such as zoning flexibility, stakeholder participation, and long-term urban planning (Hajer & Versteeg, 2019; Meijer & Jonkman, 2020). Furthermore, neo-institutionalism and participatory theories are extended by exploring how urban planning strategies adapt in response to challenges posed by densification. This contributes scientific proof to the debate on whether institutional flexibility promotes or undermines efficient urban planning (Mualam et al., 2019)

The findings from this study are significant for urban planners, municipalities, and scholars studying urban expansion, institutional flexibility, and policy resilience.

1.4 Structure of the thesis

The remainder of this thesis is structured as follows. Chapter 2 provides a theoretical framework for urban densification, high-rise development, and institutional flexibility. Chapter 3 outlines the research methodology and the selection of cases. Chapter 4 presents the empirical findings based on interviews and document analysis, followed by Chapter 5, which discusses these findings in light of the theoretical concepts. Finally, Chapter 6 offers conclusions, implications, and recommendations for urban planning practice.

2. Theoretical framework

2.1 Densification

The concept of densification, which involves intensifying the built environment and activity levels within a defined urban area (Pont et al., 2021), has evolved from being viewed as a challenge to being introduced as a key solution to urban sustainability. Looking back on the history of densification, it emerged as a response to the ineffectiveness and ecological impacts of urban sprawl, such as high land consumption and rising transportation emissions, which characterised the post-war period in Western cities(Artmann et al., 2019).

The issue of low-density patterns has significantly increased in recent years, characterised by car dependency, extensive land consumption, and monofunctional zoning (Mcfarlane et al., 2015). These patterns led to an increase in concerns about the long-term sustainability of this method. In this particular context, the concept of densification has evolved not only into a technical planning strategy but also into a normative goal that can lead to social equity, environmental sustainability, and economic vitality (Cavicchia & Cucca, 2022). Yet, these attempts frequently proved unsuccessful in terms of liveability, as they preferred quantity over quality (Angelo & Wachsmuth, 2020). On the other hand, contemporary urban development strategies prioritise social inclusiveness, the integration of public spaces, and mixed-use development. These strategies are derived from past experiences and aim to mitigate the disadvantages of creating isolated urban forms (Angelo & Wachsmuth, 2020).
There are multiple definitions that scholars have used for the term densification, which shows its multi-interpretable meaning. Broitman and Koomen (2015) define densification as a "net increase in housing units within an existing urban area". While this is a good definition for its measurability, it does not encompass the qualitative dimensions of densification, such as integration with urban infrastructure, functional diversity, or the concept of it being a spatial form.

A more nuanced interpretation is suggested by Berghauser Pont et al. (2021), who view densification as the intensification of the built environment and activity levels within a defined urban area, offering a more holistic perspective. This includes measurable terms such as population density, land-use efficiency, building floor area, and the mix of the urban regions. This interpretation of densification aligns with the principles of the compact city model, which emphasises the concentration of urban functions to promote walkability, conserve greenfield land, and reduce emissions (Bibri et al., 2020).

2.1.1 Soft and hard densification

Urban densification has multiple forms; however, the literature typically draws a distinction between soft and hard densification. The difference between these forms has a significant impact not only on spatial results but also on the types of investments, community participation, and governance they require (Teller, 2021a) .

According to Teller (2021a), soft densification refers to small-scale changes in the existing urban structure. It is a form of urban expansion that adds small units by converting underutilised buildings, extending existing structures, or dividing large properties. It is called soft densification because it is less harmful, as it maintains the existing character of a neighbourhood while making minor changes to increase density (Teller, 2021a). This strategy is sometimes favoured by people in residential areas, where they tend to be more resistant to significant changes in population or high-rise development (Teller, 2021a). Yet, this strategy is less effective in addressing housing shortages because it only takes small steps with little addition to the housing market.

On the other hand, hard densification is a more drastic approach to densification involving large-scale and transformative development, such as the redevelopment of low-density areas or the construction of high-rises (Teller, 2021a). This requires larger investments, the demolition of existing areas, and public-private partnerships (Teller, 2021a). Whilst this strategy is more complex to implement, it could create a higher number of housing units, often in central areas where the demand is high and land is limited (Pont et al., 2021). The role of the state is usually more facilitating than developing with this strategy (Teller, 2021a).

2.2 High-rises

High-rise buildings in Europe are connected to the post-industrial urban change and innovations that shaped modern city making. Whilst Europa has historically preferred horizontal expansion with mid-sized buildings, in the beginning of the 20th century, there was the potential to expand vertically and begin experimenting with taller buildings that had new innovations, such as elevator systems, reinforced concrete and new construction methods (Czyńska, 2018). Unlike the American model, European high-rises developed high-rises more carefully, considering architectural integration, housing, and functionality (Drozdz, 2017).

After World War ll, the development of high-rise buildings increased rapidly due to housing shortages all over Europe. To fulfil this need, these developments became large-scale, led by the government, and focused on capacitating lots of residents (Czyńska, 2018). These developments were influenced by modern planning theories, which emphasized functionality, and land use efficiency. An example of this is the “tower in the park” principle which places the high-rise in a park, away from the streets (Czyńska, 2018). Yet, over time these developments struggled from physical decline, social marginalisation, and bad spatial integration. They became associated with anonymity, segregation and poor living standards, which raised concerns about their long-term sustainability (Czyńska, 2018).

Today, high-rises have made a comeback as a vital tool in urban development strategies, but with new usage and meanings added. They are more mixed-use with a focus on their architectural look and integrated into urban regeneration of densification frameworks. Besides their housing or working functions, they are now seen as city skylines, representing a neighbourhood or a certain design goal (Czyńska, 2018; Pont et al., 2021). Adding to this, the definition of when a building is a high-rise has

changed, now it is not only their height that makes it a high-rise, but also aesthetics and symbolic value within the urban environment (Pont et al., 2021).

2.2.1 High-rises as an densification tool

High-rises have a crucial role in contributing to densification. In addition to their elevated popularity, another value is the way they enhance urban functions by concentrating economic activity, residents, and facilities. In densely populated countries like the Netherlands, where spatial planning has traditionally been used for space and land preservation, high-rises offer a great way to accommodate urban growth without expanding on land. The Dutch planning culture has always supported the compact city model, encouraging expansion within urban boundaries (Nabielek, 2012).

The programming and layout of high-rise buildings can impact the quality of density. According to Generalova (2018), high-rises are most effective when they are integrated into a city's urban design, connected to the infrastructure, embedded in mixed-use development, and designed with the ground level in mind. When implemented correctly, they enhance public life by providing shared facilities, accessible public areas, and reducing urban sprawl. This approach aligns with the understanding of density, where benefits such as walkability, social interaction, or sustainability are not compromised by overcrowding, pressure on infrastructure, or social isolation (Dovey & Pafka, 2017).

In the context of Eindhoven, these factors are particularly relevant. As the city expands its role as an innovation hub, the demand for densification increases. The municipality has already designated the city centre and essential transportation routes as key densification zones, with high-rises playing a vital role in this vision (Municipality of Eindhoven, 2024). It is not a question of whether high-rises will be built, but instead how this will be done and how they will interact with existing neighbourhoods and contribute to urban life. This not only requires technical skill but also institutional flexibility. In Eindhoven, this includes creating planning procedures that are not just clear and consistent but are also adaptable, mediating between stakeholders, and adapting to evolving changes, allowing the city to support innovative high-rise projects whilst protecting the long-term quality of social life.

2.2.2 Which factors could hinder high-rise developments

Scheublin (2008) stated that existing zoning regulations in the Netherlands have limited the possibility for innovative high-rise development, particularly due to their inflexibility and inability to accept tall buildings. He observed that limitations slowed down the adaptation to tall buildings and hindered experimentation in Dutch cities. The lack of coordination between zoning regulations and high-rise development is described as a significant obstacle to densification (Frits Scheublin, 2008).
Additionally, Van der Ham and Opdenakker (2023) note that process-related challenges in high-rise projects are often caused by fragmentation in municipal governance structures. They find that different departments participating in spatial planning have different objectives, procedures, and timelines, which could eventually lead to delays and mistakes. Their findings indicate that a lack of interdisciplinary cooperation has adverse effects on the efficient development of high-rise buildings.

They also conclude that strict requirements for programming often hinder productive innovation in high-rise development. It is noted that these criteria could lead to additional costs, restrict the use of new flexible techniques, or increase the likelihood of a project being cancelled.
Lastly, according to Scheublin (2008), the Dutch infrastructure system was not designed to withstand the pressure caused by tall buildings. He calls for high-rise projects to be upgraded to handle pressure on utilities, transportation and ecological infrastructure, which are often overlooked in planning strategies.

2.3 Acceptance of urban densification

Whilst urban densification is seen as an essential strategy for sustainable urban development, it frequently encounters strong resistance from local communities. They usually view densification as a threat despite planners highlighting its economic and environmental advantages, such as improved infrastructure, a healthier environment, and a stronger economy. Typical concerns include increased traffic, reduced privacy, heightened demand for public services, loss of green spaces, and erosion of neighbourhood identity (Haaland & van den Bosch, 2015; Scannell & Gifford, 2010). These are significant issues for residents, highlighting underlying concerns about power dynamics, potential changes, and loss of autonomy (Haaland & van den Bosch, 2015; Scannell & Gifford, 2010).

The acceptance of residents is location-sensitive. Wicki et al. (2021) found that people tend to be more opposed to a potential project if it is located closer to their home, according to their study in six major European cities. If a place is historically low-dense, new developments and construction are viewed as going against the long-term established social and spatial norms and against the cultural history of this area, especially in this case, densification becomes controversial (Wicki et al., 2021). According to the same study, acceptance densification is more accepted if it includes more affordable housing and more greenery or is developed by non-profit organisations. These are long-term factors that demonstrate an interest in the well-being of residents, which fosters acceptance of these developments.

Another factor that could influence acceptance is how densification influences daily life. Residents may worry that increased population density in a given area could lead to higher pollution levels, increased noise, or create pressure on facilities such as parks, parking, or schools (Haaland & van den Bosch, 2015). In the city of Eindhoven, where 40,000 new homes are planned to be built by 2040, the resistance could stem from the municipality's lack of confidence in realising this goal rather than any potential discomfort that may arise from densification.

To overcome this resistance and lack of belief, scholars emphasise the value of participatory planning and policy instruments that provide benefits for residents (Wicki & Kaufmann, 2022). Research shows that the public's view towards densification projects improves when there is a design criterion that enhances green spaces and prioritises mixed-use development, along with rent limitations and inclusionary zoning (Wicki & Kaufmann, 2022).

2.4 Institutional flexibility

Institutional flexibility refers to the ability of governmental organisations to adapt, reinterpret, or reorganise their existing policies or frameworks in response to changing spatial, political, or economic conditions. This theory has drawn more attention in governance and planning literature, given the evolution and increase of challenges and the pressure on institutions to become more responsive and resilient (Beunen et al., 2017; Tasan-Kok, 2008). In terms of urban governance, flexibility refers to the ability of institutions to deviate from traditional rules without compromising their overall validity. Tasan-Kok (2008) examined the evolution of this theory, finding that "flexibility" was once associated with deregulation and opportunistic behaviour, but has evolved over time into a creative and strategic response to urban challenges. Beunen et al. (2017) add to this that flexible institutions are the ones that engage in institutional work reflective processes by which actors reshape governance arrangements over time. Their results imply that governance systems become resilient not by remaining stable but by changing and evolving via learning, negotiation, and minor changes.
This understanding appears in empirical research. For example, Van den Hurk and Tasan-Kok (2020) show how flexibility develops in inflexible contracts in urban regeneration projects. Their findings show that these contracts can allow for adaptive shifting as planners renegotiate goals or absorb disturbances during the implementation. This suggests that flexibility can be applied not only in informal procedures but also within formalised instruments such as contracts, as long as there is the will and space to interpret them with discretion (van den Hurk & Tasan-Kok, 2020).

There is also economic literature that provides insights into institutional flexibility as an accelerator of innovation. Davis (2010) created a theoretical model that demonstrated countries with better institutional flexibility are more likely to change their legal and policy frameworks in response to economic changes. This suggests that restrictive institutions often hinder innovation, while flexible systems allow for the creation of new procedures and standards in response to evolving development paths.

Institutional flexibility is also gaining more attention in political and policy studies. Andina-Díaz et al. (2021) examined the impact of institutional flexibility on democratic systems that undergo frequent political changes. According to this research, flexible institutions enable policies to remain consistent, even in the event of a political change. This understanding is relevant for different municipalities, where urban policy must be strong enough to withstand leadership changes while maintaining their urban goals.

Scholars such as Buzas and Graham (2020) underline the role of institutional flexibility in international contexts. Their research on emergent flexibility showed that institutions frequently adjust in practice via informal and creative reinterpretations of rules instead of formal reform. The contrast between intentional flexibility and emergent flexibility provides a helpful lens for analysing how flexibility often occurs unintentionally in spatial planning.

Lastly, while institutional flexibility is mainly seen as a solution and strategy for adaptive governance, it is essential to be cautious about seeing it only as a positive solution. Tasan-Kok (2010) investigated the conflicts between flexibility and preserving public value in liberal planning systems. If flexibility is used to enhance market actors, such as zoning exceptions or fast permit approvals, it could lead to a decline in long-term spatial quality. Their study emphasises the significance of clearly setting limits to institutional flexibility, particularly in places like the Netherlands, where public value is a significant issue.

The concept of institutional flexibility has evolved from being viewed as a loophole to a strategic and innovative aspect of governance. Flexibility is recognised in planning, economic and political science as a necessity for successful institutional performance, especially in circumstances of complexity, uncertainty, and disagreement.

2.4.1 Types and aspects of institutional flexibility

Institutional flexibility can take various forms, depending on the level and purpose of the adjustment. This section discusses five distinct but interconnected types: procedural, structural, strategic, normative, and emergent flexibility. Each type reflects a different depth of change, ranging from minor adaptations in procedures to shifts in institutional values. In the spatial planning domain, procedural flexibility is the most visible and directly used, especially about permits, zoning, and planning approvals. Feiertag and Schoppengerd (2023) highlight how the flexibility to change the use of land during the planning process has become a deeply rooted and normalised practice. Regular adjustments are made to meet the changing needs of stakeholders or political limitations, showing that formal procedures can be sustained without becoming inflexible. Van der Hoek et al. (2020) agree that procedural flexibility in land-use plans must be treated as a formal feature of planning instruments, rather than a reactive tool.

The purpose of procedural flexibility is to make urban planning systems more flexible to local challenges, project-specific needs, and changing social demands without necessitating complete legal or structural reform (Feiertag & Schoppengerd, 2023; Van den Hoek et al., 2020). In doing so, it strikes a balance between governance consistency and flexibility (Beunen et al., 2017). In practice, procedural flexibility is manifested in tools such as permit procedures, zoning deviations, and interpretive discretion during the implementation of policies. These tools enable planners to deviate from rigid policies when needed while still working within the legal framework .

Institutional flexibility is heavily influenced by structural flexibility of governance systems. Dorsch et al. (2017) argue that institutional structures at which authority is distributed across organisations, promote systemic adaptation and resilience more. These systems allow for overlapping duties, increased experimentation with how planning activities are completed, and interdisciplinary cooperation. The study of Stratmann (2020) shows that flexible institutional structures promote sustainable planning by decentralising planning abilities, which allows for adaptations to local demands.

The strategic element of flexibility refers to an institution's ability to refocus long-term objectives, to reconsider planning visions, or realigning the allocation of resources as response to structural unpredictability (Loorbach et al., 2017). This same Loorbach (2017) frames this within the sustainability framework, which requires institutions to adopt continuous and responsive strategies rather than established blueprints. Here, flexibility is needed to allow for learning and adjustments during the realisation of long-term planning agendas. This necessitates institutional dedication to dynamic scenario planning, alongside with the need to pause, realign or restructure paths as new knowledge becomes available.

Perhaps, the most challenging, but essential type of flexibility is normative flexibility, which is the willingness of institutions to question, and if necessary, change their underlying beliefs, values, and explanations for action. Jessop (2017) explores this in terms of meta-governance, in which are not only acting within governance frameworks, but also are constantly reflecting on the design and reasoning of these frameworks. This is especially important in planning systems based on ideas of predictability and certainty. This is reflexive governance, according to Voß (2011), where actors integrate self-critique and learning into their routines, rather than only reacting to complexity. This promotes a shift in controlling rationalities, which is needed for transformative forms of planning.

As mentioned earlier, emergent flexibility describes the informal, bottom-up changes that take place when regulations are applied, interpreted, or challenged in practice. Búzás (2020) explains that institutional rules generally evolve through informal reinterpretation by local actors, rather than that they are officially modified. His study of international organisations shows how member states can reinterpret laws over time, allowing them to give it a new meaning, and thus allowing for flexibility. Although his study focuses on international relations, there are some applications for planning. Even in procedural planning systems, flexibility can emerge naturally as actors reinterpret meaning due to new insights gained from discussions, negotiate about the meaning of something, or strategically move away from their original meaning, all without legally rewriting the rules.

These findings demonstrate that institutional flexibility is more than just a functional, one-dimensional characteristic, it is a crucial aspect of democratic and resilient planning, with multiple layers that act at different institutional levels, ranging from zoning plans to political ideologies. These contrasts are essential to this thesis because they demonstrate that while flexibility presents itself as a beneficial theory, it also has some challenges: who or what determines how rules are interpreted? And what happens when procedural flexibility interferes with long-term strategic goals?
A key takeaway from the literature is that different types of flexibility can either encourage or undermine one another. For example, procedural flexibility can promote creativity and responsiveness; however, it could also lead to ad hoc decision-making if not grounded in larger strategic frameworks. On the other hand, excessive normative flexibility, which undermines the goals themselves, could harm policy continuity in urban densification.
This reflection is relevant for the municipality of Eindhoven, where planners must balance legal frameworks with the demand for adaptive high-rise development. To understand this conflict, it is

essential to explain why flexibility is both a solution and a risk; it can speed up implementation but also lead to inconsistency, unpredictability, or legitimacy concerns if not managed properly. This study builds on the existing conflict by examining how procedural flexibility is applied in practice, not just in terms of what is technically permitted but also in how professionals interpret, adjust, or circumvent regulation during implementation.

2.4.2 Form of flexibility used in this thesis

This thesis employs procedural flexibility as the primary theoretical lens to examine the degree of flexibility with which the municipality of Eindhoven regulates high-rise development within the city centre of Eindhoven. Procedural flexibility refers to a planning institution's ability to modify the implementation of formal rules and procedures in response to context-specific challenges (Feiertag & Schoppengerd, 2023; Van den Hoek et al., 2020). In the light of high-rise densification, this means allowing room for negotiation, deviation, or reinterpretation of planning instruments. The aspects of procedural flexibility that are researched in this thesis are shown in Table 1 on the next page.

Among the different forms of institutional flexibility, this thesis focuses on procedural flexibility because it offers a direct analytical lens for examining how municipal actors manage complexity within planning frameworks. Given the research objective, to understand how high-rise developments are facilitated through adaptive governance, procedural flexibility provides the most concrete and observable form of adaptation in local urban governance. It concerns how rules and policies are interpreted, adjusted, or deviated from during the planning process, particularly under pressure from spatial constraints or conflicting policy goals. This makes it a suitable conceptual tool to explore how flexibility operates in practice within the institutional structures of a mid-sized city like Eindhoven.

Other types of flexibility, like strategic, structural, or normative flexibility, tend to require bigger changes that include modifications to the long-term vision and governance structure. These types of changes are at a higher political or organizational level and, thus, are beyond the direct scope of the municipal workers that are questioned for this thesis. While these forms are essential, they are less interesting for this specific research. Adding to this, institutional adaptivity, which also could be quite relevant, requires systematic learning and structural change, which takes a more extended period, needs different governance levels, and is seen more for long-term change (Stratmann, 2020; Gupta et al., 2016). Local municipal professionals thus have almost no influence over these kinds of changes. Because this thesis focuses on a single municipality and emphasises implementation-level factors, procedural flexibility is a more realistic starting point. Still, this research does not dismiss institutional adaptivity. Instead, it recognises that procedural flexibility can serve as a starting point for long-term institutional adaptability.

Dimension	Definition	Planning tool or practice	Expected contribution to flexibility
Zoning deviations	Temporary or structural exemptions from existing land-use plans	Height exemptions, site-specific zoning adjustments	Allows adaptation to local spatial conditions
Discretionary interpretation	Flexible reading of policy standards and guidelines	Sunlight norms, public space criteria	Enables planners to balance conflicting objectives
Intake procedures	Early-stage project reviews to align plans with municipal ambitions	Multidisciplinary project teams, project screening	Facilitates negotiation and early identification of conflicts
Internal coordination	Cross-departmental alignment within the municipality	Coordination tables, project leads	Encourages consistent but adaptive implementation
Informal negotiation	Interaction with developers to reach mutually acceptable outcomes	Pre-permit discussions, planning dialogues	Builds trust and avoids rigid application of rules

Table 1: Dimensions of procedural flexibility in high-rise development

2.5 Institutional adaptivity

While this thesis focuses on procedural flexibility as the primary concept, institutional adaptivity is introduced as a complementary theoretical perspective to situate flexibility within a broader governance context. Where procedural flexibility focuses on short-term, project-specific adjustments within existing frameworks, institutional adaptivity concerns the capacity of governance systems to reflect on and evolve their structures, norms, and long-term visions. Including this concept allows for a more comprehensive understanding of how flexibility operates, not just as a functional tool, but as part of a wider institutional capacity to respond to complex and evolving urban challenges. This is analytically relevant to the research aim, which concerns the implementation of high-rise developments within existing planning frameworks.

Institutional adaptivity essentially refers to a governance system's ability to modify not just its operations but also its frameworks and values in response to long-term and complex societal challenges. Unlike institutional flexibility, which lies in its focus on short-term responsiveness within current regulations, institutional adaptivity requires the ability to reorganise institutional frameworks (Van den Hoek et al., 2020). This difference is crucial in the context of spatial planning, as long-term changes, such as new policy demands, population shifts, or climate change, compel institutions to reassess the foundations of their current strategies rather than merely update the tools.

Within spatial planning, institutional adaptivity is demonstrated by continuous learning, the integration of feedback, and the ability to modify planning tools in response to uncertainty. Stratmann (2020) stresses the importance of implementing this learning into sustainable development. Furthermore, Feiertag et al. (2023) show that regular changes to land-use plans could mean more than just institutional flexibility; it could show a more profound shift within institutional goals. Additionally,

Gupta et al. (2016) argue that adaptive capability in Dutch planning is dependent on characteristics like knowledge integration, the memory of institutions, and interdependence. Lastly, Shen et al. (2016) have shown that local governments in China promoted adaptability via experimentation and policy variation in response to rapid economic changes. It revealed that institutional adaptivity is more transformative than reactive, which is an essential factor for long-term resilience.

These studies collectively demonstrate that institutional adaptivity is a complex concept encompassing procedural changes, structural modifications, and cultural shifts within institutions. However, it requires a commitment to lifelong learning, stakeholder engagement, and the readiness to welcome change.

2.6 The differences between institutional flexibility and adaptivity

Dimension	**Institutional flexibility**	**institutional adaptivity**
Definition	Capacity to adjust procedures, rules, and practices within existing frameworks	Capacity to transform institutions in response to long-term environmental or systemic changes
Main focus	Adaptation of existing structures and processes	Institutional transformation and innovation
Time orientation	Short- to medium-term	Long-term
Change mechanism	Adjustment within existing institutions (e.g., reinterpretation, discretionary space)	Transformation or redefinition of institutional arrangements
Levels of formality	Can be formal (zoning exemptions) or informal (negotiated practices)	Typically informal or semi-formal, evolving over time
Source of change	Primarily internal (actors within the institution)	Often external (new societal demands, crises)
Governance mode	Polycentric or hierarchical governance with discretion	Reflexive, experimental, and network-based governance
Institutional learning	Limited but possible through feedback loops	Central concept; adaptive cycles and learning are core
Example in planning	Zoning flexibility or temporary planning instruments	Shift from zoning plans to adaptive planning frameworks
Risks of weaknesses	Can reduce legal certainty or be selectively applied	Can be slow or conflict with stability and accountability

Table 2:Differences between institutional flexibility and adaptivity, source: (Shen, 2016; Gupta et al., 2016; Stratmann, 2020; Feiertag 2023; Van der Hoek, 2020; Beunen et al., 2017)

2.7 Conceptual model

The conceptual model presented in Figure 1 shows how procedural flexibility serves as the central mechanism in implementing high-rise development within Eindhoven's city centre. The model is structured into three parts: inputs, operationalisation, and outcomes. The input includes two key factors that influence procedural flexibility. The first is policy frameworks and spatial contexts, such as the municipality's policy documents (*Verdichtingsvisie Binnenstad, Omgevingsvisie, Ontwikkelperspectief 2040*) and designated densification areas. The second input is stakeholder dynamics and person-dependence, which refer to the influence of municipal professionals, project leaders, and internal relationships on the planning processes. The framework identifies five key components of procedural flexibility relevant to high-rise planning in mid-sized urban contexts like Eindhoven: (1) regulatory interpretation or the room professionals have to interpret and adjust zoning frameworks (Tasan-Kok, 2008); (2) zoning plan adaptability, the formal ability to deviate from existing plans during development (Van den Hoek et al., 2020); (3) coordination capacity, the extent to which municipal departments can align their goals and timelines (Stratmann, 2020); (4) governance discretion, meaning the operational freedom planners have to negotiate with developers and weigh trade-offs (Gielen & Tasan-Kok, 2010); and (5) public responsiveness, which captures how planners adjust processes or conditions in response to social or political feedback (Beunen et al., 2017). This framework guides the empirical investigation by offering a structured lens through which procedural flexibility can be traced in high-rise development governance.

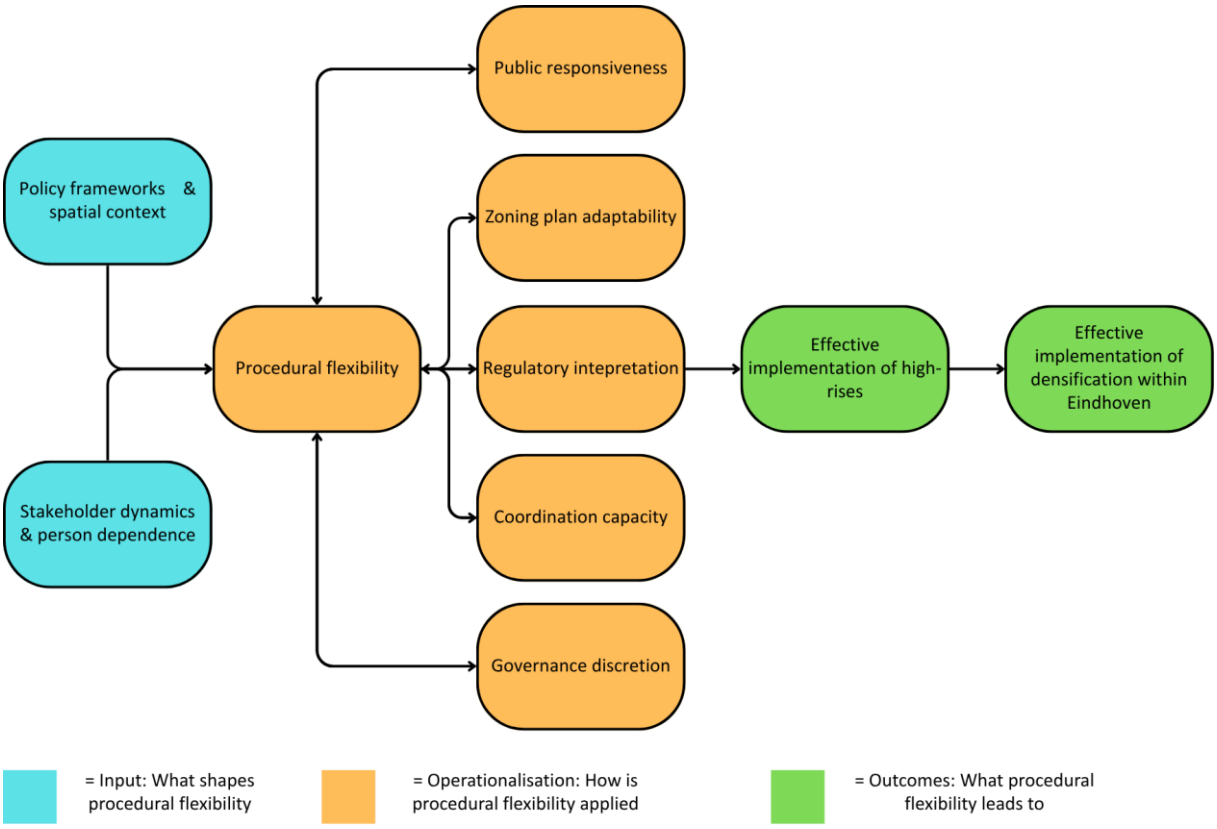

Figure 1: Conceptual Framework

To measure how procedural flexibility supports high-rise implementation in Eindhoven, five key dimensions have been operationalised: public responsiveness, zoning plan adaptability, regulatory interpretation, coordination capacity, and governance discretion. Each dimension captures a distinct aspect of how flexibility manifests in planning practice. These dimensions are translated into observable indicators such as the role of public input, the use of zoning deviations, the interpretive use of policy, internal departmental coordination, and the influence of individual professionals. Data are gathered through semi-structured interviews with municipal professionals and document analysis, which together enable triangulation and contextual understanding. This operationalisation helps to structure the study in a way that aligns with the theoretical concept of procedural flexibility, ensuring analytical consistency across the research.

Concept	Operational definition	Indicators	Source of data
Public responsiveness	The extent to which the municipality can identify and incorporate local resistance and concerns into planning outcomes	Mechanisms for integrating public concerns; strategies for public engagement	Interviews
Zoning plan adaptability	The capacity of the planning system to allow deviations from existing zoning plans to accommodate context-	Ability to deviate from existing land-use plans; presence of flexibility clauses	Interviews, policy documents
Regulatory intepreation	Degree to which policies are interpreted flexibly at project level	The extent to which local planners can interpret or reinterpret planning rules during implementation	Interviews, policy documents
Coordination capacity	The municipality's institutional ability to align different interests and departments in the planning process	Capacity to coordinate between departments and actors	Interviews
Governance discretion	The ability of individual municipal professionals to make or influence decisions independently of strict protocols	Level of decision-making autonomy by professionals	Interviews

Table 3: Operationalisation of procedural flexibility

3. Methodology

The method chapter explains how the research was prepared and carried out. To start with, the main question is formulated again briefly, along with the corresponding sub-questions, in order to answer my research question. Following this, a further explanation of the research tools used to analyse all the content will be provided.

'How can procedural flexibility stimulate the efficient implementation of high-rise buildings in the city centre within Eindhoven?'

1. How flexible is the current zoning and land-use policy in Eindhoven regarding high-rise developments, and how does this influence urban densification strategies?

This question looks at the extent to which Eindhoven's planning tools enable procedural flexibility in high-rise projects. It also looks at how this flexibility facilitates or constrains municipal high-rise efforts.

2. How does the municipality of Eindhoven balance its flexible policies with long-term urban development goals?

This question examines how the municipality strikes a balance between short-term flexibility and the need to maintain consistency with long-term goals, such as sustainability and liveability. And thus, it looks at how flexibility impedes with these goals or not.

3. How does Eindhoven respond to external resistance to high-rise densification?

This question examines how the municipality addresses societal or political resistance when attempting to fulfil densification goals through high-rise development. It investigates if, and how, flexibility is used to modify, negotiate through contested projects.

To find an answer to these questions, a qualitative single-case study method is employed. A case study provides a more in-depth view of a specific subject, and when combined with a qualitative research method that includes semi-structured interviews and policy document analysis, it is a suitable way of finding these answers (Mayring, 2000; Roberts, 2020).

3.1 Research strategy and design

This study uses a qualitative single-case study approach within a qualitative research strategy, with its goal to understand how institutional flexibility, and especially procedural flexibility, shape the municipality of Eindhoven's ability to create efficient high-rise development within its city centre. The primary reason for this approach is the complex nature of the research problem, which encompasses organisational processes, policy frameworks, and spatial planning practices.

The case study approach is particularly well-suited for research on governance processes within a spatial and institutional context. Yin (2018) describes case study research as a scientific study that explores a contemporary phenomenon within its real-life settings, particularly when the lines between the phenomenon and its context are unclear. In this study, the "phenomenon" is procedural flexibility within planning governance, and the "context" is the municipality of Eindhoven's effort to use high-

rise urban development as part of its densification strategy. Instead of using multiple case studies and creating a generalised view, this research aims to develop in-depth insights that could make a better understanding of institutional flexibility in urban governance. Yet, because this is a single-case study, results are not statistically generalisable but provide right, context-specific insights that can inform similar urban government contexts.

This research also employs a qualitative method approach, which is used here for intentional triangulation of different qualitative sources, including semi-structured interviews, literature, and document analysis. As Lim (2024) explains, a qualitative method approach can be especially useful when the researcher wants to gain a deeper understanding of something by collecting different forms of data that reveal various aspects of the research problem. In this context, policy documents such as *Omgevingsvisie Eindhoven* and *Verdichtingsvisie Binnenstad Eindhoven,* as well as other related planning frameworks, provide insights into the municipality's formal and strategic views on densification and high-rise development. In the meantime, interviews with municipal professionals provide insights into institutional experiences, ideas, and especially informal practices that cannot be read in the policy documents.This approach is particularly appropriate for the research objective: not only to assess the flexibility provided by institutional frameworks, but also to understand how flexibility is interpreted, applied, or challenged in practice. Adding to this, it shows the complex nature of institutional flexibility, which exists in both policy design and informal organisational routines. The focus on procedural flexibility also aligns with the empirical design of the research, as interviews were conducted with municipal professionals who are directly involved in these processes. Their practical experience and decision-making insights make this concept especially relevant and observable.

3.2 Research area: Eindhoven city centre

The chosen focus area of this thesis is the city centre of Eindhoven, which serves as both the geographical and institutional hub for high-rise and urban densification goals. This area was chosen for its key importance in the municipality's long-term densification objectives, as well as because of the municipality's strive to accommodate 3,700 new homes in this area (Municipality of Eindhoven, 2020). The city centre is also explicitly defined as an area for vertical densification and mixed-use development, according to the *Verdichtingsvisie (2023)*. High-rise developments in this area are welcomed and seen as vital tools for improving the residential capacity and boosting the urban vibrancy of the city centre (Municipality of Eindhoven, 2023).

The Omgevingsvisie Eindhoven 2040 (2024) emphasises the city centre's strategic importance by outlining a spatial vision for compact, socially inclusive, and sustainable urban expansion. The document identifies the city centre as a key point in the municipality's larger spatial structure, with other planned changes, such as the redevelopment of underutilised locations, densification along the new mobility hubs, and the transformation of current spatial areas to accommodate more residents and functions.

Furthermore, the focus on the city centre of Eindhoven is analytical and helpful for this thesis because it shows the tensions and negotiations between planning visions and the procedural constraints experienced by municipal professionals. It also narrows the scope, allowing for a deeper examination of how institutional flexibility operates in specific zones within a city.

As shown in Figure 2, Eindhoven is divided into seven different districts, with the city centre serving as the heart of the urban structure of the city. This position represents not only its historical and symbolic value but also its practical importance in terms of mobility, economy and culture. Figure 3 divides the centre into three important subzones: the main city centre (yellow), KnoopXL (blue), and the Emmasingelkwadrant (red). These subareas are vital to Eindhoven's densification and high-rise policies, and they are the basis for this thesis. The KnoopXL zone, located around the central station and public transport hub, is envisioned for the future as densely populated, with some high-rise office buildings already in place. A significant vertical expansion is planned to accommodate around 6,500 new homes. The city centre has plans to add 3,700 new homes, as mentioned earlier, primarily through vertical expansion, intensification, and transformation of existing development areas. The main reason for concentrating new high-rise developments in the city centre is the already well-developed infrastructure. There is easy access to the central station, bus lines, and bike paths, as well as access to supermarkets, shops, and more. This level of connection between potential new high-rises and the existing infrastructure makes it an ideal location for these latest developments, which aligns with the spatial policy principles the municipality has formulated (Municipality of Eindhoven, 2024; Municipality of Eindhoven, 2023).

Figure 4 shows the different allowed high-rises typologies in the city centre, as categorised in the Verdichtingsvisie by height classes (M, L, XL, XXL). It demonstrates that the highest levels of high-rise development (XL and XXL) are primarily located in the central areas of the city centre.

Figure 2: The seven different districts within Eindhoven, source: Omgevingsvisie Eindhoven (2024)

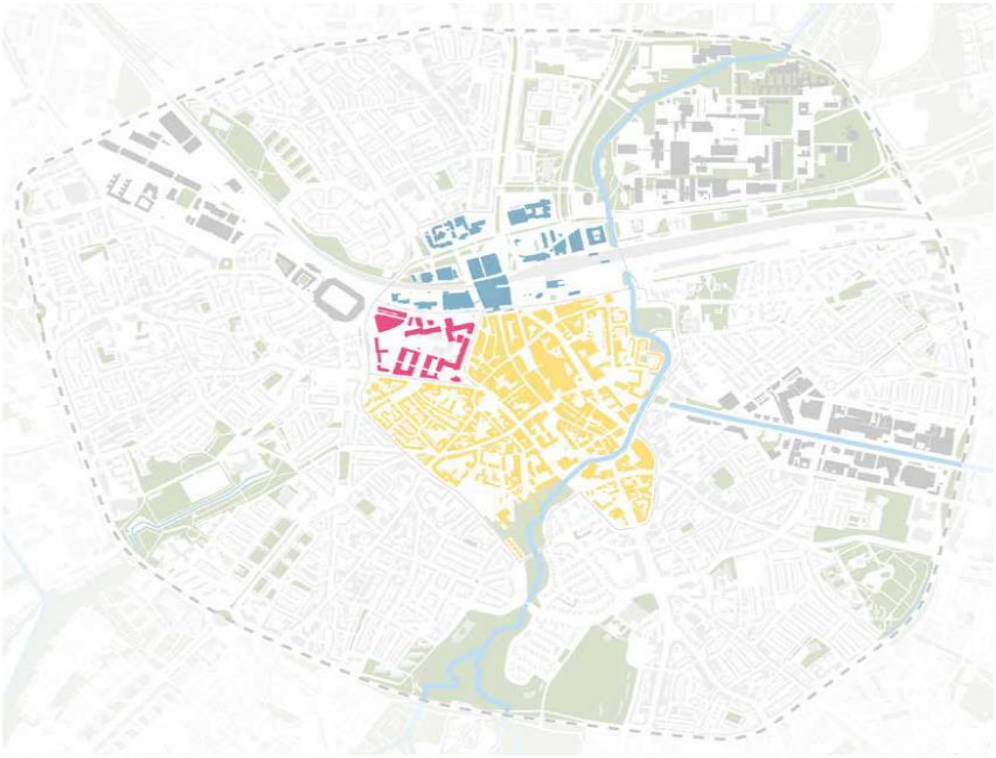

Figure 3: The city centre of Eindhoven divided in three areas, source: Verdichtingsvisie Binnenstad Eindhoven (2023)

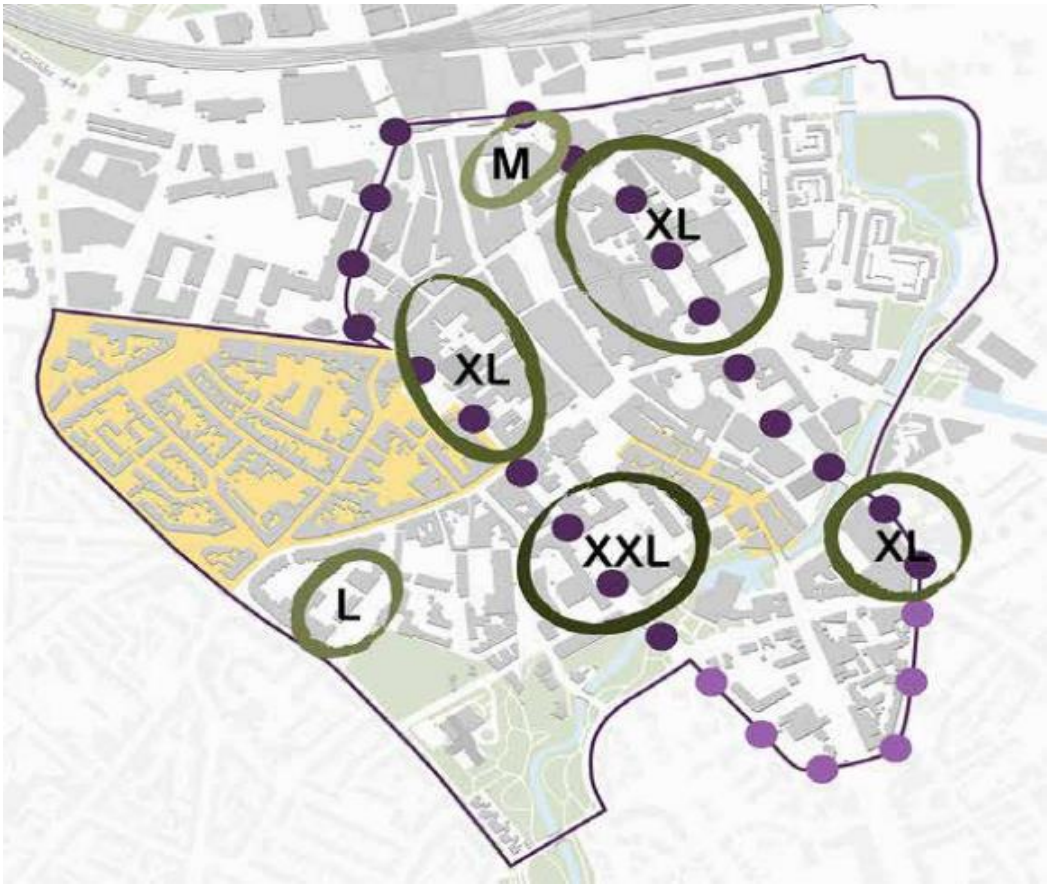

Figure 4: The different allowed high-rises typologies in the city centre, source: Verdichtingsvisie Binnenstad Eindhoven (2023)

3.3 Research materials

This research will rely on multiple data and sources to guarantee a comprehensive and triangulated approach. Firstly, the documents analysed are municipal documents and literature on institutional flexibility and urban densification in combination with high-rise buildings (Mayring, 2000). This is done to identify the existing gaps and find recurring themes that are related to high-rise buildings and institutional flexibility (Mayring, 2000; Bowen, 2009). By analysing these frameworks and policies, it becomes clear how the municipality sees high-rise developments and tries to be flexible in the implementation of these developments. Furthermore, these documents make sure that the research is politically relevant as well as theoretically supported (Bryman, 2016; Shackleton et al., 2022).

After that came the semi-structured interviews. For the interviews, different stakeholders were interviewed. These included various municipal professionals, such as urban planners, spatial planners, and individuals from the social sector. For these semi-structured interviews, interview guides were made and the participants were interviewed in person or online, and this all is transcribed to analyse (Shackleton et al., 2022). The questions concern their views on institutional flexibility in relation to the implementation of high-rise developments. By conducting interviews, the perspectives of different fields within the municipality on high-rises and their implementation are captured (Roberts, 2020). Additionally, this method provides new and unexplored insights that could be valuable to investigate. The themes of the interviews vary depending on the type of participant, but cover subjects such as municipal flexibility, the implementation of high-rise buildings within Eindhoven, their feasibility, and internal collaboration. Because Eindhoven is the central point of this research, the city itself functions as the only case study. The approach makes an in-depth analysis of procedural flexibility influencing high-rise implementation within the city centre of Eindhoven (Hunziker & Blankenagel, 2021). By laying the focus on only Eindhoven, the research offers a thorough, context-specified analysis of the city's governance structures, regulatory frameworks, and planning strategies that influence the city's high-rise development initiatives.

The overall case study method is beneficial as it provides a detailed understanding of complex spatial dynamics (Yin, 2018). This method proved valuable in gathering qualitative data.

3.4 Data collection method

This research combines three complementary qualitative data collection methods: desk research, document analysis, and semi-structured interviews. These methods were chosen to develop a deeper understanding of how procedural flexibility is implemented within the municipality of Eindhoven. The use of different sources allows for triangulation, which increases the validity of the research by comparing formal planning norms and procedures with practical experiences and interpretations (Bowen, 2009).

First, desk research was conducted to gain a better understanding of the subject and to examine scholars' perspectives on procedural flexibility in conjunction with high-rise development. This

information can be found in the theoretical framework, which forms the baseline of knowledge for this research subject.

Secondly, the policy document analysis was done. This formed the first addition to the baseline of information for this research. It was done to examine how institutional and procedural flexibility is seen within the planning frameworks of the municipality. These documents include thematic densification strategies (*Verdichtingsvisie Binnenstad*), strategic visions (*Omgevingsvisie Eindhoven 2040*), zoning plans, and urban design guidelines. Furthermore, the document analysis identifies the presence (or absence) of flexibility within formal policies, which helps find potential gaps and thus is used in the interviews to find out why the presence or absence exists. Adding to this, for this research, only information and data about institutional and procedural flexibility, high-rises, and urban densification are used. This is to limit the broadness of the study and to support data coming from semi-structured interviews.

Additionally, to complement the policy document analysis, several semi-structured interviews were conducted with individuals from the municipality of Eindhoven to validate or disprove the data found in the literature and policy documents. The interviews were designed to show how different municipal workers interpret and execute flexibility in high-rise planning procedures. Using semi-structured interviews as a method is appropriate because they capture the interpretative meaning, hidden knowledge that is not found in literature or policy documents, and how real-life institutional realities are perceived. A semi-structured approach seems fitting for this research because it falls between a fully structured interview, which is more helpful in gathering quantitative data, and a completely unstructured interview (DiCicco-Bloom & Crabtree, 2006). Although the process from contacting respondents to thematically coding the data is intensive, conducting these semi-structured interviews is crucial for this research because it provides valuable insights and utilises open-ended questioning, which leads to the discovery of new information. Another benefit of interviews is that the questions can be prepared well, which leads the conversation, but there is room at the same time to allow the respondent to express their personal views in their own way. This allows the researcher to investigate the predefined themes while staying open to unexplored or unexpected findings. The interviews are guided by a topic list based on the earlier found literature and data from policy documents.

	Topic	Relevance to the study
1	Role and involvement in urban development	Clarifies respondent's perspective and supports analysis of person-dependence
2	Municipal ambitions and strategic vision	Examines alignment between policy ambition and implementation
3	Flexibility in practice: definitions and perceptions	Builds understanding of procedural flexibility as perceived by respondents
4	Planning instruments and deviation	Reveals how informal and formal tools enable adaoption
5	Intake phase	Assesses how early-stage evaluations influence project flexibility
6	Internal coordination	Identifies interdepartmental negotiation and planning alignment
7	Constraints	Identifies structural limitations to flexible governance
8	Discretion and interpretation	Highlights how decisions are adapted to specific project needs
9	Developer and external actor relations	Provides insights into negotiation with external stakeholders
10	Challenges, trade-offs and learning	Captures tensions between feasibility, ambition and formal policy
11	Reflections and improvements	Gathers recommendations and assesses learning capacity

Table 4: Topic list

Eight interviews were conducted within the municipality of Eindhoven with various municipal professionals working in the spatial planning area. Respondents were chosen based on their involvement in spatial planning processes, high-rise developments, urban densification matters, policy coordination, and participation within the municipality. These candidates were initially identified through purposive sampling, with a focus on spatial planning or urban development. After conducting some interviews, snowball sampling was used to identify individuals who were also relevant to the study due to their knowledge or involvement in institutional flexibility or high-rise development. All interviews lasted between thirty and sixty 30 minutes and were audio recorded, with the participants' consent, to facilitate thematic coding. A table with a list of the respondents, their function within the municipality and the quotes from the interviews that are used in the results can be found in appendix 1.

3.5 Data analysis methods

The analysis of this research will employ a qualitative, inductive approach, developed to identify recurring patterns, themes, or meanings in both the interview transcripts and the municipal policy documents. Ngulube (2015) suggests that this exploratory research method, which focuses on institutional and procedural flexibility, allows for more analytical depth while still paying attention to contextual complexity.

For the interviews, as well as the policy documents, thematic coding will be employed using the six-step method outlined by Williams and Moser (2019). This method is ideal for capturing how municipal actors understand, negotiate or apply flexibility within the context of high-rise development. For the policy documents, this approach reveals how flexibility is incorporated into official documents written by the municipality of Eindhoven. An important note is that the interviews and the policy documents will be codes separate. Documents analysis is compared to the interview results to create triangulation between different data sources and discover consistencies, inconsistencies or gaps between planning instruments and actual institutional experiences (Bowen, 2009). Triangulation enables cross-validation between formal regulatory frameworks and planners' real-world experiences. The coding is performed using coding software to ensure accuracy and to facilitate the careful handling of personal data.
The process contains the following steps:

1. Understanding

All interviews will be fully transcribed and read multiple times to make sure all data is understood correctly.

2. Initial coding

A first round of coding will be done to label concepts, statements and recurring patterns. This includes deductive codes like "flexibility'' or '' coordination" and inductive codes that come from the data itself.

3. Development of themes

This process groups codes into broader group themes that represent common institutional frameworks or behaviours.

4. Theme refinement

Themes will be refined throughout the dataset to maintain internal consistency and empirical foundation

5. Narrative construction

The different themes are interpreted in relation to the theoretical concepts of institutional and procedural flexibility, as well as theories from the literature. They are connected to specific Eindhoven cases and planning procedures.

6. Validation

Themes and conclusions are discussed with respondents (if necessary) to establish credibility.

The different themes were interpreted repeatedly by comparing responses from various interviews and contrasting them with different policy documents to identify contradictions or informal interpretations. To get a clear overview of all the different themes and codes, a visualisation has been made in the form of a code tree, as shown on the next page in Figure 5. This is structured by organising all codes under five themes, all in line with the main theme: institutional flexibility in high-rise

implementation. The subthemes are public acceptance and participation, internal governance and coordination, procedural flexibility, policy and regulatory frameworks, and implementation and feasibility. Each subtheme then has distinct codes derived from the semi-structured interviews and document analysis.

Figure 5: Code tree

3.6 Ethical consideration

Because of this research qualitative method and its dependence on interviews with municipal professionals who are involved in municipal governance and the urban development of Eindhoven, it is crucial to pay attention to the ethical considerations, the privacy of respondents, and informed consent during the whole research period. While this research topic does not require personal data such as age, race, gender, etc, there is essential data about institutional dynamics, political concerns or hierarchies within the municipality, and this must be addressed carefully.

All interviewees were approached by email, which contained a clear description of the research objective, a question inviting them to participate voluntarily, and information stating that these interviews would remain anonymous to ensure confidentiality. Before the interview, consent was obtained to record the interview for the purpose of transcribing and coding, and to ensure confidentiality, names, job titles, and other identifiable data were generalised or deleted during transcription or data display. For example, respondents will be described generally as “municipal planners” or “spatial planners”. When quotations from respondents are used in this thesis, it is ensured that these quotes cannot be traced back to specific individuals due to the sensitive political or institutional contexts. Because of this, the research will follow the principle of fair and objective presentation of data that does not hurt respondents. Participants have the opportunity to, at any time, review the interpretations and presented data in the thesis before it is handed in. Furthermore, all data and interviews are securely stored on a password-protected device and will only be accessible to the research conductor. Transcripts and recordings will be deleted after completion of the study as part of privacy and data protection.

To assure validity, this study employed methodological triangulation, which combined semi-structured interviews with document analysis. Validity refers to the extent to which a study accurately captures its intended focus (Andersson et al., 2024). Interview questions were directly based on the conceptual framework and addressed topics such as regulatory interpretation and coordination capacity. By analysing municipal documents, cross-checking was done, improving the trustworthiness of the findings.

Structured coding and consistent analysis improved reliability. Reliability refers to the consistency of results under similar conditions (Andersson et al., 2024). All interviews were coded using a predefined coding scheme based on the operationalisation table and conceptual model. Interviews with professionals from various departments yielded a large yet consistent dataset, indicating that the results are reproducible.

Finally, the form of ethical approval and research ethics is based on the European Code of Conduct for Research Integrity (Allea, 2023), in combination with the general interview guidelines (DiCicco-Bloom & Crabtree, 2006).

4. Results

4.1 Urgency of densification and high-rise development in Eindhoven

In recent years, Eindhoven has experienced a substantial urban and demographic transition. Housing demand has reached new heights, driven by the geographical expansion of the large companies ASML, and the Brainport region. Several respondents stated that this pressure is not temporary but rather structural. Respondent 8 emphasised that “we are talking about 40,000 new homes until 2040, and we do not have any more expansion areas.” This shows a general understanding among municipal workers that densification is not an optional plan but a spatial necessity.

This necessity is not only driven by demographic challenges but also by policies. Eindhoven’s planning documents, such as the *Omgevingsvisie and the Verdichting Binnenstad*, express a clear desire to keep development inside the existing urban boundary. The emphasis is on minimising additional sprawl and protecting adjacent landscapes while still allowing the city to grow in population and functions. As respondent 3 mentioned: “Densification is the a logical solution because you can’t build outward anymore. So yes, we are pushed upward.” This captures the general consensus that high-rise development, has become an essential component of Eindhoven’s urban strategy.

Several respondents noted that this growth is not consistent across all categories. There is an even demand to accommodate students, low-income families and expats working for the big tech companies. “We are dealing with completely different groups” respondent 2 noted, “But they all need an equal housing chance, and they all want to live centrally.” The city centre, specifically surrounding the railway station and inner ring, is seen as the ideal location to accommodate this need, as mentioned by respondent 3: “We have specific nodes that are suitable for height. At the Hoogwaardig Openbaar Vervoer (HOV) corridors and the centre, it is more logical to build upward there.” This confirms the awareness of the housing need within Eindhoven.

Eindhoven current urban fabric must accommodate the increase of homes without compromising liveability. “We can’t just place towers anywhere.” Respondent 2 said, “The context has to support it; infrastructure, green space, light, that all matters.” This reveals an apparent conflict between the drive to build and the quality demands it must meet, further complicated by limited physical space.

As a result, high-rise development is viewed as a tool for strategic spatial organisation rather than simply a building typology. It is both a solution to housing shortage and a method of integrating urban functions into walkable and accessible places. Respondent 1 acknowledged this double role: “A tower is not just a pile of houses, it has to carry a lot of programmatic weight like shops, amenities and social spaces, or it becomes an isolated block.” This highlights how municipal actors in Eindhoven understand high-rises not only as residential solutions, but as complex urban nodes that must contribute to the vibrancy and functionality of the surrounding area.

4.2 The practice of procedural flexibility

As densification pressures rise, Eindhoven's capacity to handle complicated planning demands has become increasingly reliant on procedural flexibility. The interviews with the municipal professionals demonstrate a continuous pattern in which they break from inflexible policy frameworks not through structural transformation but through adaptable practices built into planning procedures.

Respondents regard flexibility as a need and an enabler in today's high-rise development challenges. One of the most visible examples of procedural flexibility occurs during the intake phase, which is an early-stage evaluation procedure that functions as a starting point for new initiatives. Multiple respondents emphasised the importance of flexibility at this stage, as established policy goals typically clash with practical realities like site limitations, developer expectations or market conditions. "We almost always have to deviate from something", respondent 8 stated, who works at the intake process. "The green policy, affordability targets, the sunlight standards, no project fits all these boxes." Rather than seeing such anomalies as reasons for refusal, the municipality seeks to use the intake process to discuss trade-offs, prioritise goals, and allow for deviation through formal or informal changes.

"The only lasting thing is change" – Respondent 5

These changes occur in two main ways. First, through formal deviation procedures, such as zoning exceptions or legislative reinterpretations. Followed by informal negotiations based on mutual understanding between departments or with external companies. Respondents were also reflective towards a pragmatic approach to interpreting established standards: "Sometimes the rule is the starting point, sometimes it is the end point". Rather than implementing norms universally, municipal professionals are encouraged to defend variations through internal reports or argumentation memos, thus incorporating flexibility into procedural documentation.

However, this negotiated flexibility does not only happen internally. It is influenced by the legal framework under which municipal planning occurs. Several respondents emphasised how the national context, which includes the Dutch *Omgevingswet* (Environment and Planning Act) and jurisprudence from the *Raad van State* (Council of State*)*, limits the extent of possible flexibility. "You have to be careful; if you give someone 10 extra metres of height, you have to show it is legally defensible" respondent 6 noted. As a result, procedural flexibility within Eindhoven is as much about legal risk management and spatial optimisation.

The interview data also shows a fragmented but functional application of flexibility across several policy domains. For example, some departments have strict interpretations of their tasks, whilst others are more used to compromises. This difference is sometimes seen as problematic, respondent 7 stated; "It depends much on who you talk to; some departments are rigid, others are pragmatic". Such statements underline the contradiction between flexibility as an institutional ideal and as a personal practice.

"People often ask me how often we need to deviate from policy. Always." – Respondent 8

The level of effectiveness of procedural flexibility depends on the timing within the planning process. Respondents consistently stated that flexibility is most effective in the early phases when frameworks are still changeable and stakes are lower. "Once a plan is out for participation, it is hard to change," respondent 3 said. As a result, early alignment becomes critical for permitting flexible solutions without crossing legal or political boundaries later in the process.

Yet, this model of implemented flexibility raises concerns regarding openness and predictability. While some respondents justified the existing system as "efficient" and "realistic," others expressed concerns about legal uncertainty and changing expectations for developers. Respondent 1 made the observation: "Sometimes a project has to go back three times just to clarify which ambitions still count."
Nevertheless, the Eindhoven case study demonstrates that, while imperfect, procedural flexibility has become a fundamental operational concept, particularly in the context of high-rise development. Rather than imposing inflexible standards, the municipality employs a tiered set of objectives that are variably activated or loosened based on project feasibility and policy alignment. As respondent 1 stated: "It is not that we don't have rules; we have too many. So we pick one to follow and explain the rest." This pragmatic approach does not reduce the relevance of policy but instead emphasises the growing need for institutional systems that can adapt within policy frameworks rather than around them.

This paragraph shows that procedural flexibility within Eindhoven functions less as an institutional tool and more as a pragmatic governance culture that navigates the complexity of urban transformation through timing, coordination, and professional judgement. The following paragraph will show how this procedural flexibility appears through specific structures like the intake procedure and internal coordination.

4.3 The role of intake procedures and internal coordination

4.3.1 The intake procedures

One of the most interesting and unexpected outcomes from the interviews was the importance of the intake phase in enabling procedural flexibility. Although not initially selected as a primary research focus or included in the conceptual model, respondents consistently referred to the intake moment as a critical space where negotiation, alignment, and early adaptation occur. This highlights its importance as a practical tool in the planning process, allowing the municipality to respond flexibly to spatial and institutional challenges.

The intake process, described by respondents as the first filter, is critical in balancing Eindhoven's strategic goals with the realities of high-rise development. It serves as a crucial point in institutional interpretation: the place where spatial objectives, legal frameworks, and project-specific restrictions are evaluated in relation to one another. As respondent 8 stated: "The intake is where we translate

the ambitions into something we can actually build." Respondent 8 also emphasised that the intake table, which includes experts from various domains, facilitates the early detection of policy conflicts: "Within 10 minutes, we know if it fits or not, and if not, what can be moved or dropped."
This process's strategic importance comes from its capacity to balance different layers of policy, ranging from national legislation like the *Omgevingswet* to internal frameworks such as the *Verdichtingsvisie and the Ontwikkelperspectief Eindhoven (OPE)*. Multiple respondents defined the intake phase as the point at which different layers are reviewed to determine if they meet the project proposal requirements: "It is where we see what is feasible spatially and politically" according to respondent 3.

The intake procedure also functions as a checkpoint. While formal political approval occurs in a later stage of a development process, different respondents stated that internal conversations at an early stage can help recognise possible political arguments against developments. Respondent 5 stated: "If a tower is too high, or if there is no parking included, it is flagged early." In this way, the intake serves as a form of internal anticipatory governance, where potential challenges are resolved before they intensify.

However, this method has limitations. The effectiveness of intake meetings is mainly tied to the presence of experienced and well-connected individuals who can interpret policy, negotiate with external companies, and clearly explain expectations. "If you only have people who just follow the rules by the book, then I don't think you'll get anywhere", respondent 3 noted, emphasising how much the intake procedure relies on individuals. This results in a high level of personal dependency, which adds variability to the planning process. If key personnel leave and change roles, institutional knowledge and project continuity might suffer.

Furthermore, because the intake is primarily reliant on interpretive discretion, specific goals risk being deprioritised systematically, particularly those which are difficult to quantify or enforce, like design quality or social cohesion, this raises the possibility of a biased implementation of planning objectives, with more "negotiable" ambitions being abandoned more easily than politically sensitive ones.

4.3.2 Internal coordination

Besides the intake moment, internal coordination dynamics have a considerable impact on the flexibility of Eindhoven's planning process. Respondents generally referred to the intake phase, the *Team Integrale Ruimtelijke Advisering* (TIRA) and general meetings as periods at which interdepartmental collaboration becomes apparent, both as an opportunity and a source of disagreement. Respondent 8 stated: "Everyone is at the table: mobility, sustainability, urban planning, green space, sometimes even the legal department." This showcases the multidimensional discussion that has the potential to result in alignment but also shows the opposing agendas and underlying policy contradictions.
For example, some respondents mentioned ongoing disagreements between different departments considering the use of rooftops, with multiple options such as solar panels, vegetation or shared terraces. Without a systematic prioritisation framework, these discussions are left to informal

negotiations. While this promotes responsiveness, it could also result in inconsistencies, unclear outcomes and delay in development.

To address these tensions, Eindhoven has increasingly incorporated project leads into the planning process. These professionals assist in determining if a project not only meets specific policies but also is in line with the municipality's overall spatial vision. These jobs can help stabilise the process, but they also raise questions about person-dependence. "A good project lead makes all the difference, but when they change their role or leave, the whole trajectory can shift", respondent 5 noted.

These dynamics highlight both the strengths and weaknesses of the Eindhoven coordination model. On the one hand, it promotes integrative thinking and practical decision-making. On the other hand, it is prone to inconsistency and the lack of formalised aspiration hierarchies. Without a clear structure for addressing these internal silos, the efficacy of interdepartmental collaboration remains dependent on informal agreements, timing, and individual discretion.

4.4 Spatial differentiation: strategic and location-based flexibility

A topic that frequently arose in the interviews is that institutional flexibility in Eindhoven is not implemented uniformly throughout the city, but rather differs significantly depending on the spatial context. The variation in spatial distribution of implementation and policy design reveals a strategic logic: flexibility is focused where urban growth is most desirable or politically acceptable, and it is restrained where existing conditions or sensitivities necessitate cautiousness. In this light, flexibility becomes a geographic instrument of urban governance rather than only a procedural quality.

Multiple respondents identified the *Verdichtingsvisie Binnenstad Eindhoven* as a critical policy framework that defines zones of preferred densification, mainly along high-capacity transit lines and around the city centre. Respondent 3 said: "We have specific nodes that are suitable for height. At the HOV corridors and the centre, it is more logical to build upward there." These places are chosen not just for their spatial possibilities but also for their infrastructural and symbolic importance.

However, this strategic classification imposes limitations on flexibility. Projects that are located inside the defined zones are more likely to be granted exemptions or flexibility in policy interpretations that allow for higher-density or taller structures. "If you build in the right place, you can expect more flexibility because you are supporting the spatial structure," respondent 1 noted. On the other hand, projects outside of these zones must comply with stricter standards, particularly those regarding height, sunlight, traffic, and landscape integration, because they are not considered densification zones and thus receive more resistance.

Respondents also indicated how area-specific planning documents, such as the OPE or other urban design frameworks, might be used to fine-tune flexibility. These plans frequently have a tiered set of ambitions that are selectively prioritised depending on the area. In high-priority areas, such documents allow for some flexibility. "For example, we left space for the plinth function of public space contribution," respondent 1 noted.

4.5 External collaboration and developer relations

While institutional flexibility is mainly determined by the municipality, its efficiency is also dependent on the connection between the public and private sectors. The interviews show a mixed relationship between project developers and the municipality. Although respondents acknowledged the need to work with developers to achieve high-rise densification goals, they also identified substantial obstacles in aligning public needs with developers' motivations. In this way, flexibility is not only a tool for governance, but it also bridges the gap between institutional aspirations and market realities.

"The hardest discussions we have are those with what we call the cowboys from the west" – Respondent 8

Interviews showed that the degree of collaboration varies greatly depending on the developer's familiarity with Eindhoven's long-term ambitions and planning culture. There was a distinction made between two types of developers: the ones that are familiar with the municipality and have a long-term interest in working together with the city and those who were described by respondent 8 as "the cowboys from the west", meaning that they bought a piece of land and are purely here to "make a big, short-term profit with a program that is far from realistic."

This variable has a substantial impact on how flexibility is used. With trusted partners, respondents said that the municipality is more willing to consider flexibility if this contributes to shared goals. "We know most developers, and they know they have to come to us," the same respondent 8 said, referring to the history of collaboration they have. On the contrary, relationships with the unknown "cowboys" are most likely to end in a legal procedure due to the lack of understanding of each other.

The response of the municipality to these challenges has been a mix of process standardisation and greater professionalism. Respondents indicated efforts to formalise goals through stronger development guidelines, improved coordination mechanisms, like the intake process, and a tight internal alignment before negotiations or conversations with developers.

Despite the tensions, respondents agreed that collaboration is critical, not just for completing specific high-rise projects but also for achieving larger urban development goals in the long term. High-rise development in Eindhoven is increasingly viewed as a process with multiple actors, in which the municipality must coordinate, govern, and even compromise at times.

4.6 Effective implementation of high-rise developments

While Eindhoven's policy aspirations for high-rise development are clearly defined in frameworks such as the *Verdichtingsvisie Binnenstad and the OPE*, the real challenge is to put these ambitions into practice. Throughout the interviews, respondents emphasised that implementation involves more than just bringing a vision into reality; it is also about maintaining cohesion, quality, and pace in a sometimes divided and inflexible planning process. Respondent 3 said: "Because if everyone sticks to their own policy field, then it can be quite difficult."

A theme that came forward from the interviews is the significance of parallel procedural coordination. Instead of managing the planning, zoning or design stages separately, the municipality tries to

synchronise them. Respondent 2 stated: “We are now working on making certain processes parallel.” This operational shift can help to eliminate delays and time waste, especially in inner-city development, where new developments are being developed next to each other. Yet, not all respondents agreed with this, referring to the still not streamlined collaboration between different departments.

Respondents also identified continued concerns with the energy department’s preparedness as a challenge. While high-rise developments are spatially efficient, they necessitate significant investments in utilities, public space and energy networks. “I believe energy will still be a topic of discussion. How are you going to get all of those towers on the energy net?” respondent 3 wondered. Without early planning, high-rise plans may be scaled back or postponed due to practical restrictions. In terms of internal governance, implementation effectiveness is highly related to project leadership and clear instructions. Several respondents expressed concern about the fragmented duties and a lack of clear responsibility over project timelines. As Respondent 5 put it: “In my opinion, it should be more clear that a project leader decides because he has a central role. However, now it is still unclear what the project leader is responsible for.” Without formalised decision-making responsibilities, flexibility can turn into uncertainty, minimising consistency in how decisions are being carried out.

Finally, in conclusion, creating clear area frameworks at the beginning of a process can ensure better implementation by making it clear at the front end of the project what is possible, thereby preventing discussions at an early stage: "What also helps is that with the area frameworks, which we are making now, you can also clearly indicate in advance whether we have places for high-rise buildings or not. And then when you start forming a plan, that discussion has already taken place", respondent 3 said. With the prevention of possible discussion points, projects could be developed more quickly.

To summarise, the interviews and document analysis demonstrate that implementation is more than just a technical process; it is a governance practice that depends on capacity, dedication and clarity at all levels of the municipal organisation.

4.7 Comparisons and differences from results

Despite the variety in roles, departments, and responsibilities covered in the interviews, respondents shared a strong agreement on some key aspects of high-rise development and the use of institutional flexibility in Eindhoven. At the same time, clear differences in interpretation and operational experience occurred. Together, these similarities, and differences shed light on the internal functioning of Eindhoven’s planning system and its strategy to urban densification via high-rise buildings.

In almost every interview, respondents acknowledged that flexibility is both necessary and unavoidable in the context of complex urban transformation. Whether discussing policy coordination, project management or strategic vision, there was a widespread agreement that inflexible frameworks are insufficient to manage the complex and frequently contradictory needs associated with high-rise development. One reply by respondent 6 clearly expressed this view: “So in my opinion, you always need that flexibility.” And according to the *Verdichtingsvisie Binnenstad Eindhoven* “In the three centre

areas, there is densification that is driven and regulated in different ways." This shared understanding demonstrates a community realisation that, when managed appropriately, flexibility is a tool for coping with uncertainty, negotiation and spatial limits, rather than a weakness.

A second area of agreement was the importance of the intake method as a governance instrument. Respondents from different departments identified the intake as the institutional place where ambitions are converted into project realities, and early-stage cooperation helps in the prediction of future issues. "If we agree that an intake table already makes certain choices very much at the beginning, then that should be guiding in the future," said respondent 4. Regardless of how different teams use or interpret the intake, all respondents felt that it is critical for controlling both internal alignment and the interaction with developers.

However, considerable differences in perspective arose within this overarching consensus, often related to departmental function of position in the planning process. A significant difference between strategic actors and operational implementers. These strategic actors typically viewed flexibility through the lens of spatial quality and coherence with deeper goals. Implementers frequently highlighted the tension between ambition and feasibility. These differences reveal a disconnect between spatial aim and technical implementation, which continues to hinder effective project completion.

Another difference evolved between subject specialists and project leaders. Thematic specialists raised worries that flexibility, when not supported by enforceable policy or explicit ambition hierarchy, frequently results in the degradation of environmental or societal objectives. Several respondents stated that goals such as green roofs or shared mobility hubs are the first to be sacrificed during negotiations. "It should not be the case that with every project, the same ambitions are lowered. It cannot happen that energy or green roofs are ignored," respondent 1 said. Project managers, by contrast, emphasised the importance of balancing these objectives with what is economically or spatially possible, arguing that rigorous enforcement without contextual flexibility would result in stagnations or pushback from developers.

A further accepted viewpoint, though with different interpretations, was the realisation of person-dependence during the planning phase. Some respondents emphasised the need of experienced personnel in managing difficulties and coordinating departments. Respondent 5 said: "A project really depends on the project leader, and how he coordinates a project." While some regarded this as a strength, others saw it as a weakness, warning that outcomes may alter radically if key persons changed due to a lack of procedural standardisation or institutional memory.

Finally, views on developer engagement differed. While many respondents agreed that solid connections with developers are necessary for implementation, their perceptions of trust and mutual respect differed. Some viewed developers as being more aligned with city goals and receptive to municipal frameworks. Others expressed frustration with inconsistent commitment, particularly in

circumstances where local flexibility was not, or minimally met: " The hardest discussions we have are those with, what we call the cowboys from the west. Who just buy a piece of land and want to make money on it very quickly by trying to get a ridiculous program on it", respondent 8 said. This difference reflects border conflicts in public-private collaboration, in which discretion and negotiation must be weighed against responsibility and outcome guarantee.

In short, the interviews demonstrated a broad consensus among municipal actors about the significance of flexibility, collaboration, and adaptive tools in high-rise development. However, there are significant differences in how these concepts are used, prioritised, and interpreted within this framework. These differences are not necessarily bad; they reflect the complex nature of urban planning. But they do highlight the importance of ongoing internal and external discussions, person-dependence and institutional strategy to ensure consistency and accountability across the lifecycle of high-rise developments.

4.8 Summary of key results

Theme	Key findings	Main challenges	Key actors/mechanisms
4.1 Urban urgency & densification logic	High-rise seen as spatial necessity due to economic/demographic growth. Central locations prioritised.	Limited space, liveability tensions, and quality control.	Strategic policy documents (Omgevingsvisie, etc.)
4.2 Procedural flexibility in practice	Flexibility embedded in practice, especially during intake phase; driven by negotiation and discretion.	Legal constraints, uneven application, unpredictable outcomes.	Intake table, internal memos, informal routines
4.3 Intake & internal coordination	Intake process critical for early alignment and conflict detection. Coordination via TIRA/project leads.	High person-dependence, fragmented responsibilities, no clear ambition hierarchy.	Project leaders, TIRA, departmental teams
4.4 Spatial differentiation	Flexibility is geographically strategic, more allowed in central/transit areas.	Uneven standards across the city, risk of reinforcing inequalities.	Verdichtingsvisie, OPE
4.5 External collaboration	Trusted developers receive more flexibility; newcomers could face more resistance.	Tensions in expectations, legal risks, "cowboys from the west."	Developers, municipality, negotiation culture
4.6 Implementation	Success depends on leadership, parallel procedures, early frameworks.	Energy or infrastructure issues, unclear responsibilities, inconsistent follow-through.	Area frameworks, parallel coordination

Table 5 Summary of key findings

5. Discussion

The previous chapter contained the empirical findings of this thesis, describing how institutional flexibility presents itself in the planning and implementation of high-rise buildings in Eindhoven's city centre. Interviews with municipal specialists and the analysis of policy documents showcased a multifaceted picture of a governance model that is adaptable, negotiation-driven, and based on formal and informal coordination. This chapter evaluates those findings by answering the research sub-questions and main research question.

5.1 Research questions

5.1.1 How flexible is the current zoning and land-use policy in Eindhoven regarding high-rise developments, and how does this influence urban densification strategies?

The findings show that Eindhoven's existing zoning and land-use regulation framework has little structural flexibility, but this inflexibility is mitigated by a well-established culture of procedural flexibility. Zoning plans and policy documents such as the *Verdichtingsvisie Binnenstad Eindhoven* and the *Omgevingsvisie* set spatial boundaries for where high-rise developments can be concentrated. The emphasis on high-rise developments in the city centre is in line with the compact city plan, which seeks to concentrate housing, infrastructure and features to reduce car reliance and improve liveability (Bibri et al., 2020). The respondents' emphasis on existing infrastructure and centrality demonstrates how the municipality applies this model in their spatial strategy. These areas within the city centre are often defined around public transport and existing facilities, following the logic of the compact city plan (Broitman & Koomen, 2020). Yet, within these spatial boundaries, the implementation of rules frequently becomes context-dependent, with each instance negotiated on a case-by-case basis.

Respondents repeatedly described zoning restrictions as too rigid or layered to meet the spatial requirements of high-rise development. These limits result in a strong dependence on policy deviations and interpretation discretion. Most of the flexibility comes from how the zoning plans are interpreted during intake meetings, internal policy discussion or legal examinations, rather than the plans themselves. This procedural strategy is enabled by internal coordination organisations such as the TIRA team and the intake table, which serve as platforms for determining where zoning or policy changes are required and can be justified. Flexibility is inherent in the interpretive and advising procedures rather than the formal legal tools. This is consistent with the findings of Feiertag and Schoppengerd (2023), who state that zoning in European cities is increasingly reinforced by soft mechanisms to allow for personalised planning solutions without the need for thorough rezoning.

Nonetheless, relying on procedural solutions causes legal and practical uncertainty. Several respondents noted that deviations from zoning plans are frequently legally risky if not well-motivated. Adding to this, the municipal organisation lacks a consistent framework for prioritising goals that clash, such as affordability, sustainability, spatial quality, and density. This leads to as hoc negotiation practices that, while effective in some circumstances, do not provide consistency or transparency across the organisation.

The impact of the procedural model on densification strategies is two-faced. On the one hand, it allows the municipality to build high-rise developments in strategic locations, despite regulatory constraints. One the other hand, a lack of structural flexibility and policy prioritisation can generate project delays, conflict with externals, and damage long-term spatial objectives. While zoning establishes the formal spatial logic for where to densify, procedural flexibility, not zoning, determines if and how densification may be implemented in practice.

As a result, Eindhoven's existing land-use and zoning system cannot be characterised as fundamentally flexible in a legal-instrumental sense, but rather as operationally flexible through internal procedures and negotiated interpretation. This confirms the central role of procedural flexibility, as defined by Tasan-Kok (2008) and Gielen and Tasan-Kok (2010), but it also implies that without additional institutional incorporation, such as adaptive zoning overlays or prioritisation tools, this flexibility is vulnerable to debate and inconsistency.

5.1.2 How does the municipality of Eindhoven balance its flexible policies with long-term urban development goals?

The findings suggest that Eindhoven tries to strike a compromise between flexible planning techniques and long-term urban goals by including flexibility into a strategic planning vision while also depending on project-based negotiation to respond to changing limitations. This process of balancing is facilitated by institutional routines like the intake procedure, policy interpretation and internal advisory coordination, rather than deliberate structural transformation or adaptive feedback loops. As a result, long-term goals and short-term flexibility frequently coexist in a planning environment in which flexibility is not opposed to strategy, but rather serves as an operational mechanism.

Several respondents stated that Eindhoven's urban development goals are articulated through visions like the *Verdichtingsvisie Binnenstad*, the *Omgevingsvisie*, and *OPE*. Yet, respondents viewed these ideals as open-ended, interpretable, and non-binding. This uncertainty reflects what Albrechts (2013) states in his view on strategic planning, in which long-term visions act more as frameworks for negotiation on short-term than fixed blueprints for action. This confirms the dual role of vision documents in contemporary planning, as described by Stratmann (2020): they provide spatial and political validity, but not operational clarity. To address this, Eindhoven relies on contextualised decision-making, in which each project becomes a negotiation between what is wanted and what is possible. This involves recalibrating goals based on local site characteristics, market logic, and social or political sensitivity. In this view, balancing flexibility with long-term ambitions is less about compromise and more about case-specific ambition management.

Despite these challenges, the municipality employs a variety of measures to maintain a balance between flexibility and long-term orientation. First, the intake meetings act as early strategic checkpoints, interpreting policy goals in connection to project proposals and identifying trade-offs. The Eindhoven intake procedure demonstrates how procedural flexibility is used as a tool for strategic filtering and early-stage alignment. It illustrates how planning organisations can become more flexible

while maintaining control. It does not resolve all challenges, but it establishes an environment in which they can be identified, negotiated and even resolved before they become formal challenges.

Secondly, internal advisory roles provide continuity across projects, ensuring that strategic goals are not completely abandoned during negotiations. Lastly, documents such as the Omgevings Perspectief Eindhoven (OPE) enable spatially diversified planning, which promotes flexibility while preserving larger urban structure.

However, the study also identifies limitations in Eindhoven's ability to sustain this balance over time. While the vision documents offer overall guidance and flexibility, there is limited feedback between those two. Ambitions are frequently altered as they arise, and lessons learned from hard or failed projects are not always methodically implemented into policy changes. This shows a low level of institutional flexibility.

This finding highlights a broader tension discussed in planning literature: the difficulty of reconciling long-term urban development goals, such as sustainability, spatial quality, and affordability, with the short-term, case-by-case negotiations that procedural flexibility often enables. While procedural flexibility is essential for adapting to specific project constraints and stakeholder demands (Beunen et al., 2017; Van den Hoek et al., 2020), it also risks leading to fragmented decision-making if not embedded within a clear long-term vision (Jessop, 2017; Stratmann, 2020). Loorbach (2017) argues that when procedural adjustments are not accompanied by institutional learning or reflexive governance, they may compromise strategic coherence over time.

To summarise, Eindhoven strikes a balance between flexible policies and long-term development goals through a combination of vision led direction and procedural negotiation. While this model supports context-sensitive planning and high-rise growth under spatial constraints, it is primarily dependent on internal coordination and human discretion. Without further institutional support like legal incorporation of flexibility, or a better feedback mechanism, this balance remains fragile. The city's approach is consistent with the theoretical concept of procedural flexibility, but also demonstrates limitations in maintaining strategic continuity over time and space.

5.1.3 How does Eindhoven respond to external resistance to high-rise densification?

The study reveals that the municipality of Eindhoven faces external opposition to high-rise densification, primarily from residents and legal actors, and that it responds to this opposition through a combination of procedural flexibility, legal defensibility, and participatory framing. This method enables the municipality to manage conflicts and change strategies on an individual basis, but it also represents a reactive rather than proactive planning culture.

The study also identifies a significant asymmetry in Eindhoven's approach: while the municipality shows considerable procedural flexibility towards new developments, this flexibility is not extended to residents, creating a clear power imbalance. Interviewees described how early intake processes allow planners to negotiate height, noise, or parking issues with developers, but residents have little

equivalent room for influence. This aligns with the findings of Wicki et al. (2022a), who note that flexible planning strategies often benefit decision-makers and developers more than local communities. Rather than enabling co-creation, current practices tend to reinforce decision-making power in favour of those initiating projects.

Respondents consistently highlighted resident appeals and legal concerns as common types of resistance. These are particularly common in the areas undergoing transformation or where high-rises would alter the neighbourhood significantly. Eindhoven responds to this resistance on multiple levels. On the procedural level, the municipality tries to anticipate resistance by identifying potential friction points at early intake discussions. Respondents described that it would be ideal if issues about height, noise, parking or sunlight are being tackled at an early stage. This type or flexibility enables planners to lower the risk of formal objections in the process.

Yet, when objections do occur, particularly legal challenges made before the Raad van State, the municipality relies significantly on legal defensibility. This implies that flexibility is only acceptable if it is well justified and recorded. This shows that the municipality is limited in their flexibility to new developments. As Van der Hoek et al. (2020) point out, flexibility must be both permissible and traceable inside the legal structure, otherwise it is open to be overturned in court.
Beyond the legal field, the municipality also employs narrative and participatory strategies to overcome public resistance. Respondents named that projects are frequently positioned within bigger urban narratives, such as the housing crisis, the expansion of ASML and Brainport region, and sustainability transitions, to legitimise high-rise development. Adding to this, participation is often delegated to developers, who are supposed to hold local meetings and co-create portions of the plan with residents. While this adds to participatory planning, the respondents question whether this really works.

Despite the theoretical promise that flexibility can reduce resistance to densification, particularly by involving residents early (Zivkovic et al., 2014), the interviews suggest this potential is not fulfilled in practice. While Eindhoven utilises legal defensibility and project narratives to manage pushback, these efforts are primarily reactive and developer-centric. Residents' objections are addressed through justifications and legal framing rather than through genuine integration of their concerns into project design. Notably absent is flexibility directed toward residents or mechanisms to meaningfully co-create densely planned environments, which could be more effective in reducing local resistance.

Furthermore, the interaction between public ambitions and private initiatives positions institutional flexibility as a boundary mechanism. It allows the municipality to modify its negotiation position while maintaining its overall strategic direction. However, interviews indicate that the challenge lies not only in offering flexibility but also in structuring it to support public value and address the power imbalance between institutional actors and external stakeholders such as residents.

An important note is that for this research, the respondents were people who work within the municipality, so no residents or developers. This is a limitation to this sub-question. In the reflection on the methodology and recommendations section this will be elaborated further.

In conclusion, Eindhoven responds to external resistance using early intake procedures, legal justification, and narrative framing. These strategies enable high-rise projects to proceed while managing opposition. However, the findings show that flexibility is predominantly oriented towards developers and institutional actors rather than residents, reinforcing power asymmetries in the planning process. As a result, procedural flexibility currently functions more as a tool for facilitating project implementation than for fostering inclusive planning or resolving local resistance.

5.1.4 Main research question

After addressing the sub-questions individually, this section moves on to the overarching research topic that motivated this thesis: *How can procedural flexibility stimulate the efficient implementation of high-rise buildings in the city centre of Eindhoven?* The following analysis provides a comprehensive though thorough answer by drawing on the patterns observed in the empirical data and tying them to theoretical concepts.

In Eindhoven, institutional flexibility is critical for managing the complex demand of high-rise development in a spatially constrained urban environment. Rather than depending on formal zoning change, the municipality promotes flexibility through procedures, informal collaboration, and soft policy tools. The intake process is essential to this, since respondents described it as a vital moment in which legal, spatial, and political elements are considered. It enables initiatives that technically fall outside of the strict policy constraints to be evaluated and adjusted early on, allowing for high-rise development within a restrictive planning framework.
This approach is supported by non-binding but influential documents such as the *OPE* and the *Verdichtingsvisie Binnenstad Eindhoven*. These frameworks assist in internal decision-making and give common reference points without dictating specific outcomes. This framework exemplifies procedural flexibility, as defined by Gielen and Tasan-Kok (2010), a governance model in which adaptation occurs through continuous negotiated practices rather than modifying legislation. In Eindhoven, the form of flexibility has enabled high-rise implementation in crucial zones such as KnoopXL and the station area, where regular zoning would otherwise have been a barrier.

However, the data shows that this framework is not always used consistently. Respondents repeatedly emphasised the need for individual project managers to coordinate decisions and balance goals. This person-dependence exposes the planning process to vulnerability, particularly when team composition changes. Adding to this, there emerged a great need for integral policy documents that give a clear guidance to projects and prevent silos. Without standardised processes or greater embedding of priorities, outcomes between projects might vary significantly, even when similar methods and aims are used.
An important topic is the selective implementation of policy goals. While flexibility permits projects to progress, it frequently comes at the expense of long-term objectives that are not legally obligatory.

Respondents stated that objectives for sustainability, affordability or social inclusion are more likely to be toned back during negotiations, particularly when faced with feasibility issues. This mirrors the worries expressed by Stratmann (2020) and Feiertag and Schoppengerd (2023), who warn that without prioritisation frameworks, flexible planning systems risk prioritising short-term achievements over structural values.

Concluding, institutional flexibility in Eindhoven is critical for the successful implementation of high-rise developments. It enables the municipality to act outside the constraints of conventional zoning by using adaptive methods and internal negotiations. This has been critical in promoting urban densification without a constrained spatial context. However, relying on informal methods, subjective leadership, and non-bindings instruments creates risks like inconsistency and poor ambition enforcement.

5.2 Reflection on the Procedural Flexibility Theory

The outcomes of this study mainly validate the importance of procedural flexibility as a theoretical model for understanding adaptive planning in complex urban contexts. Eindhoven shows how flexibility may be implemented without structural zoning reform but through informal methods, soft coordination and continuous decision-making. The intake table, strong policy documents, and specific planning procedures reflect Gielen and Tasan-Kok's (2010) model, which states that procedural flexibility allows planning systems to respond to uncertainty, diverse interests, and context-specific demands. This model appears effective, particularly in densely populated urban areas where spatial trade-offs and development pressure smooth implementation of high-rises.

The findings illustrate that procedural flexibility plays a central role in enabling the municipality to manage complex high-rise developments under spatial and political constraints. It allows project-specific negotiations and responsive planning strategies. However, its effectiveness largely depends on the presence of shared goals, coordination routines, and professional discretion—rather than formalised guarantees of consistency. As such, flexibility functions more as a planning instrument than a systematic governance model, requiring complementary safeguards to ensure coherence and fairness across projects.

While procedural flexibility provided a helpful lens for this study, an alternative or complementary model could have been the institutional adaptivity framework. Unlike procedural flexibility, which focuses on short-term negotiation and project-level responsiveness, institutional adaptivity addresses planning systems' long-term ability to learn, restructure and evolve in response to internal feedback or external changes (Shen & Tsai, 2016; Van den Hoek et al., 2020). Using this perspective could have turned the analytical focus to the underlying institutional factors that enable or hinder long-term change, like adaptivity across governance layers or change in vision. A comparative approach based on cities that have adapted their systems could have provided a helpful contrast to Eindhoven's current planning culture. Adding to this, while procedural flexibility was the main focus on this thesis, some of the data suggested that in some cases, strategic flexibility was also needed, especially when planners talked about adjusting long-term vision documents to match implementation realities.

5.3 Reflection on methodology

The methodological design of this study, which combined a qualitative case study with semi-structured interviews and document analysis, proved to be effective for the exploratory nature of this study. The choice of a single-case study focussing on Eindhoven allowed for an in-depth examination of the planning procedures, institutional dynamics, and internal coordination mechanisms that shape high-rise development. The interview method helped reveal the subtle and frequently informal nature of institutional flexibility, which would have been hard to show through only document analysis. Speaking to municipal professionals from different departments offered a comprehensive view of how procedural flexibility works across the planning process. Additionally, the integration of interviews with municipal policy documents helped triangulate empirical observations and contextualise statements within a larger governance framework.

In retrospect, a comparative multi-case research involving another Dutch city with a different institutional approach, could have served as a complementary or alternative methodological approach. This would have enabled cross-case comparison and helped differentiate between local case-specific practices and more generalisable governance patterns. Additionally, using participatory methodologies like scenario-based stakeholder interviews could have expanded the research on how different groups construct and understand flexibility. While the single-case qualitative design proved suitable for theory development and in-depth analysis, future research could benefit from a larger empirical base and more diverse forms of engagement to fully capture institutional flexibility's relational and political dimensions.

6. Conclusion

6.1 Conclusion

This thesis investigated the role of procedural flexibility in implementing high-rise developments within Eindhoven's inner city. With the Netherlands facing increasing spatial pressure and the municipality of Eindhoven embracing an ambitious densification agenda, the question arises as to how governance institutions can adapt to these demands without losing control over spatial quality, public value, and long-term urban vision. This study analysed how flexibility functions as a key component of urban planning processes, not as an exception to the rule, by studying policy documents and conducting semi-structured interviews with professionals within different municipality departments.

The study found that procedural flexibility in Eindhoven is deeply embedded in the planning system through informal coordination, early intake procedures, interpretive discretion, and adaptive working instruments. These tools enable the municipality to navigate restrictive land-use frameworks and competing spatial claims while still allowing vertical densification. The emphasis on vertical densification within Eindhoven represents a greater compact city aim, where procedural flexibility facilitates targeted growth without expanding the urban footprint. However, the study also shows that this flexibility is not structurally used. It remains person-dependent, inconsistently applied across departments, and sometimes vulnerable to selective downgrading of long-term goals, especially in areas such as feasibility, sustainability, and social inclusion.

The main research question, *"How can procedural flexibility stimulate the efficient implementation of high-rise buildings in the city centre within Eindhoven?"* can be answered as follows: Eindhoven's densification policy relies heavily on procedural flexibility, which allows the city to adjust to spatial constraints, legal friction, and stakeholder dynamics. Yet, its current state is more operational than systematic. To systematically enable efficient and fair implementation of high-rise developments, procedural flexibility must grow into a more robust and reflexive model, one that combines adaptability with clarity, enforcement, and participatory alignment. For instance, clarity could be improved by creating a city-wide ambition hierarchy that ranks policy goals, such as sustainability, social inclusion, and feasibility, to facilitate consistent decision-making across initiatives. Enforcement could take the shape of formalised intake outcomes, such as contractual agreements outlining how flexible interpretations are justified and must be maintained throughout project development. Participatory alignment requires integrating external stakeholders earlier in the planning process, perhaps through pre-intake consultations or more specific frameworks for public value negotiations. Without changes like this, flexibility risks becoming fragmented, allowing for inconsistent decisions, compromised ambitions, and dropped legitimacy rather than acting as a strategic and organised governance tool.

The results of this study have significant societal relevance, especially in the expanding housing crisis and densification challenges within the Netherlands. High-rise development in cities is seen as an obstacle or exclusion for residents, leading to resistance. This study found that using procedural flexibility without defining public participation structures or open ambition management can lead to distrust in the municipality. Although the planning system in Eindhoven allows for internal negotiation

and responsive project steering, citizens are often overlooked in the early stages of this process. Therefore, procedural flexibility must not only be administratively effective but also socially legitimate. In order to accomplish this, Eindhoven must improve the inclusivity of flexible governance. This involves implementing flexible procedures into participatory planning forms and making sure that local perspectives are involved in an early stage. Flexibility can be a democratic strength rather than a technical solution when it is being used transparently and fairly.

This study builds upon the existing academic view of procedural flexibility by examining its application within municipal planning frameworks. Instead of considering flexibility as a regulatory shift, this study presents it as a grounded and negotiated practice influenced by internal coordination, intake procedures and interdepartmental interaction. This reinforces the theoretical difference between flexibility as a procedural tool and institutional adaptability as a systemic feature. The findings also offer more nuance to existing planning theories by emphasising possible trade-offs between flexibility and consistency of ambition.

6.2 Limitations

Although this study has provided some new insights, there are several limitations worth mentioning. Firstly, and most importantly, this study was limited to the municipal perspective, as it conducted semi-structured interviews with municipal professionals and analysed municipal policy documents. This means that the results coming from these interviews and analyses only reflect internal logic, coordination, and interpretation of planning policy. As a result, the perspectives of external developers or residents were not included, while these groups play a crucial role in how flexibility is implemented in planning practice. And so, their absence limits the study's ability to understand the relational and multi-actor nature of urban development fully.

Second, the study focussed on present planning and decision-making processes, which do not capture the long-term effects of procedural flexibility. Most high-rise developments covered in the interviews were still in an early stage or have not even started. As a result, this study was not able to assess how flexibility influences the overall spatial quality, affordability, and social inclusion of high-rise structures in the city centre after completion. It, therefore, reflects only a small part of the planning in progress rather than a comprehensive evaluation of planning outcomes.

Another key limitation that emerged from this study is the potential downside of relying predominantly on procedural flexibility in municipal planning. The findings suggest that while flexibility supports responsiveness and feasibility, it can also result in uneven application, person-dependent decisions, and inconsistent realisation of policy ambitions. In the absence of clear ambition hierarchies or enforcement mechanisms, some projects prioritise feasibility and speed over spatial or social quality. This observation aligns with concerns raised by Stratmann (2020) and Feiertag and Schoppengerd (2023), who warn that unstructured flexibility may compromise coherence, equity, and long-term strategic goals. In Eindhoven's context, this was seen in the varying degrees of commitment to sustainability and public value across different high-rise developments.

Finally, the study focused fully on procedural flexibility in combination with high-rises as a form of densification, leaving alternative densification methods out. As a result, the conclusions that are drawn

in this study may not apply to all types of urban development or do they fully represent how procedural flexibility works in other planning processes.

The limitations mentioned above emphasise the importance of contextual interpretation and clear framing of a study, and they suggest additional research to widen and deepen the findings of different stakeholders, timeframes, and densification methods.

6.3 Recommendations

While this study has provided detailed insight into the role of flexibility in high-rise development in Eindhoven, it also has some limitations and opportunities for further research. Expanding on the findings and methodological width of this research could provide a more in-depth understanding on how flexibility works in various governance and spatial contexts.

The first significant direction for future research could be to add the opinions or external actors outside the municipality. This study focussed primarily on municipal professionals, in order to better understand how flexibility is defined internally, with the main reason for internal research the possibility to do an internship within the municipality of Eindhoven. However, architects, project developers, residents and housing organisations all play an important role in negotiating and implementing flexible planning policies. Incorporating these stakeholders into future studies could shed light on the relationship aspect of flexibility, like how power imbalances, trust and strategic behaviour affect planning outcomes.

A second study field could be a comparative study of municipalities. While Eindhoven provides rich and valuable information due to its ambitions, the findings are context specific. A comparative study, for example between Utrecht and Amsterdam or Eindhoven and Rotterdam could offer new insights on whether procedural flexibility is a shared governance strategy or a regionally dependent practice. Comparing this would also help to determine if particular institutional arrangements are better suited to the use or flexibility than others.

Third, a future study may be more focused on the concept of institutional adaptivity. While this study handled institutional adaptability, it has not scientifically explored how adaptivity works in practice. Case studies of cities that have implemented this approach may provide useful insights into how this works and if it is to compare with institutional flexibility.

Finally, future studies could help to operationalise and measure flexibility itself. While this research has addressed flexibility as an institutional and qualitative theory, it is still hard to determine how much it is used, where it is used and to what extent. Creating indicators to track this could give municipalities valuable insights in monitoring and improving their own planning operations.

To summarise, future research could use the findings of these research by widening the empirical scope beyond municipal actors, comparing case studies, focussing on adaptability, and generating measurable flexibility indicators. Such research would not only contribute to academic discussions about urban governance and institutional theory, but also the continuing practice of creating more adaptable, inclusive, and resilient cities.

6.4 Ethical considerations

This research did not involve vulnerable persons or sensitive personal information. Yet, ethics still played a role because of the representation of power and voices within this research. By interviewing only people from within the municipality, the study prioritised institutional perspectives over those of citizens and other external companies. While this was justified within the methodological section due to the aim of this research, it still means that groups were left out. For future research, it should be critically examined and justified which viewpoints are included and excluded and how the use of flexibility can affect equality within urban development.

Additionally, due to the institutional and political sensitivity surrounding urban densification within the municipality, all respondents and their quotes were anonymised to protect internal dynamics within the municipality and the identities of the individuals interviewed.

Bibliography

Abdi, F. (2019). Understanding the impact of high-rise buildings on environmental quality and sustainable urban development. *Journal of Art and Architecture Studies*, *8*(2), 13–18. https://doi.org/10.51148/jaas.2019.3

Albrechts, L., & Balducci, A. (2013). Practicing strategic planning: In search of critical features to explain the strategic character of plans. *DISP*, *49*(3), 16–27. https://doi.org/10.1080/02513625.2013.859001

Allea. (2023). *The European Code of Conduct for Research Integrity REVISED EDITION 2023*. https://doi.org/10.26356/ECOC

Andersson, M., Boateng, K., & Abos, P. (2024). *Validity and Reliability: The extent to which your research findings are accurate and consistent*. https://www.researchgate.net/publication/384402476

Andina-Díaz, A., Feri, F., & Meléndez-Jiménez, M. A. (2021). Institutional flexibility, political alternation, and middle-of-the-road policies. *Journal of Public Economics*, *204*. https://doi.org/10.1016/j.jpubeco.2021.104532

Angelo, H., & Wachsmuth, D. (2020). Why does everyone think cities can save the planet? *Urban Studies*, *57*(11), 2201–2221. https://doi.org/10.1177/0042098020919081

Artmann, M., Inostroza, L., & Fan, P. (2019). Urban sprawl, compact urban development and green cities. How much do we know, how much do we agree? In *Ecological Indicators* (Vol. 96, pp. 3–9). Elsevier B.V. https://doi.org/10.1016/j.ecolind.2018.10.059

Beunen, R., Patterson, J., & Van Assche, K. (2017). Governing for resilience: the role of institutional work. In *Current Opinion in Environmental Sustainability* (Vol. 28, pp. 10–16). Elsevier B.V. https://doi.org/10.1016/j.cosust.2017.04.010

Bibri, S. E., Krogstie, J., & Kärrholm, M. (2020). Compact city planning and development: Emerging practices and strategies for achieving the goals of sustainability. *Developments in the Built Environment*, *4*. https://doi.org/10.1016/j.dibe.2020.100021

Bowen, G. A. (2009). Document analysis as a qualitative research method. *Qualitative Research Journal*, *9*(2), 27–40. https://doi.org/10.3316/QRJ0902027

Broitman, D., & Koomen, E. (2015). Residential density change: Densification and urban expansion. *Computers, Environment and Urban Systems*, *54*, 32–46. https://doi.org/10.1016/j.compenvurbsys.2015.05.006

Broitman, D., & Koomen, E. (2020). The attraction of urban cores: Densification in Dutch city centres. *Urban Studies*, *57*(9), 1920–1939. https://doi.org/10.1177/0042098019864019

Bryman, A. (2016). Research designs, chapter 3. In *Bryman's Social Research Methods*.

Búzás, Z. I., & Graham, E. R. (2020). Emergent Flexibility in Institutional Development: How International Rules Really Change. *International Studies Quarterly*, *64*(4), 821–833. https://doi.org/10.1093/isq/sqaa049

Cavicchia, R., & Cucca, R. (2022). Urban Densification and Its Social Sustainability. In *The Palgrave Encyclopedia of Urban and Regional Futures* (pp. 1–14). Springer International Publishing. https://doi.org/10.1007/978-3-030-51812-7_156-1

CBS. (2022). *Bevolkingsontwikkeling*. Https://Longreads.Cbs.Nl/Regionale-Prognose-2022/Bevolkingsontwikkeling/. https://longreads.cbs.nl/regionale-prognose-2022/bevolkingsontwikkeling/

Conticelli, E. (2019). *Compact City as a Model Achieving Sustainable Development* (pp. 1–10). https://doi.org/10.1007/978-3-319-71061-7_35-1

Czyńska, K. (2018). A BRIEF HISTORY OF TALL BUILDINGS IN THE CONTEXT OF CITYSCAPE TRANSFORMATION IN EUROPE. *Space&FORM*, *2018*(36), 281–296. https://doi.org/10.21005/pif.2018.36.E-03

Davis, L. S. (2010). Institutional flexibility and economic growth. *Journal of Comparative Economics*, *38*(3), 306–320. https://doi.org/10.1016/j.jce.2010.05.001

DiCicco-Bloom, B., & Crabtree, B. F. (2006). The qualitative research interview. In *Medical Education* (Vol. 40, Issue 4, pp. 314–321). https://doi.org/10.1111/j.1365-2929.2006.02418.x

Dorsch, M. J., & Flachsland, C. (2017). A polycentric approach to global climate governance. *Global Environmental Politics*, *17*(2), 45–64. https://doi.org/10.1162/GLEP_a_00400

Dovey, K., & Pafka, E. (2017). What is functional mix? An assemblage approach. *Planning Theory and Practice*, *18*(2), 249–267. https://doi.org/10.1080/14649357.2017.1281996

Drozdz, M. S. (2017). *High-Rise Urbanism in Contemporary Europe reconsidered*. https://www.researchgate.net/publication/322750298

Feiertag, P., & Schoppengerd, J. (2023). Flexibility in planning through frequent amendments. The practice of land use planning in Germany. *Planning Practice and Research*, *38*(1), 105–122. https://doi.org/10.1080/02697459.2022.2133459

Frits Scheublin, I. J. (2008). *Title: Tall Buildings in the Netherlands: Constraints to Innovation Tall Buildings in the Netherlands, Constraints to Innovation, a tool to preserve green fields*. www.Hoogbouw.nl

Geekiyanage, D., Fernando, T., & Keraminiyage, K. (2021). Mapping participatory methods in the urban development process: A systematic review and case-based evidence analysis. In *Sustainability (Switzerland)* (Vol. 13, Issue 16). MDPI. https://doi.org/10.3390/su13168992

Gehl, J. (2010). *Cities For People*.

Generalova, E. M., Generalov, V. P., Kuznetsova, A. A., & Bobkova, O. N. (2018). Mixed-use development in a high-rise context. *E3S Web of Conferences*, *33*. https://doi.org/10.1051/e3sconf/20183301021

Gielen, D. M., & Tasan-Kok, T. (2010). Flexibility in planning and the consequences for public-value capturing in UK, Spain and the Netherlands. *European Planning Studies*, *18*(7), 1097–1131. https://doi.org/10.1080/09654311003744191

Gupta, J., Bergsma, E., Termeer, C. J. A. M., Biesbroek, G. R., van den Brink, M., Jong, P., Klostermann, J. E. M., Meijerink, S., & Nooteboom, S. (2016). The adaptive capacity of institutions in the spatial planning, water, agriculture and nature sectors in the Netherlands. *Mitigation and*

Adaptation Strategies for Global Change, *21*(6), 883–903. https://doi.org/10.1007/s11027-014-9630-z

Haaland, C., & van den Bosch, C. K. (2015). Challenges and strategies for urban green-space planning in cities undergoing densification: A review. In *Urban Forestry and Urban Greening* (Vol. 14, Issue 4, pp. 760–771). Elsevier GmbH. https://doi.org/10.1016/j.ufug.2015.07.009

Hajer, M., & Versteeg, W. (2019). Imagining the post-fossil city: why is it so difficult to think of new possible worlds? *Territory, Politics, Governance*, *7*(2), 122–134. https://doi.org/10.1080/21622671.2018.1510339

Hunziker, S., & Blankenagel, M. (2021). *Research Design in Business and Management A Practical Guide for Students and Researchers*.

Jessop, B. (2017). *Governance and meta-governance: On reflexivity, requisite variety and requisite irony*. https://www.researchgate.net/publication/318020187

Lim, W. M. (2024). What Is Qualitative Research? An Overview and Guidelines. *Australasian Marketing Journal*. https://doi.org/10.1177/14413582241264619

Loorbach, D., Frantzeskaki, N., & Avelino, F. (2017). Sustainability Transitions Research: Transforming Science and Practice for Societal Change. In *Annual Review of Environment and Resources* (Vol. 42, pp. 599–626). Annual Reviews Inc. https://doi.org/10.1146/annurev-environ-102014-021340

Mayring, P. (2000). *Qualitative Content Analysis*. http://www.zuma-mannheim.de/research/en/methods/textanalysis/

Mcfarlane, C., Marvin, S., Silver, J., & Keil, R. (2015). *The Geographies of Urban Density: Topology, Politics and the City*.

Meijer, R., & Jonkman, A. (2020). Land-policy instruments for densification: The Dutch quest for control. *Town Planning Review*, *91*(3), 239–258. https://doi.org/10.3828/tpr.2020.14

Michels, A., & de Graaf, L. (2010). Examining citizen participation: Local participatory policy making and democracy. *Local Government Studies*, *36*(4), 477–491. https://doi.org/10.1080/03003930.2010.494101

Mualam, N., Salinger, E., & Max, D. (2019). Increasing the urban mix through vertical allocations: Public floorspace in mixed use development. *Cities*, *87*, 131–141. https://doi.org/10.1016/j.cities.2018.12.027

Municipality of Eindhoven. (2020). *Ontwikkelperspectief 2040 Centrum Eindhoven*.

Municipality of Eindhoven. (2023). *Verdichtingsvisie Binnenstad Eindhoven*.

Municipality of Eindhoven. (2024). *Omgevingsvisie Eindhoven*.

Nabielek, K. (2012). *THE COMPACT CITY: PLANNING STRATEGIES, RECENT DEVELOPMENTS AND FUTURE PROSPECTS IN THE NETHERLANDS*.

Ngulube, P. (2015). *Qualitative Data Analysis and Interpretation: Systematic Search for Meaning*. https://doi.org/10.13140/RG.2.1.1375.7608

Pont, M. B., Haupt, P., Berg, P., Alstäde, V., & Heyman, A. (2021). Systematic review and comparison of densification effects and planning motivations. *Buildings and Cities*, *2*(1), 378–401. https://doi.org/10.5334/bc.125

Roberts, R. E. (2020). Qualitative interview questions: Guidance for novice researchers. In *Qualitative Report* (Vol. 25, Issue 9, pp. 3185–3203). Peace and Conflict Studies. https://doi.org/10.46743/2160-3715/2020.4640

Scannell, L., & Gifford, R. (2010). Defining place attachment: A tripartite organizing framework. *Journal of Environmental Psychology*, *30*(1), 1–10. https://doi.org/10.1016/j.jenvp.2009.09.006

Shackleton, Biggs, R., de Vos, A., Preiser, R., Clements, H., Maciejewski, K., & Schlüter, M. (2022). *The Routledge Handbook of Research Methods for Social-Ecological Systems*.

Shen, X., & Tsai, K. S. (2016). Institutional Adaptability in China: Local Developmental Models Under Changing Economic Conditions. *World Development*, *87*, 107–127. https://doi.org/10.1016/j.worlddev.2016.06.010

Stratmann, A. (2020). *Approaches of Flexible Spatial Planning to Sustainable Cities*. Real Corp 2020.

Tasan-Kok, T. (2008). Changing interpretations of 'flexibility' in the planning literature: From opportunism to creativity? *International Planning Studies*, *13*(3), 183–195. https://doi.org/10.1080/13563470802521382

Teller, J. (2021a). Regulating urban densification: what factors should be used? In *Buildings and Cities* (Vol. 2, Issue 1, pp. 302–317). Web Portal Ubiquity Press. https://doi.org/10.5334/bc.123

Teller, J. (2021b). *Urban Densification*. Buildings and Cities. https://www.buildingsandcities.org/journal-content/special-issues/urban-densification2.html?utm_source=chatgpt.com

United Nations. (2018). *By 2050, 68% of world population will live in urban areas - 2018 World Urbanization Prospects*.

Van den Hoek, D., Spit, T., & Hartmann, T. (2020). Certain flexibilities in land-use plans Towards a method for assessing flexibility. *Land Use Policy*, *94*. https://doi.org/10.1016/j.landusepol.2020.104497

van den Hurk, M., & Tasan-Kok, T. (2020). Contractual arrangements and entrepreneurial governance: Flexibility and leeway in urban regeneration projects. *Urban Studies*, *57*(16), 3217–3235. https://doi.org/10.1177/0042098019894277

van der Ham, M., & Opdenakker, R. (2023). Overcoming process-related barriers in modular high-rise building projects. *International Journal of Construction Management*, *23*(10), 1779–1789. https://doi.org/10.1080/15623599.2021.2007593

Voß, J.-P., & Bornemann, B. (2011). *The Politics of Reflexive Governance: Challenges for Designing Adaptive Management and Transition Management* (Vol. 16, Issue 2). and Society. http://www.ecologyandsociety.org/vol16/iss2/art9/

Wicki, M., Hofer, K., & Kaufmann Edited by Douglas Massey, D. (2022a). *Planning instruments enhance the acceptance of urban densification*. https://doi.org/10.1073/pnas

Wicki, M., Hofer, K., & Kaufmann Edited by Douglas Massey, D. (2022b). *Planning instruments enhance the acceptance of urban densification*. https://doi.org/10.1073/pnas

Wicki, M., & Kaufmann, D. (2022). Accepting and resisting densification: The importance of project-related factors and the contextualizing role of neighbourhoods. *Landscape and Urban Planning*, *220*. https://doi.org/10.1016/j.landurbplan.2021.104350

Wicki, M., Zurich, E., & Kaufmann, D. (2021). *Acceptance of densification in six metropolises. Evidence from combined survey experiments*. https://doi.org/10.3929/ethz-b-000519861

Williams, M., & Moser, T. (2019). The Art of Coding and Thematic Exploration in Qualitative Research. In *International Management Review* (Vol. 15, Issue 1).

Yin, R. (2018). *Case study research and applications design*. https://www.slideshare.net/slideshow/yin-r-k-2018-case-study-research-and-applications-design-andocx/255153005#98. https://www.slideshare.net/slideshow/yin-r-k-2018-case-study-research-and-applications-design-andocx/255153005#98

Yuen, B. (2007). SINGAPORE HIGH-RISE A SUSTAINABLE HOUSING MODEL. In *Conference on Sustainable Building South East Asia*. http://www.emporis.com/en/bu/sk/

Zivkovic, M., Jovanovic, G., & Kondic, S. (2014). Flexible planning strategies of sustainable city development. *Facta Universitatis - Series: Architecture and Civil Engineering*, *12*(3), 273–286. https://doi.org/10.2298/fuace1403273z

Appendices

Appendix 1 table with respondents and quotes

Respondent	Date	Length of interview	Quotes
1. Urban planner 1	17-apr	33:23	“A tower is not just a pile of houses, it has to carry a lot of programmatic weight like shops, amenities and social spaces, or it becomes an isolated block.” “It is not that we don’t have rules; we have too many. So we pick one to follow and explain the rest.” “Sometimes a project has to go back three times just to clarify which ambitions still count.” “If you build in the right place, you can expect more flexibility because you are supporting the spatial structure,” “For example, we left space for the plinth function of public space contribution,” “It should not be the case that with every project, the same ambitions are lowered. It cannot happen that energy or green roofs are ignored,”
2. Spatial planner 1	17-apr	39:41	“We are dealing with completely different groups” “But they all need an equal housing chance, and they all want to live centrally.” “Sometimes the rule is the starting point, sometimes it is the end point” “In my opinion, it should be more clear that a project leader decides because he has a central role. However, now it is still unclear what the project leader is responsible for.”
3. Urban planner 2	22-apr	48:27	“Densification is the a logical solution because you can’t build outward anymore. So yes, we are pushed upward.” “We have specific nodes that are suitable for height. At the HOV corridors and the centre, it is more logical to build upward there.” “We can’t just place towers anywhere.” “The context has to support it; infrastructure, green space, light, that all matters.” “Once a plan is in out for participation, it is hard to change,” “If you only have people who just follow the rules by the book, then I don’t think you’ll get anywhere” “Because if everyone sticks to their own policy field, then it can be quite difficult.” “I believe energy will still be a topic of discussion. How are you going to get all of those towers on the energy net?” "What also helps is that with the area frameworks, which we are making now, you can also clearly

			indicate in advance whether we have places for high-rise buildings or not. And then when you start forming a plan, that discussion has already taken place."
4. Coordinating policy developer	24-apr	37:45	“If we agree that an intake table already makes certain choices very much at the beginning, then that should be guiding in the future,”
5. Spatial planner 2	29-apr	32:48	“The only lasting thing is change” “if a tower is too high, or if there is no parking included, it is flagged early.” “A good project lead makes all the difference, but when they change their role or leave, the whole trajectory can shift.” “A project really depends on the project leader, and how he coordinates a project.”
6. Housing director	29-apr	40:32	“You have to be careful; if you give someone 10 extra metres of height, you have to show it is legally defensible,“ “So in my opinion, you always need that flexibility.”
7. Person from the social field within spatial planning	29-apr	35:00	“it depends much on who you talk to; some departments are rigid, others are pragmatic

8. Senior specialist real estate developer	30-apr	43:51	“we are talking about 40,000 new homes until 2040, and we do not have any more expansion areas.” “We almost always have to deviate from something” “The green policy, affordability targets, the sunlight standards, no project fits all these boxes.” “The intake is where we translate the ambitions into something we can actually build.” “Within 10 minutes, we know if it fits or not, and if not, what can be moved or dropped.” “It is where we see what is feasible spatially and politically,” “Everyone is at the table: mobility, sustainability, urban planning, green space, sometimes even the legal department.” “ The hardest discussions we have are those with, what we call the cowboys from the west. Who just buy a piece of land and want to make money on it very quickly by trying to get a ridiculous program on it.” “make a big, short-term profit with a program that is far from realistic.” “We try to take them by the hand rather than sending them away.”

*Interview questions, analysed municipal documents, transcripts, and the coding summary, are included in the attachments**