The future of the middle rental housing sector

The right direction of the (to-add) supply that matches the needs of the target group.

Ву

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Colophon

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Preface

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Abstract

Keywords

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Executive summary

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1 Introduction

1.1 Research topic

Recently, there has been a lot going on in the housing market in the Netherlands. The housing market in the Netherlands in general is stressed, this is due a housing shortages which results in high housing prices in the rental and sale sector. The focus of this thesis is to optimize the middle rental housing market in the Netherlands. The research begins by defining the concept of middle rental housing, delving into, characteristics, and the function. This foundational understanding is essential for setting the stage for more detailed analyses. An important aspect of this thesis is identifying the group who wants to live in the middle rental housing. This involves determining who this housing segment is intended for and understanding their specific demands and preferences. By defining the composition and characteristics of current and middle rental housing seekers, the research aims to provide a clear picture of the target group's needs. The thesis also assesses the current state and needs of the middle rental housing market. This includes analysing the housing demand an comparing this with the supply, to help governments and developers anticipate on the specific needs of the middle rental housing market.

Additionally, the research aims to develop an advice for policies and strategies for improvements of the availability, and suitability of middle rental housing. This research seeks to provide practical recommendations for real estate developers and policymakers. These recommendations are intended to improve the distribution of living spaces, address housing shortages, in the middle rental housing sector.

Overall, the thesis aims to provide comprehensive insights and recommendations that can help optimize the middle rental housing market in the Netherlands, ensuring it meets the needs of its intended target group and relieve market stress.

1.2 Research relevance

Research into the middle rental housing market in the Netherlands is important due to the interest of a lot of people and the shortage of housing in this sector. The importance of examining this particular segment of the housing market arises from several critical factors that impact both individual households and the broader socio-economic landscape.

The middle rental housing market is located between the subsidized social housing sector and the more expensive free-market rentals. A significant portion of the population is designated to this rental segment. This market segment is vital for maintaining social stability and diversity within urban settings. Analysing this segment can provide insights into how housing policies and market dynamics can be better structured to support an good and equitable distribution of living spaces. The need for residents of middle rental houses is that this sector is renewed so that it suits their needs today.

The Governments is continuously seeking for effective strategies to address housing shortages and (in the Netherlands also the) affordability crises. An example is the proposed law "Wet betaalbare huur". By focusing on the middle rental housing segment, this research aims to contribute to the formulation of targeted policies that can enhance the availability and affordability of housing in this segment. The findings could help in designing interventions that improve the housing market in the near future. This research aims to help in predicting future trends and preparing for potential shifts in the housing market.

As the housing market faces increasing pressures, it is important that what is built, is the right product for the market. This research not only investigates the current state of the middle rental

housing market and future trends but also explores alternative housing models and technologies that could be applied to alleviate the housing shortage and meet the demands of the target group of middle rental houses.

1.3 Problem Statement

In Dutch housing market there is an a severe shortage, the shortage began with the recession in 2008. Despite stable housing production until 2013, with an averaging 79.000 homes annually, the number of new buildings dropped to around 50.000 after 2013. This decline, combined with increased household formation due to immigration, led to a 3.2% rise in housing shortage by 2018 (Boelhouwer, 2019). More recently the building permits for houses has risen to almost 76 thousand in 2021 but it has fallen again to 55 thousand in 2023 (Centraal Bureau voor de Statistiek, 2024).

Homeownership accessibility is influenced by building supply and eligibility criteria. The 2011 Code of Conduct for Mortgage Loans excluded many from mortgages, increasing pressure on the rental market. Middle-income groups are particularly affected, as social housing policies prioritize lower incomes, leaving many unable to afford private rentals or meet mortgage criteria. Also the rising rents and decreased purchasing power have worsened the affordability in de housing rental sector. In the home ownership sector the affordability went up widening the gap between (mainly) lower income renters and (mainly) higher income homeowners. (Boelhouwer, 2019)

The Netherlands faces a significant housing shortage, this shortage is expected to be 400.000 houses in 2025 and reduced to around 9800 in 2030. The middle rental sector is a significant part of the total housing problem with a shortage of 70-100 thousand dwellings. The Dutch government aims to build 900,000 thousand houses by 2030 (Volkshuisvesting en Ruimtelijke Ordening, 2022, p.13), but it's to be seen if this is gone work out. With the amount of building permits granted in the last years it will be hard reach this target. The rising interest rates and construction costs have made it difficult for market players to make commercial business cases, leading to delays and postponements. Investors are also considering selling rental properties on the owner-occupied market, which could lead to a declining middle rental stock. Market players have invested almost half as much in new-build rental housing due to mid-lease regulation, increased construction costs, and interest rates. (Westerhof & CBRE B.V., 2022) Research into the right housing products is needed to create the best possible product that benefits multiple occupants and eases market pressure.

This thesis is caried out in collaboration with Sustay. Sustay is a real estate developer that focuses on developing sustainable housing in the mid-rent segment. Sustay has been focusing on this market since the start in 2014, due to current developments in the market and regulations, more and more developers are (having to) focus on this market. The goals of Sustay is to build as much good middle rental houses a possible. The challenge is what is the best housing product for the middle rental sector. Also how do they remain a frontrunner in the market of middle rent housing, how can they be distinctive from other developers. Sustay builds middle rent homes of around 60 m2 with mostly equal floor plans. These homes can serve a large part of the market, starters, small families but also elderly fit well in a 60 m2 home. But is this form in which midrent homes are made by Sustay what the market demands? Different groups of people also have different living requirements, and therefore it should be considered to make a more varied or flexible layout in order to create a suitable homes for a larger part of the market.

The specific problem addressed in this thesis is the shortage in the middle rental housing market in the Netherlands. This market segment, crucial for middle-income households who do not qualify for social housing but cannot afford private rentals or homeownership. The thesis aims to

provide a comprehensive analysis of this market, identify the needs and preferences of the target group, and develop strategies and policy recommendations to optimize the market, and explore solutions that could address the housing shortage and meet the demands of middle-income households.

1.4 Research questions

Based on the above information, the following research questions have been constructed. The main research question (MRQ) is:

MRQ: How can the middle rental housing market in the Netherlands be optimized to better serve its intended target group and relieve market stress?

To answer the main research question the following sub research questions (SRQ) will be answered:

- SRQ 1: What is the middle rental housing stock now in terms of price and type of dwelling?
- SRQ 2: Who are the residents that live in the current housing stock of the middle rental houses?
- SRQ 3: Who are the residents that would like to live in the current housing stock of the middle rental houses?
- SRQ 4: Is there a disbalance between the people who wants to live in the middle rental housing and the current residents of the middle rental housing stock?
- SRQ 5: What kind of housing needs and housing preferences do households wanting to live in the middle segment have?
- SRQ 6: How does the supply of middle rental housing compare to the demand of middle rental housing?
- SRQ 7: What policies or actions can the middle rental housing suppliers and municipalities develop or undertake to optimize the middle rental housing sector?

The main objective of this research is to give an advise to real estate developers what to build if they want to build efficiently for the middle rental housing market. As mentioned, in the current market of the Netherlands almost everything that is build will be sold or rented out due to the shortage of houses. But this research aims to give the advice how to meet the demand of the middle rental sector in the most proportional way.

This advice can also be adopted by governments to adjust their focus their priority policy for the target group of projects when making deals with developers.

2 Context

2.1 Housing market in the Netherlands

In the Netherlands there is a shortage of middle rental housing. According to the research of Deloitte of Boonen and Middelkoop (n.d.) the shortage in the middle rental housing sector is a shortage to 2030 of around 70,000 to 100,000 homes. In this article they assume that a middle rental house is a house with a rental price of €763 to €1063 per month. The total housing shortage in the Netherland in 2023 is a shortage of 325.000 houses, which is a shortage of 4% of the total housing stock (Capital Value, 2023). This shortage will rise to 400.000 houses in 2025 an to a shortage of 981.000 in 2030 according to (Ministerie van Binnenlandse Zaken en Koninkrijksrelaties, 2023a), if nothing changes.

The middle rental sector has with a shortage of 70.000 to 100.000 houses a significant share in the total shortage of the Netherlands. This housing shortage problem is expected to grow in the upcoming period. The expectations are drawn from the declining quantity of building permits. In 2023 permits were issued for the construction of nearly 55 thousand new residential properties. This represents a reduction of 15 percent compared to the amount in 2022. A reduced number of permits were issued, particularly for houses that are occupied by their owners, with a decrease of 23 percent. The reduction for permits for rental houses decreased by 6 percent compared to 2022. From 2017 to 2020, the average annual number of given permits was approximately 68 thousand. Nevertheless, this amount was still lower compared to the period preceding the credit crisis of 2008/2009. From 2000 to 2008, permits were issued for an average of 80 thousand new residences to be constructed annually. The number of recently dwellings receiving a building permit serves as an indicator of the number of dwellings to be built in the near future. Statistics on building permits for new construction do not include residential conversions, such as the conversion of offices into residential units. (Centraal Bureau voor de Statistiek, 2024).

In its government plans, the Dutch government writes that the targets are to build a total of 900,000 thousand houses by 2030. To achieve this, 100,000 houses per year need to be built from 2024 onwards. Judging from the building permits issued, that is not going to be achieved (Volkshuisvesting en Ruimtelijke Ordening, 2022, p.13).

With recently increased interest rates and rising construction costs, making a commercial business case is becoming increasingly difficult for market players. Boonen and Middelkoop (n.d.) of Deloitte say that they see projects being delayed and postponed due to a combination of those factors. The business case is harder to close because construction costs have risen, yield requirements are higher due to increased interest rates and potential rental income is lower due to regulation. The research of Westerhof and CBRE B.V. (2022) suggests that investors (especially private and private equity) are starting to weigh up selling rental properties on the owner-occupied market. When this results in sales, it leads to a declining (middle) rental stock the opposite of the Ministry's objectives. The first signs of the middle rental regulation for market players are already visible. As a result of the combination of the mid-lease regulation, increased construction costs and increased interest rates, market players have invested almost half as much in new-build rental housing in the period between 19 May 2022 (announcement of mid-lease regulation) and 30 September 2022 than the average investment volume of recent years in the same period (Westerhof & CBRE B.V., 2022, p24).

With this state of affairs, it is important that what is built is also the right product. Therefore, research into the right housing products is needed so that the best possible product can be built, This product should ease the pressure on the market and ideally benefit multiple occupants

when, for example, the product causes a housing flow so that multiple moves are set up with one produced house.

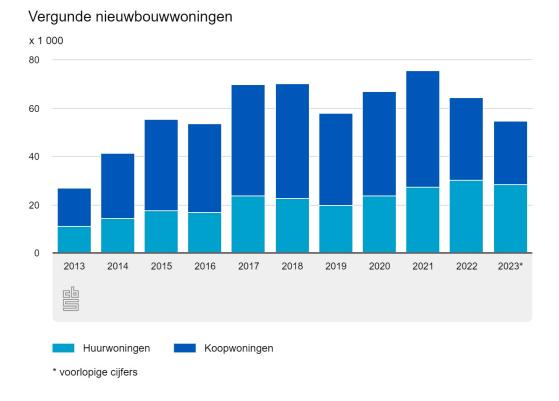


Figure 1: The number of new homes for which construction permits have been granted (Centraal Bureau voor de Statistiek, 2024)

Due to the large housing shortage in the Netherlands, basically everything that is built will be rented or sold. However, just building anything is not the right solution. For this reason, municipalities often have housing policies in which they have included what sort of homes should be built, social, medium, expensive, rent or home ownership homes. This research aims to find the most market pressure relieving housing types for the middle rental sector.

2.2 Middel rental housing sector

Middle rent is critical to maintaining a balanced housing market, with an adequate supply being particularly important. Circulation and accessibility are important themes in the housing sector. Mid-rent, for example, makes it easier to transition from social to non-regulated renting, as well as from renting to buying a first home. Middle rent houses benefit those migrating from the social sector as well as individuals wishing to sell their homes to free up equity, hence increasing housing availability in both the social and owner-occupied sectors. Thus, the mid-rent category functions as an intersection in the housing market, allowing households to move up, move on, or move back, ensuring they can always find adequate accommodation. (Gijzel, 2018)

The middle rental housing sector is not (yet) regulated to date and therefore have no demand stimulation from the government as social rent (lower land prices) and the owner-occupied segment (mortgage interest deduction) do (Boonen & Middelkoop, n.d.). In the new law the rent price increase is maximised. In the middle rental segment, annual indexation is capped at CAO wage development + 1% (Capital Value, 2024).

The government is in the process of introducing a law that should also regulate middle rent. This law was adopted by the second chamber on 25 April 2024, and has yet to be approved by the first chamber. With this law, rents in the middle rental housing sector will be regulated on the basis of the housing valuation system.

In the housing valuation system points are given to specific characteristics of a dwelling, like the floor area, facilities and qualities. The maximum price for a social rental house in this housing valuation system is in $2024 \in 876,66$ (Ministerie van Algemene Zaken, 2024b). This is also the start of the middle rental sector. According to the new law the maximum points for a middle rental house will be 186 points with correspond with $\in 1123,13$. This is then also the maximim rent price for a mid-rent dwelling. (wetten.nl - Regeling - Uitvoeringsregeling Huurprijzen Woonruimte - BWBR0015386, 2024)

The new "Law affordable rental" is designed to keep rental housing in the Netherlands affordable and accessible. This law aims to lower the rent prices of about 300,000 households, with an average drop of €190 per month. In addition, the law introduces comprehensive rental price protection by setting rental ceilings up to €1123,13 (186 WWS points), with tenants able to request a rental pricing review at any time from the Rental Commission. To ensure compliance with the law, municipalities are given the authority to take enforcement measures against tenants who exceed the maximum rental price, with possible fines for the offenders. This will contribute to a fairer and more transparent rental market. The law also encourages the development of the middle rental segment. An incentive to encourage the build of more middle rental houses is an 10% rent increase for project where the construction starts before 2028, this will give a maximum rental price of €1235,44. By modernising the Housing Valuation System (WWS) and applying a 10% new building inventory to projects starting before 2028, 100.000 new middle rental homes are expected to be built between 2022 and 2030. This improves the flow on the housing market, allowing more people to find a suitable home that matches their income. Moreover, according to the Kadaster, the sales figures for rental houses have not fallen, which means that the availability of rental homes remains stable. This is crucial forming a balanced and accessible rental market. The "Law Affordable Rental" is a response to the increasing pressure on the housing rental market, which makes it difficult for essential staff, such as teachers and care workers, to find affordable housing near their workplace. This law reduces the disturbance of local communities and allows more people to enjoy quality and affordable living space. (Volkshuisvesting en Ruimtelijke Ordening, n.d.) To conclude the middle rental house price for 2024 is set on a rent from €876,66 to €1123,13 but if a mid-rental project is built before 2028 the maximum rental price is €1235,44. There is a 10% surcharge to stimulate the market to build more projects, the surcharge on rent may be maintained for 20 years. The rent price indexation in the middle sector may be done according to the maximal rent increase according to the COA +1% (Capital Value, 2024). Here the middle rent is defined on the basis of the rent price. In the study "Function of and demand for middle rental housing." by Blijie et al. (2019), they assume the upper end of the liberalisation limit plus approximately 43% gives the range of the middle rental sector. This corresponds to the rental values mentioned above if looked at the rice with the 10% surcharge.

With this method Blijie et al. (2019) has calculated the growth of the middle rental sector since 1998. The number of middle rent houses that are being used has increased from 130 thousand in 1998 to more than 430 thousand in 2018, representing a growth rate of 236%. The middle rental housing segment's share of the total occupied housing stock increased from 2% to 5.8% during that time period. The number of houses for rent in the free rental sector has significantly grown more compared to the middle rental segment since 1998, with a growth rate of 467%.

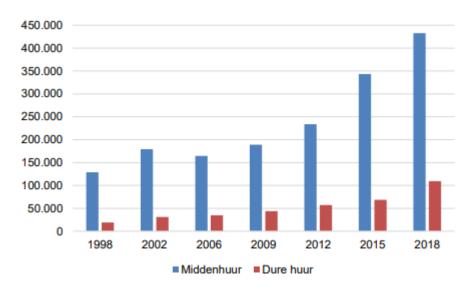


Figure 2: Size of occupied stock of medium-rent and expensive rental properties (Blijie et al., 2019)

The demand for middle rent has increased sharply, whereas in 1998-2009 demand never exceeded 5% of total demand from relocating households, it increased to 12% in 2015 then fell again to 8% in 2018 and rose to 9% in 2021 (WoonOnderzoek Nederland et al., 2022). During the research of WoonOnderzoek Nederland et al. (2022), the liberalisation threshold is set at €752.33 and in this report they refer to expensive rent if this is above €1000, This corresponds with the amount set in this report if indexed. This then also immediately indicates the range of middle rental sector. The middle rental sector is in this report not seen as a regulated sector as those regulations started to emerge in 2024.

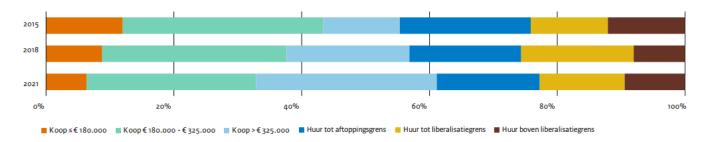


Figure 3: Desired home of actively seeking house applicants by ownership and price range (WoonOnderzoek Nederland et al., 2022)

Middle rental housing is for people who do not qualify for social housing due to too high income but who do not earn enough to either buy themselves a house because they earn too little to get a mortgage or because they earn too little to pay a high rent. In this, middle rent is an temporary sector for some and a more permanent sector for others. Such as for starters who have the prospect of a higher income or as a permanent sector for people who move on from social housing or elderly (empty nesters) who relocate to a smaller, better-suited residence. The middle rental sector is also a more permanent sector for people with a medium income, often people with crucial professions or older people who want to live in a smaller house in their old age but cannot afford to pay a high rent with their AOW. The aim middle rental housing is that they to go to middle-income households. Middle-income households are single-person households with an income of 47,699 euros to 62,191 euros and multi-person households with an income of 52,671 euros to 82,921 euros (2024 price level). Municipalities can set allocation rules for the regulated medium-rent homes via the housing permit. In this way, the homes will end up with house seekers with a middle income. (Ministerie van Binnenlandse Zaken en Koninkrijksrelaties, 2024a)

2.2.1 Importance of middle rental housing

The research of Gijzel (2018) describes several reasons why middle rental housing, plays a crucial role in the housing market. Firstly, it ensures that cities (populated areas) remain accessible to all income groups, creating a balanced and mixed community. This is good for the vibrancy and economic dynamism of urban areas. By providing sufficient mid-rent housing, households can move more freely to homes that suit their needs, allowing new residents to integrate into the city more easily. Adequate mid-rent housing enables young people to stay in the city after their studies or to find housing near their workplaces, contributing to the city's liveliness and economic activity.

Mid-rent housing is attractive to specific groups such as those who prefer renting over buying due to flexibility, those who cannot afford to buy, those who no longer qualify for social housing but find buying unattainable or people who want so live smaller on older age. This includes young professionals, knowledge workers who need temporary housing, and elderly people looking to liquidate their housing assets. For these groups, mid-rent housing offers an attractive option that combines affordability with flexibility, enabling them to adapt their housing situation to their personal and financial circumstances. Thus, the availability of mid-rent housing is crucial for accommodating the diverse housing needs of a modern urban population.

Furthermore, mid-rent housing supports a balanced housing market by facilitating movement between different housing sectors. This means people can move from social housing to mid-rent or from mid-rent to the private sector or homeownership, which in turn frees up social housing for those who need it most. It serves as a critical transition point that keeps the entire housing system fluid and responsive to changing needs. The presence of mid-rent housing helps to prevent bottlenecks in the housing market, ensuring that housing stock is used more efficiently and that people can find homes that match their current needs and financial situations.

Additionally, by offering a range of housing options within neighbourhoods, mid-rent housing helps reduce spatial segregation (distribution of social groups). This encourages interactions among residents from diverse backgrounds and income levels, contributing to social cohesion and the overall quality of life in neighbourhoods. A mixed housing stock within neighbourhoods promotes a more integrated community where people from different socio-economic backgrounds can live side by side, this improved the mutual understanding and social stability.

Moreover, mid-rent housing is attractive to investors because it offers relatively stable returns with lower risks of vacancy. This stability can attract long-term investments, ensuring the continuous development and maintenance of the housing stock. Investors see mid-rent housing as a secure investment that can provide steady income over the long term, particularly in cities with high demand for rental housing. The involvement of investors in the mid-rent sector can lead to more diverse and innovative housing developments, contributing to an overall improvement of the housing market. Gijzel (2018)

3. Market research

3.1 The middle rental housing in the Netherlands

As mentioned before, the middle rental house price for 2024 is set on a rent from &876,66 to &1123,13 but if a mid-rental project is built before 2028 the maximum rental price is &1235,44. There is a 10% surcharge to stimulate the market to build more projects, the surcharge on rent may be maintained for 20 years. The rent price indexation in the middle sector may be done according to the maximal rent increase according to the COA +1% (Capital Value, 2024). This report considers middle rent to be between &876.66 and &1123.13.

In 2021, 40% of homes in the Netherlands were rental homes, totalling 3,111,000. Of these rental properties, 13% fell in the medium rental sector.

Kerncijfers huurders en hun woonsituatie

		2015	2018	2021
Huishoudens in huurwoningen	Aantal bewoonde huurwoningen	2.950.000	3.007.000	3.111.000
	% huurwoningen in totale voorraad	41%	40%	40%
Samenstelling huishoudens	% alleenstaand	55%	56%	58%
	% paar	22%	21%	20%
	% paar met kind(eren)	11%	11%	10%
	% eenoudergezin	11%	12%	11%
	% niet-gezinshuishouden	1%	1%	1%
Samenstelling voorraad (eigendom)	% corporatiehuur	75%	70%	67%
	% private huur	25%	30%	33%
Samenstelling voorraad (prijsklasse)	% tot kwaliteitskortingsgrens	15%	16%	13%
	% tot aftoppingsgrens	45%	47%	45%
	% tot liberalisatiegrens	25%	20%	21%
	% middenhuur (2021: < € 1.000)	10%	12%	13%
	% dure huur (2021: ≥ € 1.000)	4%	5%	8%
Inkomensgroepen huurbeleid	% doelgroep passend toewijzen	55%	54%	49%
	% overige corporatiedoelgroep	19%	20%	23%
	% midden- en hoge inkomens	26%	26%	28%
Woonlasten huurders	Bruto huur	€606	€631	€ 670
(prijspeil 2021)	Huurtoeslag	€81	€ 98	€93
	Netto huur	€ 525	€ 533	€ 578
	Bijkomende woonuitgaven	€187	€183	€ 157
	Netto woonuitgaven	€711	€716	€734
	Netto besteedbaar inkomen	€2.252	€2.311	€ 2.453
	Netto huurquote	25,6%	25,0%	25,6%
	Netto woonquote	35,4%	34,5%	33,2%
Scheefheid huurders	Aantal dure scheefhuurders	402.000	335.000	353.000
	Aantal goedkope scheefhuurders	266.000	225.000	205.000
Tijdelijke huurcontracten	Corporatiehuur (totaal)			2%
	Corporatiehuur (recent verhuisden)			8%
	Private huur (totaal)			14%

Private huur (recent verhuisden)

Figure 4: Key figures tenants and their housing situation (WoonOnderzoek Nederland et al., 2022

In figure x and figure x the occupancy of the different segments of rental housing is shown. This shows that the middle rent offered by the corporations is decreasing but the middle rent offered privately is increasing, however not nearly as fast as the expensive rent.

7

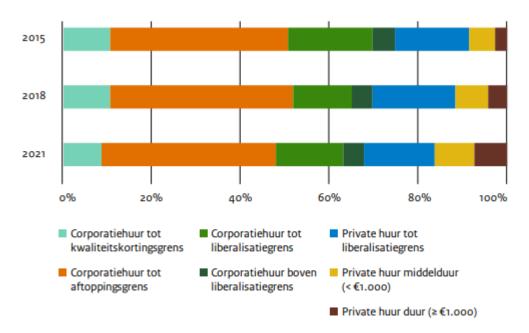


Figure 5: Development of ownership and tenant price range; 2015 to 2021 (WoonOnderzoek Nederland et al., 2022)

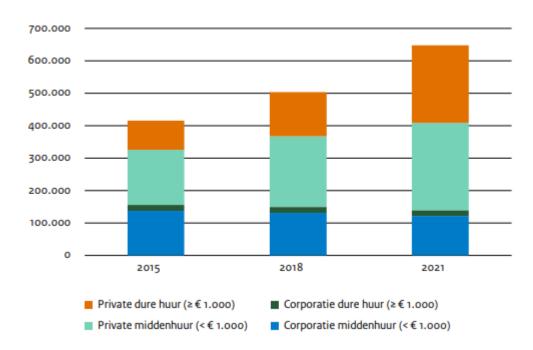


Figure 6: Development of free rental segment by type of landlord and price range (price level 2021); 2015 to 2021 (WoonOnderzoek Nederland et al., 2022)

In the report of Blijie et al. (2019) the numbers of what kind of houses there are in the middle rental housing sector are mentioned. The tables with the numbers are shown in appendix 1. Those numbers show that middle rental houses in highly urbanised areas tend to be smaller and have a higher WOZ value per square metre, characteristics that contribute to higher density and property valuation in large cities. These properties tend to be older and often pre-date 1970. This contrasts with the characteristics of mid-rent homes in less urban settings, which vary more in type and size, including a substantial proportion of single-family homes.

The tenants of middle-rent housing show a wide variation in demographic characteristics, with an strong representation of young people, single people, and migrants in the larger urban areas. The income and education levels of these tenants tend to be higher in larger cities than in

smaller, less urban municipalities the numbers also show economic separation within the middle rental segment.

House sharing is an interesting events within the middle rental market, particularly in the (very) highly urbanised neighbourhoods of the biggest cities, G4 (very strongly urban neighbourhoods in municipality with 250,000+ inhabitants), where young singles under 30 frequently share housing. This indicates an adaptation to the urban housing market, where demand for affordable housing is high.

These insights into the characteristics of middle-rent housing and its occupants are crucial for understanding the dynamics within this segment of the housing market and provide valuable information for policymakers aiming for a balanced development of rental segments in various urban and less urban contexts.

According to the research of Blijie et al. (2019) there where 415.000 middle rental houses in the Netherlands during their research. In figure x below the division of those houses is shown.

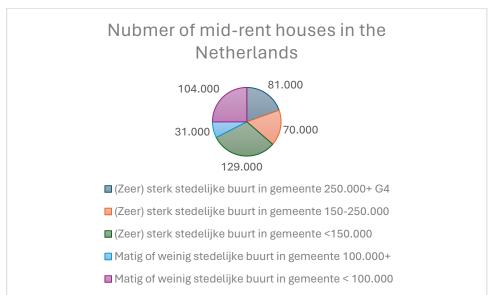


Figure 7: Number of middle rental houses in the Netherlands (own illustration with information o (Blijie et al., 2019))

From this graph we can conclude that 75% of the middle rental houses is located in city's bigger than 100.000 inhabitants. In the end of 2023 there lived approximately 6,85 million people in the Netherlands in a municipality bigger than 100.000 people (*CBS Statline*, 2024). At the end of 2023 there where almost 17,95 million people living in the Netherlands (Centraal Bureau voor de Statistiek, n.d.-a). Concluding from this 75% of the middle rental housing stock is accessible in places where 38% of the Dutch population lives.

The division of different houses within those municipalities are shown below.

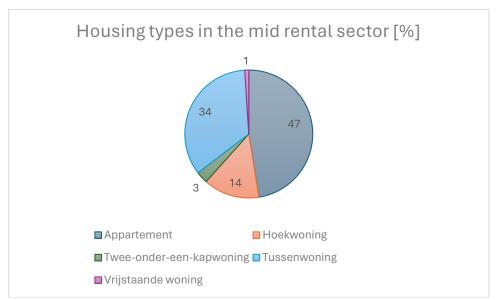


Figure 8: Division of housing types in the middle rental sector (own illustration with information of (Blijie et al., 2019))

Apartments make up by far the biggest part of the middle rental housing sector. This is also because the most middle rental houses are located in highly urbanised areas. What is also noticeable is that the stand alone houses and semi-detached houses are rare in the middle rental sector. These are often larger and more expensive houses where it is more likely that they are rented out in the free housing market or have entered the market as owner-occupied houses.

Since 1998, the number of mid-rent houses has expanded significantly, although growth has not been uniform within the segment. Single-family homes account for 41% of medium-rent dwellings, compared to 52% in 1998. Since then, the number of multi-family middle rent homes has grown faster than the number of single-family residences. Apartments with up to three rooms have experienced the most growth.

The floor space of the houses in the middle rental sector viruses, see figure x, but by far the biggest part of the current stock is between the 90 and 119 m² with two large adjoining categories of 70 to 89 m² and 120 to 149 m².

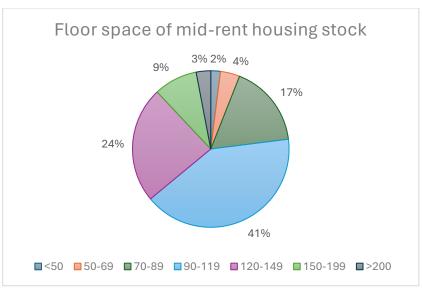


Figure 9: Floor space of mid-rent housing stock (own illustration with information of (Blijie et al., 2019))

An important sidenote to mention when considering the size of a mid-rent house is that the WOZ value of a house counts in the WWS (Woning Waardering Stelsel) which means that a more

expensive house gets more points. As a result, houses that are in a less favourable location and have a lower WOZ value are more likely to fall within the margins of a mid-rent house. Whereas if the same house were located in a favourable location, what results in a higher WOZ price the number of points of the same house would be above the maximum number of points of the median rent.

According to (Blijie et al., 2019) nearly 30% of households seeking mid-rental housing prefer a single-family home, while the remaining 70% opt for multi-family residences. 40% of house seekers desire a home no larger than 80 square meters, while 15% are looking for larger homes of 120 square meters or more. Also the location is important for many home seekers. Those seeking mid-rental housing tend to prefer more urban settings compared to the broader group of home seekers. There have been no significant changes in the desired living environments. Households already residing in mid-rental homes are much less likely to want to move within the same segment (16%) compared to those living in regulated rental housing or mid- to high-priced owner-occupied homes. This underscores the transitional role that mid-rental housing often plays.

3.2 The tenants of rental houses in the Netherlands

The mix of households renting properties in the free rental sector differs from that of tenants in the regulated segment. While the regulated rental segment primarily serves individuals and single-parent families, many couples live in the free renting sector. This is mostly driven by income: two-income households quickly earn too much to qualify for social rent. More over one-third of free market renters are couples, with nearly half of them under the age of 35. Also many couples with children live in the free rental sector. This can be seen in figure x.

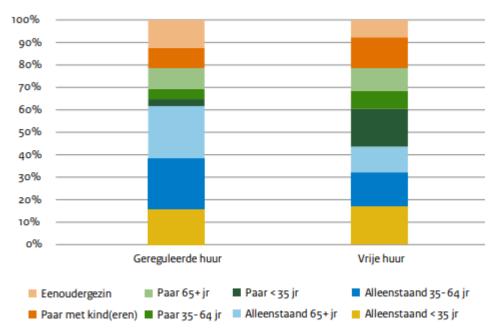


Figure 10: Composition of tenants in the regulated rental segment and the unregulated rental segment by household type; 2021 (WoonOnderzoek Nederland et al., 2022)

Figure x shows the changes in composition of tenants by household types. The majority of tenants, specifically 58%, are single. Following this, there is a representation of couples (21%), followed by single-parent families (11%) and couples with children (10%). Since 2015, there has been a small increase in the proportion of individuals living in rental properties.

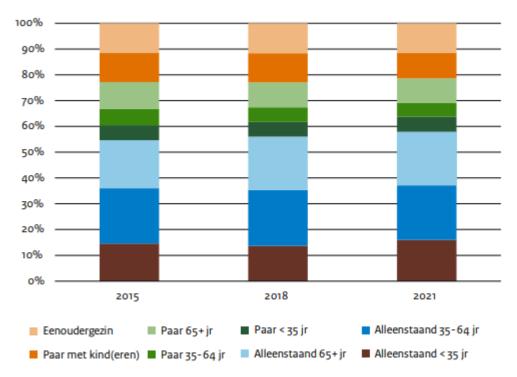


Figure 11: Composition of tenants by household type; 2015 to 2021 (WoonOnderzoek Nederland et al., 2022)

Middle- to high-income households have few to no options for renting a house regulated by an housing association. The supply of regulated housing in the private segment has also decreased since 2018. As a result, these rental households frequently have to choose between a mid-rent home (between the liberalisation threshold and $\{0.000\}$ at the time of publication of the WoOn raport 2021) and an expensive rent (from $\{0.000\}$). Between 2015 and 2016, the number of rental properties in the dree market increased by 56%, from 415,000 to 638,000. In particular, the number of dwellings in the more expensive housing sector.

3.2.1 The target group of middle rental housing

As mentioned earlier the goals of the government for the middle rental housing is that they to go to middle-income households. Middle-income households are single-person households with an income of 47,699 euros to 62,191 euros and multi-person households with an income of 52,671 euros to 82,921 euros (2024 price level). This is just above the income requirement of social rent. Those people do not come eligible for social rent but can also afford a high-rent or owner-occupied house. Municipalities can set allocation rules for the regulated medium-rent homes via the housing permit. In this way, the homes will end up with house seekers with a middle income. (Ministerie van Binnenlandse Zaken en Koninkrijksrelaties, 2024).

The target group of the middle rental sector thus concerns people who earn too much for the social rental sector. For single person households this is a maximal income of €47,699 per year and for multi person households this is a maximal income of €52,671 per year (Ministerie van Algemene Zaken, 2024a). In the Netherlands, house affordability is frequently calculated using the housing quota (in Dutch: woonquota). This includes comparing housing prices to income. According this Quota, 30% is considered an acceptable norm. This method does not include household composition. Rent affordability is mostly determined by income, but it also depends on household type. After all, a single parent incurs different expenses than a large family. Furthermore, a larger salary does not always translate into a higher, more reasonable rent. For example, tenants with high healthcare expenses, have less money available for other expenses. (Woonsector - Nibud, 2022)

Stone (2006) stated that taking a quota as ratio method has flaws and provides an inaccurate picture of how households experiences the relation between housing costs and income. Understanding the specifics of housing costs can help create a more accurate idea of affordability. This concept focuses on the relationship between income, housing costs, and non-housing demands. The residual income approach does not produce a straightforward rule of thumb ratio. Instead, it results in a sliding scale that recognises that true affordability is affected by variations in household composition and income

In the introduction it is stated that: Middle rental housing is for people who do not qualify for social housing due to too high income but who do not earn enough to either buy themselves a house because they earn too little to get a mortgage or because they earn too little to pay a high rent. Combining this with the information the of Stone (2006) about the residual income approach and the max income for social rent gives he target group for the middle rental housing sector. In conclusion the target group earns more than $\{47,699\}$ per year for a single person households and more than $\{52,671\}$ per year for a multi person households. And the residual spendable income is around the maximum middle rent price which is set at $\{1123.13.$

3.4 Housing preference

In the middle rent target group, we have different groups. People who use the middle rent as an upscale sector. These are often straters who are starting work and cannot yet buy a house or pay a high rent. These residents will live in a middle rental house for several years before moving on to an expensive rental or owner-occupied house. On the other hand, there are those who move back from a large house to a smaller middle rental house. This is usually because a large house has become too big, and physical complaints are often the main reason for moving down. In between these two is a group that wants to live more permanently in a middle rental house because the regular salary falls in the scale of the middle rental resident.

A starter in the rental market is someone who starts renting independent accommodation for the first time. A starter in the rental market is generally defined as a household that becomes the main occupant of independent living accommodation after moving. This household may be newly formed through circumstances such as marriage, cohabitation, divorce, independent living or immigration (Centraal Bureau voor de Statistiek, n.d.-b).

Young adults often show a strong preference for urban locations close to work opportunities, public transport, and facilities like shops and entertainment. They tend to choose central urban areas to benefit from proximity to work and social activities. Compact housing units, such as apartments, are favoured due to lower costs and ease of maintenance. There is a growing interest in high-quality compact housing that offers good design and modern amenities, aligning with the dynamic lifestyle of young adults who value flexibility and convenience. Flexibility in rental contracts is crucial for young adults, who may change jobs or pursue further education. They appreciate contracts offering shorter terms or options for early termination. Safety and a good living environment, with a safe neighbourhood and reliable landlords, are also important considerations. Affordability remains a significant challenge, as young adults often spend a large portion of their income on rent, limiting their financial flexibility. Affordable rental prices are essential, with a strong preference for housing that fits their budget without sacrificing quality. Overall, young renters seek a balance between comfort, convenience, and economic feasibility. Their preferences include urban locations, compact and high-quality housing, modern amenities, flexible rental contracts, and affordability. (Opit et al., 2020)

Families and couples with a desire to have children have clear housing needs that are related to their life course. According to the life course approach, changes in relationships and household

size are strongly linked to changes in the housing situation. For families, the birth of a child often leads to a desire to move because the current home is no longer suitable. These moves mainly occur just before or just after the birth of a child, when the need for a larger home and a child-friendly living environment arises. (Laarman & Van Dam, 2018)

Families generally seek stability and security. This means a place that offers financial security, located in a safe, green environment suitable for their children. They prefer living in or near the city because of the accessibility to work, but at the same time they avoid the most urban and crowded areas. This means they are attracted to the outskirts of cities and green urban suburbs. Despite these preferences, the number of families living in cities has grown significantly over the past two decades. Three factors explain this growth: a revaluation of urban living, an improved urban housing supply that better suits families' needs, and housing market constraints that prevent families from moving. The revaluation of urban living stems from the benefits cities offer, such as proximity to amenities and easy access to work and childcare. (Laarman & Van Dam, 2018)

Research on the housing preferences of adults aged 55 and up suggests that they prefer to live in residential neighbourhoods. They prefer three and four-bedroom homes, with additional rooms generally desired for guest, study, or storage space. The majority of this demographic does not value additional paid services, but those who do choose cleaning, garden upkeep, and concierge services. Furthermore, more than 90% want their future house to be wheelchair-accessible or easily customisable. The living environment is also quite important to elders. They like a green, peaceful environment with convenient facilities such as shopping, public transport, and medical care. Many seniors prefer to live close to family and friends in order to maintain social interaction. The safety and accessibility of the neighbourhood are critical considerations. Financial position also influences seniors' home selections. The cost of housing, including upkeep and electricity, must stay affordable. Seniors desire an energy-efficient house to lower their monthly bills. Seniors want their homes to be life proof. This means that the home should be ground-level or have a lift, have wide doorways for wheelchair access, and be ready to install assistance such as stair lifts. In general, seniors prefer a house where they may live independently for as long as possible, with the option to receive care at home if necessary. (Hoetjes et al., 2022)

3.5 Movers in middle rent: households, motive and previous home

With the research of Blijie et al. (2019), it is possible to identify and examine a set of households that have recently relocated into a middle rented house. In each case, these are households that have moved into a mid-rented house during the two years preceding the WoON survey. The people participating in this research moved recently, they may also have lived in a medium rented house before moving (see appendix 3).

In the recent analysis of the mid-rent housing market, it has been observed that the demographic and income characteristics of new tenants have undergone a shifts. The group who have recently moved into mid-rent housing, 36% are singles and 38% are couples, families make 17% and single-parent families 8% of the whole. Over time, there has been a slight decline in the proportion of families, whereas single-parent families have seen an increase. The composition of singles and couples has remained stable without notable changes.

Income distribution among these newcomers has also evolved. Since 2002, there has been a noticeable decrease in the proportion of new entrants from the highest income quartile, dropping from 19% to 13%. Meanwhile, those within the middle income quintile have increased to 35%. This shift likely results from the 2011 introduction of income caps for social housing eligibility.

Furthermore, the proportion of newcomers with lower earnings has declined, accounting for only 7% in 2018.

The percentage of new entrants relying on pensions has decreased since 2009, whereas those earning from wages have dramatically risen, reaching 77% in 2018.

The age distribution of the mid-rent housing market is becoming more youthful. In 1998, only 32% of households in mid-rent housing were under 35 years old; by 2018, this figure had risen to 55%. In contrast, the proportion of elderly persons aged 65 and up has dropped significantly, from 26% to 11% within the same time period. This demographic shift highlights a growing trend of younger households shifting into mid-rent housing, which reflects larger changes in housing needs and preferences.

Of all recent movers, 20% were starters, 18% were semi-starters, 18% moved on from buying, 38% moved on from renting, and 5% moved from abroad. Since 1998, the share of starts and semi-starters has almost doubled. The percentage of people who leave their purchases home has reduced. Relocations within or to the middle rental therefore increasingly involve first-time buyers and semi-starters. Particularly for these groups, the medium rental property has therefore become more important.

People who moved to middle-rent housing have a variety of moving motives. For 30%, living together or ending a relationship is the main reason for moving. For 18% the house or living environment is the main reason and for 12% study or work.

According to Blijie et al. (2019) 44% of households looking to move to a mid-rental home are single individuals after the desired move, 44% are two-person households, and 12% consist of households with three or more people. There have been no significant changes in these proportions over time.

Almost half of the prospective movers (46%) are in the age group up to 35 years, a share that has remained relatively stable over time. Of those seeking mid-rental housing, 42% are moving from another rental property, 30% are first-time renters, 4% are semi-starters, and 24% are moving from owned properties. During the housing market crisis of 2012, a larger proportion of seekers (30%) were moving from owned homes. As the housing market recovered and the popularity of owning homes increased, this proportion has decreased. Thus, mid-rental housing serves as a viable alternative for some homeowners when buying becomes unattractive due to market conditions, such as the risk of depreciation.

The reasons for moving among those preferring mid-rental housing are varied: 10% cite cohabitation or separation as the main reason, 32% mention the house and/or living environment, 16% want to live independently, and 17% cite health reasons. No clear trend is observable in these motives.

28% of seekers wish to move to a different municipality than their current one, a proportion that has not significantly changed since 2009/2012. Additionally, in the WoON survey, prospective movers also indicated why they have not yet found a suitable home. For 16% of those seeking a mid-rental home, the high prices are a major barrier.

3.6 Demand for mid-rent housing

Based on housing projections and anticipated household growth, the development of the statistical housing shortage can be outlined, this can be seen in figure x. The shortage is estimated to be 390,000 homes in 2023, representing 4.8% of the housing stock. It is expected that the shortage will remain relatively unchanged in the early years, reaching 397,000 homes by

2027, which would constitute 4.7% of the housing stock. Following this period, the growth of the housing stock is anticipated to outpace household growth, leading to a decline in the shortage. By 2031, the shortage is projected to decrease to 330,000 homes (3.8% of the stock). Further reductions are expected, with the shortage estimated to be 205,000 homes (2.2% of the stock) by 2038. (Gopal et al., 2023)

Should the government's goal of a gross production of 900,000 homes by 2030 be achieved, the shortage could be reduced to 3.0% of the housing stock by 2031. However, this assumes that the additional homes are built in regions with the highest shortages. (Gopal et al., 2023)

It is important to note that there are significant uncertainties regarding future housing shortages which will elaborated on later in this paragraph.

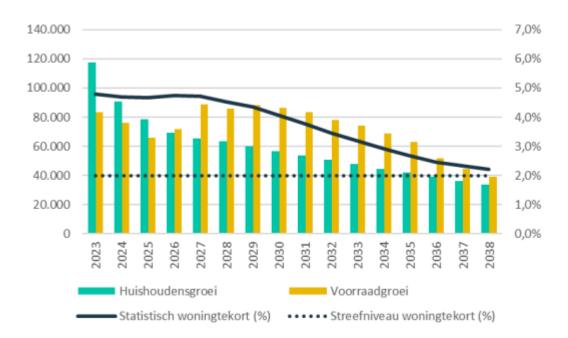


Figure 12: Development of households, housing stock and statistical housing deficit, 2023 to 2038 (Gopal et al., 2023)

The abf research report of Blijie et al. (2019) addresses the future demand for mid-priced rental housing and the necessary expansion of the housing stock to meet this demand. The analysis utilizes the Socrates 2019 housing market simulation model. A tool designed to simulate and analyse the dynamics of the housing market. This model aims to provide insights into various aspects of the housing market, including supply and demand, price fluctuations, the impact of policy measures and demographic trends and income developments to project long-term housing needs (Gopal et al., 2019). Blijie et al. (2019) emphasizes multiple scenarios to account for uncertainties in key factors affecting future housing demand.

The uncertainties impacting future housing needs include household growth, income development, housing preferences, housing production, and rental policy. Socrates 2019 differentiates between three income scenarios Low, Middle, and High. Each considering variations in these uncertainties. These scenarios guide the projections of housing demand and the necessary supply of mid-priced rental housing.

The desired new construction and stock expansion needs to be taken into account. The growth of the middle rental sector can occur through rent adjustments, conversions from owner-occupied to rental units, and new developments. The last option, driven by municipal and provincial policies, plays a significant role. Therefore, both new construction and net stock development

(new builds minus demolitions, sales, and rent adjustments) are analysed to provide a comprehensive picture of the desired growth.

For the period 2019 to 2030, the forecasts of Gopal et al. (2023) project a total new construction of 887,000 housing units, based on existing municipal plans and anticipated household growth. This figure partially addresses the current housing shortage. The qualitative aspect of new construction is aligned with the needs of market movers to enhance housing market dynamics.

The Middle scenario suggests a consumer oriented new construction of 57,000 mid-priced rental units, accounting for 14% of the existing stock. This translates to an average of 4,800 new mid-priced rental units per year, or 6% of the total projected new construction. The need is predominantly for apartments, which comprise 86% of the projected new mid-priced rental units, with single-family homes making up the remaining 14%.

The future demand for middle rent is uncertain and depends on a range of factors. In particular, access to land affordability of the owner-occupied and social rented sectors are important. Some of the key factors are listed below.

- Labor Market Flexibility: Increasing flexible contracts.
- Access to Social Housing: Policies regarding maximum income thresholds.
- Access to Homeownership: Mortgage financing norms and loan-to-value ratios.
- Affordability of Homeownership: Housing price developments and fiscal policies (e.g., mortgage interest deduction).

Changes in these factors can lead to shifts in housing preferences among households, thus affecting projections of mid-priced rental housing needs.

The report of Gopal et al. (2023) confirmed that forecasts are highly uncertain. Given the large number of factors influencing demographic processes, it is not possible to use reliability and/or accuracy measures to make statements about which range to take into account.

The projections highlight a significant need for new mid-priced rental housing to address future demand. This need is driven by demographic trends, economic conditions, and policy frameworks. The findings of the abf research underscores the importance of flexible and responsive housing policies to ensure adequate supply and meet the evolving needs of midincome households.

3.7 Housing Flow

According to the report "Toegang tot de stad "by (Rli [Council for the Environment and Infrastructure], 2020), baby boomers are a big part the flow of the housing market. The birth wave from just after World War II stretches over about 25 years. Many people from this generation now have children who have left their parents' home. For the supply of existing housing that becomes available through flow through the housing market, it matters a lot what these people will do now that they are no longer form a family household. If they take a 'step back', for instance to an apartment, their house becomes available for young (future) families. If they don't, it could be a long time before the property becomes available by 'natural way'. In that case, ageing will lead to more and more family homes being occupied by non-families: singles and couples without children. As a result, existing housing space will be used less and

less efficiently. Recent research shows that many attics and rooms are already empty. In particular, households over 50 years old live remarkably spacious. The research also shows that the group between 35 and 50,households that are mostly in the family phase, often live relatively small (Crutzen et al., 2020).

Dutch municipalities identify the slow relocation of elderly people from larger homes to smaller ones as a big cause of the housing crisis. 55% of the municipalities believe that poor mobility among seniors is the primary issue. Many elderly individuals remain in homes that are too large for their current needs, leading to a shortage of available properties for younger families and first-time buyers.

Municipalities emphasise that difficult and slow bureaucratic processes, along with strict regulations, make the problem worse. They argue that if older adults moved to more suitable accommodations, it would free up larger homes for others, with will reduce the housing shortage . However, senior organizations such as KBO-PCOB criticize this viewpoint, suggesting that the lack of suitable and affordable housing options for the elderly is a significant barrier. (Van Der Parre, 2021)

The report of Geuting and Timmen (2021) delves in the importance of promoting housing mobility among the elderly within the framework of the "Golden Triangle" of social rent, midrange rent, and affordable ownership. As the Dutch population ages, particularly outside urban areas, the need for housing for older adults has become a significant spatial challenge. This aging trend, combined with a general trend towards smaller households, has led to inefficient use of the housing stock, contributing to the current housing crisis. There is a critical need for more suitable housing for the elderly to improve mobility and free up larger homes for younger families. This would enhance the housing market's functionality by making better use of existing homes and providing more options for all age groups. New housing developments for seniors can trigger multiple subsequent moves, significantly impacting the market more than starter homes alone.

Building homes that bridge the gap between independent living and traditional care facilities can address the reduced capacity in nursing homes and better serve the growing elderly population. Contrary to the belief that older adults are reluctant to move, many are willing to relocate if appropriate options are available. Promoting housing mobility can also reduce future social costs. For example, life-cycle housing reduces the need for costly home modifications and lowers municipal spending on social services. Municipalities, provinces, and housing corporations can support this mobility through relocation assistance programs and incentives. Geuting and Timmen (2021)

A comprehensive housing strategy that includes various housing types suitable for different stages of life is essential. This strategy should address the diverse needs of the elderly while ensuring financial feasibility for all. This approach would significantly improve housing availability and efficiency, benefiting both the elderly and younger generations. Overall, a well-rounded approach that includes building suitable homes, providing financial incentives, and ensuring a diverse housing market is crucial to address the housing crisis effectively. This requires cooperation across different levels of government and sectors to implement sustainable solutions.

As the Dutch population ages, the demand for housing is shifting. The increase in households is now more driven by migration than natural growth, with a significant rise in the number of elderly residents. This aging trend, most pronounced outside urban areas, presents a major spatial challenge for the housing market. The proportion of elderly individuals, is increasing, and demands attention. The trend of smaller households, with more couples and singles, has led to inefficient use of housing stock. Despite a housing shortage, the occupancy rates are lower than ever. There is a lack of suitable housing for the elderly across all price segments, both in rental and ownership sectors. (Geuting & Timmen, 2022)

Improving the flow of elderly people through the housing market benefits both seniors and younger generations. Creating enough suitable housing for the elderly is crucial for market functionality, enabling more people to find appropriate housing and making better use of the existing stock. For example, building new homes for seniors can trigger multiple moves, significantly impacting the housing market more than adding standard row houses. New types of housing that bridge the gap between independent living and care facilities are needed to address the reduced capacity of traditional nursing homes and create flow in the housing market. This approach not only meets the diverse housing needs of the elderly but also reduces future social costs, associated with home modifications and healthcare. (Geuting & Timmen, 2022)

It is a misconception that elderly people are unwilling to move; even with limited suitable options, many 70-plus households continue to relocate, often leaving behind larger homes for smaller apartments. There is a strong demand among seniors for a variety of housing types that cater to their specific needs (Geuting & Timmen, 2022). A key to success is creating diverse housing options that meet the needs of different groups of elderly people. These options should include a mix of apartment and ground-level homes, as well as individual and shared living arrangements, in both urban and suburban settings. Financial considerations are crucial, as many seniors are used to low living costs and may find new, suitable housing expensive. Also elderly are bound to their income, they don't have the opportunity to make more money. However, with attractive enough options, many seniors are willing and able to make the move. (Geuting & Timmen, 2022)

Many elderly people live in relatively large family homes that no longer meet their needs, but there are not enough suitable and affordable alternatives available for them. This problem is exacerbated by a lack of middle rental housing, which could play an important role in promoting flow in the housing market.

The limited availability of middle rental housing means that seniors are less likely to move to housing that better suits their current stage of life. As a result, they stay in their larger family homes, hindering the flow in the housing market. If there were more middle rental houses available, this could encourage seniors to move to smaller, suitable homes. This, in turn, would free up larger family homes for younger families and first-time buyers, contributing to better use of the existing housing stock and alleviating the housing shortage.

Increasing the availability of middle rental housing is essential to improve flow in the housing market. This will not only help make more efficient use of the existing housing stock, but also reduce housing shortage by freeing up larger family homes for the groups that need them most.

3.8 Housing space distribution

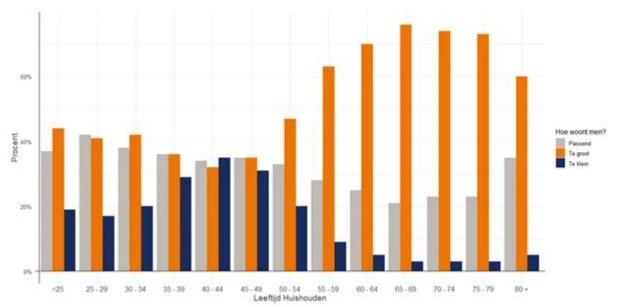


Figure 13: Age and floor space of household (Sollie, 2020)

In Figure x the disbalance of peoples age and living situation in terms of space are set out. Over the years, the addition of certain types of housing has congested the housing market, resulting in smaller households living in larger homes and larger households in smaller ones. Recent research by Springco Urban Analytics indicates that constructing more mid-priced and expensive apartments could significantly improve the housing market flow. Many households aged 55 and older, known as "empty-nesters," are living in spacious homes. Interesting is that, nearly one in three is likely to move, especially those residing in apartment buildings without elevators. (Crutzen et al., 2020)

Among empty-nesters considering relocation, almost half feel their current homes are too large. Other significant factors driving their potential move include health concerns, a desire for a different environment—either more urban or rural—and the aim to save on living costs. Many empty-nesters prefer apartments with elevators, but a notable proportion still prefers ground-level homes or even detached houses. This preference is particularly strong in rural areas, where properties are often more affordable.

Affordability and ownership type are critical considerations for empty-nesters. Most prefer to maintain their current type of home ownership. Those in private rental properties often wish to move to more affordable rent due to financial considerations, especially as they approach retirement. However, empty-nesters face barriers when trying to move, such as income thresholds for social housing and higher costs for smaller homes.

Building housing that meets the needs of people who live in a spacious house that don't need the space can free up larger homes for families facilitating more housing movements, thus easing the housing market bottleneck. Analysing the potential of housing transitions reveals a clear need to construct suitable homes for empty-nesters. This approach could effectively balance the supply and demand in the housing market, ensuring that the right types of homes are available for various household needs. (Crutzen et al., 2020)

3.9 Housing distribution policies

Municipalities can set allocation rules for regulated mid-rent homes through the housing permit. That way, the homes will end up with house seekers with at most a middle income (Ministerie van Binnenlandse Zaken en Koninkrijksrelaties, 2024b).

The municipality of Rotterdam has stated in their housing vision. In order to ensure that the right target group ends up in these houses, middle-income and key occupations are given a preference over other target groups when allocating middle rent in new buildings and from liberalisations. Where necessary, they will use public law instruments for this purpose, such as the housing regulation. They also will revise the target group regulation and align it to the their new housing policy. (Gemeente Rotterdam, 2024)

3.10 Conceptual framework

A conceptual model is a visual map of the relationships between the key concepts and variables identified in the conceptual framework. Figure x shows the conceptual model for this research about availability, accessibility and right product of the middle rental housing market in the Netherlands.

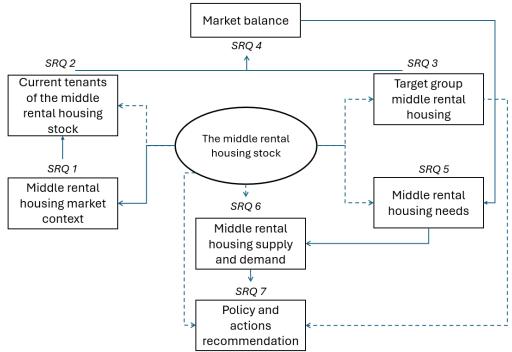


Figure 14: Conceptual framework (own work)

The housing shortage in the Netherlands is a big issue, this is also a big issue in de middle rental sector, in the housing shortage lays the problem of the housing market which is the reason this research looks for a optimal product in the middle rental housing market to relieve as much stress as possible.

This section outlines the conceptual model designed to optimize the middle rental housing market in the Netherlands. The model integrates various research questions to provide a structured approach to understanding the dynamics of the housing market and developing targeted solutions to meet the needs of the intended target group. The model's components are described below, followed by an explanation of their interconnections.

The component "Middle rental housing market and context" (SRQ 1) the model focuses on the current housing stock and market context. This involves understanding the types of dwellings available (e.g., apartments, single-family homes, 1, 2, 3, 4 rooms etc.), rental prices, and the characteristics of the existing housing stock. Understanding the current market context sets the foundation for further analysis, helping to create a clear starting point for examining the middle rental housing sector.

The component "Current tenants of Middle Rental Housing stock" (SRQ 2) examines the composition and characteristics of current residents in the middle rental housing. It looks into

the income levels, housing needs, and preferences of these residents. Understanding who is currently living in medium-rent housing is crucial to identify their characteristics and needs. The component "Target group middle rental housing" (SRQ 3) focuses on identifying the group who would like to move into middle a rental house, along with their demand characteristics. By examining the demand from potential residents, this component provides insights into needs of the middle rental housing market, this can helps in planning for adequate housing supply. The components "Market balance" (SRQ 4) analyses the balance between the current residents of the middle rental housing market and people who are looking for a house on the middle rental housing market. This is important to find oud the demand of in the middle rental housing market.

The component "Middle rental housing needs" (SRQ 5) looks into the particular types of dwellings needed in the middle rental housing market for the group of the house seekers. This is determent to make up a comparison with what the current supply is in the market. The component "Middle rental housing supply and demand" (SRQ 6) focuses on the balance between the current supply on the market and demand for middle rental housing. Understanding the balance or imbalance between supply and demand is important for identifying the housing market needs. Examining the mismatches in the market can ensure that the middle rental housing market is optimized to effectively and efficiently serve the intended target group. The last component "Policy and actions recommendation" (SRQ 7) involves developing policy and action recommendations to address the identified mismatches and improve the overall function of the housing market. This focuses on housing allocation policies, municipal and supplier strategies. These recommendations aim to reduce mismatches in the housing market and enhance its efficiency and effectiveness in meeting the needs of middle-income residents.

4 Methodology

This chapter explains more about the main- and sub- research questions and the way they will be answered. Also the research methodology will be examined and with which instruments the research questions will be answered.

4.1 Type of study

To answer the research questions, and mixed method research will be used. First a literature review is conducted, after which both quantitative and qualitative research will be used. First, a questionnaire will be used to collect information from residents of the middle rental sector and people looking for a suitable home who are currently living too large, these are often empty nesters. The survey aims to gather quantitative data on housing preferences, moving plans and the obstacles these people face. After the survey, we will interview these people to obtain more specific information about their housing needs through qualitative research.

4.2 Methods and instruments to be used

The main research question (MRQ) will be answered through the sub research questions (SRQ). This involves answering the question through literature research, quantitative and qualitative research.

MRQ: How can the middle rental housing market in the Netherlands be optimized to better serve its intended target group and relieve market stress?

The objective is to explore and identify potential strategies and solutions to improve the functioning and effectiveness of the middle rental housing sector in the Netherlands. The goal is that in the final conclusion the specific housing type or types that could best be built to relieve the most stress of the middle rental housing market will be determent. This research involves understanding the specific requirements, preferences, and challenges faced by the intended target group of the middle rental housing market. It also requires examining the existing problems and inefficiencies within the middle rental housing market, such as supply shortages, and market imbalances.

The outcome of this research seeks to improve the accessibility of the middle rental housing market for the target group, ensuring they have access to adequate, affordable, and suitable rental housing options. By addressing these points, the aim is to contribute to a more effective and equitable middle rental housing market in the Netherlands.

To achieve these objectives, various methods and instruments will be used. Quantitative research will be the start of this research, setting out he optimal middle rental market to the current middle rental market to see if there is a disbalance. After this the research will be made more specific to the Rotterdam area and it will include a survey and interviews to gather detailed information from the target group about their housing preferences and willingness to move. This is also important to identify current market issues and inefficiencies, This approaches will help formulate effective strategies to optimize the middle rental housing market in the Netherlands in general and more specific Rotterdam.

To answer the main research question the following sub research questions (SRQ) will be answered:

SRO 1: What is the middle rental housing stock now in terms of price and type of dwellings?

Objective: Creating the context of the research so that there is a clear starting point from which to navigate. By creating this starting point, the rest of the research can be better understood by any reader and placed in the right context.

Methods & instruments: To answer those questions, there will be an examination of existing studies in the Netherlands on the housing market, specified on mid-rent housing. This defines the mid-rent sector and provides an outlook on the possible future of this sector and the uncertainties involved.

SRQ 2: Who are the residents that live in the current housing stock of the middle rental houses?

Objective: The purpose of this question is to find out what kind of groups are assigned to the middle rental housing sector by their financial situation combined with their housing needs. Methods & instruments: This question will be answered on the basis of desk research to previously done research and later possibly with an survey conducted among current residents and possible future residents of the middle rental sector in Rotterdam to make the data more specific.

SRQ 3: Who are the residents that would like to live in the current housing stock of the middle rental houses?

Objective: This question will be answered to find out the current demand for middle rental housing in the Netherlands.

Methods & instruments: For answering this question existing data will be used for previous researches.

SRQ 4: Is there a disbalance between the people who wants to live in the middle rental housing and the current residents of the middle rental housing stock?

Objective: This question compares the current tenants of the mid rental houses with the people who are looking for mid rental houses and looks to the mismatch in those groups. Methods & instruments: For answering this question existing data will be used for previous researches.

SRQ 5: What kind of housing needs and housing preferences do households wanting to live in the middle segment have?

Objective: What are the exact housing requirements of these groups, what sort of housing do they need is an factor. The outcome can contribute to future housing projects, these projects can make a better choice of the type of housing to be developed through this research. If this information is known an advise can be given to real estate developers and municipalities what middle rental housing is the best to build to serving house seekers in the middle rental sector as efficiently as possible

Methods & instruments: Quantitative research should reveal for which housing type in the middle rental sector the shortage is the highest. Also desk research on housing concepts and questioning house seekers in an survey about these housing concepts and their opinion on those to indicate which housing forms may be suitable to relieve housing pressure.

SRQ 6: How does the supply of middle rental housing compare to the demand of middle rental housing?

Objective: Figuring out the disbalance in the middle rental housing market.

Methods & instruments: The data of the previous questions will be used in quantitative research to plot the data of the occupancy of the middle rental houses and the target group of middle rental houses against each other.

SRQ 7: What policies or actions can the middle rental housing suppliers and municipalities develop or undertake to optimize the middle rental housing sector?

Objective: Finding possible options to allocate certain types of housing to the most suitable target group.

Methods & instruments: To answer this question desk research will be needed to the particular regulations about the allocation of homes. Also a case research and interview will be done about one of Sustay's project where they assigned homes to specific groups of elderly people from the neighbourhood.

4.3 Research Model Research model Finding the most optimal housing product for the middle rental ho recommendations on how to produce and distribute those dwellings Research questions MRQ: How can the middle rental housing market in th Netherlands be optimized to better serve its intended group and relieve market stress? SRQ 1 SRQ 1 SRQ 3 SRQ 2 SRO 2 SRO 5 SRQ 1: What is the middle rental housing stock now in terms of SRO 5 SRO 7 SRO 3 SRQ 4 SRQ 2: Who are the residents that live in the current housing stock of the middle rental houses? SRQ 3: Who are the residents that would like to live in the current housing stock of the middle rental houses? SRQ 6 ive in the middle rental housing and the current residents of the middle rental housing stock? Data collection Desk research (existing studies & data) Survey for focus group, target group and current tenants of mid rental houses in Rotterdam (200) Case study from Sustay about priority arrangements for a specific Desk research → SPSS (Inferential Statistics) Survey → SPSS (Descriptive Statistics) Case study → Thematic analysis → Thematic analysis SRQ 6: How does the supply of middle rental housing compare to the demand of middle rental housing? target group (1) Interviews with, investors/developers of mid rent projects and project supervisors of real estate projects of the municipality of Identification of specific housing types that are most needed in the middle rental sector Recommendation for Developers and policymakers on what to build in the middle rental housing sector and how to get the right target group in those houses.

Figure 15: Research model (own work)

This study is organised into three parts, literature research, quantitative research and qualitative research. The literature research is used to investigate the middle rental market in the Netherlands. The quantitative research is meant to use the data to draw conclusions about the current demand from the target group of the middle rental market. The qualitative research is meant to look more closely at a specific market, in this case Rotterdam, and at a case study of Sustay in terms of the possibilities around housing allocation.

4.3 Data Collection

Desk research and Quantitative research will be conducted to gather existing information and data of previously done research on the middle rental housing market. This will involve reviewing academic journals, government reports, and statistical databases to provide a broad analysis that establishes context and identifies literature gaps. The data collected through desk research will be analysed using SPSS for inferential statistics to derive meaningful insights. Also surveys will be conducted to collect specific data on housing preferences, satisfaction rates, willingness to move, and relocation incentives among current residents and potential residents. The surveys will target 200 respondents from the middle rental housing sector in Rotterdam.

These surveys will be distributed online through contacts of Sustay. They have a lot of contacts with housing corporations and investors who have a lot of tenants in the targeted market. The collected data will be analysed with SPSS for descriptive statistics.

To gain deeper insights, qualitative research will be conducted through semi-structured interviews with key stakeholders, including members of the target group, investors in mid-rent projects, and project supervisors of real estate projects in Rotterdam. 8 interviews will be carried out, either via video calls or in person, to explore detailed views on housing needs, satisfaction, regulatory impacts, and potential solutions. The data from these interviews will be analysed using thematic analysis, which involves identifying and analysing patterns or themes within the qualitative data.

The research will also include a detailed case study of a project by Sustay, focusing on the strategies for prioritizing housing arrangements for a specific target group. This will involve reviewing project documents, and interviewing project managers of Sustay, the municipality and the investor to understand the project's objectives, implementation strategies, outcomes, and lessons learned. The findings from the case study will be analysed using thematic analysis to draw out key themes and insights relevant to the research.

4.4 Data Analyse

The data analysis for this research will have a comprehensive approach that uses mostly quantitative research to derive information from the collected data, but it will be supplemented with qualitative research. The research will begin with extensive desk research to gather existing information and data on the middle rental housing market, target group characteristics, regulatory environment, and housing strategies. This involves a thorough review of academic journals, government reports, industry publications, and statistical databases to establish a solid foundation and identify gaps in the current literature. The desk research aims to create a broad contextual analysis that informs the next stages of the study. The collected data will be analysed using SPSS for inferential statistics, which will help in identifying significant trends and patterns. By using existing studies and data, the research will build a comprehensive understanding of the middle rental housing sector, providing a crucial baseline that supports and guides the more targeted data collection, as the survey, interviews, and the case study. This foundational phase ensures that the research is grounded in the current state of knowledge, allowing for more precise and relevant findings in the later stages.

For the qualitative data from interviews and case study, a analysis will be employed to identify and report patterns or themes within the data. This process involves several steps: familiarizing with the data through transcription and repeated reading, generating initial codes for important features, collating these codes into potential themes, refining the themes to ensure they accurately reflect the data, and defining and naming each theme. The final step involves integrating these themes into a coherent narrative that addresses the research questions. Manual coding or qualitative data analysis software will facilitate this process, resulting in a thematic map, narrative descriptions, and illustrative quotes.

Lastly, a comparative analysis will integrate findings from the different data sources—surveys, interviews, and case study to provide a comprehensive understanding of the middle rental housing market to be able to give a comprehensive advise about the future of the same market. This method will involve systematically comparing and contrasting the results from these sources to identify consistent patterns and deviation. By bringing together quantitative trends and qualitative insights, this synthesis will form a comprehensive understanding of the research findings. The output will be a synthesized report that highlights the key findings, integrating statistical trends with thematic insights to provide robust conclusions and recommendations.

Overall, this rigorous and multifaceted data analysis approach will enable the research to deliver detailed and actionable insights into optimizing the middle rental housing market in the Netherlands.

4.4 Research planning

In the research planning of this master thesis we looked at the planning from week 24, as this is the week of the P2 presentation until week 4 of 2025, where the end result will be presented during the P5 presentation.

In the planning there is still time scheduled for literature study, this had should have been completed however currently, the preliminary research is mainly based on research reports in the Netherlands. More (international) literature can be added in the study to make this a more complete research. Also an is needed on the regulations and policies in the Netherlands to answer SRQ 7.

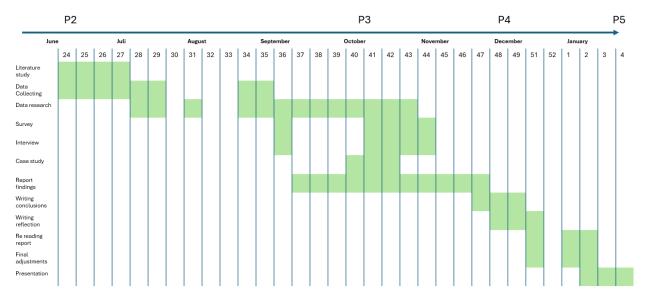


Figure 16: Research planning

4.5 Data Management & Ethical considerations

Data management planning requires careful consideration of the context in which the research data is situated. When designing a research project, a researcher must take into account the processes for data collection, methods for data storage and description, and strategies for sharing data with both current and future researchers. Data management plans provide support and help streamline the researcher's thought process. This chapter reviews and reflects on the ethical considerations and decisions made in this research and the management of its data.

Blaikie and Priest (2019) emphasize that ethical treatment of research participants, along with various facets of the research process and the involvement of sponsors and funders, is fundamentally embedded in research activities. They outline essential ethical standards that researchers must follow. Researchers are responsible for ensuring that participants voluntarily engage in experiments without any form of pressure. Obtaining consent is a fundamental ethical principle that requires full disclosure of research details. Additionally, researchers must provide participants with the explicit right to withdraw from the study without facing any repercussions. Another crucial ethical obligation is to protect participants' privacy, ensuring both their anonymity and confidentiality.

Data management involves risks, in this research we use a non-publicly accessible dataset and

personal information. The non-public data set should not be in any risk of being viewed by people who have no authority to do so. Considering and minimizing the risk is important, particularly when dealing with sensitive personal data that must be handled with care. A data leak could have consequences for the research participants. The data is collected on a voluntary basis, with participants agreeing through a signed consent form before the interview and reading an opening statement before proceeding with the survey. Consent forms inform participants about the research topic and the nature of the questions, providing legal permission to collect their data. Ensuring the protection and availability of data is crucial. The collected data will be securely stored in the TU Delft Project Storage, with a storage location on SURFdrive, which is specifically tailored for the secure storage of sensitive information. Initial interview data will be stored on SURFdrive and will only be accessible to the researcher, with the participant's name being the only personal data stored there. The data management plan, detailed in appendix 3, outlines the specific procedures for managing data.

Efforts are made to effectively mitigate the risk of compromising participant anonymity during data analysis and presentation. Personal data collected will be anonymized in the transcripts, ensuring that participants are not personally mentioned in the analysis and presentation. Personal data will not be shared outside the research group.

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Appendix

Appendix 1: Which properties there are in the middle rental housing sector

Figures from the report: "Functie van en vraag naar middenhuurwoningen" of Blijie et al. (2019)

Tabel 3-2: Aandeel woningen naar woonoppervlakte per segment, 2016; bron: CBS-microdata

Segment	Gereguleerde huur	Middenhuur	Dure huur	Goedkope koop	(Middel)dure koop	Totaal
Woonoppervlakte						
< 50 m²	9%	2%	1%	2%	0%	5%
50 - 69 m²	24%	4%	5%	9%	1%	11%
70 - 89 m²	32%	17%	9%	21%	4%	18%
90 - 119 m²	29%	41%	28%	44%	23%	30%
120 -149 m²	5%	24%	20%	19%	29%	18%
150 - 199 m²	1%	9%	21%	4%	25%	11%
≥ 200 m²	0%	3%	15%	1%	17%	7%
Totaal	100%	100%	100%	100%	100%	100%

Tabel 3-3: Aandeel woningen naar bouwjaar per segment, 2016; bron: CBS-microdata

Segme Bouwjaar	Gereguleerde huur	Middenhuur	Dure huur	Goedkope koop	(Middel)dure koop	Totaal
< 194	5 15%	12%	28%	20%	21%	19%
1945 - 195	9 14%	3%	1%	10%	6%	9%
1960 - 196	9 18%	11%	4%	17%	9%	14%
1970 - 197	9 18%	15%	4%	21%	15%	17%
1980 - 198	9 18%	14%	1%	16%	12%	15%
1990 - 199	9 9%	16%	15%	9%	18%	12%
> 200	0 8%	28%	46%	7%	19%	14%
Tota	100%	100%	100%	100%	100%	100%

Tabel 3-4: Aandeel woningen naar WOZ-waarde per segment, 2016; bron: CBS-microdata

Segment WOZ-waarde	Gereguleerde huur	Middenhuur	Dure huur	Goedkope koop	(Middel)dure koop	Totaal
<€150.000	68%	16%	1%	46%	0%	35%
€150.000 - €180.000	17%	27%	3%	42%	0%	16%
€180.000 - €220.000	9%	30%	8%	13%	24%	16%
€220.000 - €280.000	4%	22%	35%	0%	31%	14%
€280.000 - €365.000	1%	4%	27%	0%	22%	9%
>€365.000	0%	1%	27%	0%	23%	9%
Totaal	100%	100%	100%	100%	100%	100%

Tabel 3-5: Aandeel woningen naar WOZ-waarde per vierkante meter per segment, 2016; bron: CBS-microdata

Segment	Gereguleerde huur	Middenhuur	Dure huur	Goedkope koop	(Middel)dure koop	Totaal
WOZ-waarde per IIIZ						
<€ 1250 per m2	20%	11%	2%	25%	6%	15%
€ 1250 - 1500 per m2	21%	18%	10%	27%	10%	18%
€ 1500 - 1750 per m2	21%	25%	12%	24%	18%	21%
€ 1750 - 2000 per m2	15%	18%	13%	13%	20%	17%
€ 2000 -2250 per m2	10%	11%	13%	6%	16%	11%
Vanaf € 2250 per m2	14%	17%	50%	6%	31%	19%
Totaal	100%	100%	100%	100%	100%	100%

Tabel 3-6: Aandeel woningen naar stedelijkheid buurt per segment, 2016; bron: CBS-microdata

Segment	Gereguleerde huur	Middenhuur	Dure huur	Goedkope koop	(Middel)dure koop	Totaal
Stedelijkheid buurt						
Zeer sterk stedelijk	36%	31%	45%	22%	14%	25%
Sterk stedelijk	29%	37%	29%	29%	22%	27%
Matig stedelijk	17%	21%	11%	19%	21%	19%
Weinig stedelijk	11%	10%	7%	16%	21%	15%
Niet stedelijk	6%	2%	7%	14%	22%	14%
Totaal	100%	100%	100%	100%	100%	100%

Tabel 3-7: Aandeel woningen naar woonmilieu (ABF-typologie) per segment, 2016; bron: CBS-microdata

Segment	Gereguleerde huur	Middenhuur	Dure huur	Goedkope koop	(Middel)dure koop	Totaal
Woonmilieu (buurt)						
Centrum-stedelijk (plus)	8%	11%	29%	3%	3%	6%
Stedelijk vooroorlogs	23%	17%	19%	14%	6%	14%
Stedelijk naoorlogs compact	8%	12%	7%	11%	8%	9%
Stedelijk naoorlogs grondgebonden	5%	11%	6%	6%	7%	6%
Groen-stedelijk	12%	17%	12%	12%	10%	11%
Klein-stedelijk	17%	13%	15%	16%	12%	15%
Dorps of landelijk	28%	18%	12%	39%	54%	39%
Totaal	100%	100%	100%	100%	100%	100%

Tabel 3-8: Middenhuurwoningen naar type segment (combinatie stedelijkheid van buurt en grootte van gemeente), 2016; bron: CBS-microdata

	Aantal	%
(Zeer) sterk stedelijke buurt in gemeente 250.000+	81.000	20%
(Zeer) sterk stedelijke buurt in gemeente 150-250.000	70.000	17%
(Zeer) sterk stedelijke buurt in gemeente <150.000	129.000	31%
Matig of weinig stedelijke buurt in gemeente 100.000+	31.000	7%
Matig of weinig stedelijke buurt in gemeente < 100.000	104,000	25%
Totaal	415.000	100%

Tabel 3-9: Aandeel middenhuurwoningen naar woningtype per type buurt, 2016; bron: CBS-microdata

Woningtype	(Zeer) sterk stedelijke buurt in gemeente 250.000+	(Zeer) sterk stedelijke buurt in gemeente 150- 250.000	(Zeer) sterk stedelijke buurt in gemeente <150.000	Matig of weinig stedelijke buurt in gemeente 100.000+	Matig of weinig stedelijke buurt in gemeente <100.000	Totaal
Appartement	76%	50%	46%	22%	32%	47%
Hoekwoning	5%	14%	15%	22%	20%	14%
Twee-onder-een-kapwoning	0%	1%	2%	8%	5%	3%
Tussenwoning	19%	35%	36%	47%	40%	34%
Vrijstaande woning	0%	0%	1%	1%	4%	1%
Totaal	100%	100%	100%	100%	100%	100%

Tabel 3-10: Aandeel middenhuurwoningen naar woonoppervlakte per type buurt, 2016; bron: CBS-microdata

Woonopperviakte	(Zeer) sterk stedelijke buurt in gemeente 250.000+	(Zeer) sterk stedelijke buurt in gemeente 150- 250.000	(Zeer) sterk stedelijke buurt in gemeente <150.000	Matig of weinig stedelijke buurt in gemeente 100.000+	Matig of weinig stedelijke buurt in gemeente <100.000	Totaal
< 70 m²	18%	4%	3%	1%	3%	6%
70 - 89 m²	30%	15%	16%	13%	12%	17%
90 - 119 m²	40%	44%	42%	40%	39%	41%
120 - 149 m²	10%	21%	27%	31%	30%	24%
> 150 m²	2%	16%	11%	15%	17%	12%
Totaal	100%	100%	100%	100%	100%	100%

Tabel 3-11: Aandeel middenhuurwoningen naar WOZ-waarde per type buurt, 2016; bron: CBS-microdata

WOZ-waarde	(Zeer) sterk stedelijke buurt in gemeente 250.000+	(Zeer) sterk stedelijke buurt in gemeente 150- 250.000	(Zeer) sterk stedelijke buurt in gemeente <150.000	Matig of weinig stedelijke buurt in gemeente 100.000+	Matig of weinig stedelijke buurt in gemeente <100.000	Totaal
<€150.000	17%	17%	15%	12%	15%	16%
€150.000 - €180.000	26%	28%	32%	25%	22%	27%
€180.000 - €220.000	21%	30%	33%	33%	33%	30%
€220.000 - €280.000	24%	22%	17%	24%	26%	22%
>€280.000	11%	3%	3%	6%	4%	5%
Totaal	100%	100%	100%	100%	100%	100%

Tabel 3-12: Aandeel middenhuurwoningen naar WOZ-waarde per type buurt, 2016; bron: CBS-microdata

WOZ per vierkante meter	(Zeer) sterk stedelijke buurt in gemeente 250.000+	(Zeer) sterk stedelijke buurt in gemeente 150- 250.000	(Zeer) sterk stedelijke buurt in gemeente <150.000	Matig of weinig stedelijke buurt in gemeente 100.000+	Matig of weinig stedelijke buurt in gemeente < 100.000	Totaal
< € 1500 per m2	16%	31%	32%	28%	34%	29%
€ 1500 - 2000 per m2	27%	53%	41%	56%	48%	43%
> € 2000 per m2	57%	15%	27%	16%	18%	28%
Totaal	100%	100%	100%	100%	100%	100%

Tabel 3-13: Aandeel middenhuurwoningen naar bouwjaar per type buurt, 2016; bron: CBS microdata

Bouwjaar	(Zeer) sterk stedelijke buurt in gemeente 250.000+	(Zeer) sterk stedelijke buurt in gemeente 150- 250.000	(Zeer) sterk stedelijke buurt in gemeente <150.000	Matig of weinig stedelijke buurt in gemeente 100.000+	Matig of weinig stedelijke buurt in gemeente <100.000	Totaal
< 1969	43%	37%	25%	12%	13%	27%
1970 - 1979	4%	12%	19%	11%	24%	15%
1980 - 1989	10%	11%	15%	14%	18%	14%
1990 - 1999	22%	10%	14%	23%	16%	16%
> 2000	20%	30%	28%	41%	30%	28%
Totaal	100%	100%	100%	100%	100%	100%

Appendix 2: Who lives in the middle rent

Figures from the report: "Functie van en vraag naar middenhuurwoningen" of Blijie et al. (2019)

Tabel 3-14: Aandeel huishoudens in middenhuur naar leeftijd, per type buurt, 2016; bron: CBS-microdata

Leeftijd huishouden	(Zeer) sterk stedelijke buurt in gemeente 250.000+	(Zeer) sterk stedelijke buurt in gemeente 150 250.000		Matig of weinig stedelijke buurt in gemeente 100.000+	Matig of weinig stedelijke buurt in gemeente < 100.000	Middenhuur totaal	Nederland totaal
Tot 25 jaar	6%	7%	6%	1%	2%	5%	4%
25 -34 jaar	33%	27%	17%	17%	13%	21%	14%
35 - 44 jaar	18%	15%	14%	20%	14%	15%	16%
45 - 54 jaar	16%	15%	16%	17%	17%	16%	20%
55 - 64 jaar	11%	13%	14%	15%	17%	14%	18%
65 - 74 jaar	8%	13%	16%	13%	20%	15%	16%
75+ jaar	8%	10%	17%	16%	18%	14%	13%
Totaal	100%	100%	100%	100%	100%	100%	100%

Tabel 3-15: Aandeel huishoudens in middenhuur naar type huishouden, per type buurt, 2016; bron: CBS-microdata

	(Zeer) sterk stedelijke buurt in gemeente 250.000+	(Zeer) sterk stedelijke buurt in gemeente 150- 250.000		Matig of weinig stedelijke buurt in gemeente 100.000+	Matig of weinig stedelijke buurt in gemeente < 100.000	Middenhuur totaal	Nederland totaal
Type huishouden							
Alleenstaand <30 jaar	12%	9%	9%	3%	2%	7%	6%
Alleenstaand 30-64 jaar	19%	17%	19%	14%	14%	17%	18%
Alleenstaand 65+ jaar	8%	12%	15%	11%	15%	13%	13%
Paar < 30 jaar	9%	11%	4%	3%	3%	6%	3%
Paar 30-64 jaar	16%	16%	10%	14%	14%	13%	14%
Paar 65+ jaar	6%	9%	16%	15%	20%	14%	14%
Gezin < 35 jaar	5%	4%	3%	7%	4%	4%	3%
Gezin 35+ jaar	16%	13%	15%	21%	17%	16%	23%
Eenoudergezin	10%	8%	8%	12%	10%	9%	7%
Totaal	100%	100%	100%	100%	100%	100%	100%

Tabel 3-16: Aandeel huishoudens in middenhuur naar kwintiel besteedbaar huishoudinkomen*, per type buurt, 2016; bron: CBS-microdata

Besteedbaar huishoudinkom	250.000+	(Zeer) sterk stedelijke buurt in gemeente 150- 250.000		Matig of weinig stedelijke buurt in gemeente 100.000+	Matig of weinig stedelijke buurt in gemeente < 100.000	Middenhuur totaal	Nederland totaal
< € 17.359	13%	11%	18%	7%	12%	14%	20%
< € 25.897	13%	15%	16%	15%	18%	16%	20%
< € 37.523	28%	31%	30%	32%	31%	30%	20%
< € 53.726	25%	28%	23%	28%	25%	25%	20%
> € 53.726	21%	15%	13%	18%	15%	16%	20%
Totaal	100%	100%	100%	100%	100%	100%	100%

^{*}Huishoudinkomen 2015 geïndexeerd naar 2016.

Tabel 3-17: Aandeel huishoudens in middenhuur naar EC-doelgroep, per type buurt, 2016; bron: CBS-microdata

EC-doelgroep		(Zeer) sterk stedelijke buurt in gemeente 150- 250.000		Matig of weinig stedelijke buurt in gemeente 100.000+	Matig of weinig stedelijke buurt in gemeente < 100.000	Middenhuur totaal	Nederland totaal
Geen EC-doelgroep	54%	56%	50%	58%	53%	53%	48%
EC-doelgroep laag	40%	36%	43%	36%	40%	40%	47%
EC-doelgroep hoog	6%	8%	7%	7%	7%	7%	5%
Totaal	100%	100%	100%	100%	100%	100%	100%

Tabel 3-18: Aandeel huishoudens in middenhuur naar niet/wel woning delen, per type buurt, 2016; bron: CBS-microdata

Woningdeler	(Zeer) sterk stedelijke buurt in gemeente 250.000+	(Zeer) sterk stedelijke buurt in gemeente 150- 250.000		Matig of weinig stedelijke buurt in gemeente 100.000+	Matig of weinig stedelijke buurt in gemeente < 100.000	Middenhuur totaal	Nederland totaal
Geen woningdeler	84%	89%	84%	95%	95%	88%	94%
Woningdeler met een of meer andere huishoudens	I	11%	16%	5%	5%	12%	6%
Totaal	100%	100%	100%	100%	100%	100%	100%

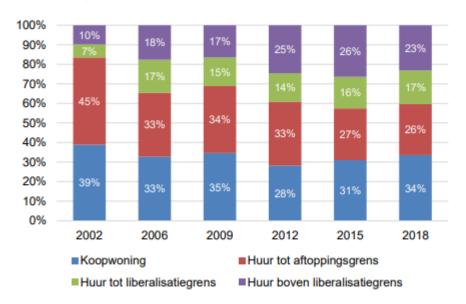
Tabel 3-19: Huishoudens in middenhuur naar geen/wel woning delen, per type huishouden, 2016; bron: CBS-microdata

Type huishouden	Geen woningdeler	Woningdeler	Totaal
Type maisineaden			
Alleenstaand <30 jaar	31%	69%	100%
Alleenstaand 30-64 jaar	77%	23%	100%
Alleenstaand 65+ jaar	98%	2%	100%
Paar < 30 jaar	91%	9%	100%
Paar 30-64 jaar	96%	4%	100%
Paar 65+ jaar	99%	1%	100%
Gezin < 35 jaar	93%	7%	100%
Gezin 35+ jaar	95%	5%	100%
Eenoudergezin	95%	5%	100%
Totaal	88%	12%	100%

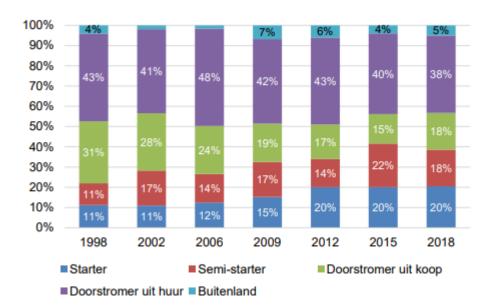
100% 90% 17% 80% 20% 18% 16% 18% 70% 20% 60% 50% 40% 43% 47% 30% 40% 37% 34% 34% 20% 29% 10% 9% 10% 0% 1998 2002 2006 2009 2012 2015 2018 ■ T/m 24 jaar ■ 25 - 34 jaar ■ 35 - 44 jaar ■ 45 - 64 jaar ■ 65+ jaar

Figuur 2-3: Recent verhuisde huishoudens naar een middenhuurwoning, naar leeftijd; bron: WBO 1998 – WoON 2018

Figuur 2-5: Recent verhuisde semi-starters en doorstromers naar een middenhuurwoning, naar vorige woning (voor verhuizing); bron: WBO 1998 – WoON 2018



Figuur 2-4: Recent verhuisde huishoudens naar een middenhuurwoning, naar woningmarktpositie; bron: WBO 1998 – WoON 2018



Appendix 4: Survey and Consent form survey

Survey including the consent form

Survey on Sustainable Real Estate Development:

You are being invited to participate in a research study titled: the Future of the middle rental housing sector. This study is being done by Pim Schalkwijk from the TU Delft.

The purpose of this research study is to optimise the middle rental housing sector. This survey will take approximately 7 minutes to complete. The data will be used for validation of found responses in literature and comparison with answers to other survey answers and interview questions also gathered in this research. The data collected with this survey will be used anonymously in a report.

As with any online activity, the risk of a break is always possible. Your answers in this study will remain confidential. This research will minimise any risks by keeping this survey completely anonymous, and no IP addresses or other Personal Data will be collected. The data collected will be stored on a secured drive, only accessible by the researcher and supervisors.

Your participation in this study is entirely voluntary and you can withdraw at any time. You are free to omit any questions. After completing the survey, it will not be possible to withdraw where the survey is completely anonymous.

Responsible researcher: Pim Schalkwijk E-mail: p.j.j.schalkwijk@student.tudelft.nl

By clicking through to the online survey, you agree to the Opening Statement and participation of this online survey.

Survey	questions:
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Appendix 4: Interview 1 and Consent form interview

Semi structured interview including the consent form

Introduction

Thank you for taking part in this interview on the future of the middle rental housing sector. Your industry expertise and influence are critical to this research as the goal is to seek valuable insights into distribution of the middle rental housing units and policies influencing decisions made.

Your participation in this interview will help us gain a better understanding of the industry's commitment to sustainability and may lead to the identification of new ways to promote and accelerate sustainable practices in real estate development. We greatly appreciate your knowledge and insights on this subject.

The interview will take about 30-45 minutes, and your responses will be kept private and anonymous. Your participation in this study is entirely voluntary, and you are free to quit at any time. You can send any questions to the research team by contacting information below. We welcome your participation, which will contribute to the collective understanding of sustainable decision-making in real estate development.

Thank you in advance for your valuable time and input. Your contribution to this study is greatly appreciated.

Before taking part in the research, it is required that you sign the consent form that has been provided.

Thank you in advance.

Responsible researcher: Pim Schalkwijk E-mail: p.j.j.schalkwijk@student.tudelft.nl

PLEASE TICK THE APPROPRIATE BOXES	Yes	No
A: GENERAL AGREEMENT – RESEARCH GOALS, PARTICIPANT TASKS AND VOLUNTARY PARTICIPATION		
1. I have read and understood the study information dated [DD/MM/YYYY], or it has been read to me. I have been able to ask questions about the study and my questions have been answered to my satisfaction.		
2. I consent voluntarily to be a participant in this study and understand that I can refuse to answer questions and I can withdraw from the study at any time, without having to give a reason.		
I understand that taking part in the study involves: Audio recordings Transcription of the audio recordings (anonymised as far as possible) That the audio and transcript will be stored on a secured drive		
4. I understand that I will not be compensated for my participation		
B: POTENTIAL RISKS OF PARTICIPATING (INCLUDING DATA PROTECTION)		
I understand that taking part in the study involves the following risks: The recording or transcripts are vulnerable to loss due to a data breach, which might result in unauthorised parties getting access to the material. I understand that these will be mitigated by Making the transcripts anonymous. Secure data storage in a project server at the university and a secure cloud server.		
6. I understand that taking part in the study also involves collecting specific personally identifiable information (PII), the audio recordings, and associated personally identifiable research data (PIRD), the transcripts with information that can be (in)directly linked to me with the potential risk of my identity being revealed when a data leak occurs.		
I understand that the following steps will be taken to minimise the threat of a data breach, and protect my identity in the event of such a breach: The data collected will be stored on a secured drive, only accessible by the researcher and supervisors. The transcripts will be anonymous, containing only basic personal information that can not lead to identification.		

 The audio recording will be anonymised as well by changing the sound of the voice. 	
8. I understand that personal information collected about me that can identify me, such as my name or where I live, will not be shared beyond the study team.	
9. I understand that the (identifiable) personal data I provide will be destroyed after the transcript is made and the original audio is anonymised.	
C: RESEARCH PUBLICATION, DISSEMINATION AND APPLICATION	
10. I understand that after the research study the de-identified information I provide will be used for research of a Master report concerning sustainable developments.	
13. I agree that my responses, views or other input can be quoted anonymously in research outputs	
D: (LONGTERM) DATA STORAGE, ACCESS AND REUSE	
16. I give permission for the de-identified audio recording and transcript that I provide to be archived in the research project server at the Delft University of Technology and at the secure SURFdrive repository so it can be used for future research and learning.	

Signatures			
Name of participant Sigr	nature Date		
		e reading of the consent form with the potential y to ask questions. I confirm that the individual has	
I, as researcher, have accu		ation sheet to the potential participant and, to the best to what they are freely consenting.	est
Researcher name [printed] Pim Schalkwijk p.j.j.schalkwijk@student.tu	-	dy contact details for further information:	

Appendix 5: Data Management Plan