Transformation of vacant buildings as a solution for more affordable housing for first-time buyers

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TUDelft

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real estate

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Preface

In 2023, I started my master's in Management in the Built Environment at TU Delft. After completing my bachelor's in architecture, I realised I was increasingly interested not only in the design of buildings, but in the underlying mechanisms that make it possible, such as financing processes, governance, development, and transformation. The MBE programme gave me the tools to explore those dynamics more deeply and allowed me to place architecture within a broader societal and economic context.

Throughout the master's, one question remained central to me: What are the problems on the Dutch housing market, and how can we make it more accessible for young people? During my studies, I witnessed how rising house prices, scarcity of land, and inflexible development models continued to exclude a generation already struggling with student debt and uncertain career prospects. At the same time, the debate on housing solutions often focused narrowly on new construction. I became interested in what was left out of that conversation: the potential of transforming existing, vacant buildings into affordable housing.

This thesis explores that potential. It investigates how building transformation could serve as a viable and timely strategy to address the housing needs of first-time buyers. By focusing on their preferences, constraints, and lived experiences, and by analysing case studies in urban, suburban, and rural contexts, this research aims to support more inclusive and adaptable development strategies.

The project would not have been possible without the support of many. I would like to thank my supervisors, Marietta Haffner and Gerard van Bortel, for their valuable feedback and critical questions, which helped me refine both my arguments and my methodology. I also want to express my gratitude to Dev_ real estate, my graduation company, and in particular Boaz Amit, for offering guidance, feedback, and access to relevant contacts throughout the project. In addition, I thank Steenvlinder, who played an important role in facilitating connections with interviewees and offering insight into transformation in practice.

A special thanks goes to all the interviewees and expert panel participants, whose openness and thoughtful input formed the empirical heart of this research. Your insights have helped to make the barriers and opportunities of housing transformation more tangible and grounded in real experience.

Finally, I look back on this graduation year with pride. It was not without challenges, but ultimately, it helped me exceed my expectations. The process has taught me that pressure, when combined with support and structure, can bring out the best in me. I hope this thesis offers meaningful insights for those working on more inclusive and sustainable housing solutions.

Annemijn Steenbrink
Delft, June 2025

Abstract

The Dutch housing market has become increasingly inaccessible for first-time buyers due to rising prices, stricter mortgage regulations, and the burden of student debt. Since 2015, these structural constraints have intensified, limiting access to affordable housing and forcing young adults to either compromise on quality and location or postpone homeownership altogether.

This thesis investigates the position of first-time buyers within the housing market, analysing how financial constraints, life-course developments, and housing preferences intersect in shaping their residential choices. A key focus is the potential of transforming vacant buildings, such as offices and schools, into affordable housing. Adaptive reuse is explored as an alternative to new construction to increase supply within existing spatial and infrastructural frameworks.

Using a multi-method qualitative approach, combining literature review, urbanisation-level based case studies, and interviews with first-time buyers, this research examines whether building transformations can respond to the needs of this target group. The analysis is structured thematically around life-course experiences, affordability, housing and location preferences, and attitudes towards transformation.

The findings reveal a complex interplay between aspirations and constraints. While transformation projects offer promise, they are often hindered by financial, regulatory, and technical barriers. Moreover, urbanisation-level variation in demand and policy context requires differentiated strategies. The study concludes with action proposals tailored to urban, semi-urban, and rural contexts. These recommendations were validated through an expert panel, which confirmed their practical relevance and highlighted key interventions to bridge the gap between supply and demand.

By focusing on the perspective of first-time buyers, this thesis contributes to a more inclusive approach to housing development in the Netherlands, positioning transformation as a viable strategy in the broader search for housing accessibility.

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Executive summary

Introduction

First-time buyers in the Netherlands are increasingly excluded from homeownership due to rising house prices, stricter lending conditions, and a growing mismatch between income trajectories and housing costs. Particularly vulnerable are young adults burdened by student debt and operating with limited financial buffers. At the same time, a housing shortage of approximately 401,000 units adds further pressure on the system (Ministerie van Binnenlandse Zaken en Koninkrijksrelaties, 2024). In this context, the transformation of vacant buildings into residential housing offers a promising opportunity to simultaneously expand supply and adapt to the needs of new buyers.

This research explores how housing transformations can offer context-sensitive, financially accessible pathways to ownership for recent and potential first-time buyers, with a particular focus on those constrained by limited means. These buyers are typically navigating key life transitions such as completing education, starting careers, or leaving parental homes. Their housing trajectories are increasingly shaped by reactive rather than strategic planning due to systemic pressures in the housing market.

To guide this research, the study addresses the following main research question: *In what ways do life-course trajectories, financial restrictions, and preferences shape the accessibility of homeownership for recent and potential first-time buyers, while evaluating the role of housing transformations as a potential solution?*

Methodology

A mixed-method qualitative research design was adopted to ensure contextual depth, empirical grounding, and policy relevance. The study began with a literature review, structured around four analytical themes: life-course trajectories, affordability dynamics, housing and location preferences, and transformation potential. These themes informed the development of both the conceptual framework and the empirical research instruments.

Primary data was collected through twenty semi-structured interviews with recent or potential first-time buyers involved in completed transformation projects. Case studies were selected to capture variation in spatial context, institutional conditions, market pressures, and governance practices. The selected cases, located in an urban (Rijswijk), semi-urban (Apeldoorn), and rural (Venray) context, reflect different planning cultures, developer strategies, and buyer demographics. This design enabled a comparative understanding of the flexibility and limitations of transformation as a housing tool for first-time buyers.

Participants were selected based on their recent efforts to access homeownership, specifically within the context of transformation projects. This ensured the inclusion of current and lived experiences throughout the housing search process. The interview protocol was designed to explore how life transitions, financial limitations, and adaptive strategies influenced housing choices. Interviews were coded thematically using a structured Excel framework, enabling systematic comparison across cases and themes.

Findings from both the literature and interviews informed the development of action proposals aimed at improving access to affordable homeownership through building transformation. To test the feasibility and relevance of these proposals, a validation session was held with six experts in this sector, including developers and project managers. The session combined quantitative input (using Mentimeter) with qualitative discussion structured around four action domains. This expert validation ensured alignment with practical constraints and stakeholder priorities, and supported the refinement of the final recommendations.

Literature review

The literature review provides a conceptual foundation for understanding the challenges first-time buyers face in the Dutch housing market. It identifies key structural factors shaping their housing access and introduces the potential of building transformation as an alternative strategy.

First, life-course theory (Mulder and Hooimeijer, 1999) is used to explain how pivotal life transitions, graduating, entering the labour market, or forming a household, directly influence housing decisions. These transitions are increasingly delayed due to insecure job markets and stricter lending conditions, resulting in postponed independence and extended rental phases. These life-course patterns shape not only the timing but also the feasibility of homeownership for young adults. Second, literature highlights the growing role of financial constraints, particularly since the introduction of the Dutch student loan system in 2015. Student debt reduces mortgage eligibility, while rising housing prices outpace income growth (CBS, 2023). These restrictions reinforce intergenerational inequality, where access to family wealth increasingly determines who can buy a home. Third, a distinction is made between stated preferences and revealed preferences (Maaskant, 2024). While young buyers often aim for centrally located, spacious, and well-finished dwellings, their final decisions are often shaped by affordability, location constraints, or delivery type. Finally, the literature points to transformation projects as a potential solution to supply shortages. Adaptive reuse is associated with lower development costs, urban sustainability, and reduced reliance on scarce land (Remøy et al., 2024). However, regulatory, financial, and technical barriers often complicate the feasibility of transformation projects, particularly for developers unfamiliar with the process or in areas with rigid zoning plans.

Empirical research

The empirical research builds on the findings from the literature review, which identified five recurring themes shaping first-time buyers' access to homeownership: life-course transitions, affordability, housing preferences, location, and the transformation potential of vacant buildings. These themes informed the design of the empirical phase.

Three transformation projects were selected as case studies, one urban, one semi-urban, and one rural, based on predefined criteria: the project had to involve an actual transformation into owner-occupied homes, targeted at first-time buyers, with prices below the NHG threshold. They also needed to be in 3 different urbanisation levels. Within these three projects, twenty recent or prospective first-time buyers were interviewed, providing in-depth insight into how young adults experience constraints and make decisions in the context of housing transformation.

The interviews were thematically analysed using the five dimensions identified in the literature. This revealed how structural and behavioural factors interact: most buyers made compromises on location, space, or finish level due to affordability limits, while coping strategies, such as omitting student debt, reflected broader patterns of inequality and delayed independence, also noted in academic literature. Based on this combined theoretical and empirical insight, a set of actionable proposals was developed for municipalities and developers. These were tailored to urbanisation levels and included tools such as fixed-price lotteries, casco variants with renovation support, and community-based guidance for rural self-renovation.

Finally, these proposals were tested in an expert panel with housing professionals and developers. Their feedback confirmed the proposals' relevance and feasibility, while also pointing to the importance of financing mechanisms, buyer support, and municipal coordination for successful implementation.

Findings

Findings from the literature

Sub-question 1: *How do life-course trajectories shape the housing aspirations and restrictions of recent and potential first-time buyers?* iterature shows that first-time buyers' housing aspirations are strongly shaped by life-course developments. Rising housing prices and limited supply have made access to the market increasingly difficult, especially for single-person households. As a result, forming a stable relationship has become an almost necessary precondition for entering homeownership (Hypotheker, 2021). Moreover, the lack of secure and affordable housing delays family formation: empirical trends

show a correlation between increasing housing costs and declining birth rates (CBS, 2022). The availability of a stable residence thus not only influences when young adults can afford to buy, but also when, and whether, they choose to start a family. Consequently, housing constraints and life-course decisions are deeply interrelated, reinforcing each other in shaping the timing and nature of homeownership trajectories.

Sub-question 2: *How do financial resources, student debt, and housing constraints affect the affordability of homeownership for recent and potential first-time buyers?* Affordability constraints are central to understanding access limitations. Student debt directly reduces borrowing capacity under Dutch mortgage regulations, a burden that has become more significant now that interest is again charged on student loans. At the same time, house prices have risen faster than income levels. Literature highlights that these structural limitations force buyers to depend on informal capital (e.g. parental gifts) or to adjust their ambitions downward. As a result, the ability to access homeownership increasingly reflects economic background, not just individual readiness.

Findings from the empirical research

Sub-question 3:*How do stated and revealed housing and location preferences influence recent and potential first-time buyers' decision-making in homeownership?* Interview findings revealed that first-time buyers begin their housing search with clearly articulated ideals—central locations, move-in-ready finishes, and sufficient space for work or future family life. These stated preferences often reflect aspirations shaped by life-course expectations and normative housing ideals. However, under the pressure of financial constraints, rising prices, and limited supply, these preferences were frequently revised. What emerged were revealed preferences prioritising affordability, flexibility, and basic functionality over aesthetics or spatial luxury. Casco delivery models gained appeal precisely because they enabled gradual investment and allowed buyers to spread renovation costs over time while maintaining a sense of autonomy. This shift demonstrates a pragmatic adaptation process, wherein initial ideals are re-negotiated in response to market realities.

Sub-question 4: *To what extent can housing transformation projects provide an affordable solution that aligns with the preferences of recent and potential first-time buyers?* Transformation projects were found to offer a promising, though conditional, solution to affordability challenges. Particularly when structured with phased investment opportunities, modular finishing levels, and clear information provision, these projects helped bridge the gap between aspiration and constrained financial reality. Yet, the feasibility of transformation as a solution varied by context. In urban areas like Rijswijk, where municipal frameworks and project support were more robust, buyers benefited from institutional scaffolding and smoother access routes. In semi-urban and rural contexts (e.g. Apeldoorn and Venray), buyers often encountered fragmented procedures, minimal guidance, and a higher reliance on personal initiative or informal networks. Without accessible support structures or clear allocation mechanisms, transformation risks becoming a viable option only for highly informed or resource-rich buyers, thereby excluding more vulnerable segments of the first-time buyer population.

Main research question

In what ways do life-course trajectories, financial restrictions, or preferences shape the accessibility of homeownership for recent and potential first-time buyers, while evaluating the role of housing transformations as a potential solution?

The accessibility of homeownership for first-time buyers is governed by the interaction of life-course dynamics, structural financial barriers, and the gradual recalibration of housing preferences. Delayed transitions—such as leaving the parental home, entering stable employment, or forming a household, are increasingly shaped not by personal readiness but by housing market conditions. Financial constraints, particularly student debt and limited savings, further delay entry and restrict the range of viable options, often excluding those without intergenerational support. In this context, stated preferences regarding space, location, or finishing quality are frequently revised under pressure, resulting in revealed preferences focused on affordability, flexibility, and security.

Transformation projects emerge as a context-sensitive response to these pressures. When designed with phased investment models, tailored finishing options, and supported by clear legal and procedural

frameworks, they can lower the entry threshold for ownership. However, their success is highly contingent on local implementation capacity, institutional support, and buyer guidance. In urban areas with robust governance, transformation can offer predictable, affordable, and customisable alternatives. In more peripheral contexts, lack of support risks concentrating access among the most resourceful. While transformation is not a substitute for broader affordability measures, such as expanded public housing or revised mortgage policies, it can function as a targeted and adaptive pathway for young buyers navigating constrained housing trajectories. It thereby holds the potential to complement systemic reforms by increasing supply within existing spatial frameworks, particularly in cases where new construction is limited or delayed.

Conclusion
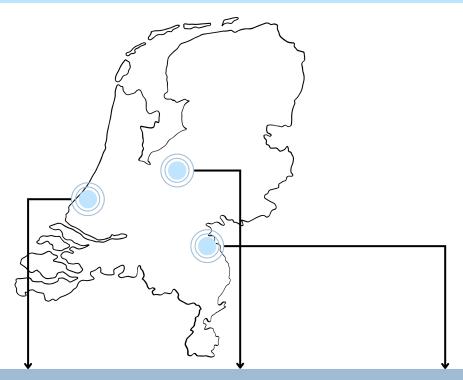
This research demonstrates that the inaccessibility of the Dutch housing market for first-time buyers is not merely a financial issue, but the outcome of structural constraints that intersect with delayed life-course transitions and constrained housing preferences. Rising prices, student debt, and increasingly individualised housing pathways have created a system in which young adults are compelled to make reactive rather than aspirational decisions. Within this context, building transformation offers a tangible, if partial, solution.

By focusing on affordability, flexibility, and phased investment, transformation projects are suited to the evolving realities of first-time buyers. Literature provided the conceptual foundation for understanding these dynamics, while qualitative case study research added critical nuance through the voices of those navigating the system. The resulting action proposals, grounded in both empirical data and expert validation, are designed to address both general and urbanisation-level-based barriers. They are visually summarised on the following page: the upper section presents four nationwide actions, while the lower portion contains targeted proposals tailored to urban, semi-urban, and rural contexts. This structure allows practitioners to immediately assess which interventions are most relevant to their operational environment.

Ultimately, the findings suggest that improving access to homeownership requires more than isolated projects or technical fixes. It demands a systemic shift: one in which institutional actors, developers, municipalities, and financiers collaborate to embed flexible, inclusive transformation strategies into mainstream housing policy. Only by aligning development practices with the life trajectories and constraints of a new generation can the housing system become more equitable, resilient, and future-proof.

Action proposals

1. Offer **tiered finishing packages** in transformation projects to align with diverse budgets and customization preferences.

2. Use a **participation trajectory** with future residents to strengthen the perceived identity and value of less desirable neighbourhoods.

3. Introduce **shared equity models** such as erfpacht, where land and property are financially separated to lower upfront costs.

4. Reserve a % of units for first-time buyers **through a lottery**

Key themes	Urbanisation-level-based actions Urban context	Urbanisation-level-based actions Semi-urban context	Urbanisation-level-based actions Rural context
Life course experiences	• Partner with organisations (universities, companies) to offer housing access for local workers with stable contracts, co-financing.	• Encourage modular ownership structures (e.g., buy 60% now, 40% later)	• Allow phased entry into ownership by offering buyers the option to reserve homes early with low-risk commitments.
Affordability	• Collaborate with municipalities to reserve first-right-to-buy units for local starters within a capped income range. • Implement erfpacht more in cities where municipalities own much land.	• Partner with municipalities to give a local starters mortgage, especially for transformed A++ buildings. • Offer transformation-linked financial sessions, including topics like student loan implications, green mortgage eligibility, and cost phasing in casco renovations.	• Bundle green mortgage facilitation with A++ units by handling the administrative steps in-house, helping buyers unlock extra borrowing capacity with less effort.
Housing preferences	• Design compact units that are finished and move-in ready. • Do not only build studios, no room for life-course changes.	• Provide upgrade-ready casco shells with standardized connection points to allow flexible but phased personalisation over time. • Integrate community-shared gardens or rooftop terraces in casco projects	• Integrate community-shared gardens or rooftop terraces in casco projects • Include base infrastructure (e.g., heating, electrical, bathroom rough-ins) in all casco units to reduce renovation stress for less experienced buyers.
Location preferences	• Target vacant buildings near employment hubs for transformation, to match buyers' strong preference for short commutes. • Focus on "15-minute neighbourhood" concepts	• Co-design neighbourhood guides with local stakeholders to increase perceived value of overlooked but well-connected areas. • Pre-negotiate shared mobility subscriptions (e.g., car-sharing or regional train discounts) and include them in the housing offer.	• Highlight proximity to key roads • Offer mobility subscriptions (e.g., shared car access or e-bike leasing) to make peripheral locations more attractive. • More focus on green surrounding area
Transformation	• Co-develop hybrid projects with housing associations, combining affordable starter units with social housing.	• Include brief casco orientation during sales, ensuring buyers understand what casco means in practice and reducing confusion or regret.	• Use the character of transformed buildings (e.g. a former church or post office) to create value through identity.

Part I
Relevance

The Dutch housing market has faced persistent challenges balancing supply and demand, particularly affecting first-time buyers. This part introduces the subject and the relevance of the research by examining the financial and structural barriers that hinder homeownership. The problem statement highlights the misalignment between the housing supply and the preferences of first-time buyers, leading to the main research question. Finally, this part outlines the societal and academic significance of the research, the study's objectives, and the report's structure.

1. Introduction

For decades, the Dutch housing market has struggled to balance housing demand and supply, and research consistently demonstrates the difficulty of keeping that. To achieve balance in the housing market, first-time buyers need access to the market, and a cycle of movements is necessary to stay in balance. Population mobility is what drives changes in the housing market. When someone moves out, a house becomes available for a new owner, starting a movement in the housing market. This natural cycle is essential, but first-time buyers need access to affordable homes for a fair chance (Buys, 2005). Right now, that is not always the case, and making real improvements requires bigger structural changes.

Buying a home is not just about having the money. It is also about stability. People with more financial stability, often couples, can buy their first house more easily. Factors like age, income, and educational background play a significant role in shaping housing choices. Younger people or people with a lower income have different needs than wealthier households. This fits into the life course theory, where housing needs shift as people move through various life stages (Mulder and Hooimeijer, 1999). Despite the difficulties, many renters in the Netherlands still want to own a home. Nearly half (46%) would prefer to buy rather than rent (ABF Research, 2024b).

Recent trends show the growing inaccessibility of housing for first-time buyers. In 2015, the average price was €235,000. Nowadays, the average home price in the Netherlands has risen to €477,000, highlighting a dramatic increase over less than a decade. The problems for first-time buyers are even further increased by student debt, as higher levels of debt reduce the mortgage amount one can obtain (Calcasa, 2024).

Transformed buildings in urban centres present a valuable addition to the existing housing stock. Such projects often allow for the creation of apartments that align with the needs of specific target groups, including first-time buyers. This group typically aspires to centrally located housing with good access to amenities. These initial aspirations are referred to as stated preferences, they reflect what buyers ideally want under unconstrained conditions.

However, due to financial limitations such as rising house prices, strict lending criteria, and limited borrowing capacity, particularly among single-income households and those with student debt, many first-time buyers are forced to adjust these preferences. The actual choices they make within their financial constraints are known as revealed preferences. These reflect what buyers end up choosing when affordability, location, and feasibility are taken into account.

Importantly, first-time buyers often have less conventional housing needs, with greater acceptance of variation in size and layout. Within this group, dual-income households typically aim for mid-market housing with purchase prices up to €300,000. Although this is below the current National Mortgage Guarantee (NHG) threshold of €405,000 (NHG, 2024), it still exceeds what many buyers can finance. The NHG aims to facilitate homeownership for low- and middle-income groups (Boelhouwer and Schiffer, 2015), but in practice, its affordability range does not align with the borrowing capacity of many first-time buyers.

As a result, this group often transitions from their stated preferences to more constrained revealed preferences, compromising on location, finish, or dwelling type. Throughout this thesis, the terms stated preferences and revealed preferences refer to this distinction between aspirational housing choices and actual decisions made under constraint. Understanding the gap between the two is essential to assessing how transformation projects can be designed to better align with what first-time buyers realistically need and can afford.

The transformation of vacant buildings could be a solution for more affordable housing in urban areas. However, transforming vacant buildings into housing has challenges (Remøy et al., 2024). Owners of vacant properties and housing developers often face difficulties collaborating, as transformations require a different approach compared to new construction. Financial, legal, technical and policy-related challenges, such as uncertainties about financial feasibility and fears of lengthy procedures, further complicate these projects (Remøy et al., 2024). Also, many technical issues based on national regulations

and regulations from the municipality play a key role in complicating these projects. While building transformations hold promise as a targeted solution to housing shortages, their success depends on addressing these challenges and effectively collaborating among stakeholders.

1.1. Problem statement

In recent years, the Dutch housing crisis has become a national concern; since 2023, it has been one of the most urgent issues in the political debates (Boelhouwer, 2023). This crisis is characterised by an imbalance between housing demand and supply, driven by insufficient new housing developments, fluctuating mortgage rates, and a severe lack of affordable options for first-time buyers (Rekenkamer, 2022). The situation is further intensified by historically low interest rates, which have made borrowing cheaper and more accessible. This increased affordability for buyers has driven up demand for housing while the supply remains limited. As a result, housing prices have increased, making homeownership increasingly out of reach, especially for those newly entering the housing market (de Groot et al., 2021).

An essential component of this crisis is the misalignment between the housing supply and the preferences of first-time buyers. Research indicates that young adults predominantly seek affordable, well-located, and sustainable housing options, yet the current housing supply fails to meet these demands (**?**). The Dutch real estate market remains oriented toward large family homes and high-priced urban apartments, leaving a critical gap in mid-sized, entry-level housing that aligns with first-time buyers' needs (Boelhouwer and Van der Heijden, 2018). As a result, first-time buyers face increasing financial risks, such as overbidding, relocating to less desirable locations, or accepting higher mortgage burdens than recommended (Viisi, 2021).

Life-course trajectories reveal that significant life transitions, such as educational background, income stability and number of buyers, significantly shape homeownership decisions. However, financial constraints, particularly the Dutch student loan system introduced in 2015, have delayed the ability of young adults to purchase homes, exacerbating affordability issues (StudieschuldMeester, 2024). This is particularly visible in the increasing number of young adults who continue to live with their parents due to financial barriers (ABF Research, 2024a), see Figure 1.
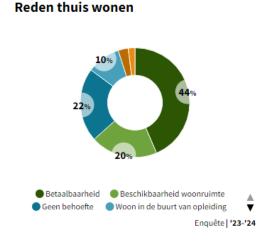
Figure 1: Reasons to stay at home of parents (ABF Research, 2024a)

Research highlights a growing discrepancy between first-time buyers' stated preferences and the revealed preferences (Maaskant, 2024). Many young adults strongly prefer homeownership in centrally located areas, prioritising proximity to jobs, amenities, and public transport (Maaskant, 2024). However, rising housing costs, strict mortgage regulations, and financial constraints force them to settle for less desirable housing options.

The mismatch is also due to the financial resources of first-time buyers, preventing them from entering the housing market. Potential and recent first-time buyers, especially the ones with student debt, are affected by the misalignment between supply and demand. Between 2015 and 2024, Dutch house prices nearly doubled (NHG, 2024). At the same time, the student loan system was introduced, which reduces mortgage eligibility (StudieschuldMeester, 2024). Research shows that for every additional €1,000 in student loans, borrowing capacity decreases (Mezza et al., 2020), making it difficult for first-time buyers to afford homes. The Dutch loan system (leenstelsel) has led to a significant rise in student debt levels, with the average graduate now carrying €23,000 in debt (CBS, 2023). Initially, these loans had a 0% interest rate, but recent policy changes have raised the rate to 2.57%, dramatically increasing repayment obligations and further reducing mortgage eligibility (DUO, 2025). This has increased reliance on parental financial support or prolonged renting.

As illustrated in Figure 2, studies show that 82% of first-time buyers aged 22-29 take financial risks (Viisi, 2021). This forces many young adults to compromise location, size, or housing quality. As a result, many first-time buyers move to suburban areas where properties are more affordable, despite a preference for centrally located, well-connected housing (**?**). While policies such as the National Mortgage Guarantee (NHG) aim to support first-time buyers, they have had limited impact in keeping housing affordable (Boelhouwer and Schiffer, 2015).
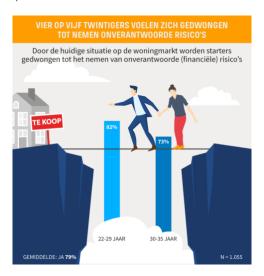
Figure 2: Irresponsible choices first-time buyers (Viisi, 2021)

To bridge the mismatch between preferences and supply, housing transformations offer a potential solution. Housing transformation can add to a 30% of the housing supply (NRP, 2024). Converting vacant offices, churches, and school buildings into residential units can provide affordable housing while addressing urban sustainability goals (Boelhouwer and Van der Heijden, 2018). Adaptive reuse projects capitalise on existing structures, reducing the financial and environmental costs associated with new developments, making them a cost-effective alternative for entry-level homeownership (Remøy et al., 2024).

High demand in urban centres such as Amsterdam, Rotterdam, and Utrecht has left limited space for new housing developments. However, vacant buildings remain underutilised despite their potential for residential conversion. Estimates suggest that housing transformations could contribute up to 10-15% of the housing supply, with some projections indicating this could rise to 30% by 2030 if implemented effectively (NRP, 2024). Despite their potential, housing transformations remain an underutilised strategy in current Dutch housing policy. Regulatory hurdles, zoning restrictions, and financing challenges often prevent adaptive reuse from being fully realised as a solution to the affordability crisis. Research is needed to examine the feasibility of transformations for first-time buyers, particularly those affected by financial constraints and student debt.

Previous research has analysed: A) the mismatch between stated and revealed preferences (Maaskant, 2024), B) how transforming vacant buildings creates the opportunity for more homes (NRP, 2024) and

C) the position of first-time buyers on the housing market (Viisi, 2020). The research gap in Figure 3 shows an under-explored potential solution. How can a bridge be created between the transformation of vacant buildings and the preferences that are still affordable for first-time buyers?
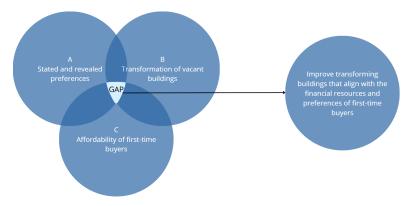
Figure 3: Gap in literature (own work)

This research addresses these gaps by investigating how student debt contributes to the misalignment between housing preferences and supply and whether adaptive reuse strategies can provide an affordable homeownership solution for first-time buyers. Chapter 3 will analyse first-time buyers' characteristics and decision-making processes, followed by Chapter 4, which explores the housing preferences of first-time buyers, providing insights into the differences between the stated and revealed preferences, as well as the factors that most strongly influence housing choices. Chapter 5 examines housing and affordability restrictions and how these constraints shape decision-making processes. Finally, Chapter 6 investigates the potential of building transformation as a strategy to increase affordable housing supply, analysing the current scale of vacancy, typologies suitable for residential reuse, and the technical, financial, and institutional barriers that inhibit broader adoption

1.2. **Societal and academic relevance**

Societal relevance

The Dutch housing crisis has broad societal implications, particularly for younger generations seeking to establish themselves in the housing market. First-time buyers, in particular, face huge challenges in achieving homeownership. Rising housing prices and the financial burden of student debt have pushed many young people into long-term renting. This already happened in the U.K. (Mckee et al., 2017).

The availability of affordable housing, typically defined as housing that does not consume more than 30% of a household's gross income, is becoming less accessible for first-time buyers (Zairul et al., 2015).

Additionally, (Mckee et al., 2017) emphasises that housing consumption is not just a practical issue but a marker of social status. It has a lot of influence on their lifestyle. Research shows that people without a home feel less safe and secure about their life (Boelhouwer, 2023). A home is strongly connected with social security and greatly impacts employment, number of children and health issues (Myers et al., 2021). Inadequate housing has been connected to fewer newborn children. The Netherlands already has an ageing population, but if fewer children are born, the Dutch population will quickly become smaller (CBS, 2022). As shown in figure 4, the number of children versus the housing prices since 2016 is almost in the opposite direction (CBS, 2022).

This research not only delves into the housing demands of first-time buyers but also contributes to new strategies for transforming vacant buildings. According to Glumac (2016), transforming existing buildings offers several advantages. Firstly, it supports environmental sustainability, as reusing buildings reduces the demand for new materials and energy. Secondly, transformation is often more cost-effective than new construction, providing an economic benefit. Additionally, transformation helps mitigate urban sprawl by optimising the use of inner-city resources, thereby preserving greenfield areas.

Socially, redevelopment addresses issues associated with vacant buildings, which can attract criminal
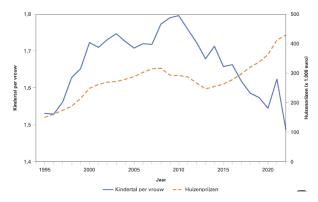
Figure 4: Number of children versus housing prices (CBS, 2022)

activity and increase social insecurity in the area. Moreover, vacancy contributes to the decline of neighbourhoods by negatively affecting the street view and overall aesthetic (Glumac, Vasilache, & Lowies, 2016). Consequently, redevelopment is a multifaceted solution to housing, economic, availability, and social challenges.

Academic relevance
By focusing on first-time buyers with student debt in the Netherlands and their housing preferences, this research may expand the academic literature on innovative housing solutions in the Dutch context. The current generation of first-time buyers is particularly vulnerable to the intersection of financial instability and housing market pressures, which exacerbates their exclusion from homeownership. Much of the existing literature on first-time buyers with student debt has focused on countries such as the United States and the United Kingdom (Mckee et al., 2017) (Mezza et al., 2020). These studies have explored issues like housing affordability, the impact of student debt, and the shift from homeownership to renting among young adults. However, the specific dynamics and the barriers of first-time buyers in the Netherlands, including the effects of the student loan system, remain unexplored. Research on this generation will provide valuable insights into how social and economic policies can be adjusted to address these inequalities and promote greater housing accessibility.

The research focuses on building transformations to find more solutions for affordable housing for first-time buyers. While building transformation has been explored in the literature (Boelhouwer and Van der Heijden, 2018), there is a lack of research in the Netherlands on how successfully transforming underutilised buildings into affordable housing for first-time buyers is, which aligns with their preferences.

This research bridges the gap between theoretical research and practical actions by exploring the potential of building transformations. As urbanisation continues to drive demand for housing, the need for innovative solutions becomes increasingly urgent. Contributing to developing such solutions by providing a action matrix for developers will help transform more vacant buildings into affordable housing that matches the demand of first-time buyers.

1.3. Goals and objectives
To address the Dutch housing problem, this research aims to help developers convert vacant buildings into affordable housing, focusing on first-time buyers burdened by student loan debt. These people face problems such as rising house prices, limited mortgage options, and financial barriers, such as the Dutch student loan system. The study aims to analyse the housing preferences of first-time buyers and investigate how regulations have impacted the gap between housing supply and demand. This project aims to address the housing shortage sustainably while meeting first-time buyers' preferences by exploring innovative options such as transforming vacant buildings.

This research aims to provide developers, policymakers, and first-time buyers with possible actions to improve housing accessibility and increase the share of housing stock derived from building transformations. By adjusting solutions to different regional contexts, urban, suburban, and rural, this

action matrix helps bridge the gap between housing supply and demand, ensuring that transformed buildings align with affordability needs and buyer preferences. Three action plans show the differences per urbanisation level in the Netherlands. It also offers guidance on overcoming financial, regulatory, and market barriers, ultimately promoting an inclusive and sustainable housing market that facilitates accessible homeownership for first-time buyers.

1.4. Research questions

The Dutch housing market presents a growing challenge for first-time buyers, particularly those burdened by student debt and limited financial capacity. Rising property prices and systemic barriers have restricted access to affordable housing. In this study, access to homeownership is understood as a multidimensional concept shaped by affordability, housing availability, mortgage eligibility, and institutional constraints. The ultimate goal is to provide an action matrix for developers and stakeholders to create affordable housing solutions within the Dutch housing market. The research focuses on exploring the transformation potential and aligning them with the specific demands of first-time buyers. The housing demands result from the interplay between the preferences of potential and recent first-time buyers and the supply on the market. There is a gap between stated and revealed preferences because idealised housing aspirations do not always translate into actual purchasing behaviour due to financial limitations, market conditions, and regulatory constraints (Louviere et al., 2000).

The study is structured around a conceptual model that maps the transition from first-time buyers' characteristics to homeownership through targeted housing solutions. Figure 5 illustrates how life-course trajectories, financial constraints (e.g., income, mortgage eligibility, student debt), and broader market conditions shape the shift from stated to revealed preferences.
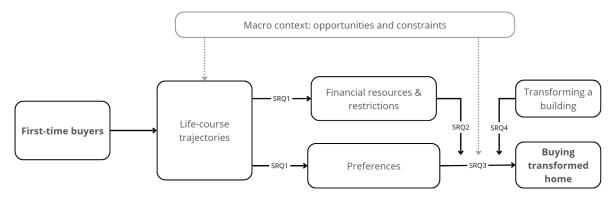
Figure 5: Conceptual model (based on Mulder and Hooijmeijer, 1999)

By continuously aligning evolving housing aspirations with market realities, developers can better match building transformations to actual demand, bridging the gap between affordability and accessibility. Adapted from Mulder and Hooimeijer (1999)'s Life Course Theory, the model extends the framework by incorporating first-time buyers and the adaptive reuse of vacant buildings. While life-course trajectories influence housing aspirations, financial and market constraints often necessitate adjustments, creating an opportunity for housing transformations to address affordability challenges. By embedding adaptive reuse within this framework, the model provides a strategic approach for increasing affordable housing options and improving homeownership accessibility for first-time buyers.

Following, the main research question is:

"In what ways do life-course trajectories, financial restrictions, or preferences shape the accessibility of homeownership for recent and potential first-time buyers while evaluating the role of housing transformations as a potential solution?"

To support the main research question, the following sub-questions have been addressed:

SRQ1 - *"How do life-course trajectories shape the preferences and housing restrictions of recent and potential first-time buyers?"*

This sub-question examines the socio-demographic characteristics of first-time buyers and how life-stage events influence their housing aspirations and restrictions. Housing aspirations can be understood as part of preferences, specifically as stated preferences, which reflect individuals' initial desires and expectations regarding homeownership. However, financial limitations, market conditions, and life-course developments often constrain these aspirations. As a result, stated preferences may shift towards revealed preferences, representing actual choices made under affordability constraints. According to Mulder and Hooimeijer (1999), transitions such as completing education, entering the labour market, and forming households are key triggers for housing decisions. However, these trajectories are increasingly delayed or disrupted, affecting first-time buyers' ability to enter the housing market.

SRQ2 - *"How do financial resources, student debt, and housing constraints affect the affordability of homeownership for recent and potential first-time buyers?"*

Affordability is one of the greatest barriers for first-time buyers. This sub-question examines how financial capacity (income, savings, mortgage eligibility), student debt, and housing market constraints influence homeownership access. Additionally, mortgage regulations in the Netherlands limit borrowing capacity based on income-to-debt ratios, meaning that student debt restricts the amount first-time buyers can borrow. At the same time, structural housing constraints, such as rising property prices and low housing supply, exacerbate affordability issues (NHG, 2024). This sub-question seeks to identify how financial barriers and market conditions interact, shaping first-time buyers' ability to transition into homeownership.

SRQ3 - *"How do stated and revealed housing and location preferences influence recent and potential first-time buyers' decision-making in homeownership?"*

Housing preferences initially emerge as aspirations, forming part of stated preferences, which reflect buyers' ideal housing characteristics such as size, location, and price. However, these aspirations are often constrained by financial limitations, housing availability, and structural market conditions, leading to a shift toward revealed preferences, the actual choices buyers make within these constraints. Also, attention is paid to location preferences, which often remain more stable than other housing characteristics and play a central role in decision-making. By examining housing and locational trade-offs, this sub-question provides insight into how affordability and market dynamics shape the real-life trajectories of first-time buyers. Understanding this process provides insight into the financial and structural barriers that shape homeownership decisions (Louviere et al., 2000).

SRQ4 - *"To what extent can housing transformation projects provide an affordable solution that aligns with the preferences of recent and potential first-time buyers?"*

Given the affordability constraints and shifting preferences identified in the previous sub-questions, this sub-question evaluates whether housing transformations can offer a viable pathway to homeownership for recent potential first-time buyers. Housing transformations, such as converting vacant office spaces into residential units, provide a potential solution by offering lower-cost housing alternatives (Boelhouwer and Van der Heijden, 2018). However, these transformations must also align with first-time buyers' location, size, and flexibility preferences. While transformations may provide affordable housing, they may not meet buyer expectations for location or design flexibility (Remøy et al., 2024). This sub-question explores whether these projects address affordability concerns while offering desirable housing features.

To effectively address the research question, the sub-questions must be structured, each addressing a specific but related aspect of first-time buyers' access to homeownership. Together, they reflect the sequential logic of the conceptual model, see Figure 5, linking life-course dynamics, financial constraints, preferences, and transformation strategies into a coherent analytical framework.

1.5. Structure of report
This research is structured to systematically explore how the transformation of existing buildings can address the housing demands of first-time buyers in the Netherlands. Table 1 explains the report's structure.

Part	Chapter	Content
1. Introduction	Chapter 1	The introduction begins by outlining the context, followed by the problem statement. It also addresses the scientific and societal relevance of the research. Additionally, the goals, objectives and personal study targets are explained. Concluding with the research question and corresponding sub-questions are presented.
2. Methodology	Chapter 2	The research method section begins with an overview of the research design, followed by a detailed explanation of the theoretical and empirical research methods. Subsequently, the processes of data collection and data analysis. Finally, the section addresses ethical considerations in greater detail, including dissemination strategy and target audiences.
3. Desk research	Chapters 3, 4, 5, 6	The literature review explores in Chapter 3 the life-course trajectories of first-time buyers and their challenges in the Dutch housing market. Chapter 4 examines their stated and revealed preferences. Chapter 5 explains the financial restrictions, such as student debt and rising house prices. The study identifies how these financial restrictions influence preferences and highlights the potential of new transformation projects. Chapter 6 investigates the potential of building transformations. It explores which building typologies are most suitable for residential reuse and examines the technical, financial, and institutional barriers that currently limit the broader adoption of transformation strategies.
4. Empirical research	Chapters 7, 8, 9	This part presents the results obtained from qualitative data collection through semi-structured interviews with first-time buyers. The interviews aim to capture the four key themes of this research, which are further explained in Chapter 2. After that, the findings are synthesised into a cross-case action proposal and three urbanisation-level-based action proposals, which serve as a strategic guideline for developers. The action proposal is validated through an expert panel of real estate professionals to ensure its applicability. The panel evaluates the proposed actions, identifying potential bottlenecks and refining recommendations to enhance implementation.
5. Conclusion, discussion, limitations	Chapter 10	This part begins with the conclusion, addressing the main research question. Followed by a discussion of the research. The part concludes with limitations during the research process and recommendations for further research.

Table 1: Structure of report (own work)

Part II
Methods

Part II outlines the research design to explore the alignment between first-time buyers' housing demands and building transformations. Given the complexity of finding a home as first-time buyer and the evolving preferences of first-time buyers, a multimethod qualitative approach is adopted. The research integrates desk research, case studies, and semi-structured interviews to generate a structured action proposal for developers to enhance the affordability and accessibility of transformed housing. The research provides an action proposal to optimise building transformations to meet first-time buyers' needs.

2. Research design

2.1. Type of research

This research adopts a multi-method qualitative approach, integrating various research methods to address the complexity of the topic. The focus is on exploring the demands and barriers of first-time buyers and the impact of building transformations, primarily through qualitative research methods. This approach is particularly suited for producing a detailed action proposal for developers to transform vacant buildings into more demand-driven transformations.

The primary objective of this research is to propose an action proposal to improve the alignment of housing transformation projects with the needs of first-time buyers. This aligns with an operational research approach, as described by (Barendse et al., 2012), aimed at generating practical solutions.

The output of this research provides an action proposal for a more efficient way of transforming vacant buildings for first-time buyers. The research employs a combination of desk research and empirical research methods, as outlined in Figure 6.

The desk research phase explores the housing demands of first-time buyers, their geographic preferences, and the potential of building transformations as a solution to affordability challenges. It is structured around four key themes: life-course trajectories, affordability constraints, housing and location preferences and transformation possibilities. The research identifies patterns in housing aspirations and market realities by analysing literature and existing data, highlighting the financial and structural barriers that shape homeownership accessibility. The findings serve as a foundation for the empirical research phase, where case studies and interviews further validate insights from the literature.
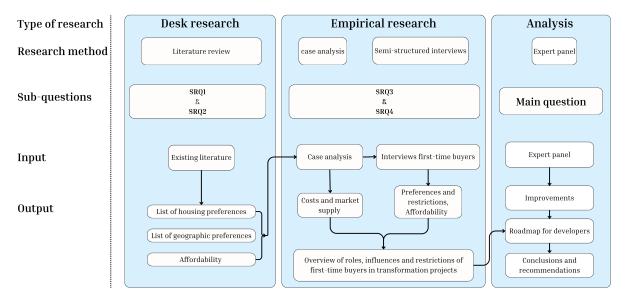
Figure 6: Methodology (own work)

The empirical research phase involves qualitative methods, such as semi-structured interviews with first-time buyers, to explore the practical barriers faced by first-time buyers. The findings are analysed to identify actionable strategies and geographic insights related to building transformations. This phase also involves analysing case studies to identify how developers currently involve first-time buyers' demands in their projects.

The final phase of this research integrates desk and empirical research findings to design a structured set of action proposals for developers. This output consists of one cross-case action proposal, applicable across all three case study regions, and three urbanisation-level-specific action proposals tailored to the local conditions of Rijswijk, Apeldoorn, and Venray. Each urbanisation-level-based proposal delves into the particular challenges and opportunities identified in that location, ensuring an urbanisation-sensitive approach to transformation projects.

The action proposals are developed in a stepwise manner. Starting from the identified challenges and opportunities, possible actions are formulated, substantiated by academic literature, and subsequently validated through an expert panel. The expert panel consists of developers and project managers who are not directly involved in the selected projects, ensuring the neutrality of their feedback.

By structuring the action proposals around both cross-case and urbanisation-level-specific conditions, developers are provided with practical and context-sensitive recommendations that align with local market realities and financial feasibility, ultimately increasing the success rate of transformation initiatives. This process ensures a robust and substantiated conclusion, enhancing confidence in the results (Heale and Forbes, 2013).

2.1.1. Desk research

The desk research serves as the base of this study, designed to collect the necessary background information and establish a theoretical framework for the interviews. It primarily involves a literature review to ensure accurate definitions and relevant concepts are used throughout the research. This approach is important for understanding the current housing demands of first-time buyers, as well as the barriers they face and the current transformation strategies for existing buildings. Desk research enables the identification of gaps in the literature and provides the basis for empirical research. The literature review findings are used to categorise housing preferences and geographic demands, which is critical for addressing the research sub-questions.

One key output of desk research is creating a basis for the current housing and geographic preferences. This is a guideline for understanding first-time buyers' revealed and stated preferences when buying a home. The criteria and preferences derived from the literature are tested and refined through interviews and case studies, creating a bridge between theoretical understanding and practical feasibility.

2.1.2. Empirical research

The empirical research phase is designed to validate and enhance the findings from desk research by exploring three cases in the Netherlands and the first-time buyers' perspectives. This phase utilises a multiple case study approach, semi-structured interviews and a validation session with an expert panel. The empirical research is conducted entirely within the Dutch context, ensuring that findings are highly relevant to the specific market.

Multiple case study

The multiple case study involves analysing affordable transformation projects for first-time buyers. Three cases have been selected to enable in-depth exploration of individual projects and meaningful cross-case comparisons. These projects are Urban Vista in Rijswijk, Post, Apeldoorn and the Vredeskerk in Venray. This approach enhances the validity and reliability of the literature research findings (Groat and Wang, 2013).

The selection of three cases is essential due to the significant variation in land prices across different regions in the Netherlands. Examining projects in different locations allows a more comprehensive understanding of how regional factors influence affordability, preferences and transformation feasibility. Considering the six-month time frame of this research, focusing on three cases allows for a detailed analysis and maximises the information that can be extracted.

For the case study, projects have been selected based on specific criteria to ensure relevance and comparability. Given that this research focuses on housing transformations for first-time buyers, it is essential to analyse Dutch transformation projects that align with the study's objectives.

Table 2 compares three case study locations; Urban Vista (Rijswijk), The Post (Apeldoorn) and Vredeskerk (Venray) and their key transformation criteria. Geographically, Urban Vista is in the high-density Randstad region, The Post is in a semi-urban area and Vredeskerk is in a rural setting. All three involve transformation projects and repurposing existing buildings for residential use. Owner-occupied homes have not yet been finalised, but some buyers have already bought the house, and others are in the process of buying it. Each project targets first-time buyers and is sold under the NHG set price of

Criteria	Urban Vista, Rijswijk	the Post, Apeldoorn	Vredeskerk, Venray
Geographic location	Randstad area	Sub urban area	Rural area
Transformation	Yes	Yes	Yes
Owner-ocupied homes	Not yet, almost bought	Not yet, bought	Not yet, bought
First-time buyers	Yes	Yes	Yes
Under NHG price	Yes	Yes	Yes

Table 2: Selection criteria per case (own work)

€405,000 (NHG, 2024), ensuring accessibility and financial security. This comparison highlights how transformation projects adapt to different urbanisation levels and housing market conditions.

Urban Vista, Rijswijk
The Urban Vista project in Rijswijk exemplifies the adaptive reuse of existing structures to address housing needs, particularly for first-time buyers. This initiative transforms a former office building into 122 sustainable and modern apartments.

This project fits perfectly in this research since it focuses on the availability of affordable housing options suitable for first-time buyers. By repurposing existing office space, the Urban Vista development aligns with broader urban planning objectives to provide various housing, including affordable and medium-priced homes. This approach addresses housing shortages and promotes sustainable urban development by reducing the need for new construction and utilising existing infrastructure.

Post-office, Apeldoorn
The second case is a project from Steenvlinder in Apeldoorn. The transformation of the former post office in Apeldoorn was selected as a case study due to its strong alignment with the focus of this research: addressing the housing needs of first-time buyers through the adaptive reuse of existing buildings. This project, led by Steenvlinder, involves converting a historic municipal monument into 28 self-build homes, offering affordable and customisable housing solutions specifically designed for first-time buyers (Remøy et al., 2024).

The project's relevance lies in its innovative approach to affordable homeownership, where buyers can tailor their homes according to their personal preferences and financial capacities. This aligns directly with the research's focus on exploring how building transformations can overcome barriers related to affordability, housing preferences, and market accessibility. Its success in engaging future homeowners and integrating sustainable practices makes it a compelling example of how similar transformations can contribute to easing the Dutch housing crisis(Remøy et al., 2024).

Vredeskerk, Venray
The Vredeskerk in Venray, a former church, is being transformed by Steenvlinder into 28 self-build homes for first-time buyers. Located in the suburban town of Venray, the project follows a casco (shell) delivery model, allowing buyers to customise their homes. This adaptive reuse initiative preserves the building's historical character while providing affordable housing in a well-connected and growing residential area.

Analysis

Semi-structured interviews

To gain in-depth insights into the roles and barriers experienced in transformation projects, interviews are conducted with first-time buyers. See Appendix A for the interview protocol. four key themes are used to structure the interviews: the experiences of first-time buyers, affordability, preferences, location, and transformation. This flexible yet structured interview format allows participants to freely express their perspectives while ensuring that the research objectives remain central (McIntosh and Morse, 2015). These interviews aim to uncover the process behind the decisions of first-time buyers during their search for a home. Asking open-ended questions encourages detailed responses and allows for deeper answers to the subject. This contributes to the design of the final action proposal. Around 6-8 interviews are held per case, with a total of 20 interviews from three different locations in the Netherlands. Together, these interviews will give a well-defined perspective of first-time buyers' preferences and housing choices. The first two interviews are test interviews to interpret people's reactions to difficult questions and to check the duration of the interviews. After all interviews are done, the interviews are transcribed and summarised to compare the four key themes with each other per case study. All interviews are coded in one Excel and structured thematically; in Appendix B, all subthemes are shown.

Participant selection

The selection of participants is divided into the following three criteria :

1. The interviewees must be recent first-time buyers: Individuals who purchased their first owner-occupied home. This category includes those who moved directly into homeownership and those who transitioned from renting to owning.

2. The interviewees must be potential first-time buyers: Individuals actively engaged in purchasing their first owner-occupied home. This includes participation in activities such as attending open houses or property viewings, consulting with mortgage advisors and real estate agents, and exploring financing options. These behaviours reflect a proactive effort to enter the housing market and demonstrate a genuine commitment to homeownership. These interviewees are the ones who are going to buy a house in the Urban Vista project in Rijswijk

3. All participants must be residents or future residents of one of the case studies.

Participants for the post-office case and the Vredeskerk are recruited through Steenvlinder, and participants for the Urban Vista project are approached via DEV_Real Estate. Interviewing seven participants per case provides information on the decision-making process, motivations, and reasoning behind why choices are made. Given the limited timeframe of the research, this number is considered realistic. The interviews will follow a semi-structured protocol to ensure consistency and depth in the data collected.

2.1.3. Action proposals

This phase integrates findings from desk and empirical research to create an action proposal for stakeholders involved in housing transformation projects. Firstly, the interview data is analysed and compared with the literature. After that, one cross-case action proposal and 3 urbanisation-level-specific action proposals are developed. An expert panel validates the action proposal to ensure reasonable recommendations. This phase combines theoretical insights, empirical findings, and expert feedback to ensure the recommendations are both practical and evidence-based.

The development process results in the development of final action proposals for developers and other stakeholders, serving as a comprehensive guide that addresses market differences, affordability challenges, and housing preferences across three distinct regions: one Urban (Rijswijk), a semi-urban area (Apeldoorn), and a rural setting (Venray). Structuring the plan around these regional distinctions ensures that transformation projects are tailored to each market's specific characteristics and needs.

The action proposal unfolds in three main phases. First, findings from both the literature review and the interviews are synthesised to identify key challenges and opportunities for first-time buyers. In the second phase, these findings are organised thematically and translated into subthemes in an Excel spreadsheet, based on the sub-theme and how much the theme occurs, proposed actions are

set up. The proposed actions, distinguishing cross-case actions (applicable across all regions) and urbanisation-level-specific actions based on the case studies: Rijswijk, Apeldoorn, and Venray. In the third phase, the proposed actions are validated through an expert panel composed of developers and project managers, ensuring both theoretical grounding and practical relevance. This process enhances the robustness of the action proposals and increases the applicability of the recommendations for future transformation projects.

Validation
The plan and its findings are validated through an expert panel composed of seven professionals with significant experience in building transformation projects (see Appendix C). The experts are not involved in one of the case studies, and therefore, they are not biased. This qualitative method presents the proposed actions to the panel for critical reflection and refinement (Döringer, 2021). A session with DEV_Real Estate will be organised as part of this expert panel, bringing together professionals from various roles within the company.

During the session, a debate with experts takes place, structured around key statements derived from the proposed cross-case and urbanisation-level-specific actions. These statements serve as a basis for substantive discussion, allowing the experts to assess the feasibility, relevance, and potential bottlenecks of the proposed actions. Rather than focusing on a passive presentation, the debate encourages active engagement, critical assessment, and collective refinement of the action proposals.

Based on the outcomes of the expert debate, necessary adjustments will be made to optimise the proposed actions and to ensure that they are both practical and aligned with market conditions. This validation process ultimately leads to the final version of the action proposal, offering developers and stakeholders a structured and applicable guide to implement housing transformation initiatives across different regional contexts.

2.2. Data plan and ethical considerations
Due to the involvement of human participants during the interviews, all participants must sign a consent form before any notes or recordings are collected (see Appendix D). The researcher retains full ownership of all interview data. The researcher is also fully responsible for processing, storing, and sharing the data during and after the research. To ensure security, the data will be safely stored on the drive provided by TU Delft. The final report will be made publicly accessible through the TU Delft repository.

The following types of data are used throughout the study:

- Literature and document analysis

- Documentation from the multiple case studies and cross-case analysis

- Personal information of participants involved in case study interviews and the expert panel

- Notes, recordings, and transcripts from the semi-structured interviews

- Notes, recordings, and a summary from the expert panel

- OpenAI (2025) is used for rephrasing in academic style

The well-being of research participants is a priority, and every effort has been made to ensure that participation in the study does not result in any harm. Before their involvement, participants were provided with clear and detailed information about the objectives of the specific research activities they were contributing to. Participants were given the right to decline to answer any questions that made them uncomfortable or conflicted with their privacy or ethical principles, see Appendix E. To uphold ethical standards, all participant statements and descriptions have been anonymised to prevent identification in the final documents. To carefully consider all participant data, a data management plan is included in this research, see Appendix F: Data Management Plan.

2.3. Audience of the Research

Developers

Developers are the main audience for this research. The insights and actions provided can help them evaluate and improve their projects to meet the demands of first-time buyers better. By integrating the action proposal into their development process, they can prioritise affordability, align with buyer preferences, and select suitable locations. This attracts first-time buyers, increases the chances of successful sales, and maximises returns on investment. Given their influence in shaping the housing supply, developers play a critical role in addressing the housing needs explored in this research.

First-Time Buyers

While first-time buyers can benefit significantly from this research, they are not the primary audience. The road map and action proposal guide them in finding homes that match their financial capacity, preferences, and desired locations. The research also enhances their understanding of housing market dynamics, equipping them to make informed decisions. However, the focus remains on encouraging developers to create suitable housing solutions for this group.

Municipalities

Municipalities can apply the principles from this research to inform their housing policies and urban planning strategies. The action proposal helps municipalities recognise their role in providing affordable housing solutions for first-time buyers by collaborating with developers and steering projects towards inclusivity, sustainability, and accessibility within their regions.

Scientists

This thesis also contributes to the scientific understanding of housing accessibility by integrating behavioural, spatial, and institutional perspectives. It provides empirical insights into the lived experiences of first-time buyers, extending theoretical frameworks such as life-course analysis, constrained choice theory, and revealed preferences. Through its mixed-method approach, the research demonstrates how qualitative data can be operationalised into actionable strategies, offering a model for applied housing studies. Scholars interested in urban housing markets, residential decision-making, or policy-relevant research will find value in the thematic analysis, case-based comparisons, and the methodological bridge between empirical evidence and practical application.

Part III
Desk research

Part III analyses the characteristics and challenges of first-time buyers in accessing affordable homeownership. The desk research is structured around four key themes: life-course trajectories, affordability, preferences, location, and the potential of housing transformations. By combining literature, statistical data, and policy reports, this part explains how demographic shifts, financial constraints, and spatial mismatches shape the barriers faced by first-time buyers. In addition, it explores how the adaptive reuse of vacant buildings can serve as an alternative strategy to improve access to affordable housing.

3. Life-course trajectories

The Dutch housing market presents significant challenges for first-time buyers, a highly diverse group under growing pressure from demographic shifts, institutional restrictions, and financial uncertainty. First-time buyers are primarily young adults navigating pivotal life-course transitions, such as completing education, entering the labour market, or forming independent households. These transitions increasingly take place under precarious conditions, shaped by flexible employment, student debt, and delayed life-stage milestones.

To better understand the housing decisions of this group, this part of the thesis explores how life-course dynamics influence both housing aspirations and structural constraints. Specifically, Chapters 3 and 4 address subquestion 1: *How do life-course trajectories shape the housing aspirations and restrictions of recent and potential first-time buyers?* Drawing on academic literature, Chapter 3 outlines the position of first-time buyers, while Chapter 4 connects these life-course conditions to housing and location preferences. Both chapters build upon the theoretical framework developed by Mulder and Hooimeijer (1999), which links life-stage transitions to spatial decision-making and tenure outcomes.

Together, these chapters provide the conceptual foundation for understanding how personal development and structural constraint intersect in shaping the entry of first-time buyers into the housing market. Chapter 5, which follows, expands the analysis by focusing on financial access and affordability mechanisms. Subsequently, Chapter 6 builds on this foundation by investigating the role of vacant non-residential buildings as a complementary strategy to traditional housing provision. It explores whether and how transformation projects can offer affordable, feasible, and preference-aligned solutions for first-time buyers, thereby addressing sub-question 4 of this research.

3.1. Understanding first-time buyers

The group for this research consists of potential first-time buyers and recent first-time buyers. They are "someone entering the housing market who has purchased a home for the first time or transitioned from renting" (WoON, 2021). Still, within these two groups, different subgroups are made to specify the other variables. The group is divided into multiple subgroups depending on educational level and number of buyers; all subgroups have a student loan debt; this division is also made by (Mulder and Hooimeijer, 1999), who made the variables, education, labour market, household and housing. It is not yet proven that possession of student loan debt affects the likelihood of homeownership. Still, individuals who have no (or not anymore) student debt are more likely to be homeowners (Rootliep, 2024). Potential and recent first-time buyers are divided because they probably have different preferences.
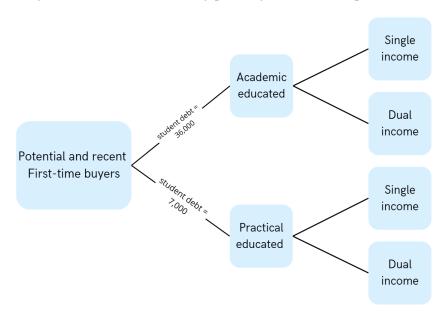
Figure 7: Target groups (own work)

In Figure 7, a distinction is made between four subgroups based on age, education level, and household composition. This research focuses on individuals aged 25-30 who started their studies after 2015, ensuring that participants are part of the same student loan system (leenstelsel) and have faced similar financial conditions when entering the housing market. However, a distinction is also made between potential and recent first-time buyers. The difference between these groups is already mentioned in Part II.

Additionally, education level and household composition further divide these subgroups. In the Netherlands, post-secondary education is classified into three main categories:

1. MBO (Middelbaar Beroepsonderwijs) – Secondary vocational education

2. HBO (Hoger Beroepsonderwijs) – Higher professional education

3. WO (Wetenschappelijk Onderwijs) – University-level education

MBO is classified as practical education for this research, while HBO and WO are categorised as academic education. Within these education levels, a further distinction is made between one-person and two-person households, as household composition significantly influences affordability, mortgage capacity, and housing preferences.

This classification provides a structured framework to compare stated and revealed housing preferences across different groups, ensuring that the findings reflect aspirations and market behaviour.

The division between academic and practical education is made because research shows a difference in possibilities in the housing market between academic and practical education, as shown in figure 8 (Viisi, 2020). At this moment, 74% of the persons with a practical education background think it is impossible to buy a house on their own. However, this percentage is 58% (Viisi, 2020) for persons with an academically educated background. But also because educational background influences current earnings and shapes long-term career prospects, which is critical for securing mortgage approval (Mulder and Hooimeijer, 1999).

Figure 8: Possibilities first time-buyers based on education level (Viisi, 2020)

3.2. Educational background

Higher education levels generally correlate with better job prospects and higher income potential, allowing graduates to offset student debt burdens over time. Despite this long-term financial advantage, highly educated individuals face initial economic constraints, shaping their early housing choices. Data

from Heerink-Martin (2021) indicate that the average starting salary for university graduates is €35,000 per year, depending on industry and sector. This income level significantly impacts mortgage eligibility, with an individual earning €35,000 per year and carrying a student debt of €36,000 being able to borrow a maximum of €132,927, compared to €165,568 without debt (StudieschuldMeester, 2024). For dual-income households, the borrowing capacity increases significantly, reaching €304,355 in cases where neither buyer has student debt (Figure 9).

Maximale hypotheek
Inclusief studieschuld
€ 132.927

De maximale hypotheek die je op dit moment kunt krijgen is € 132.927.

Dit is berekend op basis van je salaris en een wettelijk maandbedrag van je schuld van € 129,86.

Als je extra aflost op je schuld kun je je maximale hypotheek verhogen.

Maximale hypotheek
Studieschuld afbetaald
€ 165.568

Als je je studieschuld en die van je partner afbetaalt kun je een maximale hypotheek van € 165.568 krijgen.

Maximale hypotheek
Inclusief studieschuld
€ 239.072

De maximale hypotheek die je op dit moment kunt krijgen is € 239.072.

Dit is berekend op basis van jullie opgetelde salaris, het wettelijk maandbedrag van jouw schuld van € 129,86 en het wettelijk maandbedrag van je partner van € 129,86.

Als je extra aflost op je schuld kun je je maximale hypotheek verhogen.

Maximale hypotheek
Studieschuld afbetaald
€ 304.355

Als je je studieschuld en die van je partner afbetaalt kun je een maximale hypotheek van € 304.355 krijgen.

Figure 9: Mortgages 1 or 2 incomes with academic education (StudieschuldMeester, 2024)

Conversely, practically educated individuals (MBO graduates) typically earn lower starting salaries, averaging €24,000 per year (Heerink-Martin, 2021). Since MBO graduates complete their studies at a younger age and accumulate less student debt, their borrowing capacity is affected to a lesser extent. On average, MBO graduates carry a student debt of €7,170, leading to a maximum mortgage of €93,000, compared to €99,501 without debt (StudieschuldMeester, 2024). Like academically educated buyers, dual-income households significantly increase mortgage capacity, reaching €201,894 in cases where neither buyer has student debt (Figure 10).

Maximale hypotheek
Inclusief studieschuld
€ 93.000

De maximale hypotheek die je op dit moment kunt krijgen is € 93.000.

Dit is berekend op basis van je salaris en een wettelijk maandbedrag van je schuld van € 25,86.

Als je extra aflost op je schuld kun je je maximale hypotheek verhogen.

Maximale hypotheek
Studieschuld afbetaald
€ 99.501

Als je je studieschuld en die van je partner afbetaalt kun je een maximale hypotheek van € 99.501 krijgen.

Maximale hypotheek
Inclusief studieschuld
€ 188.891

De maximale hypotheek die je op dit moment kunt krijgen is € 188.891.

Dit is berekend op basis van jullie opgetelde salaris, het wettelijk maandbedrag van jouw schuld van € 25,86 en het wettelijk maandbedrag van je partner van € 25,86.

Als je extra aflost op je schuld kun je je maximale hypotheek verhogen.

Maximale hypotheek
Studieschuld afbetaald
€ 201.894

Als je je studieschuld en die van je partner afbetaalt kun je een maximale hypotheek van € 201.894 krijgen.

Figure 10: Mortgages 1 or 2 incomes with practical education (StudieschuldMeester, 2024)

These figures highlight that student debt has a more significant impact on mortgage capacity for higher-educated individuals, as their borrowing amounts are more extensive. However, the most decisive factor in purchasing power is whether a buyer purchases alone or with a partner.

3.3. Single and dual-income households

Single-income buyers have more significant financial difficulties than dual-income buyers. Their limited financing ability due to having only one source of income frequently limits them to smaller residences or less suitable areas. Because they only have one income source, they receive a €15,000 benefit on

their mortgage eligibility. However, this group is still more vulnerable to rising housing costs and can find it challenging to compete in places with intense competition. Single-income and dual-income households differ significantly within the first-time buyer group. Two-income couples experience financial advantage that enables them to purchase more houses, including homes in more desired areas. Dual-income households often qualify for higher mortgages due to their combined salaries, which gives them more options in the housing market.

3.4. Generational shifts

The transition to homeownership presents significant challenges for young adults, particularly those with student debt. High levels of indebtedness have been shown to delay key life milestones, including marriage, parenthood, and acquiring a home (AFM, 2021). Consequently, many young adults extend their tenure in rental accommodations or continue residing with family members to manage financial obligations effectively. First-time buyers' lifestyles are essential for designing residential properties that align with their current and future needs. Prior research has demonstrated that lifestyle values significantly influence housing preferences, with individuals making housing choices based on their personal and socio-economic conditions (Jansen, 2013). However, housing is inherently a long-term asset and must accommodate the evolving preferences of successive generations over time. Given that teenagers currently residing with their parents are likely to become first-time buyers within the next five to ten years, understanding generational trends in housing demand is imperative.

Life course stages strongly influence housing location preferences. The Life Course Theory posits that housing choices are dynamic and evolve in response to critical life transitions, including leaving the parental home, career advancement, marriage, and child-rearing (Mulder and Hooimeijer, 1999). Empirical research suggests that young adults prioritise affordability and proximity to employment centres in their careers, resulting in a preference for urban apartments with flexible lease agreements. As individuals progress in their careers and form households, their housing priorities shift toward stability, increased living space, and proximity to educational institutions, leading to suburban or peri-urban relocation (Clark and Dieleman, 1996).

Life Style First-Time Buyers		
Generations	**Characteristics**	**Preferences**
Baby boomers	Homeownership > renting When children leave home → renting	Later in life near amenities and recreational facilities
Gen X	Difficulties saving for homeownership renting > homeownership	Flexibility and fast-paced lifestyle Freedom to move for job opportunities
Millennials	Steepest decline in homeownership Most educated generation	Spending on experiences/travel
Gen Z	Still entering the housing market, shares the same values as Millennials	Favor shared economics, goods, spaces Flexibility and sustainability

Table 3: Lifestyle characteristics and preferences of first-time buyers by generation (NAR®, 2024).

Furthermore, studies show a strong connection between life-stage courses and housing preferences. Beer and Faulkner (2011) concluded that young, single first-time buyers emphasise accessibility and proximity to lifestyle amenities. In contrast, families prioritise safety, educational facilities, and the long-term investment potential of housing. (Helderman and Mulder, 2007) indicates that increasing home prices and restricted mortgage accessibility have prolonged the duration of rental tenure among young adults, thereby delaying transitions to homeownership. This has resulted in a trend where Millennials and Generation Z members remain in rental apartments in urban areas for extended periods compared to previous generations due to financial constraints.

Generational analysis provides a valuable framework for examining variations in housing preferences across different ages (NAR®, 2024). This approach helps to understand changing values and behaviours that shape housing demand over time. Within this framework, four primary generational groups have been identified: the Baby Boomers (1945–1960), Generation X (1961–1980), the Millennials (1981–2000), and Generation Z (2001–2010) (NAR®, 2024). Each generation has its housing preferences. These preferences have been shaped by the unique economic, social, and technological conditions they experienced while growing up (Jansen, 2013). By analysing these, developers and policymakers can anticipate shifts in housing demand and align future housing developments with the preferences of future buyers, particularly first-time buyers.

3.5. Conclusion

SRQ1: *How do life-course trajectories shape the housing aspirations and restrictions of recent and potential first-time buyers?*

Life-course transitions such as completing education, entering the labour market, and forming a household strongly shape both the timing and feasibility of homeownership among first-time buyers. Literature and interviews jointly indicate that these transitions are increasingly delayed due to income insecurity and stricter mortgage criteria, leading to prolonged dependence on rental housing or parental homes. As a result, stated preferences are frequently revised into revealed preferences that reflect affordability constraints, feasibility concerns, and contextual trade-offs.

A key differentiator within the target group is educational background. Individuals with practical education often experience fewer formal barriers, such as lower student debt, but simultaneously have more limited borrowing capacity. Conversely, academically educated first-time buyers tend to carry higher debts, which significantly restricts their mortgage eligibility under Dutch lending norms. In both cases, educational pathways translate into differentiated trajectories towards homeownership.

Furthermore, household composition plays a critical role. Dual-income households typically enjoy greater purchasing power, which enables more favourable mortgage conditions and access to centrally located housing. This distinction reinforces an affordability divide not only between but also within first-time buyer segments.

Generational patterns further nuance these findings. Millennials and Generation Z increasingly delay traditional life milestones due to structural insecurity. The Life Course Theory from Mulder and Hooimeijer (1999) suggests that housing choices evolve in response to key transitions, with younger first-time buyers prioritising affordability and proximity to employment centres, while those further in their careers or forming households seek stability, space, and proximity to educational facilities.

In sum, life-course developments interact with financial constraints to produce a fragmented and adaptive housing trajectory. These dynamics demand a flexible supply side, where transformation projects can respond to changing needs and trajectories rather than fixed typologies. Understanding these trajectories is therefore essential for policymakers and developers aiming to align housing provision with first-time buyers' actual opportunities and constraints.

4. Preferences

This chapter forms the foundation for answering sub-question 3: *"How do stated and revealed housing and location preferences influence recent and potential first-time buyers' decision-making in homeownership?"* By distinguishing between what buyers ideally want (stated preferences) and what they ultimately choose under constraints (revealed preferences), this chapter explores how financial, spatial, and procedural limitations influence actual housing decisions. The theoretical framework laid out here is essential for understanding the trade-offs first-time buyers make in practice, particularly between affordability, location, and quality, and will be further examined through empirical data in the following chapters.

4.1. Revealed and stated preferences

The transformation of economic and social structures has fundamentally reshaped housing preferences, shifting away from the certainties of the Fordist industrial society toward an era characterised by individualisation and heightened financial risk. This shift, as conceptualised by Beck (2000) in his theory of the risk society, argues that individuals must increasingly navigate uncertain economic and social landscapes without the robust institutional safety nets that characterised earlier periods. The housing market reflects this transformation, as first-time buyers face an environment where employment precarity, rising housing costs, and declining state support place greater responsibility on individuals to secure stable housing (Giddens, 1991). While this increased autonomy presents opportunities for lifestyle diversification and financial mobility, it simultaneously exposes individuals to greater economic vulnerability, particularly in securing homeownership (Beck, 2000).

For first-time buyers, housing preferences are shaped by profound life-course transitions, including entry into the labour market, forming long-term partnerships, and family planning. These life events significantly influence housing choices, as individuals seek dwellings that align with their evolving personal and financial needs (Beer and Faulkner, 2011). Housing preferences during this stage are inherently fluid, shifting in response to income stability, job security, and household composition. Consequently, preferences cannot be viewed as static but must be understood as dynamic and subject to external constraints.

A critical framework for analysing these preferences is the distinction between stated and revealed preferences, which provides insight into the divergence between aspirational housing choices and actual market behaviour. Stated preferences refer to the housing characteristics individuals claim to prioritise, often collected through surveys and interviews. These preferences reflect idealised housing aspirations but do not always translate into actual purchasing behaviour due to financial limitations, market conditions, and regulatory constraints (Louviere et al., 2000). In contrast, revealed preferences are based on observable decisions made under real-world constraints, providing a more accurate representation of consumer behaviour (McFadden, 1974).

Research consistently highlights the discrepancies between stated and revealed preferences in the housing market. First-time buyers often desire urban homeownership, citing proximity to employment hubs, access to public transportation, and neighbourhood quality as key priorities. However, rising housing prices and constrained mortgage accessibility force many to compromise, opting for smaller properties, suburban locations, or prolonged rental tenure (Helderman and Mulder, 2007).

The risk society framework, combined with the stated vs. revealed preference distinction, underscores the complexity of first-time buyers' housing decisions. While aspirations provide valuable insight into market expectations, actual choices are shaped by economic constraints, policy interventions, and structural market conditions. Recognising these discrepancies is essential for policymakers and developers, ensuring that housing strategies are aligned with the preferences and with the financial realities faced by first-time buyers in an increasingly uncertain economic period.

4.2. Housing preferences

The specific housing preferences of first-time buyers vary significantly depending on their age, household composition, and financial capacity, as shown in figure 11. For single buyers under 35, apartments emerge as the preferred choice. Approximately 20% of this group prioritises apartments, which offer the affordability and compact size they require (WoON, 2021).

The parallel life course trajectory leads to a mismatch between an actual and a preferred residential location or housing situation. The trigger is associated with a preference for a certain new location or type of residence. Such a preference might be anything from very precise to rather vague.
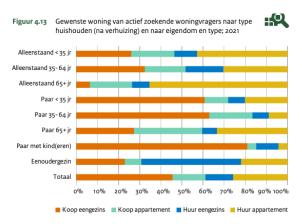
Figure 11: housing preferences (WoON, 2021)

On average, single buyers in this category seek housing that provides 72 square meters of living space. This preference aligns with their limited borrowing capacity and the practicality of apartment living in urban areas. For couples under 35, the situation differs markedly. This group generally favours larger homes, with an average requirement of 100 square meters, see Figure 12. Their dual-income status significantly increases their borrowing capacity, enabling them to consider properties in higher price brackets. Notably, couples are more likely to pursue homeownership, with 72% indicating a preference for buying rather than renting. This contrasts with single buyers, of whom only 46% express a similar preference(WoON, 2021).
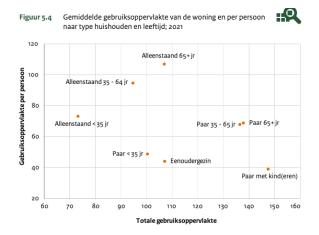
Figure 12: Housing surface (WoON, 2021)

4.3. Location challenges

Many first-time buyers prefer location over the house, making the location very important for transformation strategies (Het Financieele Dagblad, 2024). As first-time buyers prefer to live in major cities, such as Amsterdam, Rotterdam, and Utrecht, the financial pressure is too high. Many relocate to suburban areas for more affordable housing, yet increased commuting times and transportation costs can erode potential benefits. Research indicates that while 34% of first-time buyers initially aspire to live in urban centres, they ultimately settle in less central neighbourhoods due to affordability constraints. An additional 13% move to suburban or rural areas where housing is more affordable (Hypotheker, 2021).

Despite these financial barriers, first-time buyers remain willing to pay a premium to secure housing in their preferred locations. Many buyers spend an additional €150 per month to reside in a second-choice

location (e.g., city outskirts), while those seeking prime urban locations are willing to pay an extra €65 per month, shown in Figure 13 (ABF Research, 2024a).

Prijsverschillen van woonruimten tussen voorkeurslocaties
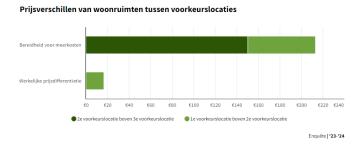
Figure 13: Willingness to pay more (ABF Research, 2024a)

The decision to relocate is not only based on affordability but is also influenced by life course trajectories related to education, employment, and household formation. According to Mulder and Hooimeijer (1999), residential mobility is often triggered by changes in daily activity space, such as job relocation or household expansion. Highly educated individuals, particularly those beginning their careers, are more geographically mobile as they pursue specialised employment opportunities.

Research from Fielding (1992) and Lelievre & Bonvalet (1994) supports the concept of "escalator regions", where cities such as London and Paris serve as economic mobility hubs, accelerating career progression for young professionals. This pattern is also observed in the Netherlands, where highly educated first-time buyers prioritise central locations with access to universities, research institutions, and specialised job markets.

As shown in Figure 14, Delft and Nijmegen are particularly popular among first-time buyers, with 60% of transactions involving this group. Other major cities, such as Utrecht and Leiden, also attract significant numbers of first-time buyers. However, in Amsterdam and The Hague, only around 50% of buyers are first-time homeowners, reflecting the affordability challenges in these markets (NVM, 2023).

Top 5: Hoogste aandeel koopstarters in 2023 in gemeenten met meer dan 100 duizend inwoners

	Gemeente	Aandeel starters in 2023	Mediane koopsom starters
1	Delft	63%	€ 365.000
2	Nijmegen	60%	€ 334.000
3	Utrecht	60%	€ 409.000
4	Leiden	59%	€ 353.000
5	Eindhoven	56%	€ 388.000

Bron: NVM / brainbay

Figure 14: Most popular cities for first time buyers (NVM, 2023)

Given the high demand for centrally located housing, housing transformations have emerged as a potential affordability solution. Remøy et al. (2024) suggest that repurposing vacant office buildings and commercial spaces into residential housing can provide cost-effective solutions for urban accessibility.

However, restrictive zoning laws and financing challenges hinder the widespread implementation of housing transformations. Many municipal regulations do not yet support adaptive reuse policies, slowing down the transition from commercial to residential spaces. Addressing these legal and financial barriers could significantly increase urban housing availability for first-time buyers, reducing reliance on suburban migration and long commutes.

4.4. Conclusion

This chapter answers sub-question three, how the transformation of economic and social structures has fundamentally reshaped housing preferences, particularly for first-time buyers navigating increasing financial uncertainty (Beck, 2000). As the shift to the risk society progresses, individuals must take greater responsibility for securing stable housing in an environment characterised by employment precarity, rising housing costs, and diminishing state support (Giddens, 1991). While this increased autonomy allows for greater lifestyle flexibility and financial mobility, it also exposes individuals to heightened economic vulnerability, particularly in accessing homeownership.

Housing preferences during this stage of life are not fixed but evolve in response to external constraints such as income stability, job security, and household composition (Beer and Faulkner, 2011). The distinction between stated and revealed preferences highlights the gap between housing aspirations and actual purchasing behaviour. While many first-time buyers express a strong desire for centrally located homeownership, citing proximity to employment hubs and public transportation as key priorities, affordability constraints frequently force them to compromise (Helderman and Mulder, 2007). Rising housing prices and limited mortgage accessibility push many toward smaller properties, suburban locations, or prolonged rental tenure.

Demographic and financial factors further shape these preferences. Single buyers under 35 typically prioritise apartments due to affordability, while couples in the same age group seek larger properties (WoON, 2021). Dual-income households are more likely to pursue homeownership, with 72% of couples preferring to buy rather than rent, compared to only 46% of single buyers (WoON, 2021). Despite financial barriers, location remains a primary determinant of housing decisions, with many first-time buyers willing to pay a premium to secure housing in or near their preferred urban areas (ABF Research, 2024b). However, as housing affordability in major cities declines, suburban migration has increased (Hypotheker, 2021).

The growing demand for centrally located housing has increased interest in housing transformations as a potential affordability solution. Repurposing vacant office buildings and commercial spaces into residential units presents an opportunity to expand the urban housing supply (Remøy et al., 2024). Yet, regulatory complexities and financial uncertainties continue to limit the broader application of such projects. Streamlining these procedures and improving access to information are crucial steps to unlock the full potential of adaptive reuse and offer viable alternatives for first-time buyers.

Ultimately, housing preferences are shaped by economic constraints, life-course trajectories, and structural housing market conditions. While stated preferences tend to mirror long-held aspirations, actual purchasing behaviour is dictated by revealed preferences under the influence of affordability and availability. This highlights the importance of flexible housing strategies, such as transformations, that can accommodate the evolving and constrained choices of recent and potential first-time buyers.

5. Financial resources and restrictions

Housing affordability is a key determinant of homeownership accessibility, particularly for first-time buyers. Beyond sufficient income, financial stability and personal savings are essential in securing a mortgage (Mulder and Hooimeijer, 1999). However, rising housing prices, stricter mortgage regulations, and declining real purchasing power have made homeownership increasingly difficult. Changing financial priorities, with greater spending on experiences over savings, further reduce the ability of young adults to accumulate the necessary funds for a home purchase (NAR®, 2024). In addition to income constraints, first-time buyers face structural barriers such as a housing shortage of 390,000 units (ABF Research, 2024b) and the impact of student debt on borrowing capacity (Mezza et al., 2020). While family financial support can help bridge the affordability gap, its uneven distribution reinforces socioeconomic disparities. These constraints force many first-time buyers to adjust their housing preferences, making affordability the dominant factor in decision-making (WoON, 2021).

This chapter addresses the second subquestion of this thesis: *How do financial resources, student debt, and housing constraints affect the affordability of homeownership for recent and potential first-time buyers?* It explores the financial restrictions shaping first-time homeownership, including the role of income, student debt, and external support. In doing so, it also considers the broader market context, such as housing shortages and rapidly rising prices, and how buyers adapt to these structural pressures. Understanding these dynamics is crucial for designing actionable solutions that improve housing accessibility for a new generation of buyers.

5.1. Financial resources of first-time buyers

Income remains the primary factor of homeownership eligibility, but it is also a major restriction for first-time buyers. Unlike repeat buyers, first-time buyers often lack accumulated equity from a previous home sale and rely heavily on mortgage financing. The concept of affordability has been widely debated in housing research. Stone (2006) introduces the residual income approach, which considers a home affordable if a household can meet essential non-housing expenses after paying for housing costs. Hulchanski (1995) further emphasises that affordability is not a fixed percentage of income but a dynamic measure influenced by economic conditions, personal debt levels, and policy regulations.

Family support, such as parental financial assistance, is critical in homeownership accessibility. However, intergenerational wealth transfer is not available to all households, reinforcing socioeconomic inequalities in the housing market. The Dutch government has sought to limit the impact of financial gifts on homeownership accessibility by eliminating the 'so called' jubelton, a tax-free parental contribution previously used to help children purchase homes.

5.2. Restrictions

First-time buyers are particularly affected by structural market conditions, including rising housing prices, stricter mortgage regulations, and decreasing real purchasing power. The affordability crisis has intensified over the past two decades, forcing young adults to delay homeownership, extend rental tenure, or continue living with family members (AFM, 2021). These market conditions are part of the macro context, but in this research, they are included in the restrictions, as they are also restrictions for first-time buyers entering the market. Next to the market conditions, student loan debt is also forming a restriction; this is not part of the macro context because it is individual-related, but it is part of the restrictions, so that is why it is essential to include this in the financial restrictions of first-time buyers.

5.2.1. Housing shortages

The structural housing shortage in the Netherlands has been one of the primary restrictions for first-time buyers, exacerbating affordability challenges and limiting access to homeownership. The supply of newly built homes has failed to keep pace with demand, leading to increased competition, rising prices, and prolonged waiting times. According to ABF Research (2024a), the estimated housing shortage in the Netherlands stood at 390,000 units in 2024 and is expected to persist until at least 2030 unless construction rates significantly increase. The imbalance between supply and demand has resulted in overbidding practices, making it even more difficult for first-time buyers to purchase a home within their financial means (Boelhouwer, 2023).

Urban centres are particularly affected due to high population density, restrictive zoning policies, and limited land availability. According to ABF Research (2024a), 53% of the housing shortage is concentrated in three high-demand regions, South-Holland, North-Holland and Utrecht.

5.2.2. Rising house prices

Over the past decade, rising housing prices have significantly eroded affordability, creating substantial barriers for first-time buyers seeking to enter the housing market. In 2015, the average home price in the Netherlands was €235,000, but by Q2 2024, this figure had surged to €477,000 (NHG, 2024). This dramatic increase in property values has far outpaced income growth, reducing young buyers' purchasing power. The NHG (2024) defines an affordable home as priced up to €405,000. Yet, this threshold remains out of reach for many first-time buyers due to tightened lending requirements, high deposit expectations and their student debt. What was once considered an attainable price range for middle-income households has become a financial challenge for many prospective buyers.

A crucial factor exacerbating affordability constraints is the impact of student debt on mortgage eligibility. Research by Mezza et al. (2020) highlights that for every additional €1,000 in student loans, the probability of homeownership decreases by 1-2 percentage points. Given that the average student debt in the Netherlands is approximately €23,000 (CBS, 2023), many young adults face substantial reductions in their borrowing capacity, effectively delaying or even preventing homeownership. This issue is particularly pronounced in urban areas, where high demand and limited housing supply drive prices even further beyond the reach of first-time buyers.

Rising home prices, increasing debt burdens, and shifting housing preferences characterise the affordability crisis for first-time buyers. While affordability is traditionally measured through financial capacity and income-to-price ratios, contemporary housing dynamics suggest that a more nuanced approach is needed, one that incorporates economic constraints, policy interventions, and spatial considerations. Addressing these challenges requires targeted financial support mechanisms, innovative housing solutions, and a recalibration of affordability metrics to align with the realities faced by first-time buyers in today's market.
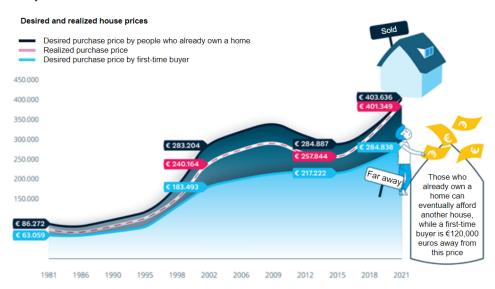
Figure 15: Desired and actual home purchase prices for first-time homebuyers (BGL-Wonen, 2023)

To further illustrate the widening affordability gap, Figure 15 visualises the disparity between desired and actual home purchase prices for first-time buyers and movers from 1981 to 2021 (BGL-Wonen, 2023). The graph demonstrates how actual home prices have consistently outpaced the purchasing power of first-time buyers, particularly in recent years. While movers who have already built equity can more easily afford higher-priced homes, first-time buyers face increasing challenges in securing a property within their budget.

The data shows that the desired purchase prices of first-time buyers have remained significantly below

realised purchase prices, emphasising the growing mismatch between housing aspirations and market realities. This reinforces the argument that rising housing prices, tighter lending regulations, and increasing student debt have severely constrained homeownership accessibility for new entrants into the housing market.

Additionally, the graph highlights how price growth has accelerated rapidly since the early 2000s, particularly after 2015, when home values began to rise steeply (BGL-Wonen, 2023). This trend reflects the broader affordability crisis, necessitating targeted policy interventions, financial support mechanisms, and innovative housing solutions to bridge the affordability gap for first-time buyers.

In response to these barriers, various alternative financing models have emerged to support first-time buyers. Besides institutional mechanisms like ground lease, private initiatives also aim to bridge the affordability gap. An example is Stichting OpMaat, which offers a co-financing model where buyers purchase only part of the property, while the foundation finances the remaining share (**?**). Upon resale, Stichting OpMaat receives a percentage of the value appreciation as compensation. This shared ownership approach reduces the initial financial burden on buyers while ensuring the foundation shares in both risk and return. Such models offer a pragmatic solution to lower entry thresholds, particularly for buyers who lack access to intergenerational financial support.

These initiatives illustrate that tackling affordability requires not only macro-level interventions but also innovative partnerships between public, private, and semi-public actors. By diversifying financing options, these models can help restore access to homeownership for groups increasingly excluded from the traditional market.

5.2.3. Impact of student loan debt

In the Netherlands, student loan debt plays a significant role in shaping the financial position of first-time homebuyers, often limiting their ability to secure a mortgage and afford suitable housing. Under Dutch financial regulations, mortgage lenders consider student debt when calculating borrowing capacity. This means that young adults burdened with loans face tighter restrictions on the amount they can borrow, narrowing their housing options and often excluding them from more desirable or centrally located properties (StudieschuldMeester, 2024). The long-term repayment of student loans reduces disposable income, making it harder to accumulate savings for a down payment and increasing financial stress during the home-buying process.

For many first-time buyers, particularly those with student debt, substantial savings are essential to cover down payments, closing costs, and additional fees. Recent estimates suggest that the average amount needed to purchase a first home is around €46,000 in savings, with dual-income households better positioned to meet this requirement than single-income earners (Jacobs, 2024). However, even dual-income households feel the strain, as student debt reduces their joint borrowing capacity and compromises location, property size, or overall quality. This is also shown in Figure 9 and 10. An analysis of homeownership costs in 2021 further illustrates the financial challenges young buyers face. Average gross housing expenditures in the Netherlands amounted to €840 per month, with net costs after tax deductions around €700 per month. When compared to an average net household income of €57,300 annually, this results in a homeownership affordability ratio (draagkracht) of 16.5%. However, additional costs such as property taxes, insurance, and utilities increase monthly housing expenses to approximately €925, pushing the affordability ratio to 22.4%.

The interplay between student debt, limited borrowing capacity, and rising housing costs presents a significant challenge for young adults seeking homeownership. Without targeted policy interventions, such as adjusted lending criteria or financial assistance programs, student loan debt will continue to be a barrier for many first-time buyers, impacting not only their ability to purchase homes but also their long-term financial stability and wealth accumulation.

5.3. Adaptation of preferences among first-time buyers

First-time buyers in the Netherlands are primarily driven by affordability, the most influential factor in their housing decisions. Surveys, such as Figure 16, indicate that 41% of respondents rank housing cost as their primary concern, reflecting their financial constraints. Many of these buyers are burdened by

student debt and limited earning capacity early in their careers, making budget restrictions a decisive factor in shaping their preferences. Single buyers typically target properties priced between €180,000 and €250,000, with 45% of this group falling within this range. In contrast, couples have greater financial flexibility, extending their budgets to €400,000 (ABF Research, 2024a). This discrepancy underscores the financial advantage dual incomes provide and highlights how affordability pressures drive distinct housing choices.

Beyond affordability, living space and location are the most influential factors in housing decisions. Living space is a priority for 30% of buyers, while location remains a key consideration, mainly due to proximity to work, public transportation, and amenities. Shared amenities, despite their prominence in urban housing developments, hold relatively little influence on decision-making, suggesting that practical concerns outweigh communal living preferences (WoON, 2021).
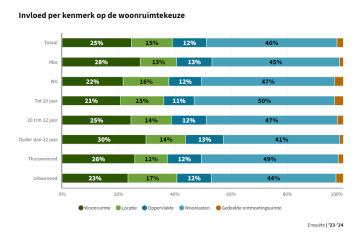
Figure 16: Influence on preferences (ABF Research, 2024a)

The gap between stated preferences, what buyers initially aspire to, and revealed preferences, the choices they ultimately make, becomes evident when financial constraints force adjustments. Differences also emerge between individuals with WO (academic) and HBO (higher professional) education. WO graduates, often carrying higher student debt, strongly emphasise affordability. In contrast, HBO graduates tend to prioritise larger living spaces, reflecting their more immediate focus on practical housing needs (WoON, 2021). This distinction highlights how educational background influences housing preferences, with financial limitations shaping the final decision-making process.

Parental financial support is another important factor in whether first-time buyers can maintain their stated preferences. Research indicates that 36% of first-time buyers who purchased a home in the past five years relied on financial assistance, with two-thirds of them receiving this support from their parents (Viisi, 2020). Among those planning to buy, 65% expect to need additional financial help. The extent of this support varies from €10,000 to €30,000 (Viisi, 2020). This external assistance significantly reduces affordability constraints, allowing some buyers to retain their initial housing preferences for location and size. However, those without access to such financial advantages are forced to adjust their preferences, reinforcing the adaptation from stated to revealed preferences. Buyers must often compromise on location, settling in less desirable areas or opting for smaller properties to stay within budget. This adaptation illustrates the extent to which financial realities reshape homeownership aspirations.

One potential solution to alleviate affordability constraints is the transformation of vacant buildings into residential housing. The transformation of existing buildings into housing can help reduce construction costs and alleviate pressure on the housing market (Remøy et al., 2024). Housing transformations could even contribute up to 10-15% of the housing supply, with some researchers saying this could even rise to 30% by 2030 if implemented effectively (NRP, 2024). Conversely, Boelhouwer and Van der Heijden (2018) highlights that financing for inner-city transformations is often difficult due to high upfront

investment costs and suggests that a government-backed investment fund could help pre-finance these projects. This implies that transformation projects can be cost-effective in the long term if financial barriers are addressed.

5.4. Conclusion

This chapter has examined how financial resources and restrictions shape the accessibility of homeownership for first-time buyers. Rising house prices, limited borrowing capacity, and the burden of student debt have significantly eroded affordability, forcing many buyers to adapt their housing preferences. The persistent gap between stated aspirations and revealed choices reflects how economic constraints compel compromises in location, dwelling type, and quality.

While family support offers a partial solution, its unequal distribution reinforces existing social inequalities. Alternative financing models, such as shared ownership initiatives like Opmaat, demonstrate that targeted interventions can lower the entry threshold for certain buyer groups. However, these solutions remain exceptions rather than the norm.

Addressing these structural barriers requires a broader reconsideration of both demand- and supply-side strategies. In this context, the transformation of vacant buildings presents a promising avenue to expand affordable housing supply. The next chapter will therefore explore the transformation potential of existing building stock, analysing how adaptive reuse can contribute to bridging the affordability gap for first-time buyers.

6. Transformation potential in the Dutch housing market
6.1. Introduction
The housing shortage in the Netherlands continues to intensify, with a projected deficit of 400,000 dwellings in 2025 (ABF Research, 2024b). Traditional responses to this shortage, particularly new construction, are hampered by long permit procedures, rising construction costs, and limited spatial availability in urban areas. In this context, the adaptive reuse of vacant buildings offers a promising, yet underutilised, solution. Especially for first-time buyers constrained by affordability, the transformation of vacant properties can present an alternative housing pathway.

This chapter investigates the current scale of building vacancy in the Netherlands, the typologies most relevant for residential reuse, and the technical and institutional barriers that inhibit broader adoption. Drawing on recent market reports and case examples, the chapter outlines the structural potential of vacancy as a housing strategy. Drawing on recent vacancy data from the CBS (Centraal Bureau voor de Statistiek, 2024) and insights from van Manen (2025), the following subsections assess the realistic potential of transformation as a scalable strategy within the current Dutch housing landscape

6.2. Transformation potential
Vacancy is an inherent characteristic of any real estate market. A certain degree of underuse, often referred to as frictional vacancy, is essential to facilitate mobility, flexibility, and investment turnover. For office spaces, a vacancy rate between 4% and 6% is generally considered healthy, enabling businesses to adjust to changing spatial needs (PwC, 2024). Persistent vacancy rates above this threshold, however, typically signal structural obsolescence or a mismatch between supply and demand.

A nuanced analysis reveals that transformation potential does exist, provided vacancy is critically assessed. van Manen (2025) advocates focusing on those locations and building types where transformation aligns with urban housing needs and the preferences of first-time buyers. Data from the Centraal Bureau voor de Statistiek (2024) indicate vacancy rates of 9.6% for office buildings, representing 3.18 million m^2, and 8.2% for retail properties, equating to 2.51 million m^2 (Centraal Bureau voor de Statistiek, 2024). Educational buildings showed a vacancy rate of 2%, corresponding to 357,730 m^2. Notably, 40% of these vacant properties had also been vacant the previous year, underscoring their structural detachment from market demand and identifying them as candidates for transformation.
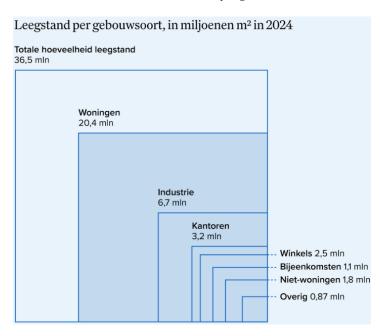
Figure 17: Vacancy per building type in the Netherlands (Centraal Bureau voor de Statistiek, 2024)

Figure 17 illustrates that, while transformation alone will not resolve the housing shortage, it can make a meaningful contribution to the supply of affordable homes for first-time buyers, provided spatial,

regulatory, and economic barriers are systematically addressed.

Yet, vacancy alone does not automatically translate into feasible housing opportunities. As van Manen (2025) aptly observes, the Netherlands does not suffer from a shortage of buildings, but rather from a lack of adaptive reuse strategies to repurpose them. Many vacant properties remain locked within outdated zoning plans, rigid functional classifications, or peripheral locations disconnected from residential demand. Simply quantifying square metres of vacancy neglects critical spatial, social, and technical factors that determine whether a building can viably be converted into housing.

In practice, transformation already constitutes a significant part of housing production. In 2024, approximately 8,675 new homes were realised through the adaptive reuse of non-residential buildings, accounting for 10–12% of the annual housing addition (DutchNews.nl, 2025).

On the developer side, innovative delivery models are emerging. Steenvlinder, for example, utilises casco delivery formats that enable buyers to co-finance and self-complete interiors. This approach reduces financial thresholds and aligns with the preferences and capacities of first-time buyers, making transformation projects more accessible to this target group.

6.3. Barriers to transformation

Persistent barriers constrain the full deployment of transformation potential. Zoning rigidity remains a primary obstacle; many vacant buildings are not designated for residential use, and changing zoning plans involves time-consuming political and environmental procedures. Although the Omgevingswet was intended to simplify this, its implementation has been inconsistent and problematic (van Binnenlandse Zaken en Koninkrijksrelaties, 2024).

Technically, many buildings constructed in the 1960s - 1990s are not always suited for residential conversion, lacking natural light, efficient layouts, and adequate insulation. Heritage protections further restrict physical adaptations. Financial feasibility is another critical challenge. While land acquisition costs are lower for transformations, conversion expenses, estimated at €1,200 - €1,800 per m^2 for casco models, can rival new-build costs, particularly for complex structures (Rijksdienst voor Ondernemend Nederland, 2022b; Centraal Bureau voor de Statistiek, 2024). Market uncertainties regarding resale values and rental yields compound developer hesitancy. Institutionally, a fragmented policy landscape and limited national coordination further impede transformation efforts. Local incentives exist, but systematic support for starter-oriented transformation projects remains lacking.

6.4. Conclusion

This chapter has demonstrated that building transformation represents a meaningful, yet partial, solution to improving housing accessibility for first-time buyers. While vacancy figures suggest substantial potential, the actual contribution of transformation depends on more than the sheer availability of space. As Van Manen (van Manen, 2025) argues, unlocking this potential requires adaptive strategies that align with spatial demand, regulatory flexibility, and buyers' preferences.

Transformation is already an established component of housing production, yet it remains constrained by zoning restrictions, technical challenges, and peripheral locations. When these barriers are addressed, targeted transformation can offer affordable and flexible housing pathways for first-time buyers, particularly through modular approaches such as casco delivery.

Ultimately, transformation can not only help bridge the affordability gap but also contribute to a more sustainable and adaptive housing market.

Part IV
Empirical research

Part IV presents an in-depth analysis of three case studies: Urban Vista in Rijswijk, the Post in Apeldoorn and the Vredeskerk in Venray. These projects have been selected for their relevance to first-time buyers and focus on transforming vacant buildings into affordable housing solutions. Moreover, they cover differences in location and urbanisation levels. Following the case study analysis, semi-structured interviews will be conducted with first-time buyers from all three projects. These interviews aim to uncover the underlying motivations and decision-making processes influencing their housing choices. By integrating these insights with the case study findings, this research seeks to identify key factors that impact housing preferences and transformation feasibility.

The collected data will serve as the foundation for developing an action proposal that provides practical guidelines for developers and municipalities looking to align future building transformations with the preferences of first-time buyers.

7. Case study

7.1. Case study overview

The selected cases are Urban Vista, the Post and the Vredeskerk. The three cases demonstrate adaptive reuse strategies to address the growing demand for affordable housing. Two cases have been transformed into self-built homes, and one is finished at delivery. The three selected cases fulfil all the criteria which are mentioned in Part II Table 2. All projects are located in different locations across the Netherlands, which represent the different urbanisation levels. The case studies are all within transformation projects. The houses are already bought by first-time buyers, or the buyers are in the process of buying them. The future residents are all first-time buyers, and the prices of the houses are all under the NHG limit.

01 | Urban Vista, Rijswijk

Urban Vista represents a large-scale transformation project, emphasising sustainability and efficient urban reuse. It shows how vacant office spaces can be repurposed into 122 high-density houses, making it an important case study for understanding market-driven transformation feasibility and sustainable housing models. Because of the energy label having an A++ certificate, buyers can get a higher mortgage. This is interesting for first-time buyers as well as for developers because more people can buy the house.

02 | Post, Apeldoorn

The Post serves as an example of self-built homeownership, allowing buyers to design and tailor their homes to their financial and personal needs. This project provides valuable insights into how self-build models can enhance affordability while maintaining architectural and historical integrity. The transformation creates 28 new homes in the centre of Apeldoorn, particularly for first-time buyers.

03 | Vredeskerk, Venray

The Vredeskerk project is an example of a transformation project of religious heritage, transforming a former church into 28 houses while preserving its historical significance. This case study highlights how heritage conservation can align with modern housing needs, offering a unique living environment for first-time buyers. The project provides insights into balancing affordability, community engagement, and architectural integrity in transformation projects.

Case	Urban Vista	the Post	Vredeskerk
Geographic location	Rijswijk	Apeldoorn	Venray
Transformation	from old office into old 122 sustainable apartments	from old post office into 28 self-build homes	from old church into 28 self-build homes
Average price	€281,000	€200,000	€248,500
Developer	Elfi	Steenvlinder	Steenvlinder
Surface	33 - 83 m2	30 - 70 m2	50 - 107 m2

Table 4: Case study overview - January 2025 (own work)

These case studies provide a comparative perspective on different approaches to housing transformations, one focusing on small-scale, self-build customization (Post Apeldoorn and the Vredeskerk) and the other on large-scale transformation (Urban Vista Rijswijk). Analyzing these projects will offer valuable insights into the effectiveness of various strategies in making housing transformations more accessible to first-time buyers.

7.2. Case study analysis

Semi-structured interviews are conducted with potential and recent first-time buyers within the three case studies. To understand the reasons behind the decisions during the search for their first house, these are in-depth interviews. The interviews try to fully get all the information about the themes

covered in this research to determine which housing restrictions they experience and how preferences change during their search. Four themes from the literature are used as input for the interviews. The input and expected output are shown in Figure 5.

Literature insights	Interview input	Expected output
1. **First-time buyers experience** a lot of difficulties on the current housing market	Ask about their experiences in buying their first house	Understanding the challenges faced by first-time buyers in the housing market
2. **Affordability** is not fixed but shaped by economic and policy constraints, including rising house prices, student debt and mortgage ristrictions	Ask how affordability constraints influenced their final housing decision	Confirmation that affordability is dynamic and depends on multiple factors
3.1 There is a gap between **stated and revealed housing preferences**	Ask about adaptions of preferences based on affordability issues	Revealed vs stated preferences differs
3.2 **Location** preferences evolve based on life course stages	Ask how life stage (career, family planning) shaped their location preferences	Insight into how career stage and family planning influence housing choice
4. **Transformation** has less construction costs and more inner-city availability	Ask about their choices for transformation buildings and if possible, why casco buildings	Casco buildings is more cost-spread and can be changed to preferences

Table 5: Interview input (own work)

Characteristics of interviewees
The interviewees are all first-time buyers, young professionals in their mid-to-late twenties and early thirties, navigating the transition from education to stable employment and independent living. Many have completed higher education and have recently entered the labour market, often with relatively secure jobs but facing the financial burden of student loans.

Many buyers lived with their parents before purchasing their first home, allowing them to save for a down payment. Others had previously rented but found that rising rental costs made homeownership a more attractive long-term investment. Financial constraints played a crucial role in their purchasing decisions, with mortgage eligibility and affordability often limiting their housing options. While some had accumulated savings through employment, others relied on mortgage benefits tied to energy efficiency standards to increase their borrowing capacity.

After accepting the invitation to participate, the respondents are informed about the research and the interview's content. The interview is broken down into four themes, which are connected to the purpose of the research and the semi-structured interviews. Additionally, the "informed consent form," found in Appendix B, was presented to the interviewees and contains information about how the data is processed and shared. All the interview criteria are met; all interviewees are potential or recent first-time buyers within one of the case studies.

01 | Urban Vista, Rijswijk

Introduction
The Urban Vista project in Rijswijk illustrates how adaptive reuse of vacant office buildings can address the shortage of affordable housing for first-time buyers in urban environments. The project entails the transformation of three former office towers into residential buildings. Two towers, Rio de Janeiro and Sydney, are designed for the rental market, while one tower, New York, comprises 122 owner-occupied apartments, primarily targeting small households and young professionals.

Life-course experiences
The Urban Vista development responds directly to key transitional moments in buyers' life-course trajectories, such as entering the labour market or leaving the parental home. By offering compact, well-located apartments, the project caters to the growing demographic of single-person and two-person households in urban areas. Buyers are often moving from rental uncertainty or shared living arrangements into independent homeownership, a transition that Urban Vista facilitates through immediate move-in availability and financial accessibility.

Understanding these buyers' decision-making processes will provide insight into how self-build trans-formations meet the needs of first-time buyers compared to conventional housing models. Furthermore, the participatory nature of the project, where residents and the surrounding neighbourhood are involved in decisions, raises questions about the role of buyer engagement in shaping housing satisfaction and affordability. According to Marnix Norder (2024), before the project starts with construction, Steenvlinder follows a participation trajectory, surrounded by neighbours about their housing preferences and the opportunities and constraints of the area. Based on those opinions, they start designing and constructing the project. This contributes to more houses that match the demand of future residents and helps find future residents, which is good for the developer's finances (Norder, 2024).

Affordability
Affordability is a central pillar of Urban Vista's proposition. Sales prices range from approximately €210,000 to €385,000, making all units eligible for the National Mortgage Guarantee (NHG), capped at €405,000 in 2025. The average price per square metre ranges from €4,000 to €4,300, which is around 10% above the local average of €4,215 per m² for existing apartments in Rijswijk (Living, 2025). This price difference reflects Urban Vista's strategic location, comprehensive renovation, and enhanced energy performance (A+ and A++ labels).

However, from a development perspective, the key affordability driver lies in the transformation costs. Based on benchmarks from comparable projects and municipal data, residential transformations in the Netherlands typically range from €1,000 to €1,800 per m² GBO, depending on building condition, complexity, and finishing levels (Gemeente Amsterdam, 2024). Given Urban Vista's fully finished, energy-efficient units, it is reasonable to estimate transformation costs (without land acquisition) at the higher end of this spectrum, between €1,500 and €1,800 per m².

In contrast, newly built apartments in urban contexts like Rijswijk generally incur construction costs (without land acquisition) between €2,200 and €2,800 per m² (BouwKostennota, 2024). This implies that, despite Urban Vista's relatively high selling prices, the underlying development costs remain substantially lower than for new-build equivalents. The reuse of existing structures, foundations, and utilities significantly reduces material consumption and construction timelines, translating into lower overall investment for the developer.

For developers, this cost advantage allows for competitive pricing strategies while maintaining acceptable margins. For buyers, it offers access to newly renovated, energy-efficient homes at prices below typical new-build market rates, especially when factoring in additional benefits such as green mortgage eligibility and immediate occupancy.

Moreover, Urban Vista's lottery-based allocation system mitigated speculative overbidding, ensuring fair access for first-time buyers and reducing financial overstretch. From a market dynamics perspective, the

combination of lower development costs, strategic pricing, and sales process transparency positioned Urban Vista as an accessible alternative in a market segment where affordability remains under severe pressure.

In summary, Urban Vista demonstrates that well-executed transformation projects can offer a financially viable pathway to homeownership for first-time buyers, achieving a balance between development feasibility and end-user affordability. The cost advantage over new construction, estimated at €500 to €1,000 per m², highlights the strategic potential of transformation as an affordable urban housing solution.

Preferences
Urban Vista apartments are designed for functionality rather than luxury, reflecting the pragmatic revealed preferences of urban first-time buyers. Most units are two-room apartments between 33 m² and 83 m², providing sufficient space for singles or couples, shown in Figure 18.

Figure 18: Floor plan (40m2), apartment Urban Vista (Elfi, 2025)

By offering fully finished, move-in-ready units, Urban Vista reduces the emotional and financial burden often associated with transformation projects requiring self-managed renovations. However, the limited availability of three-room units may restrict opportunities for future household growth within the project, potentially resulting in earlier move-out among upwardly mobile residents.

Location
Urban Vista benefits from an exceptionally strategic location within the Randstad. Situated directly next to Rijswijk train station, the development offers fast public transport connections to The Hague, Rotterdam, Delft, and Amsterdam, making it highly attractive for first-time buyers who prioritise accessibility to work and social networks. Although the median age in Rijswijk is relatively high (AlleCijfers.nl, 2024), the city's geographical position between major academic centres such as Delft University of Technology, Leiden University, and Erasmus University Rotterdam makes it an ideal location for young professionals and recent graduates entering the housing market.

Despite these locational advantages, the Plaspoelpolder area, where Urban Vista is located, is still in a transitional phase of redevelopment. Its reputation among first-time buyers is not yet fully established compared to more central urban areas. Therefore, while the project offers strong infrastructural benefits, further investment in area development will be necessary to attract more first-time buyers to the city.

Transformation
The Urban Vista project exemplifies the complexity of transformation practice. Originally, all three towers were intended for the rental market, but due to changing regulations around residential tenancy

and financial risk assessments, one tower (New York) was shifted to owner-occupied apartments. This adjustment illustrates how developers respond strategically to shifting regulatory environments and cost recovery requirements.

Transformation costs (excluding purchase costs) for similar office-to-residential projects are estimated between €1,300 and €1,700 per square metre. Urban Vista likely operated at the lower end of this range due to the relative modernity and structural integrity of the original office towers. Nevertheless, transformation still incurs substantial costs related to insulation upgrades, installation of individual utilities, and the retrofitting of fire safety systems to residential standards.

Compared to new construction, transformation at Urban Vista offered time and cost advantages. The delivery of finished units avoided long construction periods and enabled immediate occupancy, reducing holding costs for developers and financial barriers for buyers. At the same time, buyers benefit from an existing urban infrastructure without the wait associated with greenfield developments.

However, the success of Urban Vista also reflects broader urban development pressures: without the tight housing demand in the Randstad, transformation projects at relatively high price points would likely be less viable.

Summary of case study results
Urban Vista presents a replicable model of transformation-led urban housing development, providing a feasible pathway to homeownership for young urban residents. The project succeeds in balancing market-based affordability with strategic location, immediate habitability, and energy efficiency. Nevertheless, while the project offers an accessible entry point, long-term affordability remains sensitive to broader market dynamics.

02 | Post, Apeldoorn

Introduction
The transformation of Post Apeldoorn, a former post office located in the city centre of Apeldoorn, represents an important case study in housing affordability, adaptive reuse, and self-build housing models. The building has undergone multiple functional shifts, serving first as a post office, then as office spaces, and finally being redeveloped into a mixed-use project (Remøy et al., 2024). The transition of this municipal monument into 28 self-build apartments aligns with broader urban development trends in the Netherlands, where vacant office and industrial buildings are increasingly converted into residential spaces to address housing shortages (Boelhouwer and Schiffer, 2015). This project offers insights into the financial, architectural, and social dynamics of transformation projects, with a specific focus on first-time buyers.

Understanding these buyers' decision-making processes will provide insight into how self-build transformations meet the needs of first-time buyers compared to conventional housing models. Furthermore, the participatory nature of the project, where residents and the surrounding neighbourhood are involved in decisions, raises questions about the role of buyer engagement in shaping housing satisfaction and affordability.

Experiences
The target group for Post Apeldoorn consists primarily of first-time buyers, young professionals, and individuals interested in self-build housing. The project's flexibility in design and affordability makes it attractive to a diverse group of buyers, including those with limited financial resources who can reduce costs by completing part of the construction themselves. The participatory development process initiated by Steenvlinder involves engaging the surrounding neighbourhood before the start of construction, aligning the design with local housing preferences (Norder, 2024). This process not only improves alignment with buyer demand but also facilitates faster sales, reducing financial risks for the developer.

The Post Apeldoorn project comprises 28 self-build apartments, with sizes ranging from 30 to 70 square meters. Initially, the development plan aimed to create larger apartments, but due to rising interest rates and shifting market conditions, the project was adjusted to smaller, more affordable units, making homeownership more accessible for first-time buyers (Remøy et al., 2024). The self-build model allows future residents to tailor their homes to their preferences. However, the casco delivery model also requires buyers to take responsibility for finishing their units, which demands time, resources, and construction knowledge.

Affordability
Affordability is a central point of discussion for the Post Apeldoorn project, developed by Steenvlinder through the transformation of a former post office into casco apartments for first-time buyers. Apartments range from 30 to 70 m², with initial sale prices between €195,000 and €275,000. This positions the project as relatively accessible compared to Apeldoorn's average owner-occupied apartment price of €4,070 per m² in 2025 (Living, 2025).

The developer opted for casco delivery to maintain affordability, shifting interior fit-out costs to buyers, which reduced upfront development expenditures. Based on national data, the average transformation cost (without land acquisition) for casco apartments lies between €1,000 and €1,400 per m² GBO, significantly lower than full turnkey transformation costs, which can reach €1,800 per m² (Gemeente Amsterdam, 2024). Given the light intervention scope and casco concept, it is plausible that Post Apeldoorn's transformation costs were within the €1,200–€1,400 per m² range.

In contrast, the construction costs (without land acquisition) for newly built apartments in the Apeldoorn region are estimated between €1,900 and €2,400 per m² GBO, depending on building typology and energy performance (BouwKostennota, 2024). This indicates a development cost advantage of approximately €500–€1,000 per m² for Post Apeldoorn's transformation approach.

Moreover, the Gemeente Apeldoorn has a subsidy especially for transformation projects, which is €25,000 per project, to stimulate adaptive reuse in the city centre (Gemeente Apeldoorn, 2024). This

financial incentive further improved project feasibility and allowed the developer to offer starter-friendly pricing despite rising construction costs and tightening mortgage conditions.

From a buyer's perspective, however, affordability is nuanced. While initial acquisition prices were relatively low, buyers faced additional expenses for interior completion, typically ranging from €30,000 to €50,000 depending on individual choices. Nonetheless, the phased investment model offered flexibility, enabling buyers to spread costs over time and retain greater control over personalisation.

In summary, the Post Apeldoorn case illustrates how casco transformation, combined with municipal subsidies and phased investment models, can effectively lower development costs and create affordable ownership opportunities for first-time buyers. The estimated cost advantage of €500–€1,000 per m² compared to new-build alternatives underscores the strategic potential of transformation for mid-sized cities like Apeldoorn.

Preferences

The casco delivery model employed in Post Apeldoorn offers buyers the opportunity to customise their living spaces according to personal preferences and budgetary constraints. Buyers can opt for a basic, cost-efficient interior or invest in higher-quality materials and layouts, providing flexibility that traditional, fully finished projects often lack.

This model aligns with the growing demand for personalised housing solutions, particularly among young urban residents seeking both affordability and individuality. According to Marnix Norder (2024), before the project starts with construction, Steenvlinder follows a participatory trajectory, engaging surrounding neighbours about their housing preferences and the opportunities and constraints of the area. Based on those consultations, the project design is refined to better match the demands of future residents, which in turn supports faster sales and reduces financial risks for the developer (Norder, 2024).

The standard floor plans developed for Post Apeldoorn reflect these participatory insights by prioritising efficient use of space, compact but flexible layouts, and adaptability for various household types. As shown in Figure 19, the apartments are designed to maximise spatial functionality within limited square metre ranges, while still allowing future residents to adjust interior walls and finishes according to their personal and financial preferences. This approach balances cost control during construction with future adaptability, a key requirement for first-time buyers seeking both affordability and long-term usability.
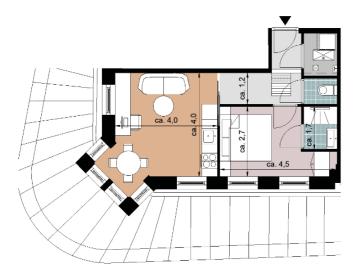
Figure 19: Floor plan (35m2), apartment the Post (Steenvlinder, 2025)

Location

The building's location in the city centre of Apeldoorn enhances its appeal, providing immediate access to shops, restaurants, and public transport. For young professionals, proximity to amenities and

employment opportunities was a key driver in the decision to purchase (Het Financieele Dagblad, 2024).

Nevertheless, the central location also contributed to higher land and development costs, requiring strategic adjustments such as downsizing apartment units to maintain overall affordability. This trade-off between location advantages and housing costs reflects broader trends in urban housing markets, where buyers must increasingly choose between affordability, size, and accessibility (Mulder and Hooimeijer, 1999).

Transformation

The transformation of Post Apeldoorn was led by Steenvlinder, a company specialising in self-build and transformation projects (Norder, 2024). Their approach emphasises future residents' autonomy over the interior design, balancing financial flexibility with personalisation.

The Municipality of Apeldoorn supported the transformation through adaptive reuse policies and active collaboration, ensuring alignment with broader urban planning objectives. Despite these coordinated efforts, technical challenges linked to the building's outdated structure occasionally led to increased costs and delays, underlining the complexity of transforming heritage properties.

While the casco model offers flexibility and cost advantages, the transformation process also highlights risks inherent to adaptive reuse: structural updates, heritage preservation requirements, and construction complexities can introduce cost uncertainties. These factors may limit the replicability of similar initiatives, particularly as competition for suitable transformation properties intensifies.

Summary of case study results

The Post Apeldoorn project demonstrates how targeted adaptive reuse strategies can create affordable homeownership opportunities for first-time buyers within competitive urban housing markets. Through flexible delivery models, participatory development processes, and responsive design adjustments, the project successfully addressed key challenges linked to affordability and housing preference alignment.

Nonetheless, the case study also highlights limitations: total buyer costs could exceed initial expectations due to fit-out expenses, if buyers are not well prepared. Also, not all buyers could fully exploit the flexibility promised by the casco model. Furthermore, transformation projects remain vulnerable to technical and financial complexities, particularly when dealing with heritage structures.

Overall, Post Apeldoorn illustrates both the potential and the challenges of transformation-led housing strategies. Its success underscores the necessity of balancing affordability, buyer autonomy, and technical feasibility to create sustainable housing solutions for first-time buyers.

03 | Vredeskerk, Venray

Introduction

The transformation of the Vredeskerk in Venray, a former church located in the centre of Venray, represents an important case study for this research. Originally built as a place for community gathering, the Vredeskerk is being repurposed as a residential development, reflecting broader trends in the Netherlands where religious buildings are increasingly converted to address housing shortages (Boelhouwer and Schiffer, 2015). This case study explores the financial, architectural, and social dynamics of such transformation projects, providing insights into the challenges and opportunities encountered by developers, municipalities, and future homeowners.

Experiences

The Vredeskerk project exclusively targets first-time buyers. The majority of these buyers are men, often individuals with practical educational backgrounds working in the construction sector, as said by the housing coach of Steenvlinder. The project's appeal lies in its strong connection to local social networks, as buyers frequently have friends or family nearby who can assist in the self-build process.

The participatory approach adopted by the developer ensures that future residents and the local community are actively involved in decision-making processes. This fosters a sense of ownership and strengthens the social fabric, aligning the transformation with the needs and expectations of both new and existing residents.

Affordability

Affordability is a central theme in the Vredeskerk transformation in Venray, aiming to provide first-time buyers with accessible homeownership opportunities in a smaller urban market. By offering casco apartments, delivered structurally complete but without interior finishing, purchase prices remain relatively low, while allowing buyers to manage final fit-out costs based on personal financial capacity.

From a development cost perspective, it is important to distinguish between land costs and transformation (construction) costs. While Venray benefits from significantly lower land prices compared to cities like Rijswijk or Apeldoorn, the actual transformation costs per square metre are not necessarily lower. Adapting complex heritage structures, such as the Vredeskerk, often involves high technical demands, including structural reinforcements, preservation requirements, and bespoke design solutions. Therefore, the cost (without land acquisition) per m² for casco transformation in Venray is likely comparable to similar projects in mid-sized cities, estimated between €1,200 and €1,400 per m² GBO, based on national averages for adaptive reuse of non-residential buildings (Rijksdienst voor Ondernemend Nederland, 2022a).

In contrast, the construction costs (without land acquisition) of newly-built apartments in Limburg typically range between €1,800 and €2,300 per m², depending on typology and energy performance requirements (BouwKostennota, 2024). This reflects a potential cost advantage of €500 to €1,000 per m² for transformation compared to new construction, though these savings can be offset by higher renovation complexity in heritage buildings.

Despite these structural advantages, buyers still face the challenge of financing the interior completion themselves, which typically involves an additional €30,000 to €50,000 per unit, depending on the desired finish level. However, this phased investment approach provides flexibility and lowers entry barriers for buyers unable to afford fully finished homes upfront.

While the average sales price per square metre in Venray has slightly decreased to €3,130 per m² (Living, 2025), the Vredeskerk project demonstrates how transformation can offer affordable ownership pathways in smaller cities, especially when supported by targeted subsidies and casco delivery models that reduce initial purchase costs.

Preferences

The Vredeskerk project follows a casco delivery model, offering buyers considerable freedom to customise their living spaces. Future residents can opt for basic, cost-efficient finishes or invest in

high-end materials and layout modifications, depending on their personal preferences and financial capacity.

The initial design of the units takes into account the diverse needs of first-time buyers, providing flexible layouts that can accommodate varying household compositions. As shown in Figure 20, the standard floor plans maximise spatial efficiency while retaining key architectural features of the original building, such as high ceilings and large windows. This approach balances the preservation of the building's historical character with the modern requirements of residential living.

Figure 20: Floor plan (55m2), apartment Vredeskerk (Steenvlinder, 2025)

The casco concept, combined with the thoughtful base layouts, enables residents to adapt their homes over time according to changing life-course needs, thereby enhancing long-term usability and satisfaction.

Location

The Vredeskerk is centrally located in Venray, a mid-sized town in the province of Limburg. This location provides direct access to essential amenities, including shops, restaurants, healthcare services, and public transportation. The project's proximity to the town centre makes it particularly attractive to first-time buyers who prioritise convenience, local connections, and affordability. Unlike larger urban transformation projects in cities such as Rijswijk or Apeldoorn, the Vredeskerk's smaller-scale redevelopment fits within the local housing demand of a more close-knit community.

The town of Venray offers a balanced mix of urban facilities and a quieter residential environment, making it a desirable location for young professionals and individuals with strong local ties. Unlike metropolitan areas, where high-density living and competitive housing markets drive up prices, Venray's housing market remains relatively accessible, making homeownership feasible for first-time buyers with lower or moderate incomes. Additionally, the presence of green spaces and nearby recreational areas adds to the appeal of the location, especially for those seeking a mix of urban living and outdoor accessibility. The location of the Vredeskerk transformation combines affordability, community ties, and accessibility, making it an interesting case for understanding how first-time buyers navigate housing decisions in non-metropolitan areas. The success of this project may influence future adaptive reuse initiatives in smaller Dutch towns, demonstrating how historical structures can be integrated into the modern housing landscape while preserving their architectural and communal value.

Transformation

The Vredeskerk is being redeveloped by a private real estate firm specialising in adaptive reuse projects. Their approach emphasises the preservation of historical features while creating contemporary,

functional living spaces suited to modern needs.

Architectural management is overseen by a firm with expertise in heritage conservation, ensuring that essential elements of the former church, such as stained-glass windows and high vaulted ceilings, are thoughtfully integrated into the new residential layouts. This careful balance between preservation and modernisation not only enhances the aesthetic value of the apartments but also strengthens their connection to Venray's architectural and communal heritage.

The transformation of the Vredeskerk demonstrates the potential for integrating historic structures into the housing supply while simultaneously highlighting the technical and financial challenges associated with adaptive reuse.

Summary of case study results
The transformation of the Vredeskerk in Venray exemplifies how adaptive reuse can contribute to more affordable homeownership while preserving cultural heritage. By converting a former church into casco apartments, the project addresses local housing needs while offering flexibility and personalisation opportunities to first-time buyers.

Key strengths of the project include its affordability, central location, and participatory development process. However, the self-build model also introduces challenges, as buyers must finance and coordinate their interior construction, often managing dual rent and mortgage costs during the transitional phase.

While transformation projects involving religious landmarks can sometimes face community sensitivities, the Vredeskerk project demonstrates that with careful planning, financial support, and community engagement, adaptive reuse initiatives can successfully integrate into existing urban environments. This case highlights the potential for future transformation projects in non-metropolitan areas to expand access to homeownership while simultaneously preserving the architectural and social value of historic structures.

7.3. Conclusion
The comparative analysis of transformation projects in Rijswijk, Apeldoorn, and Venray reveals significant variations in development costs and market dynamics, each influenced by local contexts and project strategies.

- Rijswijk: Situated in a highly urbanised area, the Urban Vista project faced elevated development costs, with estimated transformation expenses ranging between €1,500 and €1,800 per m². Despite these higher costs, the project's strategic location and high-quality finishes allowed for competitive sales prices within the local market.

- Apeldoorn: In this mid-sized city, the Post Apeldoorn project adopted a casco delivery model, resulting in lower transformation costs estimated between €1,200 and €1,400 per m². This approach enabled buyers to personalise their interiors according to their budgets, enhancing affordability and accessibility for first-time homeowners.

- Venray: In a smaller urban setting, the Vredeskerk transformation project capitalised on lower land and construction costs, with estimated transformation expenses around €1,200 to €1,400 per m². While sales prices were more affordable compared to larger cities, the target demographic's limited financial capacity posed challenges, necessitating additional support mechanisms to ensure accessibility.

These cases illustrate that while transformation projects can offer affordable housing solutions, their success is contingent upon aligning development strategies with local economic conditions and buyer capacities. In urban centres like Rijswijk, higher development costs can be offset by market demand and location advantages. In contrast, projects in smaller cities like Venray must carefully balance cost savings with the financial realities of their target populations. Overall, the scalability of such transformation initiatives depends on context-sensitive approaches that address both economic feasibility and social inclusivity.

8. Interview analysis of first-time buyers

8.1. Introduction

This chapter presents the findings from twenty semi-structured interviews conducted across three urbanisation-level case studies: Rijswijk (urban), Apeldoorn (semi-urban), and Venray (rural). The analysis explores how first-time buyers navigate the housing market under varying institutional, financial, and spatial conditions. Four key themes guide this analysis: first-time buyers' experiences, affordability, housing/location preferences, and transformation projects. These are also shown in Table 7. The themes were derived from both theoretical frameworks and empirical data gathered through semi-structured interviews.

In contrast to a thematically driven cross-case structure, this chapter begins with a case-based approach. Section 8.2 presents urbanisation-level-based findings for each case study, structured thematically to highlight how buyers respond to context-specific conditions and how these play out in local practice, including exceptional cases. Section 8.3 then synthesises cross-case patterns, identifying overlapping barriers and shared behavioural strategies. A particular focus is placed on the distinction between initial housing aspirations and final choices, thereby directly addressing subquestion 3: *How do stated and revealed housing and location preferences influence recent and potential first-time buyers' decision-making in homeownership?* In doing so, the chapter highlights how systemic limitations and local opportunity structures shape both expectations and outcomes in first-time buyer behaviour.

These findings serve as the empirical foundation for the action proposals developed in Chapter 9. While this chapter focuses on qualitative patterns and thematic interpretation, Chapter 9 translates these into validated, context-sensitive strategies for developers and policymakers

The methodological steps behind this interview analysis, data allocation, thematic categorisation, regional and general synthesis, and action formulation, are outlined in Chapter 2, which provides a detailed explanation of interview design, data processing, and coding strategy.

The purpose of this chapter is to build an empirically grounded understanding of the lived experiences of first-time buyers across urbanisation levels. These insights form the basis for the policy-relevant and practically validated action strategies developed in the subsequent chapter.

8.2. Characteristics of interviewees

To explore how first-time buyers experience and navigate the housing market, a total of twenty semi-structured interviews were conducted across three urbanisation-level case study regions: Rijswijk (urban), Apeldoorn (semi-urban), and Venray (rural). The selection was guided by some criteria, shown in Table 2, to capture a diverse range of housing experiences, financial strategies, and engagement with transformation projects. Respondents were either in the process of buying a home or had recently completed a purchase, and all cases were transformation projects; some were casco delivered, and the Rijswijk case was finished at the delivery.

In addition to the main interviews, two test interviews were conducted to refine the interview structure and thematic prompts. Furthermore, one participant ultimately failed to finalise their financing. However, this individual's input is retained in the analysis, as their perspective helped clarify how financing uncertainty shapes early decision-making and search behaviour.

The interview population shows strong internal consistency on certain characteristics. Nineteen of the twenty respondents were single at the time of the interview. This underscores the significant role of dual-income households in accessing ownership. The findings suggest that affordability barriers are not only structural, but also relational: many of the constraints discussed in this study are further amplified for single buyers, compared to those purchasing as a couple.

In terms of financial background, most participants had either no student debt or only relatively modest amounts. While this may reflect the specific sample recruited for this study, it also points toward an important systemic issue: individuals with average or high student debts may be effectively excluded from the owner-occupied market altogether. Their absence in the interview sample can be read as a

finding in itself, indicating that even among well-informed, motivated buyers, significant debt still functions as a decisive exclusion mechanism.

Table 6 provides a structured overview of respondent characteristics for each case study. These include previous living situation, educational background, level of student debt, number of buyers, and the main compromise made to access homeownership. The data in this table form the empirical foundation for the thematic analysis in Chapters 8 and 9. The interviewee numbering follows a regional structure: numbers starting with 1 refer to Rijswijk (urban), those starting with 2 to Apeldoorn (semi-urban), and those starting with 3 to Venray (rural).

Interviewee	City	Previous living situation	Education	Student debt	Buyers	Main compromise
1 (1.2)	Rijswijk	Parents	Academic	x	1 + help parents	Size
2 (1.1)	Rijswijk	Indedepently	Academic	10,000	1	Number of rooms
3 (1.3)	Rijswijk	Independently	Academic	< 10,000	1	Number of rooms
4 (1.4)	Rijswijk	Parents	Academic	x	1	Size
5 (1.5)	Rijswijk	Independently	Academic	x	1 + help parents	Size
6 (1.6)	Rijswijk	Independently	Academic	x	1 + help parents	Number of rooms
7 (1.7)	Rijswijk	Parents	Academic	x	1	Number of rooms
8 (2.1)	Apeldoorn	Back to parents	Academic	x	1 + help parents	parking and outdoor
9 (2.2)	Apeldoorn	Parents	Practical	x	2	Size
10 (2.3)	Apeldoorn	Independently	Academic	25,000	1	Size
11 (2.4)	Apeldoorn	Parents & partner	Practical	x	1	Size
12 (2.5)	Apeldoorn	Parents	Practical	x	1	Casco
13 (2.6)	Apeldoorn	Parents	Academic	x	1 + help parents	Casco
14 (2.7)	Apeldoorn	Independently	Academic	3,000	1	Casco
15 (3.1)	Venray	Parents	Practical	10,000	1 + help parents	Finance
16 (3.2)	Venray	Back to parents	Academic	18,000	1	Size
17 (3.3)	Venray	Parents	Practical	x	1	Size
18 (3.4)	Venray	Back to parents	Practical	Yes, no number	1 + help parents	Size
19 (3.5)	Venray	Back to parents	Academic	x	1	x
20 (3.6)	Venray	Parents	Academic	10,000	1	Number of rooms + location

Table 6: Characteristics interviewees (own work)

8.3. Urbanisation level based findings
The interview analysis reveals both cross-case findings and urbanisation-level-specific barriers that illustrate the complex realities faced by first-time buyers in the Netherlands. While affordability emerged as a universal barrier, the responses varied markedly: urban buyers in Rijswijk acted under time pressure and used institutional access routes like lotteries, semi-urban buyers in Apeldoorn relied on green mortgages and tolerated renovation risks, and rural buyers in Venray mobilised family networks and embraced casco housing. Preferences shifted across all regions, confirming the adaptive nature of revealed housing choices. Location remained a dominant factor, though more emotionally anchored in Apeldoorn and Rijswijk, and strategically reinterpreted in Venray. Transformation was accepted in all regions, but only in Venray was it actively pursued for its flexibility and creative potential. These patterns underscore the need for place-sensitive housing policies that reflect both structural constraints and regional opportunity structures.

8.3.1. Rijswijk (Urban context)
The case of Rijswijk illustrates how first-time buyers navigate homeownership in a highly urbanised and competitive housing market within the Randstad. Unlike in the other cases, barriers here were shaped by time pressure, institutional access mechanisms (e.g. lotteries), and intense affordability constraints within the urban context.

Life-course experiences

Rijswijk buyers were generally young professionals or recent graduates living independently, often in precarious or short-term rental contracts. The decision to buy was frequently triggered by an external disruption, such as expiring tenancies or the sale of a rented home, rather than a long-term housing strategy.

"At other houses, you just get overbid. That's really where things fall apart. If this did not work out, I probably would have had to move to my parents again." – Person 1.1

While some participants had the luxury of time due to relatively stable rental conditions, the majority felt compelled to act quickly to avoid displacement, double housing costs or rising housing prices. This sense of urgency underpinned many decisions.

"I could stay in my student room a bit longer, so that was an advantage to not have a lot of pressure." – Person 1.3

Affordability

Affordability in Rijswijk was experienced less as an absolute barrier and more as a strategic constraint requiring careful navigation. Buyers engaged in highly pragmatic financial behaviour: prioritising ownership over rental, leveraging dual incomes, and tapping into family networks for support. Many buyers avoided bidding wars by entering new-build lottery systems, which provided access to fixed-price units. However, even these units were only attainable for buyers who met strict financial thresholds.

"I could only apply for the smallest and cheapest room in the building. If it were not a lottery, my chances would be zero." – Person 1.6

Financial strategies varied: some avoided student debt by working during their studies, others stayed longer with parents, and several received financial gifts or family mortgages.

"I'm lucky, I didn't have student loans. I worked throughout my studies." – Person 1.2

Housing preferences

Initial housing preferences in Rijswijk, such as extra rooms, balconies, or luxury finishes, were quickly revised under urban constraints. Buyers adopted a mindset focused on livability and core functionality. Compromises were frequent and accepted without significant resistance. Preferences in Rijswijk reveal a shift from aspirational ideals to pragmatic, revealed needs, defined not by luxury, but by privacy, daylight, and modest comfort.

"I wanted an extra room for a study or closet, but one bedroom is fine when you live alone." – Person 1.7

At the same time, buyers often drew a line at minimum autonomy. For example, some participants refused studio apartments, viewing them as a step back in life stage progression.

"A studio would feel like a step back. I at least wanted a separate room." – Person 1.5

Location preferences

Among all four themes, location preferences were the most decisive factor for Rijswijk buyers. Proximity to employment, train stations, and social networks in Delft, The Hague, and surrounding areas took priority over dwelling size or type. Several interviewees highlighted their attachment to the Randstad as both a practical and emotional anchor. Remaining near family was often non-negotiable.

"Being close to the station and my work is what matters. I can live anywhere if I have nice people around me." – Person 1.6

Even when relocation was necessary, the presence of reliable transit infrastructure helped mitigate distance from social circles. These findings reinforce the literature on revealed preferences under spatial constraints: connectivity and micro-mobility infrastructures became the cornerstone of location choice.

"I now live far from my social circle, but the transport links in Rijswijk are excellent." – Person 1.4

Transformation

While transformation was not a core motive in Rijswijk, its presence in some housing projects was not seen as a drawback. Buyers accepted the reuse of former offices or commercial buildings as a neutral or even slightly positive aspect of their purchase.

"These buildings are empty anyway, why not turn them into homes?" – Person 1.7

The emphasis was on outcome, not process: buyers valued the result, a well-located, modern apartment, over the building's past function. They viewed transformation projects primarily through the lens of convenience, aesthetics, and availability within the urban fabric.

"I didn't care that it used to be an office. It's just a nice, new place now." – Person 1.4

Exceptions

While most Rijswijk buyers experienced time pressure and made trade-offs, a few reported relatively smooth or even positive trajectories. Some secured housing on their first attempt, benefited from family support without financial strain, or described the process as less stressful than anticipated. For example, one buyer explicitly mentioned being "selected immediately", and another "had no student loans" and relied solely on income. These cases highlight that, while barriers were widespread, not all experiences fit the dominant pattern. That access is heavily shaped by individual financial position and timing within the market cycle.

Summary

The findings for Rijswijk illustrate how first-time buyers navigate a highly competitive urban housing market where time pressure and institutional allocation mechanisms such as lotteries significantly influence decision-making. Although initial housing preferences frequently had to be revised, location remained a non-negotiable priority, particularly in terms of proximity to employment, public transport, and social networks. Transformation was not the primary driver of purchase decisions, but was accepted as a functional solution, aligning with affordability and location needs. Table 7 summarises these dynamics, highlighting how urban buyers pragmatically balance affordability, location benefits, and housing quality within a high-pressure environment.

Themes	Rijswijk
1. **Life-course experiences**	• Triggered by expiring rental contracts or precarious tenancies • urgency due to displacement risk • some benefited from stable student housing.
2. **Affordability**	• Strategic constraint: use of dual incomes, family support • preference for fixed-price units via lotteries • avoidance of student debt where possible.
3.1 **Housing preferences**	• Initial preferences revised early • emphasis on privacy and modest comfort • rejection of studio apartments due to perceived life-stage regression.
3.2 **Location preferences**	• Most decisive factor: priority given to proximity to employment and public transport • strong ties to Randstad social networks.
4. **Transformation**	• Transformation accepted for convenience and location • viewed positively but not as a primary motivator • focus on modern outcomes.

Table 7: Rijswijk - Urban context findings (own work)

8.3.2. Apeldoorn (Semi-urban context)

The case of Apeldoorn illustrates the struggles of first-time buyers in a semi-urban housing market marked by moderate affordability, but limited access and persistent structural constraints. In contrast to urban centres like Rijswijk, buyers in Apeldoorn faced fewer institutional pressures such as lotteries or

extreme competition, but were more often constrained by limited mortgage capacity, single incomes, and the practical realities of financing casco housing.

Life-course experiences

Buyers in Apeldoorn entered the market at key transition points in their life course, such as after graduation, securing stable employment, or returning to their hometown after studying. However, the traditional trajectory of leaving the parental home and moving into independent housing was often delayed. Several participants extended their stay with family to save money or returned home temporarily to improve their financial position. Others turned to homeownership after facing long waiting lists or income restrictions in the social housing sector.

"I thought I could wait for social housing, but by the time my turn would come, I would already earn too much to qualify." – Person 2.1

A recurrent theme in Apeldoorn was frustration with the slow and uncertain nature of the housing search. Buyers often searched for more than a year, navigating a limited and overpriced housing supply. Some buyers described a sense of pressure to act when a rare opportunity arose, regardless of whether the home matched their original preferences.

Affordability

Affordability was the most dominant barrier in Apeldoorn. Buyers were often single, which meant they could not combine incomes to enhance borrowing capacity. Student debt emerged as a particularly significant limitation in this context. Some participants held debts exceeding €25,000, comparable to national averages, and several interviewees admitted to hiding these loans from lenders to secure a mortgage.

"If I had disclosed my student loan, I wouldn't have been able to buy anything at all." – Person 2.3

At the same time, buyers adopted creative strategies to maximise their financial capacity. Some benefited from the energy performance of the project, particularly those units with A++ labels, which granted access to additional mortgage room through green financing mechanisms.

"I wouldn't have been able to afford this place if it didn't have an A++ label. That extra bit of borrowing capacity made all the difference." – Person 2.2

Others simply rejected renting as a viable long-term alternative, viewing it as financially wasteful.

"I realised that rent is throwing my money away while buying a house is an investment." – Person 2.7

Housign preferences

Buyers in Apeldoorn started their housing journey with relatively standard aspirations: a turnkey home, two bedrooms, and outdoor space. However, these preferences quickly gave way to the reality of limited supply and constrained budgets. One of the most prominent compromises involved settling for smaller units than desired, often without a separate bedroom.

"I really wanted a separate bedroom, but in the end, I had to accept that it wasn't realistic in my budget." – Person 2.5

Another significant compromise was the acceptance of casco housing. Initially met with resistance, casco units became the default option after months of searching, especially within the context of the transformed post office project. Although some buyers appreciated the creative freedom that came with designing their own interior, others were disappointed by the unanticipated cost levels.

"At first, I refused to consider a casco home, but I realised it was my only option." – Person 2.4

"It is great to implement all my preferences, but I thought it would be cheaper. That is a bit of a disappointment." – Person 2.2

Outdoor space was another feature many buyers had to relinquish. While initial expectations included

a balcony or garden, the lack of such amenities was partially offset by proximity to public green space. Parking, too, was a concern, with some buyers noting they had to park at a distance from their home due to limited space.

Location preferences
Location was a defining factor for many participants, often outweighing size or finish. Unlike buyers in Venray who relocated to more affordable municipalities, Apeldoorn buyers typically had strong emotional and social ties to the city. Many participants grew up in Apeldoorn or nearby, and the desire to remain close to family and friends played a key role in their decision-making. Still, some did expand their search to nearby cities such as Ede, Deventer, or Amersfoort—though they were often priced out in those markets as well.

"I grew up here, my friends are here, my work is here. I never really considered moving away." – Person 2.3

A second key location-related constraint was neighbourhood reputation. Some buyers explicitly avoided certain areas, even when housing there was more affordable.

"The neighbourhood was a huge influence. I did not want to live in certain neighbourhoods, even if the houses were cheaper." – Person 2.6

Accessibility, especially by car, was an important factor. While some participants did not rely on public transport, most preferred a central location with access to major roads and amenities, even if it meant compromising on parking or housing quality.

Transformation
The transformed post office in Apeldoorn provided a relatively accessible entry point into homeownership. Most participants viewed the fixed pricing and new-build status of the project as positive. However, transformation also came with trade-offs. Casco delivery raised uncertainty around renovation costs and timelines, particularly for those without construction experience.

"I think it is cool to have a casco house. I am creative, love painting, and create it to my own wishes." – Person 2.7

Nevertheless, some buyers expressed dissatisfaction with the communication and marketing of the project. Delays in construction and discrepancies between promised and actual square metre sizes created frustration.

"At the end of the day, I own something, and that's what matters." – Person 2.1

Despite these challenges, transformation housing in Apeldoorn ultimately offered a route to ownership for many buyers who would otherwise be excluded. It also opened the door for modest personalisation, although within strict financial and physical constraints.

Exceptions
Several Apeldoorn respondents made use of informal support networks, not just financially, but in the actual execution of their renovation plans. What stood out was a deliberate choice to rely on friends and family with technical skills to reduce renovation costs. Rather than outsourcing work to contractors, buyers leaned on their social circles to keep the project affordable and manageable. In a context where Casco delivery shifted responsibility to the buyer, this strategy became a practical and cost-conscious response to market conditions. Another noteworthy pattern was the presence of investment-oriented thinking among some participants. While most buyers framed the purchase in terms of stability or autonomy, a few saw the project primarily as a financial step. The cases show that not all first-time buyers fit the stereotype of emotionally motivated homeowners; some approached the process with a calculated, strategic mindset that balanced personal needs with long-term value planning.

Summary
In Apeldoorn, financial constraints and limited mortgage eligibility strongly shaped the purchasing strategies of first-time buyers. While market pressures are less extreme than in urban centres, buyers still face significant challenges, prompting the use of creative financial strategies such as green mortgages

and informal renovation networks. The acceptance of shell delivery homes was often a necessity rather than a preferred choice, driven by affordability considerations rather than explicit preference for transformation. Table 8 provides an overview of the semi-urban dynamics, showing how buyers with limited financial capacity adapt their housing aspirations while strategically utilising available transformation opportunities.

Themes	Apeldoorn
1. **Life-course experiences**	• Delayed homeownership due to prolonged family co-residence or return after study • frustration with limited supply and long search durations.
2. **Affordability**	• Dominant barrier: many were single-income buyers with high student debt • green mortgages leveraged • renting seen as wasteful.
3.1 **Housing preferences**	• Turnkey aspirations abandoned • acceptance of casco units as last resort • disappointment with unexpected renovation costs.
3.2 **Location preferences**	• Strong place attachment • reluctance to move away despite price differences • neighbourhood reputation heavily influenced decisions.
4. **Transformation**	• Transformation provided access • casco homes seen as creative opportunities but raised concerns about cost and marketing clarity.

Table 8: Apeldoorn - Semi-urban context findings (own work)

8.3.3. Venray (Rural context)

The Venray case illustrates how first-time buyers navigate a rural housing market shaped by lower market pressures, but also limited supply, lower incomes, and a greater reliance on informal support systems. Buyers in Venray demonstrated a pragmatic, often hands-on approach to homeownership, showing high levels of flexibility and acceptance toward casco housing and transformation projects. While affordability remained the central challenge, the strategies and attitudes adopted in Venray differed considerably from urban and semi-urban regions.

Life-course experiences

Unlike buyers in Apeldoorn or Rijswijk, most participants in Venray did not have longstanding ties to the city. Their presence in Venray was largely a result of strategic relocation from more expensive regions in North Brabant. Many buyers initially searched in towns like Boxmeer, Cuijk, Malden or Nijmegen, but rising house prices forced them to expand their search eastward.

"At first, I looked in Boxmeer, Cuijk, Nijmegen, and Malden, but later I broadened my search to Limburg. That's how I found Steenvlinder." – Person 3.2

The decision to purchase was often reactive rather than proactive. Most participants began looking seriously only after other housing options, such as renting or social housing, proved inaccessible due to limited supply or income caps. Aspirations for newly built or already renovated homes were quickly abandoned in the face of financial reality. For most, homeownership was primarily associated with stability and autonomy, even if it meant undertaking renovation work or accepting less than ideal circumstances.

"In the beginning, I had requirements, like wanting a newly built or renovated house, but I quickly let those go." – Person 3.2

Affordability

As in other cases, affordability emerged as the dominant barrier to homeownership. However, the financial strategies employed in Venray were distinctively shaped by strong family networks and a more gradual trajectory into ownership. All participants had either remained in the parental home or

returned there temporarily to save money. Several buyers relied directly on family for financial support, either through gifted capital, renovation assistance, or informal mortgages.

"My parents helped me buy my home. My mother acted as 'the bank,' which allowed me to get a mortgage." – Person 3.4

Student debt remained a key issue in Venray, limiting borrowing capacity. Many participants were aware that their loans reduced their mortgage eligibility, and some chose to repay their loans early or conceal them during the mortgage application process.

"I paid off my student loan before purchasing because it affects how much mortgage you can get." – Person 3.2

A shared concern was the rate at which house prices were increasing, especially relative to the pace of personal savings. Buyers expressed a sense of urgency to buy sooner rather than later, even if it meant compromising on quality or space.

"Housing prices rise faster than you can save. I could have stayed at home longer, but if prices keep rising, that doesn't help either." – Person 3.3

The overall financial approach in Venray was more long-term, calculated, and embedded in familial support structures, focusing on future value rather than immediate market opportunities.

Housing preferences

Venray buyers were particularly open to casco housing and transformative projects, not merely as a compromise but as a deliberate choice aligned with their skills and financial strategy. Many saw casco units as an opportunity for personalisation and cost control rather than as a burden.

"I think it's an advantage that this is a transformed building. It's unique and has character." – Person 3.2

This attitude was strongly supported by practical knowledge within the buyers' social and family networks. Several interviewees had experience in construction or came from trades-oriented households, which lowered the perceived barrier to undertaking renovation work.

"My parents built their own house. My father is an electrician, and I'm a plumber, so having family with skills helps when buying something like this." – Person 3.1

Nonetheless, some buyers still had to compromise on space and amenities. Garages, extra rooms, or separate bedrooms were often outside their budget. While aspirations were scaled back, the general attitude was flexible and adaptive. Buyers emphasized functionality over prestige or luxury.

"I really wanted a separate bedroom or a study, but that wasn't possible within my budget. In the end, I gave up on that." – Person 3.2

Location preferences

A defining feature of the Venray case was the lack of emotional attachment to the place itself. Most buyers were not originally from Venray and were more motivated by cost-efficiency and accessibility than by a desire to remain close to family or social networks. The relocation from Brabant to Limburg was pragmatic, driven by unaffordability elsewhere.

"Eindhoven was my first choice, but it was unaffordable. I also looked at Horst and Grubbenvorst, but the supply was too small." – Person 3.3

Once in Venray, buyers made their final location choices based on practical concerns such as accessibility to highways, workplace flexibility, and infrastructure. Interestingly, several participants described a form of social validation in choosing a neighbourhood, often consulting friends or colleagues to avoid 'bad' areas.

"I registered for this home and then asked colleagues about the area. If they had said 'don't do it,' I might have changed my mind." – Person 3.2

This informal validation mechanism illustrates how buyers navigated uncertainty when moving to a new and unfamiliar location. Overall, buyers in Venray demonstrated a high degree of geographical and social flexibility, prioritising affordability and access over emotional ties.

Transformation

Among the three regions, buyers in Venray were the most enthusiastic about transformation housing. Rather than viewing transformation as a last resort, they appreciated the uniqueness and flexibility of repurposed buildings. Several buyers deliberately selected their homes because they had been transformed, citing character, layout variety, and the ability to co-design interiors as major advantages.

"I deliberately chose a transformed building because I find it interesting that not all apartments are the same." – Person 3.6

Despite these positive views, buyers were realistic about the downsides. Several acknowledged that transformed properties might require more maintenance or include hidden costs related to insulation or outdated technical systems. Nonetheless, buyers in Venray accepted these trade-offs more willingly than those in other regions. The ability to control costs, avoid competition, and customise their home outweighed the risks associated with transformation. Their attitudes reflect a pragmatic and proactive engagement with the transformation process.

Exceptions

Several respondents in Venray shared strategies that, while outside the four key themes, reveal how first-time buyers navigate the market. Some leveraged technical skills within their social networks, collaborating with family to reduce renovation costs or complete casco units themselves, not merely for convenience but as a deliberate response to financial constraints. One buyer explored self-building on a private plot but encountered institutional barriers, with banks unwilling to finance without guarantees, underscoring the systemic challenges of autonomous housing production. Others adopted a more analytical approach, consulting colleagues on neighbourhoods, considering resale value, and aligning choices with market developments. These cases demonstrate that first-time buyers in Venray often act strategically within structural limitations.

Summary

The Venray case shows that rural first-time buyers, though facing less market competition, struggle with limited supply and financial capacity. For them, transformation and shell delivery homes are valued for the control they offer over costs and customisation. Family support and informal networks are essential in enabling self-build and managing renovation risks. Table 9 summarises how these buyers navigate a less regulated market, using self-sufficiency and flexibility to overcome financial and technical barriers.

8.4. Cross-case findings

Across all urbanisation levels, there are overlapping barriers. Although each case study reflects a different spatial and institutional context, the analysis reveals several recurring patterns that transcend regional distinctions. These patterns demonstrate how first-time buyers, across varying degrees of urbanisation, adapt to a structurally constrained housing market. The findings confirm and extend established theoretical frameworks on housing behaviour, including life-course decision-making (Mulder and Hooimeijer, 1999), and revealed and stated preference strategies (**?**).

Life-course experiences

In all three regions, first-time buyers entered the housing market during important moments in their life-course trajectories. These moments included the completion of formal education, the transition into stable employment, and the desire to move out of parental homes or insecure rental arrangements. Many respondents described a reactive mode of decision-making, often sparked by expiring rental contracts or the opportunity to access mortgage financing. A frequently mentioned strategy was extending one's stay at the parental home to reduce costs and build savings. This reflects the influence of life-stage conditions on housing decisions, as discussed by Mulder and Hooimeijer (1999). While the urgency varied, most respondents perceived homeownership as a necessary next step towards autonomy, stability, and financial security, and some took risks to have that.

Themes	Venray
1. **Life-course experiences**	• Reactive relocation from Brabant • no strong ties to Venray • ownership pursued after rental/social housing failed • early expectations dropped.
2. **Affordability**	• Barrier mitigated by parental support and patient strategies • concealed or repaid student debt • urgency due to rapid price increases.
3.1 **Housing preferences**	• Casco housing welcomed as flexible and cost-efficient • construction skills in family reduced barriers • space compromises accepted.
3.2 **Location preferences**	• Pragmatic relocation based on affordability • access to highways and infrastructure prioritised over emotional or social ties.
4. **Transformation**	• Most positive views: transformation seen as creative opportunity • buyers accepted maintenance risks in exchange for affordability and autonomy.

Table 9: Venray - Rural context findings (own work)

Affordability

Affordability was by far the most prominent barrier across all cases. Consistent with the literature, affordability was not experienced as a static constraint, but rather as a dynamic outcome shaped by shifting housing prices, evolving mortgage policies, such as green mortgage incentives, and the personal financial circumstances of buyers (Mulder and Hooimeijer, 1999). Across all three regions, financial limitations determined whether, how, and where buyers entered the market. This structural constraint shaped both their decision-making timelines and the kind of housing they ultimately accessed.

Participants responded to these constraints with adaptive strategies, illustrating broader patterns of constrained consumer behaviour. Some relied on dual incomes or intergenerational financial support to augment purchasing power (Mulder and Hooimeijer, 1999), while others postponed independent living to increase savings capacity. Several buyers deliberately omitted their student debt when applying for a mortgage to enhance eligibility, highlighting a tension between institutional lending rules and actual buyer behaviour (Mezza et al., 2020). Others sought out transformation projects or lottery-based housing initiatives as rare opportunities to access fixed-price housing and avoid competitive bidding processes. This coping behaviour often reflected a sense of urgency. The perceived impossibility of 'catching up' with the market, due to continuously rising house prices, fuelled earlier-than-expected purchases, often under financially constrained conditions. Another buyer, reflecting the high stakes of mortgage eligibility, admitted:

Housing preferences

While first-time buyers initially entered the market with specific preferences, such as additional rooms, outdoor space, or turnkey quality, these ideals were quickly tempered by financial and structural limitations. This observed gap between stated and revealed preferences confirms theoretical models of bounded rationality and constrained consumer behaviour (Mulder and Hooimeijer, 1999). Preferences were frequently revised in light of budget constraints and prevailing market conditions. What emerged were revealed preferences that prioritised functionality, flexibility, and affordability over aspiration.

Across all cases, interviewees compromised on size, layout, and finish quality. Casco units, which were initially viewed with hesitation, were increasingly accepted as viable albeit imperfect solutions. The desire for private outdoor space was frequently abandoned or replaced by proximity to parks or communal green areas. Instead of pursuing aspirational ideals, buyers focused on securing livable, functional homes that fit within their financial capacity.

"I wanted an extra room for a study or closet, but one bedroom is fine when you live alone." – Rijswijk, Person 1.7

These findings align with theories of revealed preferences, in which buyers modify their priorities in response to structural constraints.

Location preferences

Location proved to be a universally decisive element in the housing choices of first-time buyers. Regardless of the level of urbanisation, respondents prioritised proximity to familiar social networks, employment, and mobility infrastructure over dwelling characteristics such as size or finish quality. These findings are consistent with the literature on the relationship between life stage and locational decision-making (Mulder and Hooimeijer, 1999).

Respondents consistently highlighted the importance of remaining close to family or social networks, maintaining access to public transport or highways, and avoiding neighbourhoods with perceived negative reputations, even when more affordable alternatives were available. In many cases, the importance of location outweighed other considerations: buyers willingly accepted smaller homes, less favourable layouts, or unfinished interiors to stay embedded within preferred neighbourhoods.

"The neighbourhood was a huge influence. I did not want to live in certain neighbourhoods, even not if the houses were cheaper." – Apeldoorn, Person 2.6

Overall, while preferences around dwelling features were negotiable, location determined decision-making. It functioned as both a relational anchor and a structural necessity in buyers' housing trajectories.

Transformation

Transformation projects, such as the conversion of former offices or churches into residential units, were widely accepted across all regions. While individual motivations differed, buyers generally welcomed these projects for their relative affordability, fixed pricing structures, and opportunities for personalisation. These findings align with existing literature on the adaptive reuse of vacant buildings as a strategy to address housing shortages (Boelhouwer and Schiffer, 2015).

Casco units, although initially met with some hesitation, were broadly accepted as a means to lower entry costs, despite requiring additional time and effort from buyers. Fixed pricing models reduced financial uncertainty and made homeownership more predictable, an important consideration for first-time buyers operating within strict financial constraints (Boelhouwer and Schiffer, 2015). Casco delivery enabled greater design flexibility and the ability to spread renovation costs over time, offering buyers the option to adjust investments according to personal financial circumstances.

Additionally, the potential for achieving high energy efficiency standards in renovated units allowed some buyers to access green mortgage benefits, thereby increasing their borrowing capacity (Het Financieele Dagblad, 2024). Despite concerns over renovation costs and project delays, transformation was broadly perceived as a legitimate, and even desirable, pathway to homeownership among first-time buyers.

Summary cross-case findings

The cross-case findings largely validate the expectations outlined in Chapter 6 and visualised in Table 5, though important nuances emerged. As anticipated, first-time buyers face substantial barriers in accessing homeownership, with affordability remaining the most decisive constraint. However, rather than acting as a static financial threshold, affordability proved dynamic, influenced by rising prices, borrowing limits, and shifting institutional rules. Buyers responded with coping strategies such as postponing independence, relying on family support, or concealing student debt, underscoring how affordability operates as a behavioural constraint embedded in systemic frameworks.

The divergence between stated and revealed preferences, predicted in the literature, was clearly observed. Initial aspirations for size, quality, and outdoor space were often adjusted in practice, with the acceptance of casco housing illustrating how feasibility gradually outweighed ideals. These findings confirm theories of bounded rationality and adaptive preference formation.

Location emerged as the most stable factor across all contexts, consistently outweighing dwelling

characteristics due to its practical and emotional significance. This aligns with earlier assumptions, reinforcing the importance of proximity to family, work, and infrastructure in mitigating uncertainty.

Contrary to the strategic image of transformation in academic literature, the interviews revealed that buyers encountered transformation projects more by coincidence than by deliberate choice. Their appeal stemmed not from architectural reuse narratives but from practical advantages such as fixed pricing, phased investment, and customisation options, offering predictability within constrained financial circumstances.

Table 10 synthesises these empirical findings, comparing them to the expected dynamics in Table 5. The colour-coded summary indicates where theory and practice align, partially overlap, or diverge. While structural barriers were broadly confirmed, buyers' strategies varied depending on urgency, risk perception, and access to financial buffers, dimensions often underrepresented in existing academic.

Literature insights	Expected output	Cross-case findings
1. **First-time buyers experience** a lot of difficulties on the current housing market	A lot of barriers in the search for homeownership.	✅ Stressful and frustrating search process ✅ Social housing perceived as inaccessible due to rising income, 🟠 Lottery based approaches provided rare chances to buy without bidding wars
2. **Affordability** is not fixed but shaped by economic and policy constraints, including rising house prices, student debt and mortgage ristrictions	Confirmation that affordability is dynamic and depends on multiple factors. In the current market the biggest barrier.	✅ Overbidding was the biggest barrier in ownership ✅ Student debt significantly reduced borrowing power, some buyers concealed debt ✅ Buyers relied on stable employment, family savings, or energy-efficient homes for financial leverage.
3.1 There is a gap between **stated and revealed preferences**	Revealed vs stated preferences differs. Everyone needs to adjust their preferences	✅ Initial aspirations (e.g., size, move-in ready homes) had to be adjusted 🟠 Casco housing accepted out of necessity 🟠 Unexpected renovation costs challenged financial planning.
3.2 **Location** preferences evolve based on life-course stages	Location is most important factor of homeownership. It has a lot of influence on life-course stages	✅ Strong preference for certain location, due to family, work or accessibility 🟠 Proximity to amenities and acceptable neighborhoods prioritized over housing quality.
5. **Transformation** has less construction costs and more inner-city availability	Casco buildings is more cost-spread and can be adjusted to preferences of first-time buyers	🔴 Transformed buildings was not a preference. it was not relevant for buyers 🟠 First-time buyers valued the result, modern, well-located apartments.

Table 10: Cross-case findings (own work)

8.5. Conclusion

This chapter shows that while the housing trajectories of first-time buyers are shaped by local conditions, they are governed by recurring behavioural structures that cut across regions and themes. Buyers operate within a system defined by systemic inaccessibility, but their responses are neither random nor purely reactive. Instead, they reveal patterned strategies that balance personal ambition with structural constraint.

Life-course transitions, graduation, job entry, or leaving the parental home, often marked the beginning of the housing search. Yet these transitions were rarely strategic. Instead, they were delayed, compressed, or accelerated in response to financing possibilities, institutional deadlines, or rising prices. In all three regions, these moments triggered a negotiation between timing, risk, and affordability.

Affordability shaped every aspect of the process. It influenced when buyers acted, how much autonomy they had, and what kind of products they could access. While the pressure was universal, the coping strategies varied: buyers in Rijswijk entered lotteries to avoid overbidding, those in Apeldoorn leveraged green mortgage structures, and Venray buyers activated informal networks to make casco housing feasible. These regional differences show that even within shared structural limits, local opportunity structures matter.

Preferences, too, followed a cross-cutting logic. Initial ideals around space, finish, or dwelling type were constantly adjusted during the process. Rather than holding stated preferences, buyers worked with

flexible thresholds, constantly changing expectations to match available options. At the same time, location remained a constant factor. Whether urban or rural, buyers prioritised proximity to work, family, or infrastructure, often at the cost of all else.

Transformation projects acted as functional connectors within this constrained market. While rarely a deliberate goal, they were broadly accepted for their predictability, affordability, and modifiability. Especially where they aligned with local labour capacity or flexible financing, transformation enabled access that would otherwise be out of reach. Rather than a niche solution, transformation became a shared and scalable strategy under the right conditions.

Taken together, these findings answer sub-question 3, showing that first-time buyers' housing choices emerge from an ongoing interplay between structural constraints and adaptive preference formation. They navigate the housing system through a combination of adaptation, compromise, and context-sensitive strategy. Structural barriers may be national, but responses are regional and shaped as much by institutional design as by informal capacity. The action proposals in the next chapter build directly on this insight: they aim to convert behavioural adaptation into practical support.

9. Action proposals

9.1. Introduction

Building on the findings from Chapter 8, this chapter translates the identified barriers into concrete action proposals for building transformation projects. These actions are designed to support recent and potential first-time buyers and are organised around the four key themes discussed earlier. Each action results from the combined insights of interview data, academic literature, and thematic analysis.

Rather than being directly quoted or drawn from a single framework, the actions reflect recurring patterns in buyer behaviour and structural constraints, as identified through systematic coding of interview transcripts. Details about the interview structure, participant selection, and coding procedure are provided in Chapter 2 (Methods).

This chapter also answers the fourth sub-question of the thesis: *To what extent can housing transformation projects provide an affordable solution that aligns with the preferences of recent and potential first-time buyers?* Based on both case-specific and cross-case findings, it shows how transformation can serve as a meaningful, flexible, and financially accessible route to homeownership, especially when supported by local institutions and tailored to the context.

Rather than offering generic policy recommendations, this chapter proposes targeted actions that respond to both structural barriers and local opportunities. These actions aim to help municipalities and developers design inclusive transformation trajectories, with particular attention to the needs and financial limitations of first-time buyers.

Following the structure of Chapter 8, the chapter begins by outlining urbanisation-level-specific action proposals for Rijswijk (urban), Apeldoorn (semi-urban), and Venray (rural), demonstrating how local differences require differentiated approaches. This is followed by a set of cross-case recommendations that respond to barriers consistently observed across all regions. The layered structure ensures that both general constraints and place-specific dynamics are reflected in the proposed actions, offering a practical response to the complex housing conditions faced by first-time buyers.

9.2. Urbanisation-level-specific action proposal

While the challenges outlined above apply across contexts, each region demonstrated unique characteristics that merit targeted responses. The following section provides tailored actions for each case study location.

9.2.1. Rijswijk (Urban context)

The urban action proposal (Table 11) for Rijswijk addresses the housing challenges faced by first-time buyers in a dense and competitive metropolitan environment. Buyers in this region were often under time pressure due to expiring rental contracts or rising rents and relied on lotteries or institutional access routes to avoid bidding wars.

To respond to this urgency within the theme of life-course experiences, developers are advised to reserve units for first-time buyers in cooperation with local employers or universities. Furthermore, offering priority access to tenants in temporary leases can mitigate relocation stress and provide greater predictability during transformation processes. Affordability challenges were particularly evident in the mismatch between buyers' incomes and the high urban price levels. Many respondents earned too much to qualify for social housing but lacked sufficient means to access the free rental or ownership market without familial support. To address this gap, developers should collaborate with municipalities to reserve first-right-to-buy units specifically for first-time buyers within a defined income bracket.

An additional strategy involves clustering small-scale transformation projects. While this is contingent upon the spatial coincidence of multiple vacant buildings within a neighbourhood or urban area, it offers a pragmatic way to reduce per-unit development costs where such opportunities exist. By bundling projects into a shared development trajectory, developers can spread investment risks, streamline permitting procedures, and achieve moderate economies of scale. This approach mitigates the fragmentation typical of isolated transformation efforts, enhancing financial feasibility without compromising local identity. However, its applicability remains highly context-dependent and should

Key themes	Urbanisation-level-based findings	Urbanisation-level-based actions
1. **Life course experiences**	• Average search time in an urban area was a few months • 100% of the first-time buyers experience affordability problems, and 45% need parental financial support. • Many think that renting is a waste of money • A lot felt lucky because it was a lottery without overbidding	• Partner with organisations (universities, companies) to offer housing access for local workers with stable contracts, co-financing. • Prioritise tenants in temporary rental contracts by offering them first access in transformation projects.
2. **Affordability**	• Many earn too much for social housing but free rental market is too expensive • High property prices create financial barriers for buyers. Nothing is available under 200,000. • Struggle with rising house prices and mortgage regulations. • Family mortgage helps buyers to fund their house	• Collaborate with municipalities to reserve first-right-to-buy units for local starters within a capped income range. • Cluster multiple small-scale transformations, to reduce costs for developers and first time buyers.
3.1 **Housing preferences**	• Wanted a second room • Having my own space • Size does not matter (rooms do matter), it needs to be affordable • Demand for more affordable homes	• Design compact units with optional internal upgrades such as a second room extension. • Do not only build studios, no room for life-course changes. • Offer "casco-plus" options with basic installations but unfinished interiors to reduce upfront costs.
3.2 **Location preferences**	• Almost all buyers prioritize location over size due to market constraint • Work is most important (more important than family). • Women prioritize a safe neighbourhood	• Target vacant buildings near employment hubs for transformation, to match buyers' strong preference for short commutes. • Build near public transport hubs with reduced parking and shared mobility options. • Focus on "15-minute neighbourhood" concepts
4. **Transformation**	• Some persons would prioritize a casco above newly build but it is not available in Randstad. • Most were not specificly searching for a transformation project • Transformation decreases vacancy rate	• Launch casco pilot zones in partnership with municipalities to test stripped-down delivery formats. • Co-develop hybrid projects with housing associations, combining affordable starter units with social housing.

Table 11: Rijswijk - Action proposals for urban areas (own work)

be pursued opportunistically where vacancy patterns allow.

Buyers' preferences in Rijswijk centred on modest, private, and adaptable housing. To meet these needs, developers should design compact units that offer optional internal upgrades, such as a second room extension, while avoiding studio-only developments that do not accommodate life-course changes. Casco-plus options, combining essential installations with unfinished interiors, offer affordability while enabling future personalisation. Location was the most decisive factor. Buyers prioritised proximity to work, transit, and social networks over size or finishes. Developers should therefore focus on vacant buildings near employment hubs and public transport, and integrate shared mobility services. Applying the "15-minute neighbourhood" principle strengthens urban accessibility without increasing housing costs (Moreno, 2021). This concept promotes the development of mixed-use neighbourhoods where essential amenities such as work, shops, schools, and public transport are accessible within a 15-minute walk or bike ride. By focusing on proximity rather than expansion, it supports compact urban development while limiting infrastructure costs and preserving affordability (Moreno, 2021).

Although transformation was not the main motive, buyers accepted it when it provided location advantages and fixed pricing. Actions under transformation include launching casco pilot zones with municipalities and co-developing mixed projects with housing associations. These models combine financial feasibility with spatial flexibility, enhancing access without compromising quality.

9.2.2. Apeldoorn (Semi-urban context)
The action proposal for Apeldoorn (Table 12) addresses the specific constraints of a semi-urban setting where affordability is a structural barrier and transformation projects are accepted out of necessity rather than choice. Buyers in this context were often single-income households, had limited mortgage capacity, and relied on energy-efficient labels to increase borrowing potential.

To respond to these challenges, actions under life-course experiences focus on pre-marketing transformation units to buyers ready to act and implementing modular ownership formats that allow delayed financial commitment (e.g., buy 60 percent now, 40 percent later). Under the theme of affordability, buyers encountered financial stress related to student debt and a lack of tailored local instruments. Developers should collaborate with municipalities to introduce a starters mortgage scheme for young buyers, particularly those investing in sustainable transformation. Financial transparency is essential. Developers are advised to host educational sessions explaining green mortgages, cost phasing in casco

Key themes	Urbanisation-level-based findings	Urbanisation-level-based actions
1. Life course experiences	• Many want to step onto the housing ladder as soon as possible • The biggest compromises were living in a casco and the size of the appartment • All of the first-time buyers experience affordability problems and 20% need parental financial support.	• Pre-market transformation units earlier to match demand from buyers who are ready to act fast and prioritize immediate access over finish level. • Encourage modular ownership structures (e.g., buy 60% now, 40% later)
2. Affordability	• Struggle with rising house prices and mortgage regulations • Government subsidies assist buyers with initial financing, such as A++ houses • inlcude more mortgage options • Apeldoorn does not have a starters mortgage • Many felt that renting was throwing away money • Buyers do not disclose their student debt	• Partner with municipalities to give a local starters mortgage, especially for transformed A++ buildings. • Offer transformation-linked financial sessions, including topics like student loan implications, green mortgage eligibility, and cost phasing in casco renovations.
3.1 Housing preferences	• Main compromise was seperate bedroom • Casco is a way of implementing all your preferences • Parking or garden was a preference but that was not possible • Everyone cares the most on having house right now	• Provide upgrade-ready casco shells with standardized connection points to allow flexible but phased personalisation over time. • Offer pre-priced interior packages for buyers without renovation skills but still seeking a casco option • Integrate community-shared gardens or rooftop terraces in casco projects
3.2 Location preferences	• All buyers prioritize location over size due to market constraint • All buyers have family in the neighbourhood • Neighbourhoods had a lot of influence	• Co-design neighbourhood guides with local stakeholders to increase perceived value of overlooked but well-connected areas. • Pre-negotiate shared mobility subscriptions (e.g., car-sharing or regional train discounts) and include them in the housing offer.
4. Transformation	• Most buyers were not specifically looking for a transformed house • A few noticed casco was more expensive than expected • Opinions differ from living in a casco. Some love the creativity other buy it pure money wise • Some did not know was a casco house was before buying • A lot of buyers do have skillful persons in the family	• Include brief casco orientation during sales, ensuring buyers understand what casco means in practice and reducing confusion or regret. • Facilitate "casco mentor" programs, linking buyers with skilled locals (e.g. retired contractors or relatives) for guided self-build.

Table 12: Apeldoorn - Action proposals for semi-urban areas (own work)

homes, and the implications of concealing student debt during financing.

Buyers in Apeldoorn also expressed clear but constrained preferences. Many initially aimed for full-feature housing but had to accept compromises, especially regarding space and turnkey finish. Developers should therefore deliver upgrade-ready casco shells with standardised connection points to facilitate phased personalisation. For buyers without renovation experience, pre-priced interior packages should be made available to reduce uncertainty while preserving affordability. Shared spaces, such as rooftop terraces or communal gardens, may compensate for the lack of private outdoor space. Regarding location, emotional ties to Apeldoorn and family proximity were strong. However, some neighbourhoods were explicitly avoided due to negative reputations. Developers should co-create neighbourhood value frameworks with local actors, and pre-negotiate shared mobility subscriptions to add commuting value to less popular but well-connected areas. Finally, under the theme of transformation, there was widespread misunderstanding about what casco housing entailed. Some buyers had unexpected costs or were not aware they were purchasing a casco home. Developers should therefore include a basic casco orientation during the sales process. Furthermore, buyer confidence can be improved by connecting them to skilled local mentors, such as retired contractors or family members, to support guided self-build trajectories.

Together, these actions reflect the semi-urban dynamic: pragmatic buyers with financial constraints who are open to transformation, but who require clear guidance, transparency, and modest support systems to make the process manageable and effective.

9.2.3. Venray (Rural context)

First-time buyers in Venray operated within a rural housing market shaped by lower competition, flatter price structures, and a greater reliance on informal support networks. Unlike urban buyers, they approached ownership with patience, pragmatism, and a high degree of self-reliance. In response to this context, urbanisation-level-specific actions are developed, shown in Table 13.

Within the theme of life-course experiences, actions focus on flexible entry options. Developers are encouraged to implement phased reservation systems and savings-based incentives that support gradual decision-making among buyers who typically remain longer at home before purchasing. Affordability in Venray was mitigated by parental assistance rather than institutional support. Actions, therefore,

Key themes	Urbanisation-level-based findings	Urbanisation-level-based actions
1. **Life course experiences**	• Most people were looking for a casco • Average search time is over a year • All buyers are currently living at their parents to save money	• Allow phased entry into ownership by offering buyers the option to reserve homes early with low-risk commitments. • Create early-buyer savings incentives, such as a small discount for those who commit to purchase 6–12 months in advance.
2. **Affordability**	• Government subsidies assist buyers with initial financing, such as A++ houses inlcude more mortgage options • A lot of parents helped with buying a house • A lot of the buyers are originally from Brabant but bought in Limburg because of the prices • Student debt limits mortgage eligibility.	• Include ready-made financial add-ons in sales documentation, reducing friction for buyers using family support. • Bundle green mortgage facilitation with A++ units by handling the administrative steps in-house, helping buyers unlock extra borrowing capacity with less effort.
3.1 **Housing preferences**	• Main preferences was a garden/balcony • Casco is a way of implementing all your preferences • Everyone had to compromise a lot • A lot of buyers cared about sustainability, but only from the affordability perspective	• Integrate community-shared gardens or rooftop terraces in casco projects • Include base infrastructure (e.g., heating, electrical, bathroom rough-ins) in all casco units to reduce renovation stress for less experienced buyers.
3.2 **Location preferences**	• Buyers wanted to live more in the centre of the country but that was not affordable • Almost all buyers were from Brabant • Some buyers prioritized a rural area • Work was an important factor	• Highlight proximity to key roads • Offer mobility subscriptions (e.g., shared car access or e-bike leasing) to make peripheral locations more attractive.
4. **Transformation**	• Most buyers want to do everything by themselves • Casco houses were the only available options • Because it is an old church, it has a lot of character and market value • A lot did not expect to buy a casco house	• Use the character of transformed buildings (e.g. a former church or post office) to create value through identity. • Set up a trusted network of local craftsmen that buyers can choose from post-purchase, ensuring quality and reducing the fear of unexpected renovation costs.

Table 13: Venray - Action proposals for rural areas (own work)

include bundling green mortgage access directly into the sales process, particularly for energy-efficient A++ units, and simplifying financial add-ons for buyers receiving family gifts or loans. These measures reduce transaction friction and help buyers with limited formal borrowing capacity.

Buyers valued autonomy and flexibility in the design of their homes. To accommodate these preferences, developers should integrate base infrastructure into casco units, such as electrical, plumbing, and heating rough-ins, while leaving final finishes to the buyer. Shared amenities, like rooftop terraces or gardens, can help deliver spatial quality without escalating cost. Location choices were motivated by accessibility rather than sentiment. Many buyers had relocated from Brabant and prioritised highway access and job flexibility. To strengthen the appeal of rural locations, developers should emphasise proximity to transport infrastructure and offer mobility solutions such as e-bike leasing or shared cars to reduce perceived isolation. Transformation in Venray was not just accepted but embraced. Buyers appreciated the architectural character and customisation potential of repurposed buildings. Actions here promote transformation as a participatory process: developers should facilitate trusted networks of local craftsmen and partner with training institutions to support guided self-build models. These structures reduce renovation anxiety and enhance local economic engagement.

The Venray action proposal thus reflects a model of pragmatic autonomy. Rather than depending on heavy regulation or high-density supply, it supports buyers who are willing to build, adapt, and invest long-term, provided they are given the technical tools and minimal institutional friction to do so.

9.3. Cross-case action proposals
Although first-time buyers across the three regions faced distinct institutional contexts and local pressures, the interview analysis revealed recurring patterns that call for broadly applicable interventions. These actions are summarised in Table 14 and reflect structural constraints observed across all levels of urbanisation. They are derived from the qualitative findings presented in Chapter 8, supported by academic literature, and refined through expert validation. The resulting proposals aim to inform developers and policymakers on how transformation projects can be made more inclusive and adaptable for first-time buyers.

Key themes	Cross-case findings	Cross-case actions
1. **Life course experiences**	• Stressful and frustrating search process • Social housing perceived as inaccessible due to rising income • Lottery based approaches provided rare chances to buy without bidding wars	• Develop phased ownership models (e.g. rent-to-buy schemes) to accommodate starters entering the housing market at different life stages. • Reserve a % of units for first-time buyers through a lottery
2. **Affordability**	• Overbidding was the biggest barrier in ownership • Student debt significantly reduced borrowing power, some buyers concealed debt • Buyers relied on stable employment, family savings, or energy-efficient homes for financial leverage.	• Introduce shared equity models such as duokoop or erfpacht-light, where land and property are financially separated to lower upfront costs. • Expand access to national financing tools such as the Warmtefonds to cover sustainable retrofitting in starter homes. • Pre-integrate sustainable features, to lower housing costs • All municipalities should introduce a starters loan scheme for casco buyers under 35
3.1 **Housing preferences**	• Unexpected renovation costs challenged financial planning. • Initial aspirations (e.g., size, move-in ready homes) had to be adjusted • Casco housing accepted out of necessity	• Offer tiered finishing packages in transformation projects (e.g. casco, basic, comfort) to align with diverse budgets and customization preferences. • Develop in compact, centrally located units
3.2 **Location preferences**	• Strong preference for certain location, due to family, work or accessibility • Proximity to amenities and acceptable neighborhoods prioritized over housing quality.	• Use a participation trajectory with residents to strengthen the perceived identity and value of less desirable neighbourhoods. • Integrate shared mobility services (e.g. electric car-sharing) in building plans to reduce dependency on private parking. Parking norm down.
4. **Transformation**	• Transformed buildings was not a preference. it was not relevant for buyers • First-time buyers valued the result, modern, well-located apartments.	• Institutionalize pre-consultation formats between developers and municipalities to align expectations early in transformation trajectories. • Fast-track procedures for adaptive reuse of vacant buildings

Table 14: Cross-case action proposal (own work)

Life-course experiences

Many buyers entered the housing market during important life transitions, including graduation, first employment, or the decision to move out of the parental home. While these transitions were often voluntary, they were accompanied by considerable pressure due to the dynamics of the housing market. Rising house prices and the perceived impossibility of saving sufficiently over time created a sense of urgency, prompting buyers to enter the market earlier than they might have otherwise preferred. Although many buyers were motivated to secure independent housing, financial constraints and limited availability often delayed or complicated this transition.

Developers can better support these life-course transitions by offering more flexible ownership pathways. Rent-to-buy models, modular delivery schemes, and phased ownership structures can allow buyers to access housing more gradually, matching the timing of their personal and financial readiness rather than forcing premature market entry. Such strategies are particularly relevant in transformation contexts, where project delivery timelines and individual preparedness may not always align. Providing flexible entry formats can help reduce financial risks and offer greater stability to first-time buyers navigating early life transitions.

Affordability

Affordability emerged as the most urgent and pervasive constraint across all case studies. Buyers across all regions struggled to meet mortgage thresholds, often due to limited incomes, student debt, or the absence of equity from previous property ownership. To alleviate this barrier, developers and municipalities should implement shared equity models such as Duokoop or erfpacht. Duokoop allows buyers to purchase the property while leasing the underlying land, reducing upfront costs, whereas erfpacht (land leasehold) enables long-term use of municipal land in exchange for an annual fee, making ownership more accessible without full land acquisition.

These approaches separate land and property ownership to reduce upfront costs while maintaining long-term security. Moreover, expanding access to national instruments such as the Warmtefonds would enable buyers to invest in sustainable retrofitting, which in turn increases eligibility for green mortgages. By embedding energy-efficient features into transformation projects from the outset, developers not only enhance environmental performance but also create financial leverage for buyers. Finally, all municipalities should consider implementing local first-time buyers' loans for housing purchases under the age of 35. These instruments would directly target a frequently overlooked group in housing finance and facilitate access to ownership for young buyers without family wealth.

Housing preferences

Initial housing aspirations, including extra rooms, turnkey finishes, or private outdoor space, were frequently revised under financial and structural constraints. However, buyers still expressed a strong desire for a degree of personalisation but also functionality. Developers should respond to this demand by offering tiered finishing packages in transformation projects. These packages can include varying levels of interior completion, such as casco, basic, or comfort, allowing buyers to choose a level of fit-out that matches their financial means and renovation capacity. Such semi-customisable units reduce financial barriers while enabling buyers to maintain a sense of autonomy in the design of their living space. In addition, compact, centrally located dwellings should be prioritised in urban design to meet space constraints without compromising on accessibility. These interventions recognise that while aesthetic and spatial ideals often shift under pressure, the demand for livable and modifiable spaces remains central to buyer decision-making.

Location preferences

Location consistently emerged as the least flexible housing criterion. Buyers prioritised proximity to employment, familiar social networks, and mobility infrastructure, even when this meant compromising on property size, quality, or finish. In neighbourhoods with limited reputational appeal or infrastructural access, developers should implement targeted interventions. To improve both perceived value and functional convenience, developers are advised to integrate shared mobility services, such as electric car-sharing schemes and secure bicycle storage, within transformation projects. These interventions align with the "15-minute city" concept (Moreno, 2021), which promotes the creation of mixed-use neighbourhoods where daily amenities and services are accessible within a short walking or cycling distance, thereby enhancing urban accessibility without the need for costly infrastructure expansions. From a cost-benefit perspective, while the implementation of shared mobility options entails upfront investment and coordination, such measures significantly reduce long-term demand for private parking spaces, optimise land use, and provide buyers with affordable alternatives to car ownership. This is particularly relevant in urban contexts where private parking is often financially and spatially unfeasible (Rijksdienst voor Ondernemend Nederland, 2022a).

For developers, these amenities not only enhance the functional appeal of transformation projects but also strengthen their marketability by addressing mobility needs in a cost-efficient manner. Moreover, governmental support mechanisms, such as the Dutch MIA and Vamil schemes, offer fiscal incentives for environmentally friendly investments, including shared mobility solutions, thereby improving the financial viability of such interventions (Rijksdienst voor Ondernemend Nederland, 2022a). By leveraging these programmes, developers can offset initial costs while contributing to broader sustainability and accessibility goals.

Transformation

Transformation was widely accepted across all regions as a realistic pathway into homeownership, primarily due to its potential for offering more affordable housing. For most buyers, the historical background or former function of the building played a minor role in their decision-making; affordability, rather than heritage, was the dominant consideration. However, the casco delivery model associated with many transformation projects influenced buyers' decisions more strongly, with regional differences in how casco options were perceived and accepted.

To enhance the success of transformation initiatives, early and close collaboration between developers and municipalities is crucial. Institutionalising pre-consultation procedures during the permit application phase and streamlining zoning adjustments could significantly reduce uncertainty and transaction costs. Clearer frameworks and faster approval trajectories would not only benefit developers but also lower risk perceptions among buyers. In addition, the development of guided casco models, potentially supported by partnerships with local craftsmen or vocational education programmes, could ease the self-build process. Providing affordable, professional assistance would help first-time buyers complete their homes at their own pace while maintaining quality standards. These measures would collectively reposition transformation from a constrained, risk-laden option to an attractive, flexible pathway to accessible homeownership.

9.4. Validation through expert panel

The proposed actions were validated during an expert panel session at DEV_Real Estate, involving developers, housing professionals, and project managers with direct experience in residential transformations. The session combined a presentation of research outcomes with a structured debate on the feasibility, desirability, and practical implications of each action.

To ensure thematic focus, ten pre-formulated statements, derived from the action proposals, guided the discussion (Appendix F). An interactive Mentimeter poll complemented the qualitative debate, allowing participants to rate the actions on relevance, feasibility, and policy alignment (scale 1–10).

Key actions receiving the highest support included:

- **Offering multiple finish levels for casco housing (score: 8.1).** This refers to providing buyers with different levels of interior completion (e.g. casco/shell, social-housing standard, or turn-key). This strategy helps accommodate diverse budgets and preferences by allowing buyers to choose a level of investment and effort they are comfortable with. Panel members emphasized the need for clear communication and support to guide buyers through these options.

- **Neighbourhood and future resident participation (6.4).** This action involves actively involving future buyers and local residents early in the development process to align housing typologies and services with community needs. It fosters a sense of ownership, can increase social cohesion, and helps tailor transformation projects to actual demand.

- **Shared ownership models (6.0)**. Shared ownership refers to long-term ground lease constructions (erfpacht), where the buyer acquires the property (the building) but leases the land from a municipality or institutional owner. This model lowers the entry price of homeownership, as the cost of the land is excluded from the initial purchase. Instead, buyers pay a monthly lease fee (canon) for the land. While this makes access more affordable, it depends heavily on municipal facilitation, standardised legal frameworks, and lender acceptance.

- **Allocating dwellings through lottery (5.0).** A lottery system can be used to distribute dwellings fairly among eligible candidates, especially when demand exceeds supply. This mechanism prevents overbidding and gives buyers from diverse financial backgrounds a more equal chance at securing a home.

Particularly, the different finishing levels for casco housing were recognised for lowering financial thresholds and catering to diverse buyer profiles, with an emphasis on clear communication and optional guidance to manage buyer expectations. According to the experts, 3 levels should be introduced: casco, social-housing level, conform.

Neighbourhood participation, while already common, was seen to benefit from earlier involvement of target groups to better align typologies with first-time buyer needs. Shared ownership models were viewed as promising but dependent on municipal facilitation and lender acceptance, especially in cases involving private land.

Shared ownership models were viewed as promising but dependent on municipal facilitation and lender acceptance, especially in cases involving private land. Panel members agreed that ground lease constructions are more feasible than private shared ownership models such as Duokoop, as there are fewer risks involved. However, the applicability of ground leases is largely determined by the extent of municipal land ownership. In cities like Amsterdam, where a significant portion of land remains in public hands, ground lease is already a well-established instrument. Conversely, in smaller municipalities with limited public landholdings, such as Apeldoorn or Venray, the scope for applying ground lease models is considerably more restricted. This geographic variability underscores the importance of context-specific strategies when considering shared ownership solutions.

The proposal to allocate a fixed percentage of transformed dwellings via lottery sparked debate. While considered fair by buyers, developers raised concerns about reduced pricing flexibility. Panel members noted that lotteries are already widely used for affordable transformation projects, yet this practice lacks

structural enforcement and remains inconsistent. The action, therefore, seeks to formalise lottery use for a defined share of affordable transformation units, ensuring equal access and limiting speculative bidding.

Actions with lower scores, such as fixed pricing (3.5) and employer partnerships (4.3), were seen as context-sensitive rather than ineffective, warranting further refinement rather than dismissal. Overall, the expert panel confirmed the core rationale of the proposals, with high-scoring actions integrated into the final recommendations, while lower-scoring ideas were reframed as context-dependent options.

9.5. Conclusion

The action proposals presented in this chapter directly respond to the analytical findings formulated in Chapters 7 and 8. These findings have been systematically addressed through interview analysis and translated into a set of actionable proposals, both across cases and tailored to urbanisation levels.

First-time buyers described their housing decisions as shaped by pivotal life events, often constrained by financial limitations and institutional barriers, thereby confirming the centrality of life-course dynamics. Affordability appeared not as a fixed price point, but as a fluid threshold influenced by borrowing capacity, household structure, and energy-related operating costs. This shifting reality forced significant preference adaptations, with buyers frequently adjusting their expectations to match what was financially and practically achievable. In contrast, location preferences remained relatively stable and were closely linked to personal life stage, social embeddedness, and daily lifeability.

Crucially, the findings confirm that transformation projects, especially those offering casco delivery models and fixed pricing, can serve as a viable and affordable alternative that aligns with first-time buyers' lived preferences. Although transformation was rarely a deliberate goal, it emerged as a broadly acceptable solution across urban, semi-urban, and rural settings. Buyers valued the possibility to personalise their homes incrementally, within constrained budgets, and appreciated the relative predictability and transparency offered by transformation projects compared to the volatile open market.

This chapter has shown that transformation can facilitate an important convergence between structural accessibility and individual adaptability. When supported by the right financial and institutional frameworks, such as tiered finishing levels, guided self-build support, or shared ownership structures, transformation becomes not just an emergency workaround, but a proactive strategy that aligns with the evolving needs of today's first-time buyers.

However, the question of scalability remains critical. While transformation has proven effective in addressing niche demand, its broader impact depends on structural integration into municipal housing strategies. Scaling up transformation for larger groups of first-time buyers requires systematic identification of suitable vacant buildings, streamlined permitting procedures, and coordinated public-private investment models that mitigate fragmented project delivery. Clustering multiple small-scale projects within urban areas, where spatially feasible, and embedding transformation in long-term urban densification policies, can amplify its contribution to the housing supply without compromising on flexibility. Moreover, integrating transformation into broader affordability instruments, such as shared equity schemes or green financing incentives, can enhance its financial feasibility on a larger scale.

Finally, the urbanisation-level differentiation across cases highlights that not all action strategies are universally applicable. For instance, shared ownership models such as ground lease (erfpacht) were most relevant in contexts where municipalities retain significant land holdings.

In conclusion, the expected analytical insights, grounded in the literature, refined through interview coding, and validated by expert reflection, have materialised into a coherent and context-sensitive action framework. The resulting proposals offer both generalisable principles and urbanisation-level-based instruments for developers and municipalities committed to addressing the accessibility gap for first-time buyers.

This validated action proposal thus forms a robust foundation for the reflections, recommendations, and broader discussion presented in Chapter 10.

Part V
Conclusions and discussion

Part V concludes this study by bringing together the empirical findings, expert validation, and theoretical insights to provide a comprehensive answer to the main research question. It revisits how life-course trajectories, financial constraints, and evolving housing preferences shape first-time buyers' access to homeownership, drawing on the case study analyses, interview data, and panel discussions. Particular focus is placed on the role of vacant building transformation as a context-sensitive and potentially affordable solution. The proposed action strategies are reassessed in light of expert feedback, clarifying the conditions under which they are feasible, desirable, and scalable in practice.

The aim of this concluding part is not only to synthesise key insights, but also to translate them into meaningful implications for both policy and practice. It offers a critical reflection on the research design, identifies remaining knowledge gaps, and formulates recommendations to guide future transformation projects that support more inclusive access to homeownership.

10. Conclusions and discussion

10.1. Conclusions

By combining desk research, three case studies (Rijswijk, Apeldoorn, Venray), twenty qualitative interviews, and expert validation, the study has provided a comprehensive view of how structural and behavioural factors intersect in shaping the housing pathways of first-time buyers. Beyond confirming known barriers, the research uncovered new insights into coping strategies, preference formation, and the practical potential of transformation projects.

Research goals

The goal of this research was to investigate how the transformation of vacant buildings can provide an affordable pathway to homeownership for first-time buyers in the Netherlands. Specifically, the research aimed to:

- Analyse how life-course trajectories, financial constraints, and housing preferences influence the accessibility of homeownership for first-time buyers.

- Assess the potential of housing transformations as a viable and context-sensitive solution to address affordability and supply challenges.

- Develop actionable recommendations for developers and municipalities to better align transformation projects with the needs of first-time buyers.

Sub-question 1: Life-course trajectories

How do life-course trajectories shape the preferences and housing restrictions of recent and potential first-time buyers?

Life-course transitions such as graduation, starting a career, or leaving the parental home were identified as key triggers for housing demand. However, these transitions rarely align with favourable market conditions, forcing first-time buyers into reactive decision-making. Rather than pursuing long-term aspirations, buyers are often compelled to act by external pressures like rising prices and insecure living situations. Transformation projects, particularly those offering phased investment opportunities, provided an alternative entry route that aligns with these urgent timelines, even if they were not the preferred option.

Sub-question 2: Financial resources and restrictions

How do financial resources, student debt, and housing constraints affect the affordability of homeownership for recent and potential first-time buyers?

Financial barriers were the most decisive factor restricting access to homeownership. Limited savings, single incomes, and the burden of student debt reduced mortgage eligibility. A critical empirical finding is the practice of omitting student debt from mortgage applications to improve borrowing capacity—an informal coping mechanism not previously highlighted in the literature. Additionally, the absence of buyers with high student debt levels in the sample suggests a hidden exclusion effect, where the most financially constrained individuals self-select out of the ownership market entirely. Transformation projects were valued for lowering initial costs, but their effectiveness depended on supportive financing and transparent pricing structures.

Sub-question 3: Housing and location preferences

How do stated and revealed housing and location preferences influence recent and potential first-time buyers' decision-making in homeownership?

First-time buyers typically start their search with aspirations regarding space, finishing quality, and location. However, affordability constraints force many to adjust these housing preferences, leading to pragmatic choices focused on functionality and cost-efficiency rather than initial ideals.

Location preferences, in contrast, showed clear variation across urbanisation levels. In urban areas, proximity to work and public transport was paramount, often outweighing other preferences. Semi-urban buyers prioritised closeness to family and social networks, while rural buyers valued accessibility

to highways, with affordability being the overriding factor. In Venray, location was less a preference and more a consequence of limited affordable options.

Transformation projects offered buyers a degree of agency within these constraints, especially through flexible finishing levels. Yet, their acceptance was often a matter of necessity rather than genuine preference, with location-driven factors being decisive in most cases.

Sub-question 4: Transformation as a solution
To what extent can housing transformation projects provide an affordable solution that aligns with the preferences of recent and potential first-time buyers?

The research concludes that transformation projects can offer a realistic and scalable pathway to homeownership for first-time buyers, provided they are tailored to buyer realities. Casco delivery models and phased investment options effectively lower entry barriers. However, success depends on contextual enablers such as transparent pricing, renovation support, accessible financing, and fair allocation mechanisms. Expert validation confirmed the potential of transformation but stressed the importance of strong coordination and buyer engagement, especially in semi-urban and rural areas. The validated proposals are summarised in Appendix G, offering a visual overview for practitioners and policymakers. of strong coordination and buyer engagement, especially in semi-urban and rural areas.

General conclusion
In what ways do life-course trajectories, financial restrictions, or preferences shape the accessibility of homeownership for recent and potential first-time buyers, while evaluating the role of housing transformations as a potential solution?

This research demonstrates that the accessibility of homeownership for first-time buyers is shaped by a complex interplay of life-course dynamics, financial constraints, and adaptive preferences. Buyers navigate the housing market reactively, constrained by affordability pressures and institutional barriers rather than actively pursuing long-term goals. Transformation projects offer a viable, though context-dependent, solution to bridge this gap.

A key contribution of this research is the empirical identification of informal coping strategies, such as the omission of student debt, and the nuanced understanding of how preferences evolve under constrained conditions. These insights extend existing theories of constrained consumer behaviour and challenge assumptions about buyer agency in the housing market.

Transformation projects can mitigate access barriers when designed with sensitivity to buyer vulnerabilities, timing, and evolving preferences. The action proposals developed in this thesis translate these findings into practical recommendations for developers and municipalities. A visual overview of these proposals, categorised by urbanisation level for practical application, can be found in Appendix G, offering a structured pathway to implement transformation as a targeted, inclusive housing strategy.

While transformation is not a universal remedy, it represents a flexible and scalable approach to improving housing accessibility for first-time buyers, particularly those affected by systemic affordability pressures. This research advocates for a nuanced, context-sensitive application of transformation strategies embedded within broader housing policy frameworks.

10.2. Discussion
10.2.1. Discussion on research design
This research was structured in three main phases: desk research, empirical research through case studies and interviews, and synthesis into an action proposal validated by experts. Each phase contributed uniquely to addressing the research objective of aligning building transformation projects with the needs of first-time buyers.

Desk research
The desk research focused on four key themes: life-course trajectories, financial constraints (including student debt), housing/location preferences and transformation. Existing literature provided a solid

foundation for understanding structural barriers such as affordability and supply-demand mismatches. However, gaps were identified concerning behavioural adaptations of first-time buyers and the specific role of building transformations in addressing these issues. Particularly, the influence of student debt and the omission of student debt from mortgage applications. But also, the pragmatic adaptation of preferences was not sufficiently addressed in existing research. These empirical gaps were further explored in the subsequent phases.

Empirical research – case studies and interviews
The case study analysis combined document research with twenty semi-structured interviews. By selecting three cases across varying urbanisation levels (urban, semi-urban, rural), the research ensured contextual diversity. The interviews provided crucial insights into the lived experiences of first-time buyers, revealing how affordability pressures and life-course timing shape their decision-making. While the initial focus was on preferences and financial strategies, the interviews also uncovered the importance of psychological adaptation and informal coping mechanisms. Despite the small sample size, the interviews generated rich, practice-oriented data that complemented the theoretical frameworks.

Synthesis – expert panel
The empirical findings were synthesised into an action proposal tailored to different urbanisation contexts. The most important actions were validated through an expert panel consisting of developers and project managers not involved in the case studies. The panel provided critical feedback on the feasibility and scalability of proposed actions, particularly regarding affordability interventions, renovation support, and allocation mechanisms. The validation ensured that the research output is not only academically grounded but also practically applicable.

10.2.2. Discussion on research findings
The findings of this research are threefold: literature insights, empirical observations, and an action-oriented synthesis.

Relation between findings and research objectives
The research confirmed that systemic barriers such as rising house prices, strict lending criteria, and student debt continue to restrict access to homeownership. However, it also added new empirical depth by highlighting how first-time buyers adapt through informal strategies and by showing how transformation projects can mitigate, but not eliminate, these barriers. The final action proposals reflect this duality, offering targeted interventions that align with both structural constraints and behavioural adaptations.

Transformation versus newly-built
While transformation projects were the focal point of this research, findings suggest that their acceptance among first-time buyers is often pragmatic rather than aspirational. This underscores the importance of designing transformation projects that go beyond cost reduction and actively address buyer preferences through flexibility, phased investment, and transparent processes. The research shows that transformation is not inherently superior to newly-built but offers a complementary pathway when tailored to buyer realities.

Focus on buyer realities
A key finding is that housing preferences are dynamic and shaped by the interaction between life-course events and market constraints. Transformation projects can offer a degree of agency within these constraints, particularly through casco models and multiple finishing levels. However, their success depends on supportive institutional frameworks, transparent information, and fair allocation mechanisms. The research thus advocates for a holistic approach where transformation is embedded in broader strategies for housing accessibility.

An additional empirical observation is the prominent role of parental support in facilitating access to homeownership. Almost all respondents indicated receiving assistance from their parents, either by continuing to live at home or through direct financial contributions towards their home purchase. This support often bridged the gap between limited personal savings and the financial requirements of homeownership. Furthermore, a clear correlation was observed between living independently and the

presence of student debt: respondents who had lived outside the parental home during their studies were more likely to carry significant student debt, which in turn constrained their borrowing capacity. This underscores the cumulative effect of life-course decisions on financial barriers and highlights the importance of considering intergenerational support mechanisms when assessing accessibility to homeownership for first-time buyers.

Value of the Research
The empirical findings provide valuable contributions to both academic literature and practice. They extend existing behavioural theories by documenting informal coping strategies and highlight the nuanced role of transformation as a flexible but context-dependent solution. The positive reception of the action proposals by the expert panel reflects their practical relevance and underscores the need for continued exploration of transformation as a housing strategy.

10.2.3. Research Limitations
Despite the valuable insights, this research has several limitations that should be acknowledged.

Case Study Scope
The research focused on three case studies, selected to represent urban, semi-urban, and rural contexts. While this allowed for meaningful cross-case comparison, the limited number of cases constrains the generalisability of findings. A broader sample could enhance the robustness of the action proposals. However, the chosen cases provided sufficient depth for the exploratory nature of this research.

Sample Size and Selection
The empirical data were based on twenty interviews, which, while rich in qualitative insights, represent a limited segment of the broader first-time buyer population. The sample predominantly included buyers with lower to moderate student debt levels, which may underrepresent those most excluded from the market due to heavier debt burdens. In addition, the majority of respondents were single-income buyers, reflecting a financial profile that, while common among first-time buyers, does not capture the full spectrum of household types, such as dual-income buyers. This focus could potentially skew the findings towards a more constrained financial perspective, overlooking strategies or barriers relevant to other buyer profiles.

Dutch Context Specificity
The research was conducted within the Dutch housing market context, with its specific regulatory, financial, and social dynamics. While the findings offer valuable insights, their direct applicability to other national contexts may be limited. Adaptation of the action proposals to different institutional settings would require further contextualisation.

Validation Scope
The action proposals were validated through an expert panel discussion, ensuring practical relevance. However, their actual implementation in practice has not yet been tested. Longitudinal studies observing the outcomes of implemented proposals would be necessary to fully assess their effectiveness and refine them for broader application.

10.3. Recommendations
Based on the research findings, conclusions, and validation through expert feedback, this section presents recommendations for both practice and further research. These recommendations aim to enhance the practical applicability of transformation projects as a solution for first-time buyers and to guide future academic exploration.

10.3.1. Recommendations for practice
Strengthening Developer-Municipality Collaboration
While transformation projects offer potential affordability benefits, their success often hinges on effective coordination between developers and municipalities. Regulatory frameworks, zoning flexibility, and support for alternative financing mechanisms require active municipal involvement. Developers and project managers should therefore invest in fostering early and continuous collaboration with municipal stakeholders to align project ambitions with policy frameworks and streamline approval processes.

Integrating intergenerational support mechanisms
The research revealed that many first-time buyers relied on parental support, either by living at home or through direct financial contributions. While this form of intergenerational assistance enables access to homeownership for some, it simultaneously exacerbates systemic inequality by favouring those with affluent backgrounds. Moreover, the widespread reliance on parental support contributes to maintaining high housing prices, as it artificially extends the purchasing capacity of young buyers beyond their individual financial means. This dynamic reinforces price inflation, making it even harder for buyers without such familial backing to enter the market.

To mitigate these effects and promote equitable access, developers and policymakers should explore formalised support mechanisms that replicate the benefits of intergenerational assistance in an inclusive and transparent manner. Instruments such as shared equity models, rent-to-own schemes, and municipal guarantee programmes can provide similar entry opportunities for buyers with limited personal or family wealth. By institutionalising these forms of support, dependency on private capital is reduced, while simultaneously addressing affordability barriers and countering the reinforcing cycle of price escalation driven by informal family contributions.

Providing accessible transformation variants
Given the observed diversity in financial capacity and preferences among first-time buyers, it is essential that developers offer a differentiated range of transformation options. Experts consulted in this research identified the basic variant, comparable in quality and finish to social housing standards, but positioned for homeownership, as a particularly effective solution. This variant provides a balance between affordability and a degree of personalisation, offering buyers an accessible entry point into homeownership without the complexity or financial burden of higher-end customisation.

From a financing perspective, such a basic variant aligns well with mortgage providers' risk assessments. Its standardised quality and cost structure reduce uncertainty for lenders, increasing the likelihood of loan approvals compared to more experimental casco formats. Consequently, this approach not only supports affordability but also enhances buyers' access to financing mechanisms.

However, a critical question remains regarding the actual cost differential between a basic transformation unit and conventional newly-built housing. Further transparency in cost breakdowns and comparative analyses is therefore essential to fully leverage the potential of basic transformation variants as a scalable solution for first-time buyers.

Continual adaptation of action proposals
As the housing market and societal dynamics evolve, the action proposals developed in this research should not be seen as static solutions. Periodic review and updating of these proposals are necessary to ensure their continued relevance. Monitoring the practical implementation of transformation projects and gathering feedback from both buyers and stakeholders can provide valuable input for refining strategies over time.

10.3.2. Recommendations for further research
Exploring the role of student debt in market exclusion
This research identified a potential hidden exclusion effect, where individuals with higher student debt levels are absent from the homeownership market altogether. Further research is needed to quantify this phenomenon and explore its implications for housing accessibility. Investigating how student debt influences the decision to enter (or avoid) the housing market could inform more inclusive financing solutions.

Investigating life-course timing and housing accessibility
While this study highlighted the reactive nature of housing decisions triggered by life-course events, further research could explore how timing strategies and policy interventions might alleviate this urgency. Longitudinal studies examining the interplay between life-course milestones, affordability conditions, and market dynamics would provide deeper insights into potential interventions.

Assessing the impact of informal support structures
Given the prominent role of parental support observed in this research, further studies could investigate

how informal support structures influence access to homeownership. Research from both the buyer's and the family's perspective could yield insights into the motivations, risks, and long-term impacts of such arrangements. Additionally, comparative studies across socio-economic groups could reveal disparities in access to informal support.

Evaluating transformation success factors from a developers perspective
While this research proposed action strategies based on empirical findings and expert validation, their actual implementation and effectiveness in practice remain to be tested. Future research should evaluate ongoing transformation projects using these strategies, assessing their impact on buyer satisfaction, affordability outcomes, and broader market accessibility.

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A. Interview protocol

Interview protocol Nederlands

Introductie:
Bedankt voor uw deelname aan dit interview. Dit gesprek zal ongeveer 30-45 minuten duren en richt zich op uw ervaring met het kopen van uw eerste woning. We zullen praten over uw woonwensen, locatievoorkeuren, en hoe betaalbaarheid een rol heeft gespeeld bij uw keuze. Daarnaast hoor ik graag uw mening over wonen in een getransformeerd gebouw. Uw antwoorden worden anoniem verwerkt, en u bent vrij om vragen over te slaan als u zich daar niet prettig bij voelt. → uitdelen informed consent form en vragen opnemen

Thema 1: Ervaring eerste koophuis

1. Op welke leeftijd bent u begonnen met het zoeken van uw koopwoning? Was dit direct na uw studie? Waarom bent u toen gaan zoeken naar een koopwoning?

2. Kunt u vertellen hoe uw zoektocht naar een eerste koopwoning is verlopen?

3. Wat had u vooraf graag geweten over het koopproces?

4. Wat waren de grootste uitdagingen bij het vinden van een woning?

5. Welke factoren speelden de grootste rol in uw beslissing om juist deze woning te kopen?

6. Heeft u alternatieve opties overwogen (alternatieve koop of huur)? Zo ja, welke en waarom heeft u daar uiteindelijk niet voor gekozen?

Thema 2: Woonwensen en woningtype

7. Wat waren uw belangrijkste eisen en wensen bij het zoeken naar een woning?

8. Had u een specifieke voorkeur voor een appartement of eengezinswoning? Waarom?

9. Heeft u uw woonwensen aangepast naar realistischere wensen of waren uw oorspronkelijke wensen haalbaar?

10. Welke concessies heeft u moeten doen ten opzichte van uw oorspronkelijke woonwensen vanwege betaalbaarheid? Hoe heeft dit uw uiteindelijke woonsituatie beïnvloed? (bijvoorbeeld: locatie, grootte, type woning)

11. Hoe hebben uw toekomstige woonbehoeften (zoals gezinsuitbreiding of thuiswerken) uw keuze voor een woning beïnvloed?

12. Hoe belangrijk waren duurzaamheid en energiekosten in uw keuze voor een woning?

Thema 3: Locatievoorkeuren

13. Waarom heeft u gekozen voor deze locatie (bijv. Rijswijk/Apeldoorn)?

14. Waren er alternatieve locaties die u heeft overwogen? Waarom zijn deze afgevallen?

15. Hoe belangrijk waren nabijheid van werk, openbaar vervoer, winkels en sociale voorzieningen in uw keuze?

16. Heeft de beschikbaarheid van betaalbare woningen in deze regio uw keuze beïnvloed?

17. Hoe ervaart u de sociale cohesie in uw buurt? Heeft dit uw keuze beïnvloed?

18. Heeft de buurt zich ontwikkeld sinds u daar bent gaan wonen? Heeft dit invloed op uw tevredenheid?

Thema 4: Beleving van wonen in een getransformeerd gebouw

19. Waarom heeft u gekozen voor dit specifieke gebouw?

20. Wat vindt u de grootste voordelen van wonen in een getransformeerd gebouw?

21. Welke nadelen zouden er kunnen zijn bij het wonen in een getransformeerd gebouw?

22. Hoe ervaart u de bouwkwaliteit en het wooncomfort in het getransformeerde gebouw?

Thema 5: Studieschuld en betaalbaarheid

23. Welke studieachtergrond heeft u?

24. Heeft u een studieschuld opgelopen tijdens uw studieperiode?

    24.1.   Hoe heeft dit invloed gehad op de zoektocht naar een huis?

    24.2.   Heeft het uw mogelijkheden beperkt bij het kopen van een woning?

    24.3.   Zou ik mogen vragen binnen hoe hoog (welke range) uw studieschuld viel toen u klaar was met studeren? (*bijvoorbeeld: 0-10K, 10-25K, 25-50K, >50K*)

    24.4.   Bent u financieel ondersteund door familie?

25. Hoe heeft u dit huis gefinancierd? (bijv. sparen, subsidies, financiële hulp van familie).

    25.1.   En hoeveel was daar eigen geld voor bijvoorbeeld inkomen of spaargeld?

Casco

26. Waarom heeft u gekozen voor een casco woning? Wat waren uw overwegingen bij deze keuze (creativiteit, vrijheid in inrichting of kostenbesparing)?

    26.1.   Had u handige mensen binnen de familie?

    26.2.   Was betaalbaarheid de doorslaggevende factor?

    26.3.   Hoe heeft u de afbouw en inrichting aangepakt?

    26.4.   Hoe lang gaat het traject duren van aankoop tot bewoonbaar maken?

Afsluiting:

Bedankt voor uw tijd en waardevolle inzichten! Is er nog iets dat u wilt toevoegen over uw ervaring met het kopen van uw eerste woning? Als u vragen heeft over dit onderzoek, kunt u altijd contact opnemen.

B. Regional Interview quotes

Interview quotes + statements

CASE 1: Apeldoorn

Experiences	Affordability	Preferences	Location	Transformation
First-time buyers	**First-time buyers**	**First-time buyers**	**First-time buyers**	**First-time buyers**

Experiences

1.1 Ik heb uiteindelijk een jaar lang gezocht voordat ik dit vond

1.1 uiteindelijk wilde ik gewoon zo snel mogelijk de huizenmarkt op

1.2 Ik ging net met op loon omhoog. En toen dacht ik, het is denk ik wel het moment dat het misschien zou kunnen.

1.2 het viel me best wel tegen wat het allemaal te regelen is met de bank. Met die tekenadviseur. Met de notaris

1.2 het was in lang. Dus we betaalden gewoon een vast bedrag. Dus het wordt ook niet overboden.

1.2 . Ik doe een BBL-opleiding. Dus werkend leren. Ik ga één dag per week naar school en de rest werk ik, al 3 jaar. Dus ik heb lang goed gespaard en ik kon nog thuis.

1.3 Dus ik heb een klein appartement in Ede. Iedere keer uit geboden is niks kunnen vinden en toen heb ik mijn zoek regio eigenlijk steeds verder uitgebreid. De zoektocht duurde 1,5 jaar

1.3 Misschien Als ik met de kennis van nu had ik die keuze niet gemaakt, want achteraf vallen er toch wat dingen tegen

1.3 halverwege ongeveer heb ik gekeken naar de huurprijzen, maar daar komt toch alweer achter, dat daar ook helemaal niet zoveel aanbod is.

1.4 Ik wilde eerst Samen gaan wonen met mijn vriendin. Dus We hadden eerst gekeken naar huur maar snel gewavicht naar koop

1.4 Ik werk nu bijna twee jaar. Maar best wel in een goede IT positie, dus heb dit kunnen financieren van eigen inkomen

1.5 Al met al heeft het wel 1,5 jaar geduurd voordat ik en woning vond. Zelfs als je al 10 jaar ingeschreven staat, kom je hier niet in aanmerking voor een huurwoning

1.6 Ik ben nu richting de eindfase van mijn studie en ben iets meer dan een jaar geleden begonnen met zoeken naar een huis. Eerst de huurmarkt geprobeerd, maar die is net zo moeilijk als de koopmarkt.

1.6 Ik heb eerst een ander appartement bezichtigd en een bod gedaan, maar daar werd zo overboden dat het kansloos was.

1.6 Hierbij was het voordeel dat het relatief goedkoop is, hartje centrum Apeldoorn en geen kans op overbieden, want het ging via een lotingssysteem.

1.7 Het zoeken naar een huurwoning was drama. Alles wat ik wreef, kostte €1400 per maand, en dat kon ik in mijn eentje niet betalen, Toen stuurde mijn vader dit project

1.7 Soms twijfel ik of ik hieraan had moeten beginnen, maar ik heb mezelf voorgenomen er gewoon voor te gaan

Affordability

1.1 Als ik een keer 1 plekje voor mezelf wil, dan moet ik wel geld gaan sparen en in mijn ouders blijven wonen.

1.1 Ook had ik wel gekeken naar verschillende gemeenten en in sommige gemeenten krijg je Natuurlijk nog zo'n starters budget Apeldoorn dat helaas niet zo,

1.1 Ik ben al zo lang aan het sparen en wil ik eigenlijk gewoon kopen, want eigenlijk gewoon om mijn geld aan huur uit te geven.

1.1 Mijn ouders. die hebben geholpen met financiering. Ze hebben zo een gift gedaan en Dat is mij is het tegenwoordig maximaal 30.000

1.2 Ik heb dit huis samen met mijn vriendin gekocht. Het huis kostte 200.000 bij casco. En ik kon er zelf 185 lenen

1.2 deze woning was A++. En dat is wel handig, omdat je daardoor meer kan lenen.

1.2 Het is leuk dat je je eigen woonwensen kan verwerken maar ik dacht dat het goedkoper zou zijn. Het valt dan toch wel tegen.

1.2 Nou ik denk dat constant moeten overbieden en dan niet weten hoeveel je exact moet overbieden de grootste barriers was.

1.3 ik geloof dat je extra kan lenen A 10.000 en A+ en A++ 20.000 zelfs geloof ik en minder energiekosten

1.3 ik werk nu bijna twee jaar. Maar best wel in een goede IT positie, dus heb dit kunnen financieren van eigen inkomen

1.3 Ja ik heb studieschuld van 25,000, maar Omdat ik heb een bevriende hypotheekadviseur, dus geen last van appel. Dat drukt niet zwaar ik daar neem

1.3 Er is te weinig aandacht voor dat er gebruard als je leent bij DUO en wat dat betekent voor later en het kopen van een huis

1.4 Ik had best wel wat geluk, want doordat het energielabel A++ is, kan je extra lenen via een verduurzamings-bouwdepot. Uiteindelijk kon ik daardoor net genoeg geld lenen om het te financieren.

1.4 Ik heb een lening bij mijn ouders. Mijn oma had ook al geld voor mij opzij gezet, dat heb ik vervroegd laten vrijvallen. Daarnaast extra geleend voor het energielabel en de verbouwing.

1.5 Hypotheektechnisch zit je echt aan de bovengrens als je in je eentje koopt. Vrije sector huur is mogelijk, maar de prijzen zijn gewoon te hoog.

1.5 Ik heb de hypotheek volledig op mijn eigen inkomen kunnen krijgen, zonder hulp van ouders. Maar zonder de voordelen van de nieuwe regels en het energielabel was het waarschijnlijk niet gelukt.

1.6 Ik leen via mijn ouders, wat helpt om het rentepercentage laag te houden. Verder betaal ik de rentelasten en aflossing uit mijn eigen inkomen en spaargeld.

1.7 Ik realiseerde me dat ik met huren elke maand geld weggooide, terwijl kopen een investering is

1.7 Ik weet niet hoe ik de dubbele lasten ga betalen als ik eenmaal bij de notaris heb getekend. Misschien kan ik tijdelijk bij mijn ouders gaan wonen.

Preferences

1.1 In de prijscategorie van starters kun je niet alles wensen

1.1 concessies die ik heb moeten doen zijn voornamelijk op de grootte, parkeren en een stukje buiten

1.1 Was was het appartement an sich wel belangrijker dan de plek waar het waar het stond.

1.1 Ik stelde gewoon heel veel al mijn wensen bij en ik ging gewoon nadenken.

1.1 Ik denk dat veel mensen het echt belangrijk vinden om gewoon dichtbij alle levensbehoeftes te zitten.

1.3 Het was heel belangrijk om mogelijkheid te hebben voor een kantoor. En daarnaast een losse slaapkamer. Dat heb ik nu allemaal nog niet

1.3 Misschien hoeft dat helemaal niet zo groot te zijn. Ja, je gaat toch kijken, hoe kan je dat nou efficiënt inrichten en is dat dan ook goed gaan doen?

1.3 En waar ik eerst voor 50 à 80 wilde gaan, is dat nu toch wel 32 of 30 geworden.

1.4 Met name de locatie en de buren. Dat waren de twee belangrijkste factoren waarom ik dit huis koos.

1.4 Het liefst wilde ik destijds zo min mogelijk klussen, maar dat is niet gelukt. Dat is een concessie die ik heb moeten doen.

1.4 Ja, ik had wel en beetje gekeken naar de huizenmarkt. Ik was al een half jaar actief aan het zoeken. Eerst dacht ik echt niet aan een casco woning maar dan wordt je realistischer dat dat de enige optie is.

1.5 Mijn belangrijkste eis was eigenlijk twee kamers, maar dat is niet gelukt. Het is er uiteindelijk maar één geworden.

1.5 Daarnaast vond ik het belangrijk om een aparte WC of de badkamer te hebben, dat was echt een eis

1.7 Ik zie mezelf hier niet met een partner wonen. Als ik ooit samenwoon, ga ik dit verhuren

Location

1.1 Ik heb het uiteindelijk gekocht in Apeldoorn. Maar ik was ook nog een beetje naar Amersfoort en zo aan het kijken.

1.1 Ik kon niet uit Apeldoorn dus ik wilde wel in die regio blijven maar ik heb ook goed Amersfoort gekeken.

1.2 Ik wou sowieso in Apeldoorn blijven. Ik ben daar opgegroeid. En Apeldoorn is heel erg gegroeid in de afgelopen jaren door de diversiteit enzo.

1.2 nee, ik had er eigenlijk geen woonwensen, behalve de wijk waar ik zou wonen was wel een grote factor

1.3 gewoon vooral een beetje de natuur om me heen en Dat is in Apeldoorn ook. Ik wilde iets wat op Ede leek

1.3 Misschien wil ik wel meer een Apeldoorn of in de regio blijven. In principe heb ik nu het idee dat ik weer terug wil richting ede.

1.4 Ik was eerst aan het zoeken in Ede maar daar meer winkel werden overboden aantoe daar, toen ben ik mijn zoekgebied gaan verbeder

1.4 Ik wilde in ieder geval dichtbij de snelweg en in een fatsoenlijke wijk wonen. Daarnaast wilde ik ergens tussen wonen en mijn vriendin in zitten, zodat ik niet te ver van beiden zou wonen.

1.5 Ik woon al mijn hele leven in Apeldoorn, dus dat was de voornaamste reden om hier te zoeken. Hij veranderen en huize zijn mit, dus ik wilde niet weg.

1.5 Ik heb nog even naar Deventer gekeken en daar twee keer ingeschreven voor appartementen, maar dat is niets geworden. Achterlof ben ik daar ook het minst inzo.

1.5 Voorzieningen en openbaar vervoer waren voor mij niet echt een factor. Ik heb een auto van de zaak, dus ik rij overal naartoe. Het enige wat belangrijk was, is dat de buurt fatsoenlijk is

1.6 De wat de locatie het alles belangrijkst. Ik leraar graag in Apeldoorn blijven, omdat ik daar heen opgegroeid en onze omstanden en familie daar zijn.

1.6 De buurt speelt een grote rol. Ik wilde niet in bepaalde volksbuurten wonen, zelfs niet als daar goedkopere woningen waren.

1.7 Ik keek ook in omliggende dorpen zoals Twello en Klarenbeek, maar wilde eigenlijk gewoon in Apeldoorn blijven.

1.7 Ik wilde weg uit Deventer en terug naar Apeldoorn, dichter bij familie en vrienden.

Transformation

1.1 Ik heb wel een aannemer inderdaad die ik inhuur.

1.1 dan hoop ik toch wel binnen 3-4 maanden het helemaal af te hebben

1.1 voordat ik überhaupt dit voorbij zag komen, dus wist ik eigenlijk niet eens van een casco woning af.

1.2 Ik had nooit gedacht dat ik zo'n casco huis zou kopen.

1.2 Er zijn wel meer transformatie projecten in Apeldoorn maar dat zijn allemaal huurwoningen en dan verdwijnt je geld gewoon.

1.3 Nou deze was ook wel bereikbaarder dat je bijvoorbeeld zelf kan doen en in dat best wel leuk. Ik ben best handig aangelegd. Veel familie die dat ook is, graag zelf ondernemen

1.3 meer grote voordeel is feitelijk dat het zich historie heeft

1.4 Ik wil zo min mogelijk uitbesteden, want financieel is dat niet haalbaar. Mijn vader is wel installatiemonteur, dus hij gaat mij helpen.

1.4 Ik denk dat een gebouw met karakter en historie veel meer aangesprekt dan bijvoorbeeld een galan flat. Dit verhoogt ook de waarde bij verkoop

1.4 Ik weet veel of een transformatiewoning per se voordelen heeft. Het heeft karakter, dat zeker, maar aanpassingen doen is lastiger door monumententoezicht en regelgeving.

1.5 Ik heb een aantal handige mensen in mijn familie en vriendenkring, wat me enorm helpt. Een vriend van mij werkt bij een installatiebedrijf, dus hij kan veel doen. Maar eerlijk gezegd heb ik niet alles van tevoren uitgetippeld, ik zie het wel.

1.6 Het casco opleveren maakt het betaalbaarder en geeft de mogelijkheid om alles naar eigen wens in te richten

1.6 De oplevering heeft vertraging opgelopen, wat een nadeel is. Je betaalt al hypotheek en VVE-kosten zonder dat je er woont.

1.7 Het enige lastige is dat ik niet weet wanneer ik de sleutel krijg, dus wanneer moet ik aannemers regelen?

CASE 2: Rijswijk

Experiences	Affordability	Preferences	Location	Transformation
First-time buyers	**First-time buyers**	**First-time buyers**	**First-time buyers**	**First-time buyers**

Experiences

2.1 Ik kwam eigenlijk heel snel, ik dacht ineens: 'Oh, ik kan een huis kopen als ik wil.'

2.1 Bij bestaande woningen word je gewoon overboden. Daar liep ik steeds op stuk

2.1 Ik heb een breed zoekgebied en dat helpt. Maar je moet er echt bovenop zitten en binnen een dag bellen voor een bezichtiging.

2.1 Als ik zit zelf in de bouw, dus ik die mogelijkheid terug naar mijn ouders moeten gaan, want huren in de vrije sector is geen optie.

2.2 Bij mij ging het eigenlijk heel soepel. Dit was mijn eerste deelname aan zo'n project en ik ben gelijk toegewezen.

2.2 Voor mij is dit een goede start. Ik zie mezelf hier wel een tijd wonen.

2.3 Het was vooral heel erg ook chaos met de hele huizenmarkt. Toen was het nog wel erger dan nu

2.3 Ik had het voordeel dat ik in mijn studentenhuis kon blijven zitten.

2.4 Ik ben eerst veel naar bestaande bouw gekeken, en huur – dat ging niet zo heel fantastisch.

2.4 Dat was gelijk raak, ik wist meteen dat het goed was.

2.5 Ik heb het in mijn eentje gedaan. Dat was wel lastig

2.5 De grootste uitdaging was het beperkte aanbod en de prijsklasse.

2.6 Ik heb veel geluk gehad met mijn zoektocht. Het was mijn eerste poging en ik kreeg het meteen.

2.6 De zoektocht was niet stressvol, ik had geluk.

2.7 Het was eigenlijk heel soepel, ik werd meteen uitgenodigd voor het tweede project waaraan ik me inschreef

2.7 Ik had geluk, maar de woningmarkt was wel moeilijk, vooral omdat ik alleen zocht.

Affordability

2.1 Mijn spaargeld was na mijn studententijd bijna op, maar in acht maanden werken heb ik veel kunnen sparen.

2.1 Zelfs als ik dit huis over een paar jaar met €10.000 verlies zou verkopen, heb ik nog goedkoper gewoond dan in de vrije huursector

2.1 Onder de twee ton kun je eigenlijk niks vinden, tenzij je een huis koopt waar nog een ton in gestoken moet worden.

2.1 Ik heb ongeveer €10.000 aan studieschuld, maar dat drukt niet zwaar op mijn financiën. Ik wilde uiteindelijk afrossen omdat de rente ineens 2,5-2,6% werd. Dat was niet wel er belooft was.

2.1 Ik ben ontzettend verwend, want wij regelen het via een familiehypotheek. Mijn ouders helpen mij enorm. Hierdoor wordt de kloof tussen rijk en arm wel alleen maar groter

2.2 Ik werk al sinds ik me kan herinneren en heb altijd veel gewerkt naast mijn studie. Daardoor heb ik alles kunnen financieren.

2.3 Als je dat gedeelte niet van een hypotheek kan overbruggen, dan moet je uiteindelijk ook wel kijken naar huren.

2.3 Het is vervelend, maar de stadshuizen zijn vrijwel op de rand van wat je als hypotheek kan krijgen.

2.4 Het was net te veel voor sociale huur. Maar als je dan naar de vrije sector kijkt, dat is echt niet te doen

2.5 Je kunt niet veel lenen als je alleen bent, dat maakt het extra moeilijk

2.5 De prijsklasse was moeilijk en ik heb eigenlijk ook overwegen om te huren.

2.6 Ik kon alleen op de kleinste en goedkoopste woningen inschrijven, omdat mijn hypotheek niet genoeg was voor de meeste woningen.

2.6 Het is veel geld voor een kleine woning, maar het is de markt op dit moment.

2.7 Ik moest mijn eisen aanpassen op wat ik kon lenen. Dat had ik niet verwacht.

2.7 Betaalbaarheid speelde een grote rol, ik moest echt kijken naar wat ik kon lenen.

Preferences

2.1 Ik dacht eerst dat een tweede slaapkamer niet nodig was, maar tijdens bezichtigingen merkte ik dat ik dat toch liever wel wilde.

2.2 Mijn belangrijkste eis was een eigen keuken, badkamer en wasmachine. Ik was het beste daarvan zat

2.3 Ik wilde vooral gewoon dat mijn bed niet in dezelfde kamer staat. Het is gewoon een studio, maar met een aparte slaapkamer had ik het behoefte aan

2.3 Ik hoef niet per se een tuin, maar een tweede kamer is wel belangrijk voor mij.

2.4 Ik wilde gewoon een woning van meer dan 50 vierkante meter, dus 52 is prima.

2.5 Ik wilde graag een aparte slaapkamer, maar ik heb concessies moeten doen.

2.6 Ik wilde een woning die betaalbaar was, ook al was het klein. Als het betaalbaar is, dan is het prima

2.7 Mijn wensen waren een woning met meerdere kamers en een buitenruimte, maar ik moest concessies doen

Location

2.1 Locatie was belangrijk, maar ook dat het een veilige buurt is. Ik woon alleen en wil 's avonds veilig over straat kunnen.

2.1 Uiteindelijk kies ik toch voor locatie boven m'n huis, omdat ik maximaal vijf jaar hier wil blijven.

2.2 Locatie was heel belangrijk: dichtbij familie, vrienden en het station

2.3 Ik ben opgegroeid in Wateringen en wilde daar in de buurt blijven. Rijswijk was mijn eerste keuze.

2.3 Ik werk in Delft, dus het is heel belangrijk dat ik dichtbij werk en het OV kan gebruiken.

2.4 Ik wilde dichter bij mijn werk wonen, dus Rijswijk werd een goede optie.

2.5 De locatie was belangrijk omdat ik dichtbij mijn familie wilde zijn en makkelijk naar mijn werk moest kunnen reizen.

2.5 Maar ook de soort buurt vind ik belangrijk, zeker als vrouw zijnde wil je wel in een veilige buurt wonen, het hoeft niet perfect te zijn maar wel dat ik me veilig voel als ik snachts om 1 uur thuis kom en niet dan niet super bang ben.

2.6 Het was belangrijk voor mij dat ik dicht bij mijn werk woonde. Dus Rijswijk was een goede keuze.

2.7 Rijswijk was mijn favoriete locatie, dicht bij mijn familie en werk. Het voelde meteen

Transformation

2.1 Ik zou liefst een casco woning willen om alles zelf te doen, maar die zijn er niet in de randstad of ze zijn duurder dan dit huis, dat al af is

2.2 Ik heb niet bewust naar een transformatiewoning gezocht, maar het kwam gewoon zo op mijn pad.

2.3 Het gebouw was getransformeerd, maar dat maakte voor mij niet uit. Het was gewoon op mijn pad gekomen.

2.4 Ik vond het belangrijk dat het getransformeerd was. Ik was meer geïnteresseerd in het huis zelf.

2.5 De locatie was het belangrijkste. Het gebouw is getransformeerd, maar dat was niet per se een vereiste voor mij.

2.6 De omgeving is getransformeerd, maar voor mij maakt dat niet uit. Ik ben de eerste bewoner, en alles is nieuw

2.6 Ik vind het juist goed dat het een getransformeerd kantoorgebouw is. Deze zouden anders leeg, dus waarom zou je ze niet gebruiken?

CASE 3: Venray

Experiences	Affordability	Preferences	Location	Transformation
First-time buyers	**First-time buyers**	**First-time buyers**	**First-time buyers**	**First-time buyers**

Experiences

3.1 Ik was ruim een jaar bezig met zoeken, voordat ik bij Steenvlinder uitkwam. Daar ben ik nu al zes maanden mee bezig, maar uiteindelijk is de financiering niet rondgekomen

3.1 De bank wilde geen lening geven, mede omdat het project geen afbouwgarantie heeft. Je koopt in feite vierkante meters in een oude kerk, en dat vinden banken te onzeker

3.1 Ik zit zelf ook in de bouw, dus ik die mogelijkheid van de huizenmarkt erbij ligt. Het is gewoon een hele markt die op z'n gat ligt.

3.1 Ik denk dat er man veel bedrijven die failliet gaan, net zoals 11 jaar geleden in de bouwcrisis.

3.2 Ik was op zoek naar een klein appartement of huisje, maar in de huursector is er zoveel concurrentie dat ik daar telkens buiten de boot viel.

3.2 Ik ben ongeveer vier tot vijf jaar actief bezig geweest met zoeken

3.3 Ik heb sowieso veel gekeken naar wat mijn wensen waren en waar ik kon zoeken. Eerst wilde ik graag in Eindhoven wonen, maar dat was niet te betalen. Toen ben ik in Venray gaan kijken.

3.3 Ik vond deze voordeliger dan huren, want huren voelt voor mij als geld weggooien. Daarnaast ben ik technisch, dus ik kan veel zelf doen

3.3 Ik ben blij met mijn keuze, maar het was een flinke uitdaging om alles zelf te doen.

3.4 Ik ben twee jaar geleden begonnen met zoeken. Eerst wilde ik huren omdat ik dacht dat het makkelijker was, maar ik kwam erachter dat je op lange wachtlijsten moet staan.

3.4 Mijn ouders hebben me geholpen bij het kopen van de woning. Mijn moeder fungeerde als de 'bank', waardoor ik een hypotheek kon krijgen

3.4 Achteraf had ik misschien meer moeten sparen, maar verder had ik het niet veel anders gedaan.

3.5 Ik ben na mijn afstuderen tijdelijk terug naar mijn ouders gegaan en ben nu ongeveer een jaar aan het werk.

3.5 Ik was niet per se op zoek naar een casco-woning. Ik wilde vooral iets dat ik zelf kon vormgeven en waarbij de kosten laag bleven.

3.6 Mijn zoektocht was best wel moeilzaam. Ik heb een half jaar gezocht, vooral op Funda, maar het was lastig om iets te vinden dat betaalbaar was en goed geïsoleerd.

3.6 Eerst keek ik naar sociale huur, maar tegen de tijd dat ik aan de beurt was, verdiende ik alweer te veel om ervoor in aanmerking te komen.

3.6 Ik heb altijd thuis gewoond en nooit op kamers gezeten, zodat ik zoveel mogelijk kon sparen voor een woning.

Affordability

3.1 Ik heb veel gekeken naar verschillende gemeenten. Ik wilde liever sparen om iets te kopen.

3.1 Huren voelde voor mij als geld weggooien. Ik wilde liever sparen om iets te kopen.

3.1 Venray is een echt goedkoper dan Brabant, dan een echt goedkoper dan de Randstad. Ik ben best bereid verder te zoeken, maar niet té ver

3.1 Mijn studieschuld is €10.000, dat valt mee. Maar sinds januari moet ik dat ook aflossen, wat niet gaat helpen bij het krijgen van een hypotheek.

3.2 Ik verdien netjes, maar als je maandelijk €250.000 kunt lenen, is dat tegenwoordig niet veel. Stellen hebben al snel €400.000 of €500.000 te besteden

3.2 Veel nieuwbouwprojecten die als 'betaalbare koop' worden aangeboden, starten bij €280.000 of €290.000, wat voor mij nog steeds te hoog is

3.2 Ik heb mijn studieschuld afgelost vóór de aankoop, omdat dat invloed heeft op hoeveel hypotheek je krijgt.

3.3 Er zijn weinig huizen binnen mijn budget. Als je alleen bent, kun je niet veel lenen, dus je zoektocht is sowieso beperkt. Huizen die wél betaalbaar zijn, hebben vaak veel achterstallig onderhoud.

3.3 De huizenprijzen stijgen sneller dan je kunt sparen. Ik kon nog langer thuis blijven wonen, maar als de prijzen dan weer stijgen, schiet je er niks mee op

3.4 Betaalbaarheid was de grootste uitdaging. Ik kunt allerlei eisen stellen, maar als je daar het budget niet voor hebt, heeft dat geen zin

3.5 Als geld geen rol speelde, had ik waarschijnlijk een kavel gekocht om zelf een huis te bouwen, maar dit project was een goed alternatief.

3.5 Ik heb wel door dat ik realistisch moest zijn over mijn verwachtingen en niet moest zoeken naar iets dat buiten mijn budget lag

3.6 Zonder een kleine studieschuld, maar de was vooral bedoeld voor financiële zekerheid tijdens mijn studie. Ik had weinig vermogen over na mijn studie, maar geen grote schuld

3.6 Ik wilde absoluut geen F-label woning, want de kosten voor renovatie en isolatie zouden te hoog worden.

Preferences

3.1 Ik ben opgegroeid met veel ruimte om me heen. Dus ik zag mezelf niet in een appartement zitten.

3.1 Mijn grootste wens is dat ik naar buiten kan, een tuin heb. Tegenwoordig zie je vooral plaatsjes in plaats van tuinen, dat wil ik liever niet.

3.2 In het begin had ik veel eisen, zoals een nieuw of gerenoveerd huis, maar die heb ik snel losgelaten.

3.2 Ik had graag een aparte slaapkamer of een studeerkamer gehad, maar dat kon niet binnen mijn budget. Uiteindelijk heb ik dat opgegeven.

3.3 Ik wilde graag een fijn centrum van de aankoop, maar dat was onbetaalbaar. Uiteindelijk moest ik mijn verwachtingen bijstellen.

3.3 Ik wilde graag dichtbij het centrum wonen, zodat ik niet voor alles met de auto hoef.

3.3 Duurzaamheid speelde ook een rol. Ik wilde een woning met een goed energielabel, zodat de maandlasten lager blijven.

3.4 Het belangrijkste voor mij was een tuin, het liefst op de begane grond.

3.4 Mijn woning is klein (67 m²) en meer een opstap naar de woningmarkt dan een woning voor de lange termijn.

3.5 Ik wilde niet in een woonwijk met honderd identieke appartementen. Een tuin was een mooie extra, maar geen harde eis.

3.5 Duurzaamheid en energiekosten waren geen hoofdcriteria bij mijn zoektocht, maar het was een mooie bonus dat de woning een goed energielabel had.

3.6 Ik vond het belangrijk om een woning te kopen die ook later een goede marktwaarde zou behouden.

Location

3.1 Ik wil liever landelijk dan stedelijk wonen, het liefst dichtbij vrienden en familie. Verder maakt locatie mij niet zo veel uit.

3.1 Ik zoek vooral in Boxmeer, Cuijk, Nijmegen en Malden, maar later verbreedde ik mijn zoekgebied naar Limburg. Daardoor kwam ik bij Steenvlinder uit.

3.2 Ik wilde altijd binnen een halfuur van een stad wonen, zodat ik voorzieningen en activiteiten in de buurt heb.

3.2 Ik heb me oorspronkelijk op Eindhoven en daarna collega's gevraagd naar de wijk. Als zij hadden gezegd 'niet doen', had dat mijn keuze beïnvloed.

3.3 Eindhoven was mijn eerste keuze, maar dat was onbetaalbaar. Ik heb ook in Noord en Brabant wordt gekeken, maar daar was het aanbod te klein.

3.3 Het was voor mij belangrijk om snel bij de snelweg te zijn, zodat ik flexibel ben qua werk en reizen.

3.3 Ik ben opgegroeid in Venray en vindt eigenlijk alleen maar de Randstad, maar dat was financieel niet haalbaar

3.4 Werk is een belangrijke factor bij het kiezen van een locatie. Familie is minder belangrijk, want ik kan er altijd naartoe rijden

3.4 Mijn woning is ideaal als een goede tussenoplossing. Ik heb de zoekregio meteen erg verbreed. Hierdoor heb ik uiteindelijk een woning gevonden in Venray.

3.5 Ik stond open voor verschillende wijken, maar als het project in een mooie aantrekkelijke wijk had gestaan, had ik er waarschijnlijk niet voor gekozen.

3.5 Ik wilde boven in het centrum van Nederland wonen, maar moest die wens laten varen vanwege de hoge prijzen.

3.6 Ik had graag in een stad gewoond, dicht bij Eindhoven, Tilburg of Den Bosch, vanwege de werkgelegenheid in de IT-sector.

Transformation

3.1 Mijn ouders hebben zelf gebouwd, mijn vader is elektricien en ik ben loodgieter. Dus ik heb veel handige mensen in de familie, wat scheelt als ik zelf iets zou kopen.

3.2 Ik vind het onzeker dat dit een getransformeerd gebouw is. Het is uniek en heeft karakter, bijvoorbeeld door de glas-in-loodramen

3.2 Het geeft me veel vrijheid en past bij mijn creativiteit. De architect help me goed met de indeling en dat maakte het proces extra leuk.

3.2 Ik denk dat dit in de toekomst een pluspunt kan zijn bij verkoop, maar het kan ook dat mensen huiverig zijn om in een voormalige kerk te wonen.

3.3 Een getransformeerd gebouw had niet per se mijn voorkeur, maar dit project kwam toevallig op mijn pad.

3.3 Ik koos voor een zelfbouwproject vooral omdat het de enige betaalbare optie was.

3.3 Ik heb gekeken naar aannemers, maar de kosten waren te hoog. Dus ik ga veel zelf doen, behalve specifieke dingen zoals de warmtepomp

3.4 Een voordeel is dat hergebruik goedkoper kan zijn dan een nieuwbouwproject.

3.4 Ik had in eerste instantie niet gedacht aan een klusswoning, maar het uiteindelijk fijn dat ik de binnenkant helemaal zelf kon bepalen.

3.5 Een oud gebouw heeft soms nadelen, zoals extra onderhoud, maar kan relatief modern, dus dat speelde hier minder.

3.6 Ik koos bewust voor een getransformeerd gebouw, omdat leegstaande gebouwen worden herbestemd, in de stad mag kan worden. Het past ook dat zouden kunnen organiseren zonder projectontwikkelaars.

3.6 Ik koos bewust voor een getransformeerd gebouw, omdat ik het interessant vind dat veel appartementen hetzelfde zijn.

3.6 Een transformatiewoning heeft karakter en is uniek, wat voor mij een groot pluspunt is.

3.6 Ik wilde graag een casco-woning, omdat die zowel goedkoper was als meer flexibiliteit bood in de indeling

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Legenda / Legend

Experiences	Affordability	Preferences	Location	Transformation
Uitdagingen	Hypotheek	Kamers	Buurt	Voordelen casco
		Locatie		
Positief	studieschuld	Ruimte	Werk	Onbekend met casco/transformatie
	hulp ouders	Buiten	Soort en mijn	
Periode	huur vs koop	Duurzaam	Zoekgebied aanpassen	voordelen transformatie
	energielabel			verbouwing

C. Expert panel protocol & summary

Expert panel protocol

To validate the proposed action framework, an expert panel session was organised on 6 May 2025 at the DEV_Real Estate office. The objective was to assess the relevance, feasibility, and practical implications of interventions aimed at improving the accessibility of transformation projects for first-time buyers.

The panel must consist of at least five developers from DEV_Real Estate, housing professionals and project managers with direct experience in residential transformation projects. The session is structured as a debate, building on prior preferences expressed through a Mentimeter survey.

Participants are presented with ten pre-formulated statements, each derived from the proposed action proposals (see below for the mentimeter questions). These statements translate empirical findings into concrete propositions, ensuring a targeted discussion that bridges research outcomes with practical experience.

Based on the Mentimeter results, the four statements receiving the highest relevance scores are selected for in-depth discussion. This focused approach ensures thematic depth while maintaining a clear connection to the project's core objectives.

The discussion is structured to elicit both supportive and critical perspectives, encouraging debate on the impact, feasibility, and potential refinement of each proposal. Particular attention was given to the balance between affordability goals and development feasibility, as well as the institutional and legal frameworks required for successful implementation.

Mentimeter questions

1. A fixed percentage of dwellings in transformation projects should be made available to first-time buyers through a lottery system.

2. Offering shared ownership models such as ground lease (*erfpacht*) or Duokoop is a feasible way to lower the entry barrier for first-time buyers in transformation projects.

3. Transformation projects should offer shell (*casco*) options at different finishing levels (e.g., basic, comfort) to better serve first-time buyers with varying budgets.

4. Transformation projects should by default include a participation process involving both local residents and future inhabitants, to reduce objections and better align project design with local needs.

5. Developers should initiate a formal pre-consultation with the municipality in every transformation project, focusing on programmatic feasibility, permit procedures, and preconditions, to avoid delays at a later stage.

6. In urban areas, developers should collaborate with major employers (such as hospitals, educational institutions, or companies) to allocate first-time buyer units in transformation projects to young employees with local ties.

7. Transformation projects in semi-urban areas should actively promote shared mobility and improved public transport to make less central locations more attractive to first-time buyer.

8. In shell transformation projects, information evenings should be mandatory to properly inform buyers about their responsibilities and renovation costs.

9. When reserving a transformed dwelling, developers should commit to holding the price until the actual purchase takes place, in order to provide buyers with greater certainty.

10. Transformation projects in rural areas should by default provide shared gardens or private outdoor spaces to enhance liveability and attractiveness for first-time buyers.

Summary expert panel

An expert panel session was held to validate the proposed actions for improving the accessibility of transformation projects for first-time buyers. The panel consisted of seven developers, housing professionals, and project managers with practical experience in residential transformations. Four key themes were discussed through pre-formulated statements, complemented by interactive polling to assess relevance and feasibility.

1. Casco Options with Tiered Finishing Levels

"Transformatieprojecten zouden casco-opties op verschillende afwerkingsniveaus (bijv. basis, comfort) moeten aanbieden om starters met uiteenlopende budgetten beter te bedienen."

The first statement proposed that transformation projects should systematically offer casco units with multiple finishing levels, to better accommodate first-time buyers with varying financial capacities and preferences. Panel members emphasized that offering variation in finishing levels is essential to address the diverse needs of first-time buyers. A widely supported model was to differentiate between:

- Casco: completely unfinished units, with structural shell only,

- Basic: functional entry-level finish (standard flooring, simple kitchen and bathroom), comparable to social rental quality but in ownership form,

- Finished: fully completed, turnkey units at market standards.

Particularly, the basic variant was seen as a valuable middle ground for households who earn too much for social rental housing but too little to afford fully finished owner-occupied homes. Developers did raise concerns about the logistical and financial feasibility of delivering multiple variants within a single project. However, the panel concluded that a well-structured system of finishing options can increase both affordability and buyer choice, provided it is accompanied by clear communication, minimum quality standards, and targeted support (e.g., housing coaches, as seen in Steenvlinder projects). Moreover, the acceptance of basic models by banks as collateral for mortgages was identified as a critical enabler, reducing financial barriers for both buyers and developers.

2. Participation of Future Residents

"Transformatieprojecten moeten standaard een participatietraject bevatten met buurtbewoners én toekomstige bewoners, om bezwaarprocedures te verminderen en de uitwerking van het project beter af te stemmen op lokale behoeften."

The second statement advocated for mandatory participation of not only current neighbourhood residents but also prospective future residents in transformation projects. While neighbourhood participation is already a regulatory requirement in most Dutch municipalities, the early involvement of future residents is less common and not structurally embedded.

Panel members acknowledged that involving future residents or target groups early in the design process can significantly improve alignment between housing supply and actual demand. This is particularly relevant for transformation projects, where spatial efficiency often leads to an overrepresentation of studio apartments, despite first-time buyers expressing a clear preference for dwellings with at least two rooms.

Given the long lead times of transformation project, often spanning three to four years, the panel recognised that direct participation of individual future buyers is not always realistic. As a pragmatic alternative, targeted market research was recommended as an effective strategy for demand-driven participation. By systematically mapping the preferences and needs of the intended buyer demographic, developers can make more informed design choices, reducing the risk of mismatches and future vacancies.

3. Shared Ownership Models (Ground Lease Duokoop)

"Het aanbieden van gedeelde eigendomsvormen zoals erfpacht of duokoop is een haalbare manier om de instapdrempel voor starters in transformatieprojecten te verlagen."

The third statement explored whether shared ownership models, such as ground lease (erfpacht) and Duokoop, could serve as viable mechanisms to lower the financial threshold for first-time buyers. Panel members generally viewed these models positively, but emphasized that successful implementation depends on clear legal frameworks and supportive institutional conditions.

Ground lease, where the municipality retains ownership of the land while buyers acquire the building, was seen as a promising tool to reduce purchase prices and promote long-term affordability. This model allows municipalities to balance financial returns with social objectives by securing a stable, long-term income stream rather than opting for one-time land sales. In contrast, Duokoop, where the land is owned by a private third party and buyers pay a separate ground rent, was considered more complex and risk-prone. Panel members highlighted that banks are generally more cautious in accepting Duokoop constructions as mortgage collateral, due to perceived legal and financial uncertainties.

The applicability of these models also varies geographically. In large cities such as Amsterdam and The Hague, where municipalities possess significant land holdings, ground lease is already a well-established instrument. However, in smaller municipalities like Apeldoorn or Venray, limited public land ownership poses challenges for the widespread adoption of such models. The panel concluded that while shared ownership via ground lease holds considerable potential to enhance affordability in transformation projects, its success depends on the willingness of municipalities to actively participate and prioritise long-term affordability over immediate financial returns.

4. Allocation Through Lottery

"Een vast percentage woningen in transformatieprojecten moet via een lotingssysteem beschikbaar worden gesteld voor starters."

The fourth statement addressed the proposal to allocate a fixed percentage of dwellings in transformation projects to first-time buyers through a lottery system. The motivation behind this proposal stems from the recurring experience of first-time buyers being systematically outbid, often by wealthier buyers with parental financial support or through aggressive bidding strategies.

The panel unanimously supported the principle of lottery-based allocation as a fair and transparent method to ensure equal access to affordable housing for first-time buyers. However, developers highlighted the practical complexities associated with mandatory lottery allocation. Fixed-price sales through lottery mechanisms can reduce profit margins and increase financial pressure on the remaining, non-lottery portion of a project. Furthermore, there is currently a lack of clear legal frameworks to enforce fixed pricing and lottery allocation in transformation contexts, raising questions about enforceability and compliance.

Conclusion

The expert panel validated the relevance and urgency of the proposed actions, confirming their potential to address key barriers faced by first-time buyers in accessing housing through transformation projects. Across all themes, the panel emphasised that structural embedding of these interventions is necessary to move beyond ad hoc application and ensure consistent impact. Key success factors identified include clear legal frameworks, supportive municipal policies, transparent communication towards buyers, and active collaboration between developers, municipalities, and financial institutions. Particularly, mechanisms such as tiered finishing options, demand-driven participation, shared ownership, and lottery allocation were seen as powerful tools to enhance affordability and fairness, provided they are implemented with attention to operational feasibility and market dynamics. The full set of recommended actions, including both generic and region-specific strategies, is summarised in the visual overview in Appendix G. This framework enables practitioners to translate behavioural insights into practical interventions, offering clear guidance on what strategies may be most effective across different urbanisation levels.

Ultimately, the panel concluded that the proposed action framework offers a coherent, realistic, and practice-oriented approach to enhancing the role of transformation projects in alleviating the housing shortage for first-time buyers. Institutionalising these measures would contribute significantly to a more accessible and inclusive housing market, aligning with broader policy goals on affordability and sustainable urban development.

D. Informed consent form

Toestemmingsformulier deelnemer

Toestemmingsformulier
U wordt uitgenodigd om deel te nemen aan een onderzoek met de titel: *"Transformatie van leegstaande gebouwen als oplossing voor betaalbare woningen voor starters"*. Dit onderzoek wordt uitgevoerd door Annemijn Steenbrink, student aan de TU Delft, in samenwerking met de mastertrack Management in the Built Environment en DEV_real estate. Het doel van dit onderzoek is om te onderzoeken hoe de transformatie van leegstaande gebouwen kan bijdragen aan het aanpakken van betaalbaarheidsproblemen, woningvoorkeuren en barrières waar starters op de Nederlandse woningmarkt mee te maken hebben. Het interview zal ongeveer 30-45 minuten duren. De verzamelde gegevens zullen worden gebruikt voor academische doeleinden, waaronder toepassingen in stedelijke ontwikkelingsprojecten en praktische toepassingen voor ontwikkelaars. Als deelnemer wordt u gevraagd vragen te beantwoorden over uw woningvoorkeuren, persoonlijke ervaringen en percepties met betrekking tot woningbetaalbaarheid en toegankelijkheid. Dit kan gevoelige onderwerpen omvatten, zoals financiële uitdagingen, die zorgvuldig en vertrouwelijk zullen worden behandeld. Uw antwoorden in dit onderzoek blijven, voor zover mogelijk, vertrouwelijk. Gegevens worden geanonimiseerd en er zal geen persoonlijk identificeerbare informatie openbaar worden gemaakt. Alle gegevens worden beveiligd opgeslagen op versleutelde apparaten en zijn alleen toegankelijk voor de onderzoeker. In overeenstemming met open dataprotocollen kunnen geanonimiseerde gegevens worden gedeeld met de academische gemeenschap voor transparantie en verder onderzoek. Ook kunnen deze gegevens terug gelegd worden met de geïnterviewde. Uw deelname is volledig vrijwillig, en u kunt op elk moment stoppen zonder een reden op te geven. U bent vrij om vragen over te slaan die u niet wilt beantwoorden. Als u besluit zich terug te trekken, worden uw gegevens verwijderd, mits deze identificeerbaar zijn en binnen de termijn van gegevensverwerking vallen. Als u vragen of opmerkingen heeft over dit onderzoek, kunt u contact opnemen met Marietta Haffner via Dank u voor uw overweging om deel te nemen aan dit onderzoek.

GELIEVE DE JUISTE VAKJES AAN TE VINKEN	Ja	Nee
A: ALGEMENE TOESTEMMING – ONDERZOEKSDOELEN, DEELNEMERSTAKEN EN DEELNAME		
1. Ik heb de informatie over het onderzoek, gedateerd [DD/MM/JJJJ], gelezen en begrepen, of het is aan mij voorgelezen. Ik heb vragen kunnen stellen over het onderzoek en mijn vragen zijn naar tevredenheid beantwoord.	☐	☐
2. Ik geef vrijwillig toestemming om deel te nemen aan dit onderzoek en begrijp dat ik mag weigeren vragen te beantwoorden en dat ik op elk moment kan stoppen met het onderzoek zonder een reden op te geven.	☐	☐
3. Ik begrijp dat deelname aan het onderzoek inhoudt: een semigestructureerd interview dat mogelijk wordt opgenomen, getranscribeerd en geanonimiseerd.	☐	☐
4. Ik begrijp dat ik geen financiële vergoeding ontvang voor deelname aan dit onderzoek.	☐	☐
5. Ik begrijp dat het onderzoek zal eindigen in juli 2025 en dat hierna dit formulier wordt verwijderd.	☐	☐
B: POTENTIËLE RISICO'S VAN DEELNAME (INCLUSIEF GEGEVENSBESCHERMING)		

GELIEVE DE JUISTE VAKJES AAN TE VINKEN	Ja	Nee
6. Ik begrijp dat deelname aan het onderzoek de volgende risico's met zich meebrengt, zoals het reflecteren op financiële of huisvestingsuitdagingen, wat lichte emotionele ongemakken kan veroorzaken. Ik begrijp dat deze worden beperkt door anonimiteit en vertrouwelijkheid te waarborgen.	☐	☐
7. Ik begrijp dat deelname aan het onderzoek inhoudt dat specifieke persoonlijk identificeerbare informatie (PII) wordt verzameld: woningvoorkeuren, gezinstypes, locatie en leeftijdsgroep, evenals bijbehorende onderzoeks data zoals e-mailadres en telefoonnummer. Ik begrijp dat er een potentieel risico is dat mijn identiteit wordt onthuld, maar deze gegevens zullen alleen worden gebruikt voor contactdoeleinden en niet in het onderzoek.	☐	☐
8. Ik begrijp dat gevoelige gegevens (bijv. voorkeuren voor woningbetaalbaarheid) zullen worden geanonimiseerd en verwerkt in overeenstemming met de AVG-wetgeving.	☐	☐
9. Ik begrijp dat maatregelen om mijn gegevens te beschermen omvatten: veilige gegevensopslag, beperkte toegang tot ruwe gegevens, en volledige anonimiseren vóór publicatie.	☐	☐
10. k begrijp dat persoonlijke informatie die over mij wordt verzameld en die mij kan identificeren, niet buiten het onderzoeksteam wordt gedeeld.	☐	☐
11. Ik begrijp dat de (identificeerbare) persoonlijke gegevens die ik verstrek, binnen 1 jaar zullen worden vernietigd.	☐	☐
C: PUBLICATIE, VERSPREIDING EN TOEPASSING VAN HET ONDERZOEK		
12. Ik begrijp dat geanonimiseerde gegevens kunnen worden gebruikt voor academische publicaties, presentaties en rapporten die verband houden met het onderzoek.	☐	☐
13. Ik geef toestemming dat mijn antwoorden, meningen of input anoniem mogen worden geciteerd in onderzoeksresultaten.	☐	☐
D: (LANGDURIGE) OPSLAG, TOEGANG EN HERGEBRUIK VAN GEGEVENS		
16. Ik geef toestemming dat de geanonimiseerde gegevens die ik verstrek, worden gearchiveerd in de repository van de TU Delft voor toekomstig onderzoek en educatieve doeleinden.	☐	☐

Handtekeningen

_____   _____   _____
Naam deelnemer   Handtekening   Datum

Als onderzoeker, heb ik de informatiesheet voorgelezen aan de deelnemer/van te voren gemaild, en, naar beste kunnen, ervoor gezorgd dat de deelnemer begrijpt waarvoor zij vrijwillig toestemming geven.

_Annemijn Steenbrink_____   _____   _____
Naam onderzoeker   Handtekening   Datum

Contactgegecens:
Annemijn Steenbrink – 0637403181 - a.j.steenbrink@student.tudelft.nl

E. Human research ethics checklist for human research

Delft University of Technology
HUMAN RESEARCH ETHICS
CHECKLIST FOR HUMAN RESEARCH
(Version January 2022)

IMPORTANT NOTES ON PREPARING THIS CHECKLIST

1. An HREC application should be submitted for every research study that involves human participants (as Research Subjects) carried out by TU Delft researchers
2. Your HREC application should be submitted and approved **before** potential participants are approached to take part in your study
3. All submissions from Master's Students for their research thesis need approval from the relevant Responsible Researcher
4. The Responsible Researcher must indicate their approval of the completeness and quality of the submission by signing and dating this form OR by providing approval to the corresponding researcher via email (included as a PDF with the full HREC submission)
5. There are various aspects of human research compliance which fall outside of the remit of the HREC, but which must be in place to obtain HREC approval. These often require input from internal or external experts such as Faculty Data Stewards, Faculty HSE advisors, the TU Delft Privacy Team or external Medical research partners.
6. You can find detailed guidance on completing your HREC application here
7. Please note that incomplete submissions (whether in terms of documentation or the information provided therein) will be returned for completion **prior to any assessment**
8. If you have any feedback on any aspect of the HREC approval tools and/or process you can leave your comments here

I.   Applicant Information

PROJECT TITLE:	**Transformation of vacant buildings as a solution for affordable housing for the first time buyers**
Research period: *Over what period of time will this specific part of the research take place*	**Sept 2024 – juli 2025**
Faculty:	**Architecture, Urbanism and Building Sciences**
Department:	**Management in the Built Environment**
Type of the research project: *(Bachelor's, Master's, DreamTeam, PhD, PostDoc, Senior Researcher, Organisational etc.)*	**Master's thesis**
Funder of research: *(EU, NWO, TUD, other – in which case please elaborate)*	**TUD**
Name of Corresponding Researcher: *(If different from the Responsible Researcher)*	**Annemijn Steenbrink**
E-mail Corresponding Researcher: *(If different from the Responsible Researcher)*	**a.j.steenbrink@student.tudelft.nl**
Position of Corresponding Researcher: *(Masters, DreamTeam, PhD, PostDoc, Assistant/ Associate/ Full Professor)*	**Masters**
Name of Responsible Researcher: ***Note:*** *all student work must have a named Responsible Researcher to approve, sign and submit this application*	**Marietta Haffner**
E-mail of Responsible Researcher: *Please ensure that an institutional email address (**no Gmail, Yahoo, etc.**) is used for all project documentation/ communications including Informed Consent materials*	**M.E.A.Haffner@tudelft.nl**
Position of Responsible Researcher : *(PhD, PostDoc, Associate/ Assistant/ Full Professor)*	**Professor**

II.   Research Overview

NOTE: *You can find more guidance on completing this checklist here*

a)   Please summarise your research very briefly (100-200 words)

What are you looking into, who is involved, how many participants there will be, how they will be recruited and what are they expected to do?

> *Add your text here – (please avoid jargon and abbrevations)*

This research consists of desk research and interviews. The desk research will follow a literature study, which will be used to figure out why the housing market has become what it is today. The findings will be used as a foundation for the following phases of the research and to put conclusions of the research in a scientific context. Interviews will be carried out to gain a better understanding about the current housing market and about the decision process for first-time buyers to get more knowledge about their living preferences. Conducting these three interviews with professionals in the field will increase the knowledge I have and can support the research.

b)   **If your application is an additional project** related to an existing approved HREC submission, please provide a brief explanation including the existing relevant HREC submission number/s.

c) **If your application is a simple extension of, or amendment to,** an existing approved HREC submission, you can simply submit an [HREC Amendment Form] as a submission through LabServant.

III. Risk Assessment and Mitigation Plan

NOTE: You can find more guidance on completing this checklist here

Please complete the following table in full for all points to which your answer is "yes". Bear in mind that the vast majority of projects involving human participants as Research Subjects also involve the collection of **Personally Identifiable Information (PII)** and/or **Personally Identifiable Research Data (PIRD)** which may pose potential risks to participants as detailed in Section G: Data Processing and Privacy below.

To ensure alignment between your risk assessment, data management and what you agree with your Research Subjects you can use the last two columns in the table below to refer to specific points in your Data Management Plan (DMP) and Informed Consent Form (ICF) – **but this is not compulsory**.

It's worth noting that **you're much more likely to need to resubmit your application if you neglect to identify potential risks**, than if you identify a potential risk and demonstrate how you will mitigate it. If necessary, the HREC will always work with you and colleagues in the Privacy Team and Data Management Services to see how, if at all possible, your research can be conducted.

ISSUE	Yes	No	RISK ASSESSMENT – what risks could arise? *Please ensure that you list ALL of the actual risks that could potentially arise – do not simply state whether you consider any such risks are important!*	MITIGATION PLAN – what mitigating steps will you take? *Please ensure that you summarise what actual mitigation measures you will take for each potential risk identified – do not simply state that you will e.g. comply with regulations.*	DMP	ICF
			If YES please complete the Risk Assessment and Mitigation Plan columns below.		*Please provide the relevant reference #*	
A: Partners and collaboration						
1. Will the research be carried out in collaboration with additional organisational partners such as: • One or more collaborating research and/or commercial organisations • Either a research, or a work experience internship provider[1] *[1] If yes, please include the graduation agreement in this application*	x		**In collaboration with DEV_ real estate**		x	
2. Is this research dependent on a Data Transfer or Processing Agreement with a collaborating partner or third party supplier? *If yes please provide a copy of the signed DTA/DPA*		x			x	
3. Has this research been approved by another (external) research ethics committee (e.g.: HREC and/or MREC/METC)? *If yes, please provide a copy of the approval (if possible) and summarise any key points in your Risk Management section below*		x			x	
B: Location						
4. Will the research take place in a country or countries, other than the Netherlands, within the EU?		x			x	

ISSUE	Yes	No	RISK ASSESSMENT – what risks could arise? *Please ensure that you list ALL of the actual risks that could potentially arise – do not simply state whether you consider any such risks are important!*	MITIGATION PLAN – what mitigating steps will you take? *Please ensure that you summarise what actual mitigation measures you will take for each potential risk identified – do not simply state that you will e.g. comply with regulations.*	DMP	ICF
			If YES please complete the Risk Assessment and Mitigation Plan columns below.		Please provide the relevant reference #	
5. Will the research take place in a country or countries outside the EU?		x			x	
6. Will the research take place in a place/region or of higher risk – including known dangerous locations (in any country) or locations with non-democratic regimes?		x			x	
C: Participants						
7. Will the study involve participants who **may** be vulnerable and possibly (legally) unable to give informed consent? (e.g., children below the legal age for giving consent, people with learning difficulties, people living in care or nursing homes,).		x				
8. Will the study involve participants who **may** be vulnerable under specific circumstances and in specific contexts, such as victims and witnesses of violence, including domestic violence; sex workers; members of minority groups, refugees, irregular migrants or dissidents?		x				
9. Are the participants, outside the context of the research, in a dependent or subordinate position to the investigator (such as own children, own students or employees of either TU Delft and/or a collaborating partner organisation)? *It is essential that you safeguard against possible adverse consequences of this situation (such as allowing a student's failure to participate to your satisfaction to affect your evaluation of their coursework).*		x				
10. Is there a high possibility of re-identification for your participants? (e.g., do they have a very specialist job of which there are only a small number in a given country, are they members of a small community, or employees from a partner company collaborating in the research? Or are they one of only a handful of (expert) participants in the study?		x				
D: Recruiting Participants						
11. Will your participants be recruited through your own, professional, channels such as conference attendance lists, or through specific network/s such as self-help groups		x				
12. Will the participants be recruited or accessed in the longer term by a (legal or customary) gatekeeper? (e.g., an adult professional working with children; a community leader or family member who has this customary role – within or outside the EU; the data producer of a long-term cohort study)		x				
13. Will you be recruiting your participants through a crowd-sourcing service and/or involve a third party data-gathering service, such as a survey platform?		x				

ISSUE	Yes	No	RISK ASSESSMENT – what risks could arise? *Please ensure that you list ALL of the actual risks that could potentially arise – do not simply state whether you consider any such risks are important!*	MITIGATION PLAN – what mitigating steps will you take? *Please ensure that you summarise what actual mitigation measures you will take for each potential risk identified – do not simply state that you will e.g. comply with regulations.*	DMP	ICF
			If YES please complete the Risk Assessment and Mitigation Plan columns below.		*Please provide the relevant reference #*	
14. Will you be offering any financial, or other, remuneration to participants, and might this induce or bias participation?		x			x	
E: Subject Matter *Research related to medical questions/health may require special attention. See also the website of the CCMO before contacting the HREC.*						
15. Will your research involve any of the following: • Medical research and/or clinical trials • Invasive sampling and/or medical imaging • Medical and *In Vitro Diagnostic Medical* Devices Research		x			x	
16. Will drugs, placebos, or other substances (e.g., drinks, foods, food or drink constituents, dietary supplements) be administered to the study participants? *If yes see here to determine whether medical ethical approval is required*		x			x	
17. Will blood or tissue samples be obtained from participants? *If yes see here to determine whether medical ethical approval is required*		x			x	
18. Does the study risk causing psychological stress or anxiety beyond that normally encountered by the participants in their life outside research?		x			x	x
19. Will the study involve discussion of personal sensitive data which could put participants at increased legal, financial, reputational, security or other risk? (e.g., financial data, location data, data relating to children or other vulnerable groups) *Definitions of sensitive personal data, and special cases are provided on the TUD Privacy Team website.*	x		I will collect data about their financial status and their living area and household composition		x	x
20. Will the study involve disclosing commercially or professionally sensitive, or confidential information? (e.g., relating to decision-making processes or business strategies which might, for example, be of interest to competitors)		x			x	
21. Has your study been identified by the TU Delft Privacy Team as requiring a Data Processing Impact Assessment (DPIA)? *If yes please attach the advice/ approval from the Privacy Team to this application*		x			x	
22. Does your research investigate causes or areas of conflict? *If yes please confirm that your fieldwork has been discussed with the appropriate safety/security advisors and approved by your Department/Faculty.*		x			x	
23. Does your research involve observing illegal activities or data processed or provided by authorities responsible for preventing, investigating, detecting or prosecuting criminal offences *If so please confirm that your work has been discussed with the appropriate legal advisors and approved by your Department/Faculty.*		x			x	

ISSUE	Yes	No	RISK ASSESSMENT – what risks could arise? *Please ensure that you list ALL of the actual risks that could potentially arise – do not simply state whether you consider any such risks are important!*	MITIGATION PLAN – what mitigating steps will you take? *Please ensure that you summarise what actual mitigation measures you will take for each potential risk identified – do not simply state that you will e.g. comply with regulations.*	DMP	ICF
			If YES please complete the Risk Assessment and Mitigation Plan columns below.		*Please provide the relevant reference #*	
F: Research Methods						
24. Will it be necessary for participants to take part in the study without their knowledge and consent at the time? (e.g., covert observation of people in non-public places).		x			x	x
25. Will the study involve actively deceiving the participants? (For example, will participants be deliberately falsely informed, will information be withheld from them or will they be misled in such a way that they are likely to object or show unease when debriefed about the study).		x			xx	
26. Is pain or more than mild discomfort likely to result from the study? And/or could your research activity cause an accident involving (non-) participants?		x			x	
27. Will the experiment involve the use of devices that are not 'CE' certified? *Only, if 'yes': continue with the following questions:*		x			x	
• Was the device built in-house?						
• Was it inspected by a safety expert at TU Delft? *If yes, please provide a signed device report*						
• If it was not built in-house and not CE-certified, was it inspected by some other, qualified authority in safety and approved? *If yes, please provide records of the inspection*						
28. Will your research involve face-to-face encounters with your participants and if so how will you assess and address Covid considerations?	x		Not relevant anymore, but always take a normal distance			x
29. Will your research involve **either:** a) "big data", combined datasets, new data-gathering or new data-merging techniques which might lead to re-identification of your participants **and/or** b) artificial intelligence or algorithm training where, for example biased datasets could lead to biased outcomes?		x			x	
G: Data Processing and Privacy						
30. Will the research involve collecting, processing and/or storing any directly identifiable PII (Personally Identifiable Information) including name or email address that will be used for administrative purposes only? (eg: obtaining Informed Consent or disbursing remuneration)		x			x	x
31. Will the research involve collecting, processing and/or storing any directly or indirectly identifiable PIRD (Personally Identifiable Research Data) including videos, pictures, IP address, gender, age etc and **what other Personal Research Data** (including personal or professional views) will you be collecting?	x		I will collect their age in categoriesI will collect data about their living environment but not specific addresses that are tracable to a person.		x	

ISSUE	Yes	No	RISK ASSESSMENT – what risks could arise? *Please ensure that you list ALL of the actual risks that could potentially arise – do not simply state whether you consider any such risks are important!*	MITIGATION PLAN – what mitigating steps will you take? *Please ensure that you summarise what actual mitigation measures you will take for each potential risk identified – do not simply state that you will e.g. comply with regulations.*	DMP	ICF
			If YES please complete the Risk Assessment and Mitigation Plan columns below.		*Please provide the relevant reference #*	
32. Will this research involve collecting data from the internet, social media and/or publicly available datasets which have been originally contributed by human participants	x				x	
33. Will your research findings be published in one or more forms in the public domain, as e.g., Masters thesis, journal publication, conference presentation or wider public dissemination?	x		My thesis will be uploaded on the TU Delft repository		x	x
34. Will your research data be archived for re-use and/or teaching in an open, private or semi-open archive?	x		My research will be saved to the private internship company storage drive.		x	

H: More on Informed Consent and Data Management
NOTE: You can find guidance and templates for preparing your Informed Consent materials) here

Your research involves human participants as Research Subjects if you are recruiting them or actively involving or influencing, manipulating or directing them in any way in your research activities. This means you must seek informed consent and agree/ implement appropriate safeguards regardless of whether you are collecting any PIRD.

Where you are also collecting PIRD, and using Informed Consent as the legal basis for your research, you need to also make sure that your IC materials are clear on any related risks and the mitigating measures you will take – including through responsible data management.

Got a comment on this checklist or the HREC process? You can leave your comments here

IV. Signature/s

> *Please note that by signing this checklist list as the sole, or Responsible, researcher you are providing approval of the completeness and quality of the submission, as well as confirming alignment between GDPR, Data Management and Informed Consent requirements.*

Name of Corresponding Researcher (if different from the Responsible Researcher) (print)

Signature of Corresponding Researcher:

Date: 21-01-2025

Name of Responsible Researcher (print)
M.E.A. Haffner

Signature (or upload consent by mail) Responsible Researcher:

Date: 27 January 2025

V. Completing your HREC application
Please use the following list to check that you have provided all relevant documentation

Required:
- o **Always:** This completed HREC checklist
- o **Always:** A data management plan (reviewed, where necessary, by a data-steward)
- o **Usually:** A complete Informed Consent form (including Participant Information) and/or Opening Statement (for online consent)

Please also attach any of the following, if relevant to your research:

Document or approval	Contact/s
Full Research Ethics Application	After the assessment of your initial application **HREC will let you know if and when you need to submit additional information**
Signed, valid Device Report	Your Faculty HSE advisor
Ethics approval from an external Medical Committee	TU Delft Policy Advisor, Medical (Devices) Research
Ethics approval from an external Research Ethics Committee	Please append, if possible, with your submission
Approved Data Transfer or Data Processing Agreement	Your Faculty Data Steward and/or TU Delft Privacy Team
Approved Graduation Agreement	Your Master's thesis supervisor
Data Processing Impact Assessment (DPIA)	TU Delft Privacy Team
Other specific requirement	Please reference/explain in your checklist and append with your submission

F. Data management plan

Plan Overview

A Data Management Plan created using DMPonline

Title: Master's thesis - Annemijn Steenbrink - Transformation of vacant buildings as a solution for affordable housing for the first time buyers

Creator: Annemijn Steenbrink

Affiliation: Delft University of Technology

Funder: Delft University of Technology

Template: TU Delft Data Management Plan template (2021)

Project abstract:

This thesis explores the Dutch housing crisis with a focus on first time buyers, burdened by student debt, who face growing barriers to homeownership. Since the introduction of the student loan system in 2015, this group has experienced increased financial strain, making affordable housing largely inaccessible. The imbalance between housing supply and demand, driven by rising prices and policy changes, further exacerbates these challenges. This research examines whether transforming vacant buildings into affordable housing can be a viable solution. Through a mixed-methods approach, including a literature review and case studies, this study investigates the housing demands of starters, the impact of policy on accessibility, and the viability of building transformations. By understanding the preferences and constraints of first time buyers, this study aims to inform policies and strategies that support affordable housing solutions. Ultimately, the findings provide actionable insights into using building transformations to bridge the housing gap, stimulate a more inclusive housing market for first time buyers in the Netherlands.

ID: 166009

Start date: 01-09-2024

End date: 04-07-2025

Last modified: 14-01-2025

Master's thesis - Annemijn Steenbrink - Transformation of vacant buildings as a solution for affordable housing for the first time buyers

0. Administrative questions

1. Name of data management support staff consulted during the preparation of this plan.

My faculty data steward, Janine Strandberg, has reviewed this DMP on [date].

2. Date of consultation with support staff.

2024-12-05

I. Data description and collection or re-use of existing data

3. Provide a general description of the type of data you will be working with, including any re-used data:

Type of data	File format(s)	How will data be collected (for re-used data: source and terms of use)?	Purpose of processing	Storage location	Who will have access to the data
Anonymised data on Age, occupation, housing preferences of first time buyers in the 2 municipalities of case studies	.mxf files	Audiorecording the interviews with an iphone Semi-structured interviews with first-time homebuyers	To understand the differences in housing preferenes between different types of first-time buyers answer SRQ 1 and 2	temporarily saved on my iphone. After that the transcript will be added to the thesis.	Annemijn Steenbrink (Researcher) M.E.A. Haffner (1e supervisor) G.A. van Bortel (2e supervisor)
affordability and housing preferences	.csv files	Online survey	To collect the affordability of the respondents and their occupation to make appropriate correlations answers SRQ 1, 2, 3	Personal laopt	Annemijn Steenbrink (Researcher) M.E.A. Haffner (1e supervisor) G.A. van Bortel (2e supervisor)
Documentation from transformation projects.	.csv files	Case Studies Post, Apeldoorn (via Steenvlinder) and Zoudtmanstraat, The Hague (via DEV_ real estate)	SRQ3 ,4	Personal laptop	DEV_ real estate Annemijn Steenbrink (Researcher) M.E.A. Haffner (1e supervisor) G.A. van Bortel (2e supervisor)
Feedback from experts in housing transformation and urban planning.	.csv files	Expert Panels	Main question	Personal laptop	DEV_ real estate Annemijn Steenbrink (Researcher) M.E.A. Haffner (1e supervisor) G.A. van Bortel (2e supervisor)

4. How much data storage will you require during the project lifetime?

- < 250 GB

II. Documentation and data quality

5. What documentation will accompany data?

- Other - explain below
- Data dictionary explaining the variables used
- README file or other documentation explaining how data is organised
- Methodology of data collection

The dataset will not be shared in a data repository, but the methodology of data collection will be explained in the MSc thesis, which is made available in the TU Delft Education repository

III. Storage and backup during research process

6. Where will the data (and code, if applicable) be stored and backed-up during the project lifetime?

- OneDrive
- Another storage system - please explain below, including provided security measures

Personal laptop. The retention period will be one year.

Interview data will be stored in separate folders, and within the interview folder, there are separate folders for audio-recordings. Informed consent forms and contact information are encrypted separately from research data to minimise risk of re-identification.

External recording device: Used as a temporary storage location for recorded on-site interviews. Interviews will be deleted from device as soon as they are moved to OneDrive.

IV. Legal and ethical requirements, codes of conduct

7. Does your research involve human subjects or 3rd party datasets collected from human participants?

- Yes

8A. Will you work with personal data? (information about an identified or identifiable natural person)

If you are not sure which option to select, first ask your Faculty Data Steward for advice. You can also check with the privacy website . If you would like to contact the privacy team: privacy-tud@tudelft.nl, please bring your DMP.

- Yes

8B. Will you work with any other types of confidential or classified data or code as listed below? (tick all that apply)

If you are not sure which option to select, ask your Faculty Data Steward for advice.

- No, I will not work with any confidential or classified data/code

9. How will ownership of the data and intellectual property rights to the data be managed?

For projects involving commercially-sensitive research or research involving third parties, seek advice of your Faculty Contract Manager when answering this question. If this is not the case, you can use the example below.

If no confidential information:
The datasets underlying the published papers will be publicly released following the TU Delft Research Data Framework Policy. During the active phase of research, the project leader from TU Delft will oversee the access rights to data (and other outputs), as well as any requests for access from external parties. They will be released publicly no later than at the time of publication of corresponding research papers.

10. Which personal data will you process? Tick all that apply

- Photographs, video materials, performance appraisals or student results
- Names and addresses
- Data collected in Informed Consent form (names and email addresses)
- Signed consent forms
- Gender, date of birth and/or age
- Email addresses and/or other addresses for digital communication

11. Please list the categories of data subjects

first time buyers in Apeldoorn and The Hague, who already bought a home.
expert panel: different experts within the company of DEV_ real estate

12. Will you be sharing personal data with individuals/organisations outside of the EEA (European Economic Area)?

- No

15. What is the legal ground for personal data processing?

- Informed consent

16. Please describe the informed consent procedure you will follow:

The HREC informed consent guide and template will be used to create the informed consent forms for the interviewees (template 2 in the HREC guide). For the anonymous surveys, an Opening Statement (template 1 in the HREC guide) will be used in place of the explicit Informed Consent form.

17. Where will you store the signed consent forms?

- Same storage solutions as explained in question 6

18. Does the processing of the personal data result in a high risk to the data subjects?

If the processing of the personal data results in a high risk to the data subjects, it is required to perform a Data Protection Impact Assessment (DPIA). In order to determine if there is a high risk for the data subjects, please check if any of the options below that are applicable to the processing of the personal data during your research (check all that apply).
If two or more of the options listed below apply, you will have to complete the DPIA. Please get in touch with the privacy team: privacy-tud@tudelft.nl to receive support with DPIA.
If only one of the options listed below applies, your project might need a DPIA. Please get in touch with the privacy team: privacy-tud@tudelft.nl to get advice as to whether DPIA is necessary.
If you have any additional comments, please add them in the box below.

- Sensitive personal data
- None of the above applies

I want to ask about their affordability, if they agree with it. I am also going to get information about affordability via a survey but it could contain sensitive personal data.

22. What will happen with personal research data after the end of the research project?

- Anonymised or aggregated data will be shared with others
- Personal research data will be destroyed after the end of the research project

V. Data sharing and long-term preservation

27. Apart from personal data mentioned in question 22, will any other data be publicly shared?

- I do not work with any data other than personal data

29. How will you share research data (and code), including the one mentioned in question 22?

- My data will be shared in a different way - please explain below

Anonymised data collected during the project will be included in the body and appendix of the MSc thesis, made available in the TU Delft Educational repository.

30. How much of your data will be shared in a research data repository?

- < 100 GB

31. When will the data (or code) be shared?

- At the end of the research project

The thesis is made available in the TU Delft Education repository at the end of the graduation project. Research data are only shared within the thesis.

32. Under what licence will be the data/code released?

- Other - Please explain

Research data are only shared within the MSc thesis, which is automatically placed under copyright in the Education repository.

VI. Data management responsibilities and resources

33. Is TU Delft the lead institution for this project?

- Yes, the only institution involved

34. If you leave TU Delft (or are unavailable), who is going to be responsible for the data resulting from this project?

Thesis supervisor, Marietta Haffner, of Management in the Built Environment: M.E.A.Haffner@tudelft.nl
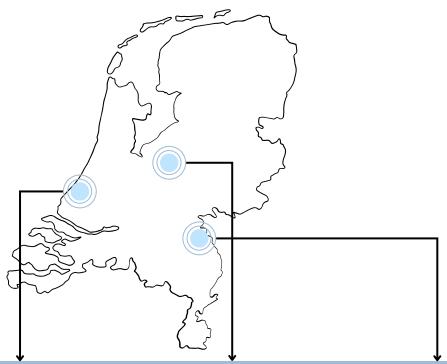
35. What resources (for example financial and time) will be dedicated to data management and ensuring that data will be FAIR (Findable, Accessible, Interoperable, Re-usable)?

Research data are only shared within the MSc thesis: no additional resources are required.

G. Final action proposal

Action proposals

1. Offer **tiered finishing packages** in transformation projects to align with diverse budgets and customization preferences.

2. Use a **participation trajectory** with future residents to strengthen the perceived identity and value of less desirable neighbourhoods.

3. Introduce **shared equity models** such as erfpacht, where land and property are financially separated to lower upfront costs.

4. Reserve a % of units for first-time buyers **through a lottery**

Key themes	Urbanisation-level-based actions Urban context	Urbanisation-level-based actions Semi-urban context	Urbanisation-level-based actions Rural context
Life course experiences	• Partner with organisations (universities, companies) to offer housing access for local workers with stable contracts, co-financing.	• Encourage modular ownership structures (e.g., buy 60% now, 40% later)	• Allow phased entry into ownership by offering buyers the option to reserve homes early with low-risk commitments.
Affordability	• Collaborate with municipalities to reserve first-right-to-buy units for local starters within a capped income range. • Implement erfpacht more in citites where municipalities own much land.	• Partner with municipalities to give a local starters mortgage, especially for transformed A++ buildings. • Offer transformation-linked financial sessions, including topics like student loan implications, green mortgage eligibility, and cost phasing in casco renovations.	• Bundle green mortgage facilitation with A++ units by handling the administrative steps in-house, helping buyers unlock extra borrowing capacity with less effort.
Housing preferences	• Design compact units that are finished and move-in ready. • Do not only build studios, no room for life-course changes.	• Provide upgrade-ready casco shells with standardized connection points to allow flexible but phased personalisation over time. • Integrate community-shared gardens or rooftop terraces in casco projects	• Integrate community-shared gardens or rooftop terraces in casco projects • Include base infrastructure (e.g., heating, electrical, bathroom rough-ins) in all casco units to reduce renovation stress for less experienced buyers.
Location preferences	• Target vacant buildings near employment hubs for transformation, to match buyers' strong preference for short commutes. • Focus on "15-minute neighbourhood" concepts	• Co-design neighbourhood guides with local stakeholders to increase perceived value of overlooked but well-connected areas. • Pre-negotiate shared mobility subscriptions (e.g., car-sharing or regional train discounts) and include them in the housing offer.	• Highlight proximity to key roads • Offer mobility subscriptions (e.g., shared car access or e-bike leasing) to make peripheral locations more attractive. • More focus on green surrounding area
Transformation	• Co-develop hybrid projects with housing associations, combining affordable starter units with social housing.	• Include brief casco orientation during sales, ensuring buyers understand what casco means in practice and reducing confusion or regret.	• Use the character of transformed buildings (e.g. a former church or post office) to create value through identity.