

SUITABLE HOUSING FOR THE ELDERLY

AN ADVICE FOR REAL ESTATE
DEVELOPERS

DJOEKE VOGELZANG

RADBOUD UNIVERSITY
Nijmegen School of Management

Master Spatial Planning;
Planning, Land and
Real Estate Management



December, 2020





**Radboud
University**

Author	Djoeke Vogelzang
Student number	S1040052
Supervisor RU	Dr. K.M.C. Raaphorst
Date	December 14 th , 2020

Cover source: monkeybusinessimages

Retrieved from:
[https://www.istockphoto.com/nl/foto/gepensio-
neerde-paar-zittend-op-de-bank-met-warme-](https://www.istockphoto.com/nl/foto/gepensio-neerde-paar-zittend-op-de-bank-met-warme-)

Summary

Real estate developers are often not involved as a stakeholder in the development of elderly housing. However, a shortage of suitable elderly housing is determined, and real estate developers should participate more in this market. In-depth interviews are held with all stakeholders in the process to research developers' participation in the elderly housing market. After that, concepts have been selected to outline the already available housing options. Finally, a questionnaire was used to check the importance of the selected features for elderly housing. The interviews are transcribed and analysed with help from codes in the program NVIVO.

This research studies four different concepts. These concepts are organized within the classification of Mohammadi et al. (2019), consisting of independent living, communal living, and living in/near an institution. The stakeholders are discussed per concept and in general. It depends on the level of care needed and the target group in which stakeholders are involved in a concept. The stakeholders can be municipalities, housing associations, health care organisations, private initiators, and real estate developers. This study describes the specific housing features per concept and checks the importance of the features with a questionnaire to see whether the elderly also see these housing features as essential. Lastly, this study outlines the incentives for developers. Developers want a target group, not in need of care, wealthy, large amounts, and unambiguous. A new target group among the elderly is determined in this research and meets almost all requirements except unambiguous. This new target group among the elderly has little choice in housing; therefore, developers should start developing for them. With the involvement of real estate developers, more options can be provided for the elderly housing market. A variety of options for elderly housing will contribute to solving the shortage of this market.

This research outlines the process of elderly housing. With the information on the process and the stakeholders' roles, the stakeholders can learn from each other. Municipalities should work closer together to create a more explicit policy for their area. Research can be done for these municipalities. Stakeholders should use their knowledge more and cooperate better to make the elderly housing market as diverse as it needs to be.

Preface

Hereby, I proudly present you my master's thesis. The subject of this thesis is the shortage of suitable elderly housing. The focus on this thesis will be on real estate developers as a stakeholder in the process of elderly housing, and as a stakeholder who could participate more in solving this shortage. The focus on real estate developers connects to the specialisation within the master I followed at Radboud University. This is the master Spatial Planning with Planning, Land and Real Estate Development as a specialisation. Because of my interest in real estate development, I choose to do this master and to find an internship at a real estate developer. I did an internship at Did Vastgoedontwikkeling for seven months. The subject of this thesis arose from their interest in developing for the elderly. The internship I followed helped me a lot in understanding how developers work and look at new opportunities. This definitely helped me writing my thesis. I am also very thankful for the chance they gave me in to have an insight in the process of real estate developing. The contacts I gained here, helped finding respondents and without those it would have been much harder to get in touch with the needed respondents.

Writing this thesis was an educative and exciting process. However, writing this thesis was not possible without the help and support of certain people. Next to everyone at Did Vastgoedontwikkeling, I would like to express my gratitude to my thesis supervisor Kevin Raaphorst. He helped me during the whole process from setting up a good research to writing the conclusion by providing critical and constructive feedback. I would also like to thank the respondents for taking time to answer my questions and finding other respondents, particularly Sophie Keulemans. Due to the global pandemic, it was hard to gain contacts. However, I could still talk to interesting people with the help of all these people and collect enough data for my master thesis. Last but not least I want to thank my parents and my sister who have always been supporting and encouraging me in every step of this research and to always do my utmost best.

I hope you enjoy reading this master's thesis.

Djoeke Vogelzang

Utrecht, December 11th 2020

Table of contents

Summary	2
Preface	3
List of figures and tables	6
1. Introduction	7
1.1 Internship	8
1.2 Research aim and research questions.....	8
1.3 Research relevance.....	9
1.3.1 Scientific relevance.....	9
1.3.2 Societal relevance.....	9
2. Theoretical framework	11
2.1 Defining the elderly	11
2.2 Healthcare policies for the elderly in the Netherlands	11
2.2.1 Historical development	11
2.2.2 Current situation	12
2.2.3 Future developments	12
2.3 Housing for the elderly.....	12
2.3.1 Evolution in line with the health care policies	13
2.3.2 Housing typology.....	13
2.4 Stakeholders in the process of developing housing for the elderly.....	14
2.4.1 Municipalities	14
2.4.2 Housing associations	15
2.4.3 Healthcare organisations.....	15
2.4.4 Private initiatives	15
2.4.5 Real estate developers	15
2.5 Important housing features for the elderly.....	16
2.5.1 The impact of moving for the elderly.....	16
2.5.1 Environmental conditions	16
2.5.2 Architectural features.....	16
2.5.3 Financial features	17
2.6 Conceptual framework.....	18
3. Methods	19
3.1 Research strategy	19
3.1.1 Research philosophy.....	19
3.1.2 Qualitative research	19
3.1.3 Data collection.....	20
3.2 Reliability and validity	21
3.2.1 Reliability	21
3.2.2 Validity.....	21
3.2.3 Viability due to the current pandemic	22
3.3 Research methods.....	22
3.3.1 In-depth interviews	22
3.3.2 Case studies	24
3.3.3 Questionnaire	24
3.3.4 Data analysis.....	24

4. Results	26
4.1 Description of the concepts	26
4.1.1 Independent living.....	26
4.1.2 Communal living.....	27
4.1.3 Living in/near an institution	27
4.2 Stakeholders in the process of the elderly housing	28
4.2.1 Stakeholders per concept.....	28
4.2.2 Stakeholders in the process	29
4.2.3 Conclusion	31
4.3 Specific housing features for elderly people	31
4.3.1 Specific features per concept.....	31
4.3.2 Questionnaire.....	33
4.3.3 Conclusions on the specific features.....	36
4.4 Incentives for real estate developers	36
4.4.1 The market for elderly housing	36
4.4.2 Incentives for developers within the concepts	37
5. Conclusion	39
6 Discussion	42
6.1 Theoretical implications	42
6.2 Societal implications.....	42
6.3 Research limitations	43
6.4 Reflection on the internship.....	43
6.5 Recommendations for further research.....	43
References	47
Appendices	50
Appendix 1.....	51
Appendix 2.....	52
Appendix 3.....	55
Appendix 4.....	56

List of figures and tables

Figures:

Figure 1 Overview of shortage in the elderly housing market (Woonzorg Nederland, 2020)	8
Figure 2 Classification Dutch housing typologies (Mohammadi et al., 2019)	14
Figure 3 Consumer Toolbox (Ossokina et al., 2019).....	17
Figure 4 Conceptual framework	18
Figure 6 The importance of a communal room.....	34
Figure 7 The options for the entrance.....	35

Tables:

Table 1 Overview of interviewed stakeholders	24
Table 2 Overview of chosen concepts	24
Table 3 Overview of the essential housing features per concept	33

1. Introduction

There are 2.3 million households in the Netherlands consisting of people in their sixties or older. Many of these households live in houses that do not fit their personal circumstances, for instance, because they are too big or have too many stairs (Van Dinther, 2020). There is a severe lack of suitable housing for the elderly, and it is a problem that is systematically ignored (Van Walsum, 2020). Woonzorg Nederland estimates the amount of the elderly living in unsuitable housing at 40.000 people (Woonzorg Nederland, 2020) (see figure 1). According to research, in order of the Rabobank, by De Groot (2020), this problem has only gotten more prominent over the past ten years. Figure 1 shows that the shortage of elderly housing will triple in the next ten years. One of the reasons is the growing amount of elderly in the Netherlands (Deen, 2004). Another reason is the changed government policy towards the elderly and their housing. This policy stimulates the independence of the elderly and keeps them from moving (De Groot, 2020). The elderly keep living in their family homes for longer until they can no longer live there because of health issues.

An example of the Dutch government's policy concerning housing for the elderly is that acceptance into care homes is only possible for the elderly with a high level of care (De Groot, 2020). This results in two types of situations within the elderly housing. The first one is the group of the elderly who want to move but who do not have enough need of care to move into a care home. The second group is the elderly living in a house that is not suitable for them anymore, but who do not want to move or cannot move because there are no suitable alternatives. The family houses they keep living in are often not suitable for the elderly. Therefore, alternative houses need to be developed for both groups to persuade them into moving to a more suitable house.

The need to develop more houses, especially for the elderly, has been a big topic in Dutch newspapers and magazines over the past few years. Due to this media attention, different housing concepts have already been developed (Rijksoverheid, 2020). However, a lack of suitable housing for the elderly remains a problem. The government founded a commission to keep this a topic of interest in politics and the media. On 14 November 2018, the government introduced the 'Commission for the Future of Care for the Elderly People Living at Home' (Commissie Toekomst Zorg Thuiswonende Ouderen [TZTO], 2020). This commission was given the task of advising on what is needed to maintain the care for the elderly living at home in the future, considering demographic, social, and technological developments, and the affordability of care. The commission is under the direction of former politician Wouter Bos. This commission has three key messages: start building for the elderly, focus on domotics, and start collaborating with all stakeholders involved in building for the elderly. Building houses for the elderly must be done with appropriate housing types and at the right location (Commissie TZTO, 2020).

As mentioned, a critical goal for the commission is the collaboration between stakeholders. The first stakeholder is the municipality. They are responsible for providing the required healthcare for the elderly and are obliged by law to do so. To fulfil this task, they cooperate with health care organizations. These organizations work together with other stakeholders, such as housing associations, who build health care and elderly housing. This process is mainly for care related housing. The houses developed by this cooperation are social housing and care homes, which are more related to the first group of the elderly than to the second. For the second group, developers should be more involved in developing houses for the elderly to live more comfortably and persuade them to move out of their family home. However, not much information for this target group is found, making it hard for the developers to know what to develop for this group. Therefore, in this study, we focus on the possibilities of the developers to contribute to this problem.



Figure 1 Overview of shortage in the elderly housing market (Woonzorg Nederland, 2020)

1.1 Internship

During the writing of this research, an internship has been done at a company for real estate development. This developer, Did Vastgoedontwikkeling, has indicated to be interested in developing houses for the elderly. Did Vastgoedontwikkeling is a real estate developing company interested in developing inspirational and sustainable houses and surroundings. With their projects, they also want to contribute to the shortage of elderly housing in the Netherlands. However, the company wants to have more profound knowledge about the best options for elderly housing and how they can realize these options. Therefore, this research will focus on finding the answers to those questions.

1.2 Research aim and research questions

The need for houses, specially built for the elderly will increase in the coming years. The new supply of this type of housing should be responding to the demand in the right way to solve the shortage. Therefore, in this study, the process, the stakeholders, and the features for the elderly housing will be taken into account. This study will describe the developer's role in this particular market and how developers as a stakeholder can improve their contribution.

The main question of this research is:

By what means can real estate developers participate in solving the shortage in the housing stock for the elderly people in the Netherlands?

This research will have a twofold purpose. The first is to describe some existing housing concepts for the elderly. For each concept, the stakeholders, the process, and the essential features of elderly housing will be described. The second purpose is to advise real estate developers on how to contribute to solving the shortage in the housing stock for the elderly people.

To help answer the main question, the following sub-questions are drawn;

1. What types of elderly housing can be found in the Netherlands?
2. What role does each stakeholder fulfil in the process of developing elderly housing?
3. Which features are essential for elderly housing (and differ from regular housing)?
4. What incentives do real estate developers need to join the elderly housing market?

1.3 Research relevance

The research relevance is divided into two kinds of relevance: scientific and societal. Both are described below.

1.3.1 Scientific relevance

In recent years, the newspapers have been full of headlines about the need for elderly housing (Van Dinther, 2020; Van Walsum, 2020). The available scientific research on this topic, however, is minimal. Most research is done with a focus on healthcare for the elderly. However, the link between care and elderly housing is already detached by the government in their policy. With the elderly living longer and staying healthier, another target group appears on the housing market (Commissie TZTO, 2020). This new target group is a group of elderly, living independently and who do not want nor need to be linked to care in their housing situation.

This last group of the elderly is discussed only in a small number of researches. For example, research is done on the architectural features of independent housing for the elderly (Ossokina, Arentze, Van Gameren, & Van den Heuvel, 2019). Research is also done about the different housing types for the elderly (Mohammadi, Dominicus, Van Buuren, Hamers, & Hammink, 2019). However, these studies do not mention the differences within the elderly as a target group. These differences play an essential role within the housing needs and wishes of the elderly. Also, these studies do not look into the process of developing elderly housing.

Furthermore, these studies do not describe the role of different stakeholders in developing housing for the elderly. Rusinovic, Bochove and Van de Sande (2019) researched the senior co-housing in the Netherlands. They mention that current research often focuses on the micro-level practices and experiences, and for future research on elderly housing, it is also essential to research the meso- and macro-level involvement of various public and private actors.

This research investigates the stakeholders that play a role in housing development for the elderly people, specified on the particular target group of the elderly who are not dependent on care. Real estate developers are an essential stakeholder who could play a more prominent role in this process. It is essential for real estate developers who want to join this market to get more knowledge of the process and how they can develop the right type of housing for the elderly. This research will add to the existing research on this topic by discussing the housing options for the target group and studying the role of the stakeholders involved in developing elderly housing to give a comprehensive analysis of this process.

1.3.2 Societal relevance

The amount of the elderly is increasing in the Netherlands, and lots of people are trying to find a place to live where they can get old in a comfortable way (Rijksoverheid, 2020). These elderly are also staying healthier longer, and as explained above. Therefore, the target group for elderly housing is changing. This specific group will be further discussed in this research.

Over the last years, there has been increasing media and policy attention for innovative housing concepts. This attention has already resulted in more diversity for new housing concepts for the elderly (De Groot, 2020). However, this group of elderly is still growing, and stakeholders such as real estate developers are not involved enough in this market. The market for elderly housing is a relatively new market, and most real estate developers have not joined this market yet. Therefore, this research will give recommendations for developers to join the market of developing elderly housing.

If real estate developers join this relatively new market with a new target group, more relevant houses can be developed, and the shortage will probably be solved. It is essential to get this group of elderly to move to a more suitable home for their health and for the housing market. When the elderly live in

unsuitable houses, the risk of falling or other accidents is more significant, and with that, the chance of expensive hospitalization (VeiligheidNL, 2019). The houses most the elderly currently live in are more appropriate to live in for younger families. Therefore, if the elderly live longer in their family homes, fewer housing possibilities for younger families to move into will exist. Finding the right houses for the elderly could thus help solve the overall problem of the housing market.

2. Theoretical framework

This chapter will start with a literature review of the available academic literature and the policy context. Firstly, the target group, 'the elderly', will be defined. Secondly, healthcare policies for the elderly in the Netherlands will be described. This description shows the demographic development of the elderly and gives an introduction to their role in society. After that, the policies are linked to the housing situation for the elderly in the Netherlands. Also, different types of housing are described. Hereafter, the stakeholders in the process of developing the elderly housing are outlined, followed by the theory on essential features for the elderly and their housing. The chapter will end with a conceptual model that schematically portrays the different elements that this research contains.

2.1 Defining the elderly

The elderly are a target group that needs to be defined more clearly. That is why, first, the definition of the word 'elderly' is outlined before looking at social and policy developments concerning the elderly housing market. Kullberg (2005) conducted research on different groups of elderly people. He distinguished three age-related categories of the elderly. The first group consists of young, most vital, and socially active older people aged 55-64, the so-called young older people. The second category comprises the group of the elderly aged 65-74, the so-called over-65s: mostly retired, however, generally still healthy. Policy documents about the elderly are generally based on this group. The last group consists of senior citizens aged 75 and over. From this age on, in general, care begins to become a point of attention. Moreover, the chance of partners dropping out increases. From the age of 75, the number of people in need of permanent care rises and starts to exceed the number of people who do not (Kullberg, 2005). For the elderly, the best moment to move is when not yet in need of care (Thordardottir, Fänge, Chiatti & Ekstam, 2018). The target group for this research is the elderly that should move to suitable housing. Around the age of 65, people stop working and are, therefore, less linked to their location of living (Schippers, 2001). Around this age, most elderly are also not yet in need of (permanent) care. These two features are essential for the target group of this study. Therefore, in this research, the target group of the elderly will be the second category, which means people aged between 65-74.

2.2 Healthcare policies for the elderly in the Netherlands

In the past, the first houses, especially for the elderly, were built by the government. The purpose was to take care of them and give them a free house, considering they could no longer work (Deen, 2004). The foundation of the elderly housing used to be 'care'. However, this changed over the years, and separation of care and housing took place in the Dutch government's policy for elderly care. This development of the changing policies is described in this chapter.

2.2.1 Historical development

Before WOII, the elderly in the Netherlands were dependent on their relatives. Relatives are supposed to take care of their elderly and pay for their care. In 1912 the 'Armenwet' [law for the poor] was established, allowing the government to claim those costs on family members. The elderly homes that already existed were in poor condition. Little care was given to the elderly, and often they had to share a room with as many people as beds would fit in a room (Deen, 2004). This situation changed during WOII when the government made the first step towards a health insurance fund. Willem Drees, the minister of Social Affairs at that time, made an emergency law for the elderly to get a payment from 65. This emergency law got extended multiple times. After WOII, the Netherlands' government decided to develop a policy for the elderly to get old comfortably. They started providing better health care, and 50.000 more places in the elderly homes were built (Mohammadi et al., 2019). The government believed that establishing those extra places was the way to solve the problems for the elderly. However, the living conditions were still not ideal in those places.

On the first of January 1957, the emergency law of minister Drees was enacted as an official law specially designed for the elderly, the 'Algemene Ouderdomswet' (AOW) [general old-age law] (Giebels, 2009). This law ensured that all the elderly would receive a small income after turning 65 to stop working. However, this amount was low and generally not enough for food or rent for an older adult. The government paid the rent in elderly homes, causing those homes to be exceedingly popular. In 1979 the amount was stated in the law and became enough for basic living (Giebels, 2009). From around this time, the government shifted its policy from building houses for the elderly to support their independence. They stopped paying the rent in the elderly homes, and health care could now be received at home. Care received outside of healthcare institutions is called extramural care. The health care could be paid for from the AOW the elderly received (Mohammadi et al., 2019). The elderly homes with permanent care were now only available for people in urgent need of care. With the AOW-fee being high enough for the elderly to decide for themselves where to live, they became more independent and often decided to keep living at home longer. Health care and housing were now separated. Other elderly housing typologies emerged to support the independent lifestyle of the elderly (Mohammadi et al., 2019).

2.2.2 Current situation

The establishment of the AOW ensured that all the elderly got a payment high enough for a decent living. However, as the average life expectancy increased, the number of working people, who are the financers for the AOW, became relatively smaller than the number of people profiting from the AOW. This shift caused a new law on social support, the 'Wet maatschappelijke ondersteuning' (Wmo) [Law on social support], established in 2015. This law marked the beginning of a more decentralized governmental social care. Municipalities and health care insurances were now also accountable for the wellbeing of the elderly (Ministerie van VWS, 2005). In this law, it is stated that municipalities must ensure that client support is available free of charge for their residents, which, according to the law, "contributes to strengthening self-reliance and participation and to obtaining as integral service as possible in the field of social support, preventive care, care, youth assistance, education, welfare, housing, work, and income" (Commissie TZTO, 2020). In this new law, a 'Persoonsgebonden budget' (PGB) [personalized budget] is determined. The PGB pays for health care in different forms. For example, suppose it is determined that care is needed, and people would like to continue living at home. In that case, several options are given, such as informal/family care, regular home care, or private home care (Zorggidsnederland.nl, 2020).

2.2.3 Future developments

The increase of the elderly among the Dutch population was early predicted (Van Egdom, 1977). A 'greying' of the population is taking place (Deen, 2004; Mohammadi et al., 2019; TNO 2019), which means that the population is aging, and a smaller working group of younger people will have to take care of a larger group of the elderly. A solution should already be thought of if this growing amount of elderly could become a problem (Deen, 2004). Most elderly these days remain vital and can easily keep living in their own family houses; 92% of the people above 75 live independently in the Netherlands (Commissie TZTO, 2020). The 2015 Wmo law is established in line with this emancipation of the elderly and further stimulates this. The elderly who keep living in their family homes become more reliable on their children and informal care [mantelzorg]. Moving the elderly sooner to a home more suitable for them could eliminate the burden from family and informal care. The houses that are being built should boost the emancipation of the elderly (Mohammadi et al., 2019).

2.3 Housing for the elderly

The housing types available for the elderly changed over the years. The possibilities for different housing types started to change with the government's changing policies, which are explained in the previous chapter. In this part, firstly, the evolution of different housing types for the elderly in line with

the above-explained healthcare policies are outlined. Secondly, this chapter will outline different types of housing currently available in the Netherlands.

2.3.1 Evolution in line with the health care policies

After WWII was the first moment, the government started to take care of the housing for the elderly. The general idea in this period was that people had the right to get old comfortably. Therefore, the government built houses, especially for the elderly (Deen, 2004). These houses were mainly care homes, with permanent care. These houses were built quickly and, therefore, in general, low in quality. However, despite this low quality, the houses were trendy and had long waiting lists. On the other hand, people often had no privacy and slept together in dorms. This situation was not ideal, and the government changed its policy to stimulate more prolonged independence from home for the elderly. Moreover, instead of the rent being paid for the elderly, they got a general payment. This payment could be spent on rent and healthcare the elderly need. Healthcare organizations started to offer care at home, as well. Which provided a way for the elderly in need of care to remain living in their own houses. With this new policy, the health care got separated from the housing for the elderly, and with that, other housing forms started to occur. Apartments with, for example, wider doorways and no stairs were being developed, and the elderly got more choices in how they want to live. Other stakeholders, as housing associations, started to build for the elderly as well. However, after the homes built after the WWII, the government has not been involved anymore in developing care homes. Other stakeholders got involved in the process, and other types of houses were built. With people living longer and getting older, new housing types need to be developed. Housing types for the elderly who are still vital but think their old family homes are too big.

2.3.2 Housing typology

Every housing market has different types of housing. Also, in elderly housing, different types can be found. The differences in types can be in rent or buy and can also be in the number of rooms available in a home or a co-living situation. The last division is used by the government and a specific housing type, mostly when discussing housing for the elderly. For example, in the research done by Ministerie van VROM in 2010, they showed that the older people got, the more they lived in a co-living housing situation. Mohammadi et al. (2019) made another division between types of housing. She made her own classification for existing elderly housing in the Netherlands. Figure 2 shows the classification of Mohammadi et al. (2019). This classification shows a variety of new housing forms created for the elderly. In previous years, most of the elderly lived in their family home, which suited their previous household structure. For example, this could be with children or their spouses and, therefore, a big household. When the family house is no longer suitable, the elderly will look for a new home to spend their final years. The classification made by Mohammadi et al. (2019) outlines the housing choices the elderly then have. She made a distinction in independent living (1) with ambulatory care and integrated housing and care typologies. The independent and communal living types (2) have different varieties regarding care availability, from no care to ambulatory care. The integrated housing and care typologies all include care, living in or near an institution (3).

In this research, this classification is used as a framework to study different housing types for the elderly. The division of independent living, communal living, and living in/near an institution is used to identify existing concepts. The goal is to study developing elderly housing, find out the essential features and interesting concepts to build for the elderly, and advise real estate developers.

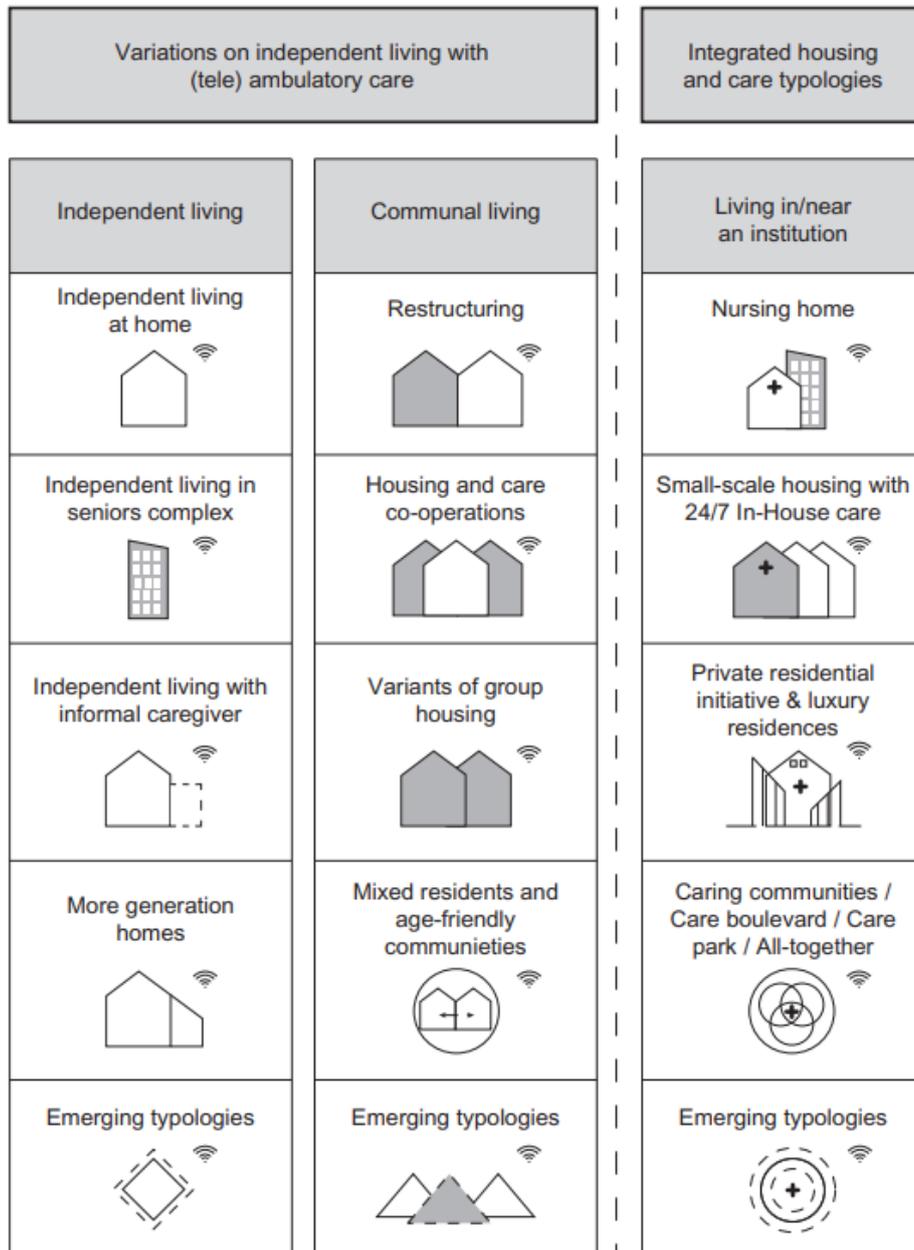


Figure 2 Classification Dutch housing typologies (Mohammadi et al., 2019)

2.4 Stakeholders in the process of developing housing for the elderly

This chapter will outline the process of developing elderly housing by describing the stakeholders in the process, their roles and tasks, and the collaborations between them. This chapter outlines the traditional role of the stakeholders in the process of developing houses.

2.4.1 Municipalities

Every municipality needs to have a vision of how to provide housing in their area, also for the elderly. For this vision, the municipality indicates how it wants to ensure that, for example, older people can (continue to) live properly. Municipalities make agreements about this with housing associations, market parties, care providers, and citizens' initiatives (Rijksoverheid, 2020). Which are, therefore, all stakeholders in the process of developing elderly housing. As explained before, the first houses built explicitly for the elderly were built by the government. However, after this type of housing, the government did not get involved in developing anymore. They shifted this responsibility to the

municipalities. Municipalities are responsible for providing the elderly with a choice of suitable housing (Mohammadi et al., 2019). Therefore, the municipality is an important stakeholder in the process of developing elderly housing.

2.4.2 Housing associations

For municipalities to meet their responsibilities, they make agreements with housing associations, among others. Housing associations have a primary task of providing affordable housing for vulnerable citizens to live comfortably and pleasantly (Witter, 2018). However, they became more important as a link between the municipality and healthcare organizations over the last years. This new task for housing associations developed because they are responsible for affordable housing, and the assumption was that most of the elderly were not wealthy enough to afford more expensive housing. Housing associations are still struggling with this new task (Witter, 2018). 90% of the elderly housing is being rented out by housing associations, which is also a reason the municipality works together with housing associations to solve the housing problems of the elderly (Kreeft, 2015). Housing associations are, therefore, also a stakeholder in process of developing elderly housing.

2.4.3 Healthcare organisations

Another stakeholder in the process, often working together with the municipality and housing associations, are the health care institutions. They must provide care when needed and when permanent care is needed, they provide places in care homes for the people needing that level of care. Housing associations are developing affordable housing and working together with healthcare organizations to meet the demand for homes for care. The elderly are getting older and staying more fit when getting older; however, they still need care, which can be provided by healthcare organizations (Ministerie van VROM, 2010). Therefore, this is also a stakeholder in the process. With the new government policy on financing the elderly, health care organisations need to earn their own money to pay their rent. However, increasingly less intensive care is needed, and beds stay empty longer. For this reason, multiple health care organisations have decided to sell or redevelop a big part of their real estate (Van der Kuij, 2014). Real estate developers can help organisations with this.

2.4.4 Private initiatives

A new trend in the process of developing the elderly housing is the elderly building for themselves. Multiple initiatives from the elderly already occurred in the Netherlands. Such as 'De Knarrenhof', a concept with a courtyard where only elderly people live. In this concept, the elderly can help each other out when necessary and keep each other company. In this case, the elderly themselves develop this initiative. It is a social housing initiative, which can provide low housing prices (Knarrenhof, 2020). Initiatives like this are more and more developed. With this new trend, the elderly themselves are also a stakeholder in developing housing as well.

2.4.5 Real estate developers

The traditional role of real estate developers is developing new buildings with a specific purpose. One of these purposes is housing for people. A real estate developer can look with a broad perspective at a location and find the right functions, appropriate to the physical and social environment of the location (Van der Kuij, 2014). Developers work as an overarching stakeholder in the process, bringing all stakeholders together to ensure the project will be developed. Housing associations nowadays take over the process of developing social housing. However, they only do social housing. The new target group among the elderly, which is discussed before in this research, are wealthier than before and often do not want social housing (Ministerie van VROM, 2010). Therefore, real estate developers should develop separate projects for this target group. Real estate developers can provide housing outside the social housing standards and therefore create more luxury housing.

2.5 Important housing features for the elderly

This chapter describes the different housing features for the elderly. The impact of moving for the elderly, the importance of the environmental and architectural features for the elderly and the financial situation are described below.

2.5.1 The impact of moving for the elderly

Elderly people sometimes choose to move and sometimes have no choice to move because of their health. The elderly might prefer to keep living in their own homes, the homes where they have always lived and with their furniture. However, these houses are often not built for the elderly and can cause difficulties when getting older. The need to change homes due to health issues can cause difficulties with the (mental) health of the elderly (Ambrose, Paul & Hausdorff, 2013). These difficulties often occur when the elderly are forced to move out while they want to keep living independently in their family homes, as long as possible. Therefore, if it becomes clear that an older adult cannot continue to live in their homes due to the house's conditions, this move must be made as soon as possible. The needs of the elderly need to be considered in the developing and moving process. If the elderly move while still living independently, the adaptation to their new house will go more steadily (Thordardottir, Fänge, Chiatti & Ekstam, 2018). Although moving sooner is not always the best option for the elderly. The elderly living in their own homes are reported to be healthier and associated with a higher level of perceived social support, which is also good for the well-being of the elderly (Nakhodaezadeh, Jafarabadi, & Allahverdipour, 2017). Overall, it is essential to consider the specific needs of the elderly and the moment they want or have to move.

2.5.1 Environmental conditions

The needs of the elderly can be translated into features of their housing situation. An essential aspect for the elderly is their neighbourhood. According to Kahana et al. (2003), neighbourhood features are stronger in preferences for the elderly than the actual housing features. The neighbourhood features are about the nearness and accessibility of resources, services, and facilities. Understanding which housing variables are associated with high or low housing satisfaction will help the elderly find the right houses and, therefore, make them more satisfied in life (Lawton, 1980). The type of housing environment can bring multiple benefits to the elderly. An urban environment can, for example, determine physical activity, psychological wellbeing, and mental health (Marquet & Miralles-Guasch, 2015). Urban settings can also boost social contacts and participation in activities for the elderly, which is another essential part of a neighbourhood (Marquet & Miralles-Guasch, 2015). Participating in social (community) activities decreases loneliness among the elderly, which can be seen as an essential factor because of the adverse health effects of loneliness (Singh & Misra, 2009).

2.5.2 Architectural features

Next to the environmental features, architectural features are also essential in the development of elderly housing. Preferences of the elderly for their housing depend on several features, such as their physical health and social contacts (Kahana et al., 2003). Ossokina et al. (2019) did empirical research on the Dutch elderly and their home preferences. They first gained information about the current housing situation of the elderly, and after that, they did a choice experiment. The respondents were mostly homeowners who just retired. Ossokina et al. (2019) made a consumer toolbox from the results of their research. This toolbox can offer new insights into the priorities of the elderly and their housing (figure 3).

	Size dwelling	Balcony /garden	Openness dwelling	Size building	Parking	Entrance	Common garden	Common space	Location
higher value/ utility	110 m2 (+25% value)	Ground floor, garden 12m2 (+15% value)	Open kitchen, no doorway living-sleeping	< 20 dwellings (+20% value)	Indoor parking garage (+15% value)	Large hall/atrium with lift	Yes, private, residents only	Yes, a small cafeteria or a supermarket	Suburbs of a larger city
reference dwelling	90 m2	No ground floor, balcony 12m2	Closed kitchen, no doorway living-sleeping	20-80 dwellings	Outdoor parking reserved for residents	Small hall with a lift	Yes, public garden	Yes, a recreation area/ a meeting place	Small town more than 15 min driving to larger city
lower value/ utility	70 m2 (-30% value)	No ground floor, balcony 5m2 (-15% value)	Open kitchen, doorway living-sleeping (-15% value)	> 80 dwellings (-15% value)	On-street public parking (-30% value)	Outdoor gallery (-15% value)	NO (-5% value)	NO (-20% value)	Larger city (-10% value)

Figure 3 Consumer Toolbox (Ossokina et al., 2019)

The toolbox of Ossokina et al. (2019) shows nine features of houses and how the value of a house can increase or decrease. When one of the features is missing, the point system shows what other features need to be placed to make still the house attractive for the elderly. In this toolbox (figure 3), things as common space or the dwelling's size are making a high impact on the scores. Next to the nine features, Ossokina et al. (2019) conclude that safety and social cohesion will play a large role in the elderly's preferences.

The toolbox in figure 3, concludes that the size of the dwelling, the availability of a balcony or garden, the size of the building, and the parking are essential features to increase the value of a building. These four factors can either increase or decrease the value of a building. Three other factors can decrease the value: the dwelling's openness with a one-room-apartment, the fact that the entrance is outdoor, and the absence of a shared space in the building.

The policy in the Netherlands is to let the elderly live independently as long as possible. The aim is to let the elderly do that in a house that can be adjusted to their care needs or is already suited for them. Next to taking the architectural preferences for the elderly into account, adjustments can also be made to a home to make it more suitable. These adjustments can be realized with technology, such as e-health and domotics. The technology can encourage the independence of the elderly (Boekhorst et al., 2013). However, this technology cannot always be installed in older family homes. Therefore, it is still vital to develop housing, especially for the elderly who want to move at the right age.

2.5.3 Financial features

Lastly, the financial aspect of housing for the elderly is an important feature to mention. The rising housing prices in the Netherlands are a problem for the elderly as well. Adjoining is also the fact that there are additional costs to building an elderly home. Adapting a home for the elderly to stay independent longer is, in most cases, expensive, making the housing prices for the elderly higher (Wang, Hui & Sun, 2018). The elderly housing can, therefore, be more expensive than regular housing.

The elderly nowadays are wealthier than they used to be. In the near future, the elderly with age above 75 are expected, on average, to have participated more often and longer in the labour market and thus have accrued more supplementary pensions than the current elderly above 75. In addition to income, assets also play a role. In 2015, the assets of 65-plus households were, on average, five times as high as those of an average household (Commissie TZTO, 2020). This rise means the elderly should have enough financial resources to move to a luxurious, suitable, new home. However, most people above

the age of 65 do not have any housing costs anymore (Schipper, 2001). The absence of housing costs is the main reason for the elderly not to move.

Finding the right housing needs for the elderly can also prevent unnecessary high costs in health and social care (Donald, 2009). Therefore, it is essential to listen to the needs of the elderly and develop housing types attractive to them.

2.6 Conceptual framework

The central problem in this research is the shortage of suitable housing for the elderly in the specific target group of people from 65 to 74 years old. In this research, the main question is how real estate developers can contribute to solving this problem. For this research question, a framework is made to show the research and used theories. The framework starts with the mentioned problem in this research. After this, the framework shows the studied units in this research. A striped line delineates these in the framework. The different stakeholders established in the chapters above are shown. Next to that, the framework shows the studied topics for this research. Concepts are used as examples to study the different topics. These concepts are selected based on the companies the respondents work for and what projects they realize. The classification of Mohammadi et al. (2019) is used to organize the concepts and to make sure multiple options for elderly housing are covered. After comparing the different available housing types for the elderly, the process will be outlined. The process is described by first studying the stakeholders' different roles, how they see their roles, how they see other stakeholders' roles, and what collaborations. The final topic in the research is the housing features. For every elderly housing concept, the essential features will be studied and compared to the features outlined by Ossokina et al. (2019).

Real estate developers are the central stakeholders in this research. To give them some advice on how to join the elderly market and develop suitable housing for the elderly, their guidelines for developing need to be precise. Therefore, the incentives for a market or interesting development for real estate developers are studied in this research. Because of the central place of developers in this research, this stakeholder is underlined in the framework.

As a final step of the research, an analysis can be made of the process and the necessities for suitable housing for the elderly. This analysis can be translated into advice for real estate developers and other stakeholders to develop suitable housing for the elderly.

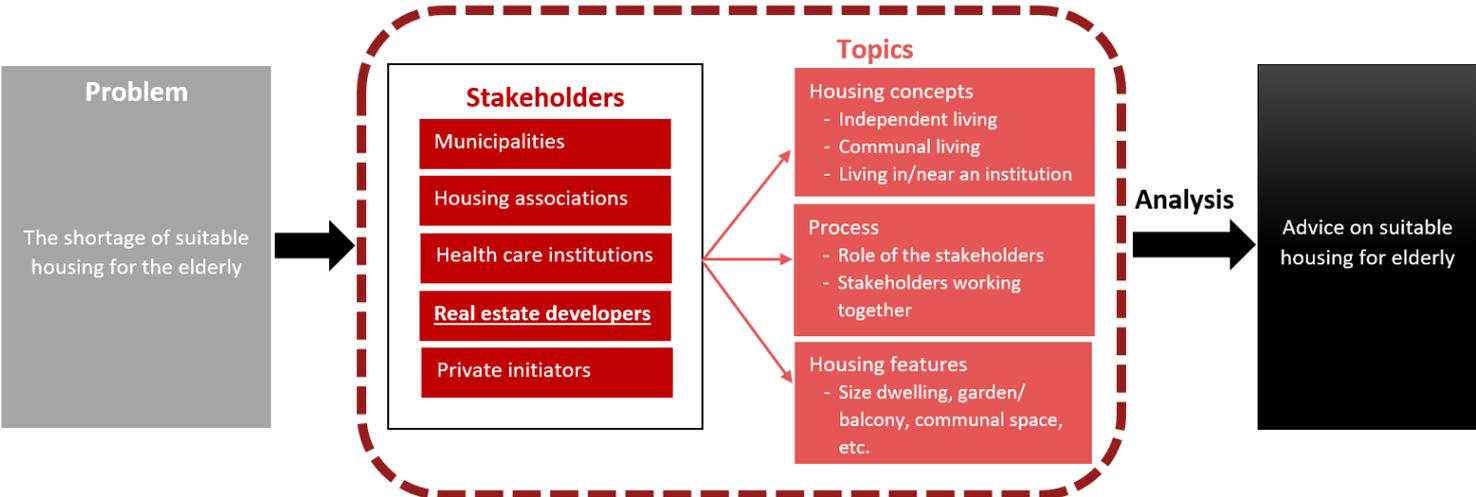


Figure 4 Conceptual framework

3. Methods

After discussing the relevant theories on elderly housing, it is essential to describe the methods used in this research. Therefore, this chapter will pay attention to the used methods' argumentation, starting with the research strategy. In this strategy, the philosophy is outlined, as well as the type of research and the data collection. Secondly, this research will discuss the reliability and validity of the research. The last part of this chapter provides more explanation of the used methods in this research.

3.1 Research strategy

In this research, the shortage of suitable elderly housing in the Netherlands is the central subject. The introduction of this research already mentioned the shortage of housing for this target group. This research has two goals: the first is to investigate the housing market for the elderly. The second is to write recommendations for real estate developers on the process, concepts, and housing features for the elderly. The research will make use of a qualitative design with mostly qualitative data collection. These data are collected by doing in-depth interviews, as primary data, with the process stakeholders. Different concepts are selected to compare the possibilities for elderly housing. For the investigation of selected concepts, secondary data is used. Documents and information on the websites are searched for information about the concepts. This research uses concepts as case studies.

3.1.1 Research philosophy

This research will analyse a specific issue; the shortage of suitable elderly housing. Harrison, Birks, Franklin, and Mills (2017) mention, with qualitative research, 'the researcher will seek to explore, understand and present the participants' perspectives and get close to them in their natural setting'. Van Thiel (2014) agrees with this and describes that qualitative research is about 'describing and understanding reality in the context in which actors operate or in which certain phenomena occur'. For both descriptions, it is about a specific issue. Therefore, this research uses qualitative research. Qualitative research often makes use of interviews. It is essential to consider the role of the researcher when interviewing respondents.

Next to the researcher's role when interviewing, the researcher's role within research is critical to consider the implementation of the research (Yin, 2009). For a researcher to understand his role in the research, it is essential to choose a paradigm. Research paradigms are 'a set of fundamental beliefs that deals with ultimate's or first principles'. According to Guba and Lincoln (1994), there are four different research paradigms: Positivism, Post-Positivism, Critical Theory, and Constructivism. In this research, the constructivism paradigm will be used. Constructivism is about local and specific constructed realities (Guba & Lincoln, 1994). When projecting this on a study, 'the researcher assumes that reality is constructed intersubjectively through meanings and understandings developed socially and experientially' (Merriam (2009), as cited in Harrison et al., 2017). Constructivism is often used for case study research. In this research, different concepts of elderly housing are studied. This selection is based on this research's purpose and what they can add to the research (Merriam, 2009).

3.1.2 Qualitative research

As determined above, this research is qualitative. According to Boeije, 't Hart, and Hox (2009), qualitative research is best used when researching a specific situation. The process of elderly housing is an example of a specific situation. Van Thiel (2014) and (Harrison et al., 2017) agree on qualitative research best used for a specific situation. Qualitative research has a flexible character, which makes it hard to make a detailed method description beforehand. Therefore, a more global plan was first made. This enables adjustments and additions during the execution phase of the research, which will improve the quality of the overall research.

Van Thiel (2014) summed up six guidelines to follow for qualitative researchers:

1. Make a representative selection of cases, units of study, and data sources.
2. Use a computer program during the data collection phase and the analysis.
3. Keep in mind that the researcher can be a source of the interference with the research situation.
4. When analysing the data, keep an eye on unexpected or deviant results.
5. Do not just aim for confirmation of the hypotheses or codes, but also look for counterevidence.
6. Try to replicate results by taking several different sub-units or asking respondents for feedback in a member check.

This research will follow these six guidelines. The research units are described below to make sure a representative selection is made. The types of stakeholders are determined in the theoretical chapter above. For each type of stakeholder, a representative is used in this research. Also, different cases are studied to compare housing concepts. These concepts are selected in line with the classification of Mohammadi et al. (2019) and in line with the stakeholders' representatives in this research. The research units, cases, and used data sources are described broadly below.

To follow the second guideline, the computer program 'NVIVO' is used. NVIVO is a computer program for coding interviews. The codes are made beforehand, and after the transcriptions have been made, the codes are added to the program's transcriptions. This is an easy way to keep the coding arranged and compare what has been said about each code.

There will only be one researcher doing the interviews to prevent other interferences. The study is based on a constructivist approach. This means the interference of the researcher is considered. The same interview scheme is used for every stakeholder, and the researcher will try to stick to this. However, the researcher will comment on the respondent's exciting things, which might cause different topics or different order topics. This is also linked to the fourth and fifth guidelines. All data will be analysed thoroughly. All interviews will be recorded with permission, and transcriptions will be made.

For the last guideline, a check is done for the found features. In the research, to complete the advice for real estate developers, multiple housing features will be determined to use in housing for the elderly. To make sure the features are well determined, a questionnaire has been held to check the results. The features are translated into different questions for a questionnaire.

3.1.3 Data collection

In this research, four sub-questions are prepared to help answer the main question drawn up in the introduction. For each sub-question different knowledge is needed. Below are the sub-questions, an explanation of the needed knowledge for this question, and the use of data collection.

1. *What types of elderly housing can be found in the Netherlands?*
2. *What role does each stakeholder fulfil in the process of developing elderly housing?*
3. *Which features are essential for elderly housing (and differ from regular housing)?*
4. *What incentives do real estate developers need to join the elderly housing market?*

For the first sub-question, the classification of Mohammadi et al. (2019) is used as a format to select different, available housing concepts in the Netherlands. The information of the stakeholders about the organisations they work at and the concepts they develop will be considered as well for the selection of the concepts. Documents from the websites of the stakeholders and their organisations are used to gain more information. Therefore, next to the primary data from the interviews, secondary data are also used for this sub-question.

For the second sub-question, the stakeholders are questioned about their role in developing elderly housing. They have been asked about what they see as their role in developing housing for the elderly and their perception of the role of other stakeholders and their cooperation between them. The cooperation between the different stakeholders was also an essential part of the needed information. The information to answer this question is collected in only the interviews.

The third sub-question is about the essential housing features for elderly housing. For this question, the stakeholders are asked about their insight into specific housing features for the elderly, what need to be considered to develop housing for the elderly. For example, features the housing associations use in their concepts are described in the first question. For this sub-question, the interviews are used, and information about the concepts from secondary data is also used. Next to these methods for data collection, an additional questionnaire has been made. The elderly on which this questionnaire is focussed, were hard to reach due to the ongoing COVID-19 pandemic when writing this research. Therefore, after determining the essential features based on Ossokina et al.'s (2019) schedule and the stakeholder's answers, a questionnaire has been set up with the essential features to check with a select amount of elderly.

The last sub-question has been set up for this research's second aim, which is to make recommendations for real estate developers. To make relevant recommendations for developers, it is essential to know their incentives to develop elderly housing. Real estate developers have been interviewed as experts, and these interviews are being used to answer this last sub-question. The interviews held with other stakeholders have been used as well, to answer this question and find out how they see the role of a developer in the process.

After answering these sub-questions, a conclusion is drawn to answer the main question, followed by a discussion of the results found by this research. The last part of this research is formulating advice for real estate developers. These recommendations will be done after the conclusion and discussion and are written based on the drawn conclusions.

3.2 Reliability and validity

For sound scientific research, reliability and validity are essential criteria. The reliability is about the consistency of the measured variables, and the validity is about the accuracy of the variables (Van Thiel, 2014). Both are described below.

3.2.1 Reliability

With qualitative research, it is often hard to repeat the research to test its reliability. This is mainly due to the flexible character of this type of research. There can be unexpected twists in the research, which can cause different results and different conclusions. When repeating research, these twists will, for example, not happen, which makes the outcomes of the research different and the research less reliable (Boeije et al., 2009). A way to ensure the reliability of research is to keep track of all steps taken in the research (Van Thiel, 2014). A detailed method chapter with a reasonable explanation for the choices made in this research can be useful for other researchers to evaluate this research's reliability (Boeije et al., 2009). Another way of preserving the reliability of qualitative research is to repeat the measurements. A form of repeating measurements is using different methods on the same subject. This is called method triangulation (Boeije et al., 2009). In this research, method triangulation will be used by checking the interviews and the secondary data, with a questionnaire about a part of the results.

3.2.2 Validity

There are two types of validity: internal and external. Internal validity refers to the persuasiveness of the researcher, and the way results are interpreted. By describing the operationalization of the research, the principle of the researcher is made clear, which is a way to optimize the internal validity

(Van Thiel, 2014). Another way to optimize the internal validity is to record the interviews taken. In this research, in-depth interviews are used, making it essential to strive for high internal validity. There is, for example, always a possibility that interpretations between the researcher and respondent differ. Therefore, during the interview, the researcher frequently has to check whether the story is understood correctly. Moreover, it is wise to make a record of the interview for listening afterward. This prevents that the researcher remembers parts of the interview differently (Boeije et al., 2009).

After doing the interviews, transcripts were carefully made. The interviews were done in Dutch, and therefore the transcripts are in Dutch as well. For this reason, the used quotes are translated from Dutch into English for this research. The transcripts are available on request to check the quotes in the original language. After the transcripts were made, a coding scheme was developed to categorize the information for every sub-question. The same coding scheme is used for all interviews to increase internal validity (Boeije et al., 2009). The transcripts and coding have been put into a computer program to find results in the transcribed interviews. NVIVO is used in this research, a program to help the researcher store a large body of data systematically, which helps increase the validity (Van Thiel, 2014).

The second type of validity is external validity. This type involves the generalization of the outcomes of research (Van Thiel, 2014). This type of validity is limited to case studies because it is almost impossible to generalize findings. Within this research, different concepts are studied. These concepts are based on the classification of Mohammadi et al. (2019). The choice for the concepts as case studies will be explained broadly, and with that explanation and the use of the classification, the external validity will increase (Van Thiel, 2014).

3.2.3 Viability due to the current pandemic

When doing this research, the Dutch government took isolation measures to contain the spread of COVID-19. The elderly, in particular, are a high-risk group and need to be in isolation. This meant for this research that creative ways had to be found to collect the necessary data. Interviews are held over the phone or using a video call. No observations could be made due to the elderly being a high-risk group. The original idea for the research was to study some specific cases of elderly housing and compare them also by doing observations. This was not possible due to the COVID-19 pandemic. Therefore, stakeholders are interviewed, and later concepts of the respondents' organizations have been selected to compare.

3.3 Research methods

In the previous paragraphs, it is determined what methods are being used in this research and why. In this paragraph, the methods are more broadly explained.

3.3.1 In-depth interviews

As mentioned, the method for collecting data in this research was primarily in-depth interviews. In-depth interviews are held with the stakeholders in the process of developing housing for the elderly. The interviews gave more information about the stakeholders' motives, which was convenient for learning more about the process. The interviews are semi-structured. Therefore, an interview scheme was used that can be found in the appendix (Appendix 1). With semi-structured interviews, the interviewer can ask for more detail or respond to the stakeholders' information. For every interview, the same scheme was used. The goal for this research was to find an expert for every stakeholder category determined in chapter 2. For some stakeholders' categories, even two experts are interviewed. The research units are outlined in the next paragraph.

Research units

The first interview being held was with Galtjo van Zutphen, director of Did Vastgoedontwikkeling, to find out how a real estate developer sees the elderly market and what he thinks is why they are not

participating as much as they can in this market. Also, to ask what developers need in a new development. The next respondent for this research was Sophie Keulemans, who is Directeur Housing at Cordaan. Cordaan is a healthcare organization for everyone needing care. They are specialized in elderly care in Amsterdam's city, and a large part of the care homes there are owned by Cordaan. Through Sophie Keulemans, different other stakeholders were connected. First, Cordaan works together with the municipality of Amsterdam. Andor Kwee is Programme Manager Elderly Housing for this municipality and was interviewed for this research.

The care homes used and owned by Cordaan are mostly developed by two housing associations: Habion and Woonzorg Nederland. These are the two largest housing associations with a focus on the elderly in the Netherlands. From the housing association Habion, two transformation managers are interviewed: Ank Sneekes and Caroline Sijtsma. Both are participating in different phases of development. Ank Sneekes focuses on finding new opportunities for Habion, and Caroline Sijtsma is more focused on concept development. For the housing association Woonzorg Nederland, Willeke Drevijn is interviewed, who has an account manager's function.

These are all participants in the process of developing. To form an idea of specific housing features that are important for participants, an architect was interviewed, Dorte Kristensen from atelier PRO. She is one of the directors of this company. Atelier PRO has developed multiple elderly housing projects. The projects are all by order of other parties, such as the municipality or housing associations, which are involved in the private initiatives. An example of a private initiative is Het Gastenhuis. This is one concept, with standard measurements, which can be implemented right away. Annemieke Bambach has a function in the management of Het Gastenhuis. She is interviewed for this research as well.

The final interview was with André de Reus, a senior developer at Did Vastgoedontwikkeling. The concepts were introduced to him, and he answered what he thought was interesting for each development. His opinion on the elderly market was also asked to see if both developers their answers would match.

An overview of all interviewed stakeholders, their positions, and the companies they represent can be found below in table 1.

Stakeholder	Company/organization	Respondent	Position	Interview
Municipality	Municipality of Amsterdam	Andor Kwee	Program Manager Elderly Housing	Over the phone
Healthcare organization	Cordaan	Sophie Keulemans	Director Housing	Videocall
Housing association	Woonzorg Nederland	Willeke Drevijn	Account manager	Videocall
Housing association	Habion	Ank Sneekes	Transformation manager	Videocall
Housing association	Habion	Caroline Sijtsma	Transformation manager	Videocall
Private initiative	Het Gastenhuis	Annemieke Bambach	Management position	Videocall

Real estate developer	Did Vastgoedontwikkeling	Galtjo van Zutphen	Director	Videocall
Real estate developer	Did Vastgoedontwikkeling	André de Reus	Senior developer	Videocall
	PRO	Dorte Kristensen	Director	Videocall

Table 1 Overview of interviewed stakeholders

3.3.2 Case studies

As mentioned, a few concepts are selected to do case study research. To select these concepts, the stakeholders involved in the process were interviewed and asked about what they think are important features. The respondents in this research are all linked to an organization/company. These organizations develop specific concepts for elderly housing. The concepts are selected by doing secondary research. The respondents have been asked about examples and essential features based on the answers and specific concepts selected from their websites. These concepts are divided into the classification made by Mohammadi et al. (2019). The classification consisted of independent living, communal living, and living in/near an institution. In table 2, an overview is given of the chosen concepts. In the next chapter, the secondary research results will be outlined, and the concepts will be further described and explained.

Classification type	Concept name	Organization / company
Independent living	Second Youth	Habion
	City Veteran	Woonzorg Nederland
Communal living	Het Gastenhuis	Het Gastenhuis
Living in/near an institution	G'old Arranged	Woonzorg Nederland

Table 2 Overview of chosen concepts

3.3.3 Questionnaire

As mentioned above, a questionnaire is done to check the results regarding the different housing features. The questionnaire is also done to make some remarks on the elderly as a stakeholder. Due to a pandemic at the time of writing, it was hard to reach out to the elderly. Therefore, stakeholders were first interviewed, and an architect was asked about the architectural features of the elderly housing. The pandemic is still a problem. However, due to a selection of features based on the interviews and the theory from Ossokina et al. (2019), a selection of features is made. This selection is translated into a questionnaire. The questionnaire can be found in Appendix 2. The questionnaire is distributed amongst colleagues, friends, and family. They were asked to spread this to the elderly they know, with age above 65. The respondents will not be fully representative of all the elderly. The questionnaire is to check how the respondents' selected features are valued and thus can be used by real estate developers. Twenty-one respondents completed the questionnaire.

3.3.4 Data analysis

The program NVIVO is used to analyse the data. In this program, the transcripts of the interviews are saved, and codes are added. The codes are added in the program and can also be subdivided into more detailed codes. Annotations can be added to the respondents' answers. Different types of coding are

used in this research (Saldana, 2009). To cover the perspectives of the respondents best, In Vivo, coding is used. The respondents are asked what is most important in the process and how they see their role in the process. This type of coding is also used to determine what the stakeholders see as the essential features. For the comparison of the concepts, initial coding is used. Initial coding will divide the data into smaller parts, which makes it easier to compare. The coding scheme is added in the appendices as appendix 3. For the topic 'process' and the topic 'housing features', in vivo coding is used. For the topic 'concepts' initial coding is used.

4. Results

This chapter discusses the results based on data collected during the interviews and the questionnaire and based on the collected secondary data. The collected data relates to the sub-questions introduced in the introduction. This chapter is set up with a description of the selected concepts, followed by a description of the process and the stakeholders involved in developing these concepts. After this, an explanation is given of the results of the questionnaire and finally some concluding remarks are made.

4.1 Description of the concepts

In this research, a few elderly housing concepts available in the Netherlands are selected to study the types of elderly housing available. The classification of Mohammadi et al. (2019) is used for this selection. The classification is broadly discussed in chapter 2. The classification consists of the following types of housing: independent living, communal living, and living in/near an institution. The selected concepts can be placed within this classification, and every type of housing is covered in this research.

4.1.1 Independent living

The first classification is independent living. This is a variation of independent living with ambulatory care. Concepts as independent living at home, independent living in a senior complex, and more generation homes fall under this classification. This classification's main idea is that every resident has its apartment, where they can live independently.

Second youth

A development from Habion is the 'Tweede Jeugd' concept for care homes. The name is translated in English to 'Second Youth'. Habion is one of the two housing associations in the Netherlands, especially building for the elderly. With this idea, they want to revitalize the old retirement homes. The traditional retirement homes are nowadays only meant for the elderly with a certain level of care needed. With the elderly staying more vital longer and having more options regarding care, the traditional retirement homes' demand decreases. To save these homes from demolishing, Habion tries to give those homes a new life. An example of a project under the concept 'Second Youth' is 't Kampje'. This is a residential care facility in Amsterdam built in the sixties. Atelier PRO worked together with Habion to revitalize this building. The building used to be a typical care home, with small units for the residents and isolated from the neighbourhood. The first thing they did when transforming this place was making sure the units could be made more extensive, and each unit got its kitchen as well. Also, the entrance was made more accessible; even three entrances were made. 't Kampje became a senior complex where people can live independently. In this 'second youth' project, Habion tends to put the focus away from care and focuses more on independent housing for the elderly.

Building apartments with independent living accommodations, where care can be provided when needed, and a communal room is always available for meeting people. This can be the summary of the type of concepts Habion develops for elderly people and believes in. Another example next to 't Kampje is 'Schoonoord' in the city of Baarn. In this location, Habion developed completely new buildings instead of transforming old ones. Habion worked in the development of 'Schoonoord' together with Amaris, a healthcare organization. However, the focus in the project is on housing and not on the care the elderly need. In this project, three luxury villas are built, with a total of 50 large apartments. Each building has a communal area; the apartments are styled for every type of elderly and their need for care. Care can be provided at all levels in the apartments, but a lovely and comfortable apartment is more important in the houses' styling.

City Veteran

Woonzorg Nederland is the other housing association participating in the elderly housing market. An independent living concept they apply is called 'Stadsveteraan', in English 'City Veteran'. This concept

is ideal for senior citizens who would like to (continue to) live in the city. They consciously opt for a small and compact one or two-room flat and share many building facilities. They specifically choose to enjoy the city's liveliness and must compromise on the size of their dwelling. As well as in the concepts of Habion, this concept also has communal facilities. In the concept 'City Veteran' facilities as a rooftop garden, different rooms for hobbies and a gym are available. There can even be a shared car or electric bikes. With all these facilities, this concept leans a bit towards communal living. However, all residents have their own apartment, and therefore, it is still categorized under independent living.

These projects from Habion and Woonzorg Nederland will fall under the category of independent housing in the schedule of Mohammadi et al. (2019). However, the buildings all have a communal room for the residents to meet or meet other people. With these communal rooms, the projects named above can also be a part of communal living. The independent living category and the communal living category, therefore, have some similarities. Next to the availability of a communal area, the care in the independent housing buildings is mostly provided by the same organization. Within the category of communal living, 'housing and care co-operations' is given as a housing type. The independent apartments build by Habion, and Woonzorg Nederland could also be categorized in this category. For this reason, the term 'emerging typologies' can be found at the bottom of the table from Mohammadi et al. (2019).

4.1.2 Communal living

This classification is also a variation on independent living with ambulatory care. Concepts such as restructured housing, care co-operations, and variants of group housing are part of this category. As mentioned before, the main difference between individual living and communal living is a large amount of communal organized facilities within the complex.

Het Gastenhuis

An example of a concept that falls under the topic of communal living is Het Gastenhuis. This concept aims to create a place for the elderly with dementia to live independently while they still can. Individual small apartments are realized in this concept, with often a private bathroom and sometimes a separate bedroom and living room. However, no kitchen is available in the apartments. The kitchen is located in the communal area and a large living room, where the residents can all eat and cook together under the supervision of care workers. The house is under the primary supervision of a 'care couple' who live mostly in the same building or in a house built next to the building. Therefore, this 'care couple' is available 24/7. This gives the residents the possibility to live as independently as possible while being supervised. In this house, the residents share multiple facilities, and the care they receive is organized with the whole house. These are all features of communal housing. Therefore, Het Gastenhuis is classified as communal living.

4.1.3 Living in/near an institution

The final type of housing from the classification, which will be described in this paragraph, is living in/near an institution. Concepts such as a nursing home, small-scale housing with 24/7 In-House care, and private residential initiatives belong to this classification. The main feature of this type of housing is coordinated care and the participation of a care organization.

G'old Arranged

Woonzorg Nederland, as a housing association, is overall more focused on providing care for the elderly. Another concept they use is 'G'oud Geregeld'. The translation of this name in English would be: 'G'old Arranged'. This concept is available for all the elderly, with or without a need of care. However, the focus is on giving the elderly their needed care. In this concept, 24/7 care is available if needed. There are always caregivers available and at work in these locations. The care will be organized in collaboration with a care organization. The residents can live independently and do have their

apartments. With the independent apartments, providing care is a more intense job. Therefore, this concept's scale needs to be massive; otherwise, it is hard to organize communal care facilities.

With the independent living option still available, this housing concept is not considered a natural care home. However, with the focus on care this much, the concept can be organized in the living in/near an institution category of the classification. Both Habion and Woonzorg Nederland are focused on finding other concepts instead of the traditional care homes to respond to the government's wish to help the elderly live longer independently.

4.2 Stakeholders in the process of the elderly housing

In this chapter, the stakeholders in the process of elderly housing are described. First, the concepts in the chapter above are used to describe the process of the development and the stakeholders involved. Secondly, the stakeholders are taken apart, and their roles will be explained broadly. In the end, a conclusion is made.

4.2.1 Stakeholders per concept

In this part, the concepts that are studied are outlined, including the stakeholders' role in each concept. The role of the stakeholders is discussed, and the collaborations between the stakeholders for the specific concepts will be described.

Second Youth

For this specific concept, an already existing care home got transformed into apartments for the elderly to live independently, as explained above. An example of a developed project within this concept is 't Kampje' in Loenen aan de Vecht. Habion is the housing association involved in the transformation of this old retirement home. In this specific project, Habion worked together with Care group 'De Vechtstreek' and the municipality 'Stichtse Vecht' for the development.

They started the project with eight weeks of orientation. Conversations were held with the residents, the neighbourhood, and the people working at the old care home, to see how this old care home could be best transformed into a place for the elderly to rent independent apartments and realize the need of care for some of the elderly. This involvement from neighbours and the participation from (future) residents is a form of development Habion often does. The company is focused on this participation process. Taking the opinions of the elderly into account is essential for Habion to realize a comfortable place to live for the elderly. Ank Sneekes, from Habion, explains: 'We ask the elderly very specifically what they want and what they are looking for, and we try to make that a reality'. Ank Sneekes continues with the statement that she thinks the best way to find out what is needed at a location is to collect a group of the elderly (or soon to be the elderly) from the neighbourhood or living in the area and just ask them to want they need to get old comfortable and then see what an organisation as Habion can do to help them. One of the results of the orientation weeks in the project of 't Kampje was the establishment of cooperative association 't Kampje Plus'. This association will oversee the buildings of 't Kampje. However, Habion will keep the buildings in their belonging, and they will not sell the place. Therefore, residents will join the association, and the board of 't Kampje Plus will manage the buildings after the transformation.

City Veteran

For this concept, no specific project has yet been developed. However, the concept is being used for a new development in the Amstelkwartier in the city of Amsterdam. Amstelkwartier is a new neighbourhood, which is being developed by the real estate development company AM. To realize the concept of City Veteran, they work together with Woonzorg Nederland and the architect bureau 'Heren 5'. For elderly people, 150 social housing apartments are developed. The concept of City Veteran is developed with participation from the elderly living in Amsterdam. These elderlies have been asked what they are looking for when getting older and what their wishes are. This concept exists

of six building blocks: clear entrance, man cave, friends house, take care of au pair, knitting gallery, and mixed living. With these building blocks, new locations are developed. For this specific location, there is a cooperation between a real estate developer and a housing association.

Het Gastenhuis

This concept has its private organisation behind it. Annemieke Bambach, from Het Gastenhuis, explains that they developed a standard concept, which can be adjusted to an available location. The concept is something they believe in, and with the cooperation of municipalities and real estate developers, they try to develop their concept in many locations. Bambach mentions that most contractors who also develop are interested in this concept, mainly because the concept is already devised and ready to be implemented at the location. For the development of this concept, the organisation needs a developer and a health care organisation.

G'old Arranged

This concept is known as an alternative for a care home. However, the same facilities are provided as in a care home. Therefore, the cooperation of a health care organisation is needed. This concept is also called a 'residential service centre', instead of a care home. Mostly because the term care home, or retirement home, is not a popular term anymore. Some of the locations with a G'old Arranged concept are transformed, and others are built new. The transformed ones need other types of stakeholders, then the new buildings. According to Woonzorg Nederland, care is as vital as housing is. They believe that it is essential when developing housing for the elderly always to have a care institution close for the elderly to lean on if care is needed.

4.2.2 Stakeholders in the process

In this paragraph, the stakeholders determined in the concepts in the last part are further outlined. The role of every stakeholder will be broadly explained.

Health care organisations

One of the most prominent health care organisations for the elderly in the Netherlands is Cordaan. This organisation owns real estate properties and sometimes develops a new building as well. However, they have regulations to abide by. For example, the care companies in the Netherlands determine the personal budget the elderly have for care, and with that, they decide how many places for the elderly are needed in care homes. If an organization like Cordaan wants to develop new homes, they have to check with those 'care offices' how many places they need and, on that basis, Cordaan can decide how and if they are going to develop a new place. This all applies to care homes with people who need 24/7 care. Sophie Keulemans, head of housing at Cordaan, mentions: 'Real estate is not our motivation, our motivation is caring', which means the care of the patients is always the priority. This also means that Cordaan does not strive to make a profit when developing a new care home. The real estate they own and develop is for their use only, and it can never cost the organisation any money because all the money they earn goes into care. Also, they want to make the places in their care homes affordable. Next to providing places with 24/7 care, Cordaan has 600 apartments they rent to elderly people. However, this is not their primary motivation, and instead, they are in the process of handing these apartments over to housing associations.

Housing associations

Health care organisations work closely together with housing associations. The main goal of housing associations is to develop affordable housing. In the Netherlands, only two housing associations are competing in this market regarding affordable elderly housing: Habion and Woonzorg Nederland. These two organisations try to develop elderly housing within the terms of social housing. In the Netherlands, this means that the rent can only be up to a specific price. This rent is the highest these housing associations can ask for their apartments.

Both housing associations and Sophie Keulemans from the health care organisation Cordaan are questioning the municipality for its ability to plan the elderly housing needed in their area. The planning of elderly housing is essential for health care organisations because when more places in care homes are needed five years from now, they already must start thinking about this now. The same applies to housing associations. Also, Willeke Drevijn from Woonzorg Nederland states that probably only ten percent of the Netherlands' municipalities have thought about elderly housing in the future and set up a vision for this. This percentage is low, and according to both Woonzorg Nederland and Habion, this is a problem.

The municipality

Therefore, working together with the municipality is also essential in developing elderly housing. The municipality is also obligated by law to make sure the elderly can receive the care they need. Therefore, they must make sure the housing associations have locations where they can build. As mentioned above, the housing associations Habion and Woonzorg Nederland are social housing associations, which means they provide houses for a low price. To fix these prices, the location where they are building needs to have a social purpose according to the land-use plan laying on that location. The municipality can decide the purpose of the ground of the location. With a social purpose on the ground, the price to buy it is lower. The destination, however, must be something with a social goal. Social housing can be built on those grounds, and the municipality will designate some locations.

The municipality of Amsterdam is one of the municipalities with a vision on elderly housing, which reflects in their policy. Andor Kwee, working at Amsterdam's municipality for the elderly housing program, mentions municipalities struggling with making plans for the elderly housing in their region because of the extramuralisation and the decentralization from the state to the municipalities. Extramuralisation means the separation between care and housing (Andor Kwee, personal communication, May 19th, 2020). In municipalities as Amsterdam or other larger urban municipalities, the ground is scarce and therefore expensive. When a spot is found in the city where new developments can occur, the municipality makes a tender for this location. In this tender, which is like an assignment, all specifications outline what the municipality wants on that ground. According to Andor Kwee, the municipality of Amsterdam often tries to outline here that elderly housing is wanted. However, they cannot discriminate and say that they only want houses for the elderly. Therefore, the municipality would like to have real estate developers, reacting on their tenders, to build also for the elderly.

For the municipality of Amsterdam, communal living is preferred or independent living with a communal area. According to Andor Kwee, this type of living stimulates the social contact between the elderly. This helps prevent loneliness, and the elderly can stimulate each other and keep an eye on each other. These forms of elderly housing are also very efficient for arranging health care for the elderly for the municipality. At these locations, all the elderly live together, so care only needs to be provided at one place and not all over the city.

Real estate developers

Compared to housing associations, real estate developers do have a high-profit goal for a development project. With the high demand for the elderly housing market, this can be an opportunity for real estate developers. Galtjo van Zutphen, from Did Vastgoedontwikkeling, states: 'As a developer you are always looking for new markets and new development opportunities'. According to van Zutphen, real estate developers can contribute to this market because they look at the full picture of a neighbourhood and not only the social housing options. This way, a mix can be built, and there will be a choice in housing for the elderly. Real estate developers are central in this research; therefore, this stakeholder will be broadly described later in this chapter.

Private initiators and the elderly

On the elderly housing market, there are also private initiatives, with often a well-considered concept. The best-known concept in this case in the Netherlands is the Knarrenhof. This is an organisation where the elderly are a part of the process of developing their own homes. They build their houses as a community and will live as a community as well. This shows the elderly themselves can be a stakeholder as well. They can organize themselves and organize a development the way they like.

Another initiative like this is Het Gastenhuis. Annemieke Bambach, a Member of the Executive Board of Het Gastenhuis, explains that she decided to start a new organisation with this concept because she noticed that the concepts they created were not well executed. Het Gastenhuis is a standard concept that can be adjusted a small bit to the location. However, the sizes of the units, the communal area, and the number of units are all thought of beforehand.

4.2.3 Conclusion

It can be concluded that there are five stakeholders in the process of elderly housing development. These five stakeholders can all work together in the process, but not always every stakeholder is involved. This is, for example, due to the level of care the elderly need. If a new development occurs for the elderly with intensive care needs, a health care organisation is involved in the development. Most care organisations work together with housing associations because their goal is also to make living affordable. So, health care organisations are only involved when care is wanted in the developing project.

Housing associations are only focused on social housing projects. They often develop one building in an area. Real estate developers are more involved in developing a whole area. In this area, municipalities have regulations on what percentage must be built for social housing. To achieve this percentage, real estate developers often work together with housing associations. This applies to elderly housing and stable housing; this is how the process goes. When a project does involve the elderly housing, often Habion or Woonzorg Nederland are participating. The developer of an area can also decide to make room for a private initiative such as Het Gastenhuis, which is also social housing.

The municipality does not have direct participation in the process, yet they can influence the development with guidelines in the tender. They must try to make the elderly housing attractive in their area and stimulate developers to take elderly housing as a part of their plan. Municipalities also decide where social housing can be placed.

In summary, it depends on the type and size of new development and how stakeholders work together. The level of care is an essential factor. Per project, the collaborations can differ. However, in this chapter, the options are described, and an overview is given of the process.

4.3 Specific housing features for elderly people

The different stakeholders involved in elderly housing have their own ideas on what is needed for the elderly. These ideas are reflected on the concepts that are being realized by the stakeholders. The needs of the elderly should be thought of while realizing the different concepts. Therefore, the specific features per concept are first described in this paragraph. Secondly, these features are compared to the features Ossokina et al. (2019) names as essential. All essential features are used in a questionnaire, which is described at the end of this paragraph.

4.3.1 Specific features per concept

The specific features for every elderly housing concept are studied. In the end, a table is made to summarize the most essential features.

Second Youth

In this concept, which reflects the vision of Habion, the participation of the elderly themselves is essential. They research every location to find out what the elderly want and need there. The social environment is mentioned as necessary by most of the elderly. Neighbourhoods can be important for the social interactions of the elderly and for organising activities. Lots of care homes are now transformed into elderly apartments, where the elderly can live independently. These old care homes were often built in isolated locations or not connected to the neighbourhood. This is often the case because the focus in those houses was providing care and not housing. With the implementation of the Second Youth concept, Habion tries to get involvement from the elderly in the neighbourhood. With a transformation, get as much involvement from the residents as possible.

With the transformation from care homes to independent apartments in a complex, the original dwellings' sizes are often not suited for the new concept. In a care home, the rooms are mostly around 20 – 25 m². When developing independent apartments in a complex, the size of the rooms is around 50 m². In project 't Kampje, apartments will be realized between those sizes. The smallest apartment is 27 m² and the largest 54 m². These are apartments with two or more rooms, and in every unit, a build-in kitchen will be placed and a separate bathroom. In this specific project, 71 apartments are created. According to Caroline Sijtsma from Habion, between 70-150 apartments will be developed at new locations. For transforming buildings, this can sometimes differ. Sijtsma mentions that when they transform an old care home with 80 rooms, there will be 40 apartments after the transformation.

City Veteran

This concept is not yet developed. However, work is in progress to realize this concept in the city of Amsterdam. One hundred fifty social and medium expensive apartments are being developed by AM real estate. For the concept of City Veteran, the accidental of the people living in it encounters are essential. Therefore, a clear entrance and broad galleries are created. This is the case in two of the six building blocks. The other four exist of creating a 'man cave', which consists of a place where the man can practice his hobbies while the partner is off to a gathering. This image is typical for a city veteran, according to Heren 5, the architect bureau who helped create this concept.

Another one of the building blocks is a 'friends home', where people can live together. Also, an extra room for a care au pair is a building block, and the last one is mixed living. These six building blocks are the most popular ones out of around 30 thought of by Heren 5. The building blocks have four different levels: city, neighbourhood, building, dwelling. The city is an essential factor for the 'city veteran'. The concept is for people used to the city and wanting to keep living in vibrant surroundings. For developers of the elderly housing, the city is a preferred place to build as well. Mostly, because facilities are close. Willeke Drevijn from Woonzorg Nederland mentions that the distance to facilities when developing independent elderly housing cannot be more than 500 meters. The elderly must be able to get to a bus station and a supermarket within walking distance. This increases the independence of the elderly.

The size of the dwellings in this concept is not yet determined. However, with the concept being realized in a city, the location prices are high, and dwellings will be smaller. Next to the expensive property prices, the size of the houses people lives in matters as well. For example, in a big city like Amsterdam, people are used to living in a smaller space and therefore do not mind living in a smaller dwelling either (Ank Sneekes, personal contact).

Het Gastenhuis

The concept of Het Gastenhuis is, as explained above, a well-defined concept. Location is not something the focus is on with this concept. Annemieke Bambach does explain that the neighbourhood must be a safe place for the residents and social contacts are always welcome. The concept is standard. Every location consists of 20 apartments (18 for one-person households and 2 for couples), multiple communal areas, an on-site service of residents for the 'care couple', and a gross floor area around 1.550 m². The location size needs to be around 2.000 m² for a two-floor building and around 1.600 m²

for a three-floor building. Annemieke Bambach mentions the wish to cooperate with care homes. The reason for this is the fact that most residents are above the age of 70 and often later need 24/7 care. In this concept, a 'care couple' is present 24/7 at the locations; however, they cannot provide heavy care tasks. It would be nice for residents when in need of more care to move next door instead of moving to a whole new place again.

G'old Arranged

This concept has a few examples; one of the examples is Het Lindenhof in Enschede. The apartments in this project differ from large three or four-room apartments to smaller two-room apartments. Most apartments are still for people living independently. However, the focus is on care, and 24/7 care is available. It is a closed facility, so people cannot just walk in here. There are multiple communal use facilities, such as a recreation room, a billiard room, four guest rooms, physiotherapy, a hairdressing salon, and a pedicurist.

Summarized

An overview of the specific features per concept is lined out in the table below. These are the features named as necessary in the concepts above.

Concept	Size apartment	Number of apartments	Communal facilities	Location
Second Youth	Around 50 m ²	70 – 150	Communal living room	Neighbourhood is essential
City Veteran	X	150	Rooms with a purpose and a broad gallery	In a larger city, close to facilities
Het Gastenhuis	Around 50 m ²	20	Communal kitchen and living room (size between 380 m ² – 600 m ²)	Not specific
G'old Arranged	From 2 to 4 room apartments	x	A recreation room, a billiard room, four guest rooms, physiotherapy, a hairdressing salon, and a pedicurist.	Not specific

Table 3 Overview of the essential housing features per concept

4.3.2 Questionnaire

In the theoretical chapter, the scheme made by Ossokina et al. (2019) is discussed. In this scheme, different features were outlined, which the elderly thought of as important. These features were used for the interview scheme for the interviews with the stakeholders. However, the stakeholders did not always mention the same features as Ossokina et al. (2019). The features per concept named by stakeholders and found in the secondary data are summarized in table 3. These features and the features named by Ossokina et al. (2019) were used for the questionnaire, which can be found in Appendix 2. In the questionnaire, the essential features from the schedule of Ossokina et al. (2019), which are not mentioned in the concepts, are also implied in the questionnaire. This has been done to see whether these features should be considered while developing housing for the elderly. The results

of this questionnaire are described in this chapter. The answers given by the respondents are similar for some of the questions, and for some of them, there is a great deal of disagreement.

The essential features summarized in table 4 and the scheme of Ossokina, corresponded on some features. The corresponding features are:

- size of the dwelling/apartment,
- number of apartments in the building,
- the presence of communal space,
- the location

The size of the dwelling needs to be 110m² or larger to increase the value of a dwelling by 25%, according to Ossokina et al. (2019). The apartments in the concepts are relatively small, or only several rooms are given. In the questionnaire, the respondents have been asked how many rooms they would like. Almost all, except one, indicated the option with the most rooms. This means the elderly would want an extra room next to the living room, kitchen, bathroom, and bedroom.

For the size of the building or the number of apartments in a building, almost all respondents agreed. According to Ossokina et al. (2019), this increases the dwelling's value by 20%. From the respondents, 18 of the 21 (85,7%) indicated wanting a building with no more than 20 other dwellings. Only one of the respondents chose the highest number of apartments available in the questionnaire.

The availability of a communal room is named in the scheme of Ossokina et al. (2019) and the essential features of the concepts. In the concepts, the communal rooms are always considered, although the rooms' purpose was different. In some of the concepts, only the availability of a communal room was named, and some also mentioned specific purposes for the communal rooms. In the questionnaire was asked if and how important people think a communal room is and if it is available, what use it should have. Figure 6 shows the results from the questionnaire, which indicates the differences among the respondents. Despite the differences in answers, most (61,9 %) indicate that having a communal room is essential. According to Ossokina et al. (2019), not having a communal space will decrease a dwelling's value by 20%. The follow-up question was for what activity the respondents would like to use the communal room. Multiple answers could be given. The most frequent answer was using a communal room as a space to meet other people living in the building. This answer was given 16 times. Which shows the importance of social contact for the elderly. The extensive galleries described in the concept City Veteran, can be a way to stimulate social contacts due to the multiple encounters residents will have. The use of the communal room as a place to practice hobbies was given seven times as an answer, and the use of the room as a place to exercise was given five times.

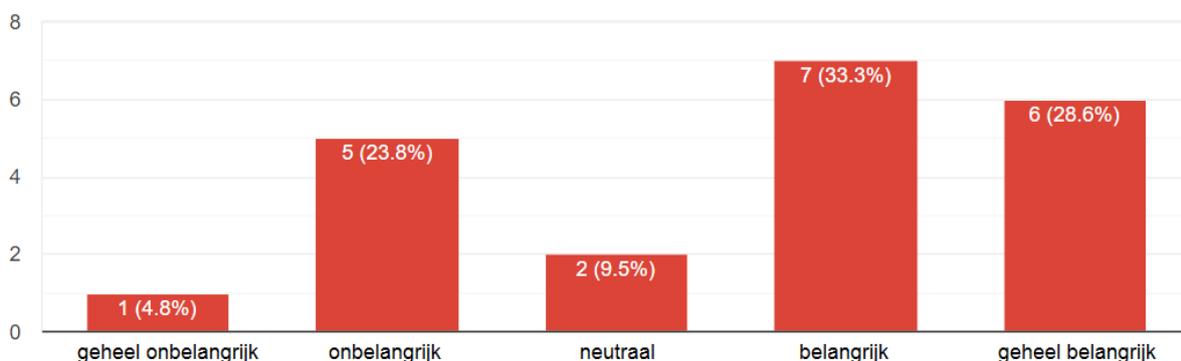


Figure 5 The importance of a communal room

The last feature, named by Ossokina et al. (2019), and the concept, is a building's location. According to Ossokina et al. (2019), the location being in a larger city would decrease the value by 10%. However, when looking at the concepts, the locations are often in a big city. The respondents of the questionnaire have been asked for a preference for a location as well. The majority (57,1%) indicated to prefer a busy city centre, 9,5% indicated to prefer a big city, but in a suburb, and 28,6% prefer a small village.

The scheme of Ossokina et al. (2019) shows three other essential features next to the ones established from the concepts. One question was almost unanimously answered. This was the question about the presence of a balcony or garden. 20 of the 21 respondents answered with finding this 'very important' and the last respondent answered with 'important'. The availability of a garden is not named specific as an essential feature in the concepts. Not one of the concepts mentioned this as an essential factor. However, the respondents agree on the importance of this feature.

The second feature, missing from the concepts but named by Ossokina et al. (2019), is the parking. According to Ossokina et al. (2019), an indoor parking garage would increase the value by 15%, and on-street public parking would decrease the value by 30%. In the questionnaire, the answers were divided. A small majority (47,6%) things having an own parking spot is essential, 28,6% is neutral about it, and the rest of the respondents did not think of this as necessary. A comment is, however, given that enough parking space for a visitor is required.

The last feature is the entrance. According to Ossokina et al. (2019), having an outdoor gallery as an entrance will increase a dwelling's value by 15%. In the concepts, the entrances were discussed, and it has been said that the accessibility of a building is essential. A small majority (47,6%) think a small entrance hall is enough. Almost a quarter of the respondents (23,8%) does think the entrance hall should be big and accessible before entering the stairs and lift. Another almost quarter (23,8%) thinks it is not essential, and only one respondent answered that no hall is needed (see figure 7).

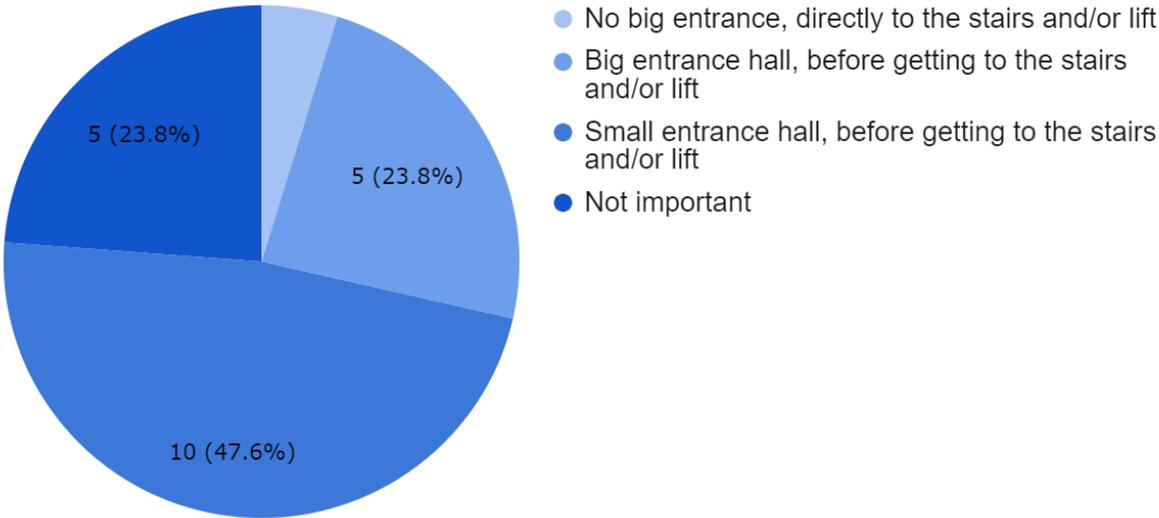


Figure 6 The options for the entrance

4.3.3 Conclusions on the specific features

The questionnaire had a target group for people with age above 65 and not an intense need for care. The respondents agreed on multiple features. They agreed that their house is large enough for at least four rooms. This contains a bedroom, bathroom, kitchen and living room, and an extra room. They also agreed on the size of the building. The building should not be more significant than 20 dwellings. Both the theory from Ossokina et al. (2019) and the concepts also thought of this feature, as necessary. Another feature the respondents agreed on was the presence of a balcony or garden. For this question, only one respondent thought having a balcony, or a garden was 'important' instead of 'really important'. This is a feature shown by Ossokina et al. (2019) to be necessary; however, it has not been discussed in the concept descriptions.

All concepts discuss the presence of a communal room as an essential feature. The theory does not say the presence of it will increase the value of living space. However, according to Ossokina et al. (2019), it would decrease the value of the dwelling. The respondents did not fully agree on this topic. A small majority did see it as an essential factor of housing; however, the other half did not think of this as necessary. If a communal room is available in a building, most respondents think meeting people is the most important goal of that room. As spoken of in the concept City Veteran, a broad gallery can also function for meeting people. For the purpose of a communal room, practicing hobbies and exercising were named. Activities can also stimulate social interaction. With the majority of the people selecting 'meeting other people' as a goal of the communal room, the purpose of the room should be thought of.

Two features with also some division in the answers are the parking and the entrance. For the parking, the largest part of the respondents thought it was essential to have private parking; however, only almost half of the respondents. For the parking, it is therefore essential to see what is possible at a specific location. For an entrance, the respondents got a choice in the size of the entrance hall. Almost half of the respondents indicated that a small entrance hall before the stairs and/or lift is preferred. For the parking as a feature, having private parking is indicated by half the respondents, as necessary. The other half is divided into neutral and thinking it is unimportant. The availability of parking also depends on things as the presence of public transport and the nearest facilities, which are also thought of as important to have close by the elderly. Therefore, parking should be available for guests as for residents themselves and should be easy to use.

4.4 Incentives for real estate developers

The main question in this research is about the role real estate developers can play in solving the shortage of elderly housing. The point of view from real estate developers is, therefore, explained more broadly in this paragraph. The incentives for a new market with a target group like the elderly are described. After that, per concept, the interesting and fewer interesting points are described to see which concepts fit best for developers.

4.4.1 The market for elderly housing

Real estate developers are always looking for new opportunities and locations for investment. André de Reus, a senior developer at Did Vastgoedontwikkeling, mentions that traditionally developers are the ones realizing houses. Real estate developers ensure that a development occurs by bringing all involved stakeholders together and making sure everyone commits to their part of the development. De Reus states: 'The traditional role of a developer is to bring many things together. So, a developer's great talent is to ensure that everything comes together and forms a new development'.

However, in practice, real estate developers also want to add something to a development. The real estate company Did Vastgoedontwikkeling, for example, uses a self-made matrix to strive towards always creating a place where people can live a healthy and vital life. In a development for a care home,

this matrix is hard to imply. Most features for a care home are already determined and little can be added around those features. De Reus also thinks a reason for developers not to be involved in the development of care homes is that care organisations usually take on this task. Real estate developers can help these organisations but will not initiate a development for care homes themselves. Therefore, the market for elderly houses that involve care is not an interesting market for developers on their own.

As concluded before, the market for elderly housing is changing. As mentioned in chapter 2, the elderly are being more vital for longer; most have to work until the age of 67 and even continue to play sports until later ages. This means care is no longer a priority in the housing for this target group. Galtjo van Zutphen, the owner of Did Vastgoedontwikkeling, thinks different groups are emerging within the target group of elderly people. An example of one of those groups is the elderly whose children have just left home and may think that the house is getting too big. Those elderly do not want a house with a focus on care. Van Zutphen explains: 'people are less willing to live in a complex with a care label, people still feel vital, and zest for life and they do not want to be given a mark indicating that they require care.'. Therefore, that group does probably not want to live in a care home or something looking like it.

Despite the change going on in the market of elderly housing, care homes are still needed. There are still elderly who need intense care, which they can only provide in a care home. On one side, elderly people who are still vital and do not want to be linked to care, and on the other side, elderly people who need 24/7 care. Next to these sides, there is also a group in the middle, who do not yet need care but want to include it in their homes in case they do. This makes the target group a diverse one. De Reus explains that 'every new target group requires a different approach'. A diverse target group, like the elderly, is therefore difficult to organize and to find the right approach for. This is something developers should still learn, according to De Reus.

Another swift in the market of elderly housing is that elderly are wealthier nowadays. Most elderly are homeowners, and once they decide to move, they sell their house. The money from their old houses can be invested in a new home. A wealthy target group is also more interesting for developers than the traditional elderly target group who needed support for a comfortable living at an old age.

It can be concluded that due to the changes in the elderly market, real estate developers have lots of opportunities to build for this target group. This new target group does not require care, is wealthy, and is present in large numbers. These are all incentives for real estate developers for a new market. The diversity of this target group is, however, something developers might struggle with.

4.4.2 Incentives for developers within the concepts

With the knowledge about the incentives for real estate developers for a new market, the concepts can be examined. Real estate developers are less interested in houses with care. For this reason, the concepts selected within the classification of 'living in/near an institution', are often not suited for developers. Within this classification, a high level of care is realized, which is not seen as interesting for developers. The concept used in this research is G'old Arranged. A concept with a high level of care and individual apartments for the residents. These individual apartments are in different sizes, which can be interesting for developers. Without the level of care, this could be an interesting concept.

Het Gastenhuis is also a concept in this research. This concept provides an intense level of care and has multiple communal facilities. Het Gastenhuis is a well-thought concept with standard features. De Reus indicates for this concept that developers can easily use this concept in a new development. The communal features in a concept are sometimes challenging to organize. According to De Reus, financing the space should be considered as well as managing the space. De Reus mentions a project where the residents who bought a house could decide together what they wanted in the communal area. This could be a way to organize this.

For the classification of independent living, two concepts are researched: Second Youth and City Veteran. In the Second Youth concept, Habion is transforming traditional care homes into independent apartments. This transformation is not something developers often do or are engaging in. The other concept in this classification is City Veteran. The interesting part of this concept is the exact target group: the elderly living in a city. According to the concept description, the elderly are used to the vibrant city life and are used to live in a smaller space and share facilities. This is an interesting point of view from this concept. The elderly, as a target group, is diverse, making it a hard group to organize and find out what they want. De Reus also indicated that the elderly are hard to organize, making it a difficult target group for developers. To focus on a specific group of the elderly, in this case, the elderly who like the vibrant city life could be interesting.

5. Conclusion

The problem of the shortage there is in elderly housing is evident. Often articles write about this shortage and new houses which are developed for the elderly. However, in most articles, the process's problems are left out, or an important stakeholder is forgotten, such as the real estate developer. Traditionally houses or offices are being built by real estate developers. However, this stakeholder could also have a more central position in solving the shortage problem of elderly housing. The main question in this research is:

By what means can real estate developers participate in solving the shortage in the housing stock for the elderly people in the Netherlands?

To find an answer to this main question, several sub-questions are first answered in this research.

1. What types of elderly housing can be found in the Netherlands?

In the Netherlands, not much housing is yet developed for this new group of the elderly. In this research, four different concepts are selected and discussed to help answer the sub-questions and the main question. The concepts were chosen within the classification made by Mohammadi et al. (2019). The classification is made regarding the available housing types in the Netherlands and contains three classes: individual living, communal living, and living in/near an institution. The individual living classification implies that the elderly can live independently in this housing form. For example, family homes belong to this classification and senior citizen complexes where everyone has their apartment. The classification of communal living is more focussed on communal facilities and care being organized for the whole housing complex. Housing types with care co-operations or variants of group housing belong to this classification. The last category, living in/near an institution, includes traditional care homes and other housing forms where daily care is provided. The concepts selected for this research can all be sorted by this classification. The classification from Mohammadi et al. (2019) also contains the option 'emerging typologies' in every category. The selected concepts are all sorted within the classification; however, some concepts can belong to either one of the classifications.

The researched concepts are Second Youth, City Veteran, Het Gastenhuis, and G'old Arranged. The first two can be divided into the independent living classification. Het Gastenhuis belongs to the communal living classification, and the last one, G'old Arranged, is living in/near an institution. All classes are represented in this research. The concepts Second Youth and City Veteran differentiate themselves by not focussing on care and mainly on the independent living space of the elderly. City Veteran also has communal facilities in their buildings. These are mainly available because this concept focuses on the elderly living in the city and is used to smaller apartments and more sharing.

For this reason, this concept can also be placed within the communal living classification. With a new housing concept such as City Veteran, new forms are developed within the classification of Mohammadi et al. (2019). New forms of housing can also be placed under the term 'emerging typologies', found in the lowest part of the table from Mohammadi et al. (2019).

2. What role does each stakeholder fulfil in the process of developing elderly housing?

The traditional group of the elderly is not seen as wealthy. Health care organizations, as well as housing associations, mostly built social housing forms, which are affordable housing types. These stakeholders often work together on new developments and often need participation from the municipality. The reason for this is because the municipality has the power to change the land-use plan of a location. To build social housing, the purpose laying on the location needs to be social to finance this new development. A collaboration between the municipality, housing associations, and health care organisations is done within the most researched concepts. These three stakeholders are seen as essential for developing elderly housing.

Next to these three stakeholders, there are private initiators. The Elderly themselves can be private initiators as well. They can organize themselves and take on the role of developers, either with a group of friends or with an organization such as 'De Knarrenhof'. This way, the elderly can be involved in the development of their housing. Next to this way of involvement, the elderly themselves should be considered. The vision of Habion, therefore, is that the elderly who are potentially living in the new development should always be asked about their preferences.

Real estate developers can help other stakeholders with new developments. However, they would not initiate a care home or a home where care is needed themselves. Also, developers would not build social housing themselves and work together with housing associations when social housing is required within their development.

Overall, it is the type and size of a project that determines the stakeholders involved. The level of involvement of care is also an essential factor. The involved stakeholders and the collaboration between them can differ per development.

3. Which features are essential for elderly housing (and differ from regular housing)?

The elderly's opinion is essential to consider while developing a new housing form for them as a target group. Different features could be taken from the concepts to see what is essential in elderly housing. These are compared to the features found in the literature and checked via a questionnaire. Most features are seen as an essential correspondent between the literature, the concepts, and the questionnaire. The elderly all indicated they require a large apartment, with enough rooms to have all facilities separate and, if possible, even an extra room. Also, the outside is seen as necessary, either a balcony or a garden is preferable.

A communal room was also indicated as a preference. Social encounters were named as the most essential goal of a communal room. Organising activities in a communal room can stimulate social interaction between the residents, which is desired. A communal room is not something real estate developers choose to add to their developments. The reason for this is that they do not manage the property after building and selling. However, the demand for communal rooms is getting higher as well in regular housing. For developers, the communal room would have a specific purpose. In some buildings, a committee is established by house owners or residents. This committee can take care of the management of the communal room.

4. What incentives do real estate developers need to join the elderly housing market?

As mentioned, the housing market for the elderly is a changing market and a diverse one. The elderly no longer need housing with a focus on care. They also are a wealthy target group and do not need social housing options. The incentives to join a market for real estate developers are that the target group is in no demand for care, is wealthy, is in large numbers available, and is unambiguous. The new target group of vital, wealthy elderly meets the first three incentives. However, the group is not unambiguous. There are elderly looking for a peaceful environment in rural areas, and there are elderly looking for an apartment in a vibrant urban environment.

For developers, the most attractive type of housing is the independent living one. In this type of housing, the focus is on the elderly having an apartment for themselves. Care would not be a part of the building and will only be available if needed. The apartments should be made at one level, and the spinning circle of a wheelchair should be implemented when needed. However, the focus should be on living independently.

The answers to these sub-questions can help to answer the main question. Real estate developers are an essential stakeholder in the process of developing types of housing for the elderly. Their quality is bringing all stakeholders together to realize a successful new development. They are not yet fully participating in the market for elderly housing because the traditional target group of elderly does not

attract them. However, with the new target group among the elderly, there is an interesting new market for real estate developers to participate. The individual living types of housing are most interesting for both the new target group and the developers. Luxury housing should be developed, with enough space and at least four rooms.

The only obstacle developers face within the target group is the unambiguousness of the group. Therefore, it is essential that the elderly's wishes are made clear and the possibilities laid out for developers. In this research, the possibilities for elderly housing, the process, and the essential housing features are described. With these guidelines, developers should see the interesting market for elderly housing and be able to participate more in the development. With the involvement of real estate developers, more options can be provided on the elderly housing market. This will contribute to solve the shortage on this market.

6 Discussion

This chapter discusses the research and its outcome. A description of the theoretical and societal implications is first given. After that, the limitations of the research are described. A reflection on the internship is done. This chapter ends with recommendations for further research.

6.1 Theoretical implications

In the scientific relevance and the theoretical chapter, it became clear that the market of elderly housing has had many developments over time. Much research is done on the different housing types available in the Netherlands and what housing features the elderly see as important. Ossokina et al. (2019) made a clear table on the housing preferences and the addition or loss of the value by different features of elderly housing. This table is used to complete the essential features of the concepts. With a questionnaire, all essential features are checked among the elderly. To see if the added features from the concepts to the table from Ossokina et al. (2019) and the features from the table itself, are seen as necessary by the elderly themselves. This questionnaire was done among elderly not in need of care and with age above 65. This is the 'new' target group and should be investigated more. The questionnaire is used to see if the table from Ossokina et al. (2019) is also applicable to this target group.

As described in the scientific relevance, Rusinovic, Bochove, and Van de Sande (2019) mentioned, more macro-level research should be done, as well as research about the involvement of other stakeholders. This research contributes to the existing literature by explaining the process of developing elderly housing, the stakeholders involved, and their collaboration. A broad explanation is given on macro-level. All stakeholders are involved, and this information can be used by the stakeholders themselves and for further research.

6.2 Societal implications

The goal of this research is to attract real estate developers towards the market of elderly housing. However, other stakeholders are participating in this market, as well. Next to real estate developers, the municipality, housing associations, health care organizations, and private initiators are considered. All these stakeholders play a part in developing elderly housing, and the results of this research will, therefore, be interesting for all of them. A broad description of the process and the different roles of each stakeholder is given. The stakeholders can learn from this description and use this knowledge in future projects. With the knowledge given in this research, stakeholders will have more understanding of each other, and it will be easier to work together for the stakeholders. Municipalities can adjust their policies towards elderly housing, based on this research. Housing associations can work together better with developers more, for example, to share information. Private initiators will also learn more about the process and the possibilities for cooperation with other stakeholders. Finally, healthcare organisations can learn how to respond to this new target group and how and when to offer their services.

The research has a focus on real estate developers in the process. This is a stakeholder not much involved in elderly housing yet. In this research, a 'new' target group among the elderly is determined. This group has more potential for developers than the traditional group of elderly and should be acknowledged more as a new target group. The only downside is the unambiguousness of the target group. Therefore, developers should learn more about organizing these elderlies, and more knowledge might be needed for that. For a development for this group, it is essential to listen to their needs and develop something for or even with them. To make sure they are willing to move and, with that, open up the housing market for new, younger families.

6.3 Research limitations

In chapter three, the limitations of the used methodology are discussed. Moreover, in that chapter, the reflection on the respondents' selection and setting has been described. Afterward, it is possible to reflect on what could have been done differently in the applied method to approve the results' quality.

During the time of writing this research, a pandemic was going on. The government took isolation measures to contain the spread of COVID-19. This isolation meant for the research that creative ways had to be found to get in touch with respondents. The elderly are a big part of the high-risk group for this virus. Therefore, the elderly themselves could not be involved as much as wished. However, the questionnaire did help to verify some answers.

With the elderly being a high-risk group, all people around them were busy organizing things for the elderly to keep them safe. Therefore, it was not possible to talk to as many people that was intended. Besides that, an internship was done while doing this research. The people working at this organisation helped to get the needed contacts. One of the contacts first made was Sophie Keulemans from Cordaan. She knew many people and helped to contact them for this research. With this situation going on, it was still hard to ask time from people. However, multiple interviews could be held, and every stakeholder is represented in the research.

Experts in their fields represent most stakeholders. Also, for most stakeholders, multiple people could be interviewed. However, the municipality and the private initiators are only represented by one person from one municipality or organisation. The research would have been optimized if another municipality would have replied and if other initiators would have been interviewed. For real estate developers, two developers have been interviewed. However, these are from the same company. Both developers have different projects they work on and different specialisations. The developers could present the findings of this study to other developers in the Netherlands to ask for their opinion.

6.4 Reflection on the internship

This research is carried out during an internship at real estate developer Did Vastgoedontwikkeling. During this internship, participation took place in different developing projects. This internship allowed the researcher to gain more knowledge about the process of developing real estate. This gained knowledge made it easier to understand the process and to interview the respondents. More targeted questions could be asked to the respondents. The internship was also an opportunity to get in touch with many exciting and relevant people who helped to find the right answers and the right respondents.

Finally, writing a thesis in such a suitable environment also contributes to this research's social relevance. Hopefully, the above-described implications can help professionals working and collaborating on the development of elderly housing.

6.5 Recommendations for further research

The process of developing elderly housing, the different options for elderly housing, and the essential features were made evident in this research. Real estate developers should know how to implement them, and which stakeholders should be collaborated with after reading this research. For further research, it could be interesting to determine what way is best for municipalities to cooperate in this market. Municipalities often state that it is essential to develop for this target group; however, they barely know-how. Further research can be done on how to create a suitable policy for elderly housing for municipalities.

Another interesting topic for further research could be making the elderly move from their own homes to more suitable housing. One way is for real estate developers to make sure their needs are listened

to, and they create options for the elderly to move to. However, it is not clear at what age people should consider moving and what best options could be. It is a new target group, and therefore research needs to be done to their needs. Next to this, in future research, the focus could be placed more on this new target group and the different target groups among the elderly.

7. Recommendations

This research is written to help real estate developers to participate in the market of developing elderly housing. An internship has been done while doing this research within the company Did Vastgoedontwikkeling. This company is interested in participating in this market and asked for advice on how to do this. This chapter will make recommendations for all stakeholders, for all real estate developers, and in particular for Did Vastgoedontwikkeling.

The first recommendation for all stakeholders in the process of building elderly housing is to learn more about the other stakeholders and their participation in the process. A lot of knowledge about the elderly as a target group for housing is already available for housing associations and municipalities. However, this knowledge is not available to other stakeholders in the process. The same applies to knowledge developers have on developing, which is knowledge housing associations sometimes miss. Therefore, more collaboration and information exchange should be taken place between the stakeholders.

A stakeholder who should recognise their role more in providing the right elderly housing is the municipality. The market for elderly housing is relatively new for real estate developers. Therefore, real estate developers indicated that they could use clear guidelines on what to do. A stakeholder who could help developers with this is the municipality. Municipalities often organize tenders for a specific area to choose which developer can develop this. However, they indicate that they struggle with drafting clear terms and conditions in their tenders to point towards elderly housing. Municipalities should make a more specific policy towards elderly housing, and to realize this, they should consult other municipalities more often. Informing each other about possibilities can contribute to a better policy in more municipalities. They should also use other stakeholders as the housing associations, to inform them more about this target group for housing. This is a recommendation for municipalities, who wants to be involved more in the development of elderly housing, but do not know how to be involved. This is a way for them to be involved and to help real estate developers in creating new living spaces for the elderly.

The traditional group of elderly is seen as in need of care and not wealthy. This makes the target group not attractive to invest in as a real estate developer. However, in this research, a new target group among the elderly has been determined. This target group does not require care and is wealthy. This target group is an interesting one for real estate developers. The first recommendation to developers would, therefore, be to focus more on this group. The target group matches most of the incentives for a market for developers and should be a focus for them. The only characteristic of the target group, developers have difficulties with is the unambiguousness of the group. This makes the group hard to organize. In this research, the essential features for elderly housing are studied. The studied features are specific for elderly housing in the Netherlands. The features most important for the elderly can be found in this research. There are two features developers should consider more when developing for the elderly. The first feature is an outdoor space. This feature is not named primarily in the concepts and is named as essential by all respondents of the questionnaire. A second feature is a communal room with a purpose. This is seen as essential with the respondents of the questionnaire as well. When developing a communal room, it should have a purpose like exercising or being creative. Future residents should be consulted.

Next to considering these features, developers could decide for themselves how to organise a new development. The features are specific for elderly housing but leave some space for developers to adjust a development on their own ideas of creating a pleasant living environment. Therefore, developers should take their own ideas and concepts they use in regular housing and adjust these based on this research. With some small adjustments, all real estate developers should be able to participate more in the elderly housing market.

Recommendations for Did Vastgoedontwikkeling

While writing this research, an internship was done at Did Vastgoedontwikkeling, a real estate development company that indicated to be interested in participating more in the market for elderly housing. As described in paragraph 4.4, real estate developers want to add value to a development. The real estate development company; Did Vastgoedontwikkeling, has chosen to add value to every one of their projects through a matrix. This matrix is based on a concept they call 'Gezond Wonen, Vitaal Leven' [GWVL] (translation: healthy living, vital life). This matrix has three main themes and three levels within the housing environment. The three main themes are attachment, health and safety, and autonomy and fulfilment. The levels are the living environment, the building or the courtyard, and the house itself.

The largest part of this matrix could be applied to elderly housing as well. However, some parts of the matrix should be adjusted to elderly housing in specific. A final recommendation in this research is, therefore, to modify this matrix of GWVL to housing for the elderly. This modification should be done based on the results of this research. The two most interesting concepts for real estate developers are the independent living concepts: Second Youth and City Veteran. These concepts are focused on independent living. In both concepts, there is a focus on social contacts as well. In the Second Youth concept, the neighbourhood is named as an important area for the elderly. The neighbourhood is seen as a social place for the elderly to be in. In the concept itself, social activities are organized as well. Therefore, a communal room is available. In the City Veteran concept, extended galleries are added to the building. These extended galleries are to stimulate social encounters. In both concepts, the social features are seen as important and should be taken into account while developing an elderly housing concept. The matrix of Did Vastgoedontwikkeling can be found in appendix 4. All building blocks in the matrix, stimulating social activities, should be considered more. Also, the accessibility of a concept is important, according to the results in this research. With an adjustment of the matrix to the results of this research, the real estate developer Did Vastgoedontwikkeling should be able to participate more in the elderly housing market.

References

- Ambrose, A. F., Paul, G., & Hausdorff, J. M. (2013). Risk factors for falls among older adults: A review of the literature. *Maturitas*, 75(1), 51–61.
- Boeije, H., 't Hart, H., & Hox, J. (2009). *Onderzoeksmethoden*. Amsterdam: Boom uitgevers.
- Boekhorst, S., Depla, M. F. I. A., Francke, A. L., Twisk, J. W. R., Zwijsen, S. A., & Hertogh, C. M. P. M. (2013). Quality of life of nursing-home residents with dementia subject to surveillance technology versus physical restraints: an explorative study. *International Journal of Geriatric Psychiatry*, 28(4), 356–363. <https://doi.org/10.1002/gps.3831>
- Commissie Toekomst zorg thuiswonende ouderen [TZTO] (2020). *Oud en zelfstandig in 2030. Een reisadvies*. (Rapport commissie Toekomst zorg thuiswonende ouderen). Retrieved from the Rijksoverheid website: <https://www.rijksoverheid.nl/ministeries/ministerie-van-volksgezondheid-welzijn-en-sport/documenten/rapporten/2020/01/15/oud-en-zelfstandig-in-2030-een-reisadvies>
- De Groot, C. (April 20th, 2020). Kwart miljoen ouderenwoningen gevraagd, liefst in eigen buurt. *Rabobank*. Retrieved from: <https://economie.rabobank.com/publicaties/2020/april/kwart-miljoen-ouderenwoningen-gevraagd/>
- Deen, F. (2004). Ouderenzorg in Nederland is beter dan ooit. *Historisch Nieuwsblad*, retrieved from: <https://www.historischnieuwsblad.nl/nl/artikel/6380/ouderenzorg-in-nederland-is-beter-dan-ooit.html>
- Donald, I.P. (2009). Housing and health care for older people. *Age and Ageing*, 38, 364-367, doi: 10.1093/ageing/afp060
- Giebels, Lambert (2009). “De Noodwet van Drees”. *Historisch Nieuwsblad*, 10 (2009). Retrieved from: <http://www.historischnieuwsblad.nl/nl/artikel/26220/denoodwet-van-drees.html>
- Guba, E.G. & Lincoln, Y.S. (1994). Competing paradigms in qualitative research. In N.K. Denzin & Y.Y. Lincoln (Eds.), *Handbook of qualitative research*, p. 105-117. Thousand Oaks, CA: Sage
- Gordts, E. (October 1, 2005). DEMOGRAFIE: ANDERE HUIZEN BOUWEN. Elsevier. Retrieved from <https://advancelexis-com.ru.idm.oclc.org/api/document?collection=news&id=urn:contentItem:4HD9-Y2Y0-00MJ-521F-00000-00&context=1516831>.
- Harrison, H., Birks, M., Franklin, R. & Mills, J. (2017). Case Study Research: Foundations and Methodological Orientations. *Forum: Qualitative Social Research*, 18(1), p. 17
- Kahana, E., Lovegreen, L., Kahana, B. & Kahana, M. (2003). Person, Environment, and person-environment fit as influences on residential satisfaction of elders. *Environment and Behavior*, 35(3), 434-453, <https://journals-sagepub-com.ru.idm.oclc.org/doi/pdf/10.1177/0013916503035003007>
- Knarrenhof (2020). Hoe?. Retrieved from: <https://knarrenhof.nl/wat-is-knarrenhof/>
- Kreeft, R. (2015). Huisvesting ouderen vraagt visie van gemeenten. *Tijdschrift over ouder worden & samenleving*.
- Kullberg, J. (maart 2005). *Ouderen van nu en van de toekomst: Hun financiële spankracht, zorgbehoefte en woonwensen*. Den Haag: Ministerie van Volkshuisvesting, Ruimtelijke ordening en Milieubeheer en Sociaal Cultureel Planbureau.
- Lawton, M. P. (1980). Housing the elderly: Residential quality and residential satisfaction among the elderly. *Research on Aging*, 2, 309-328
- Marquet, O. & Miralles-Guasch, C. (2015). Neighbourhood vitality and physical activity among the elderly: The role of walkable environments on active ageing in Barcelona, Spain. *Social Science & Medicine*, 135, 24-30, <https://doi.org/10.1016/j.socscimed.2015.04.016>
- Ministerie van VROM (2010). *Senioren op de woningmarkt nieuwe generaties, andere eisen en wensen*. Retrieved from: <https://www.rigo.nl/wp-content/uploads/2010/04/Senioren-op-de-Woningmarkt.pdf>

- Ministerie van VWS (2005). Nota ouderenbeleid in het perspectief van de vergrijzing. den haag, 2005. *Tijdschrift Voor Gerontologie En Geriatrie*, 36(4), 208–209. <https://doi-org.ru.idm.oclc.org/10.1007/BF03074737>
- Mohammadi, M., Dominicus, M., Van Buuren, L., Hamers, K. & Hammink, C. (2019). The Evolution of Housing Typologies for Older Adults in The Netherlands From 1945 to 2016: An Analysis in the Context of Policy, Societal, and Technological Developments. *Journal of Housing For the elderly*, 33(3), 205-226
- Nakhodaezadeh, M., Jafarabadi, M.A. & Allahverdi-pour, H. (2017). Home Environment and Its Relation with Quality of Life of Older People. *Journal of Housing For the elderly*, 33(3), 272-285
- Ossokina, I.V., Arentze, T.A., Van Gameren, D. & Van den Heuvel, D. (2019). Best living concepts for the elderly homeowners: combining a stated choice experiment with architectural design. *Journal of Housing and the Built Environment*. pp 1–19
- Rijksoverheid (2020). Meer geschikte woningen voor senioren. Retrieved from: <https://www.rijksoverheid.nl/onderwerpen/seniorenwoningen/meer-geschikte-woningen-voor-senioren>
- Rusinovic, K., Bochove, V., & Sande, V. (2019). Senior co-housing in the Netherlands: Benefits and drawbacks for its residents. *International Journal of Environmental Research and Public Health*, 16 (2019) Special Issue "quality Of Life: The Interplay Between Human Behaviour, Technology And The Environment"(19; Artikel Nr. 3776), 1-12.
- Saldaña, J. (2009). *The coding manual for qualitative researchers* (first edition). London: SAGE Publications Ltd.
- Schippers, A. (2001). 'Ouderen in Nederland'. *Vilans*, retrieved from: <https://www.vilans.nl/docs/producten/OudereninNederland.pdf>
- Simons, H. (2009). *Case Study Research in Practice*. SAGE Publications, London.
- Singh, A., & Misra, N. (2009). Loneliness, depression and sociability in old age. *Industrial psychiatry journal*, 18(1), 51–55. <https://doi.org/10.4103/0972-6748.57861>
- Thordardottir, B., Fänge, A.M., Chiatti, C. & Ekstam, L. (2018). Participation in Everyday Life Before and After a Housing Adaptation. *Journal of Housing For the elderly*, 33, 41-55
- TNO (2019). Informatie over de (bouw)opgave verpleeghuiszorg in komende decennia. Retrieved from: https://www.tweedekamer.nl/kamerstukken/brieven_regering/detail?id=2019Z26110&did=2019D53619
- Van der Kuij, R. (2014). Woningcorporaties en vastgoedontwikkeling: fit for use?, 3(3), 1–334. <https://doi-org.ru.idm.oclc.org/10.7480/abe.2014.3>
- Van Dinther, M. (2020, 15th of January). Ouderen zijn gelukkig in Zwols 'knarrendorpje'. Waarom durven veel gemeenten er dan niet aan? *Volkskrant*. Verkregen van Volkskrant.nl
- Van Egdom, G. (1997). Housing for the elderly in the Netherlands: A care problem. *Ageing International*, 165-182
- Van Thiel, S. (2014). *Research Methods in Public Administration and Public Management. An Introduction*. Routledge.
- Van Walsum, S. (2020, 17th of January). Bouwen voor ouderen is niet sexy genoeg: 'Gemeenten pronken liever met fraaie kantoren'. *Volkskrant*. Verkregen van Volkskrant.nl
- VeiligheidNL (2019). *Cijferrapportage valongevallen ouderen 65+ in privé-sfeer* (2018). Amsterdam: VeiligheidNL.
- Wang, X., Hui, E.C. & Sun, J. (2018). Population Aging, Mobility, and Real Estate Price: Evidence from Cities in China. *Sustainability*, 10, 3140; doi:10.3390/su10093140
- Witter, Y. (2018). Zijn woningcorporaties klaar voor de vergrijzing? *Tijdschrift over ouder worden & samenleving*.
- Woonzorg Nederland (2020). Innoveren in seniorenhuisvesting 'Samen op zoek naar nieuwe formules'. Retrieved from: https://www.woonzorg.nl/over_ons/woonformules/nieuwe_woonvormen
- Yin, R. K. (2003). *Case study research: Design and methods*. Thousand Oaks. Sage. Young, LC and Wilkinson, IR (1989). The role of trust and co-operation in marketing channels: a preliminary study. *European Journal of Marketing*, 23(2), 109-122.

Yin, R. K. (2009). Case study research: Design and methods(Volume 5). Thousand Oaks, *United States*: Sage publications.

Zorggidsnederland.nl (2020). *Ouderenzorg*. Retrieved from: <https://www.zorggidsnederland.nl/Voor-Consumenten/Ouderenzorg/>