



Exploring Perceptions of Flexwonen: Benefits and Challenges in the Dutch Housing Market

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Abstract

The Netherlands is currently experiencing a battle for space, which has resulted in considerable spatial complexities. One of the effects of this is a housing crisis, which has resulted in a lack of affordable housing. Because of this, "flexwonen" has gained increasing attention as a potential solution to address the shortages in affordable housing in the Dutch housing market. Flexwonen refers to housing solutions that are designed to be flexible, affordable, and sustainable. Flexwonen can come in different types of formats. The most commonly used format is the construction of dwellings, known as "flexwoningen", which are characterized by their temporary nature. This means that they can be easily relocated or repurposed as needed.

This study explores the perceptions of different stakeholders, including housing providers, municipalities, and housing and urban development experts, regarding the benefits and challenges associated with flexwonen. By analyzing these perspectives across stakeholder groups, this research aims to comprehensively understand the varying viewpoints surrounding flexwonen in the Dutch housing market.

To investigate these perceptions, qualitative interviews were conducted with representatives from three different stakeholder groups: housing providers, municipalities, and housing and urban development experts.

The findings reveal a range of perspectives on the benefits and challenges of temporary housing in the Dutch housing market. Although flexwonen offers many benefits, it still faces numerous challenges, as a result, its effectiveness is limited. Therefore, it is crucial to acknowledge all these advantages and challenges when considering flexwonen as a possible solution for addressing the current housing shortages.



Introduction

Background

In the Netherlands, the housing crisis and spatial complexities have prompted the exploration of flexwonen as a potential solution. Flexwonen involves the construction of flexible, affordable, and sustainable housing options, primarily in the form of temporary dwellings known as flexwoningen. These dwellings can be easily relocated or repurposed to adapt to changing needs and circumstances.

Societal relevance

In the Netherlands, space is limited and faces significant spatial complexities. These complexities give rise to societal challenges e.g. preserving natural environments, changes in the agricultural sector, the shift towards sustainable energy sources, and the acute shortage of housing (Rijksoverheid, 2022). When examining the housing shortage in the Netherlands, the country faced, in 2022, a deficit of approximately 312,000 residential properties. (Ministry of the Interior and Kingdom Relations, n.d.). The Dutch population saw a significant increase of 227,000 individuals in 2022, almost twice the rate observed in 2021, aggravating the housing crisis. The rise in population was mainly due to migration. Previous projections estimated growth of around 1.4 million people over the next fifteen years, leading to an additional 858,000 households. However, new projections are anticipated to indicate even higher population growth figures than those forecasted in 2021 (CBS, 2023). In addition to the Netherlands' high population growth rate, there is a trend of decreasing household sizes. Moreover, residents are increasingly moving more frequently, and there is a rise in shorter-term housing arrangements (Expertisecentrum Flexwonen, n.d.).

To address the housing challenges, the Dutch government aims to construct 900,000 new houses by 2030. However, these efforts may not be enough to meet the growing demands caused by the increasing number of households. Due to the higher-than-expected household increase, revised targets will be necessary to effectively alleviate the housing shortage crisis (NOS, 2023a). Recent calculations by the Economic Institute of Construction (2023) show a projected 3.5% decline in new housing construction in 2023, followed by a further decline of 5.5% in 2024. Neprom (2023), the organization of project developers, even foresees a potential halving of the original new house production. The Dutch Minister for Housing and Spatial Planning acknowledged the decrease in construction activity during a recent debate in the Dutch House of Representatives. He expressed concerns about the uncertain situation and anticipated a significant downturn in 2024 (Rijksoverheid, 2023).

The decline in construction projects can be attributed to various factors. High rental costs have made mortgages less affordable for individuals seeking housing, limiting their ability to participate in new construction projects (NOS, 2023a). Moreover, rising inflationary pressures have caused an escalation in building material prices, making it even more challenging to construct affordable housing units. The increased costs associated with building materials hinder the development of cost-effective residential properties (Ministry of Infrastructure and Waterworks, 2022). Furthermore, finding suitable locations for new housing developments has become more difficult and time-consuming. The scarcity of available land suitable for construction slows down the initiation of new housing projects (Hamers, 2021). Additionally, the granting of building permits in the Netherlands has faced significant delays, impacting the pace of construction activities. These delays are caused by the ongoing nitrogen crisis, which has introduced uncertainties in the Dutch construction sector (NOS, 2023b).



The process of building a new house in the Netherlands usually takes about ten years, from planning to delivery. To address the housing crisis, the Dutch government has proposed legislation called "Regie op de Volkshuisvesting" (Control of Housing) to cut this timeline in half. It's important to note that this law is currently under consultation, allowing key stakeholders to share their opinions and provide input (NOS, 2023a).

However, there are individuals in the Netherlands who cannot afford to wait for housing due to urgent circumstances. These individuals, known as "spoedzoekers," face immediate and pressing housing needs. Spoedzoekers include those experiencing homelessness, overcrowding, unsuitable living conditions, or impending displacement. They require prompt attention and assistance to find suitable and affordable housing options. Examples of spoedzoekers include migrants, refugees, homeless individuals, divorced individuals, young adults transitioning from student housing, and those leaving institutional care (Poelarends, 2015).

To offer temporary alternatives for such individuals, the Dutch Government amended the housing act in 2016. Since then, they have implemented several policies to promote flexible living solutions. These include allowing municipalities to experiment with zoning plans, expanding temporary rental contracts, repurposing vacant buildings, and incorporating the concept of flexwonen into the National Housing Agenda (Groot et al., 2022). Flexwonen can be translated into English as "flexible housing". It encompasses the social challenge of creating a housing framework that bridges the gap between inadequate housing options and traditional, permanent dwellings (Oorschot, 2021). The Dutch Ministry of the Interior and Kingdom Relations defines flexwonen as housing solutions that are designed to be flexible, affordable, and sustainable. The resulting dwellings, known as "flexwoningen," are characterized by their temporary nature, which allows for easy relocation or repurposing as needed. One of the key advantages of flexwoningen is their quick and cost-effective construction using sustainable materials and techniques. In flexwonen, at least one of the following elements is temporary: the dwelling itself, the occupancy (through the use of a temporary rental contract), or the temporary use of the location on which a dwelling is situated (Dutch Ministry of the Interior and Kingdom Relations, n.d.), Flexwonen is not limited to a single type of product and can include temporary rental contracts for young adults, converting vacant offices into apartments, or setting up temporary units on slow-developing land for a period of 10 to 15 years. These units are constructed in factories, enabling mass production, waste reduction, and minimizing disruption to communities (Oorschot, 2021). The Dutch government plans to invest over €300 million in accelerating the construction of flexwoningen, considering it the fastest way to increase the number of homes. This funding will be provided in tranches over the next four years, supporting municipalities. The first tranche of the stimulus program will be released after the summer of 2023, expected to result in approximately 10,000 flexwoningen. Subsidies, including the "Regeling Huisvesting Aandachtgroepen" (Housing Arrangement for Targeted Groups), now cover flexwoningen (Rijksoverheid, 2023). Nevertheless, it is essential to carefully consider the positive and negative implications of flexwonen to ensure it aligns with broader societal interests (Groot, 2022).



Academical relevance

The topic of flexwonen has gained significant attention in recent years. However, despite this growing interest, academic literature is lacking at this point. This research aims to contribute to the academic discourse by providing an in-depth analysis of the benefits and challenges of flexwonen and how they relate to the perspectives of stakeholders such as housing providers, municipalities, and housing and urban development experts.

Through an extensive literature review and interviews, this research aims to develop a comprehensive understanding of the multifaceted aspects of flexwonen. It will delve into the advantages of flexwonen, including its ability to provide immediate relief for urgent housing needs (The Dutch Ministry of the Interior and Kingdom Relations, n.d.), serve as a transitional solution towards permanent housing (Naerssen, 2016), contribute to increasing housing supply and alleviating shortages (Oorschot, 2021), offer more affordable options (Groot et al., 2022), drives innovation and enhance circularity in the construction sector, (Ollongren, 2019), act as a catalyst for sustainable living practices (Rose et al., 2022), promote integration and social participation (Ecorys, 2018), and explore the potential for offgrid housing and renewable energy (Spaans & Joosen, 2020).

Additionally, the research will focus on the challenges and potential negative consequences, including limited availability and waiting times for flexwoningen (Oorschot, 2021), difficulty in finding suitable construction locations (NOS, 2020), scarcity of appropriate sites hindering construction goals (NOS, 2023b), uncertainty regarding availability impacting financial viability, the limited lifespan of flexwoningen impeding investment recoupment, operational complexities in integrating with utility infrastructure, diversion of resources from permanent housing development, challenges in rental and management, particularly for vulnerable populations (Groot et al., 2022), and limited legal protections for individuals utilizing temporary housing (Debrunner & Gerber, 2021)."

Examining stakeholder perceptions provides insights into the benefits and challenges of flexwonen and influences on their perspectives. Understanding these perspectives is crucial for identifying conflicts and areas of consensus, informing policy decisions, and facilitating stakeholder collaboration (Zeeman et al., 2016). Such research can also contribute to best practices for flexwonen solutions by identifying factors that shape stakeholder perceptions, enabling effective communication strategies and engagement (Malik & Tariq, 2021). Despite recognized benefits, there remains a lack of comprehensive understanding on the effectiveness of flexwonen, particularly from diverse stakeholder perspectives.



Research problem

This study aims to explore the advantages and challenges of flexwonen from the perspectives of various stakeholder groups. It employs a stakeholder analysis approach, examining three distinct groups: housing providers (including housing corporations and construction companies), municipalities, and housing and urban development experts (independent researchers). All stakeholders have experience with flexwonen.

By comparing and contrasting these perspectives, the research seeks to understand the potential benefits, challenges, and factors influencing the adoption of flexwonen in the Dutch housing market. Therefore, the research problem is as follows:

• "What are the perceptions of different stakeholders, such as housing providers, municipalities, and housing and urban development experts, regarding the benefits and challenges of flexwonen in the Dutch housing market, and how do these perspectives vary across stakeholder groups?"

The research problem can be delineated into the following sub-questions:

- "What are the benefits and challenges of flexwonen in the Dutch housing market?"
- "What perspectives and challenges do housing providers face in implementing flexwonen initiatives in collaboration with municipalities, specifically in terms of financial viability?"
- "What perspectives and challenges do municipalities face in implementing flexwonen initiatives, specifically in utilizing flexwonen as a strategic land utilization tool?"
- "What is the view of housing and urban development experts on flexwonen as a housing solution?"



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Theoretical Framework

Advantages

The housing crisis in the Netherlands has led to challenges in enforcing regulations and providing social support and accommodation for individuals in undesirable housing situations, including those living in holiday parks. Limited housing options result in prolonged stays in temporary shelters or protected housing for individuals in urgent need, known as spoedzoekers. Unfortunately, in most cases, their situations worsen instead of improving (Ollongren, 2019).

Naerssen et al. (2016) highlight the need for swift transitions to stable accommodations, including "flexwoon" solutions in the Netherlands, for migrants. They argue that transitional housing, for instance, flexwoningen, is a more favorable option than temporary shelters or protected housing. These solutions provide immediate relief while also offering a longer-term housing solution that assists individuals or families in their journey toward permanent housing. Transitional housing serves as a stepping stone towards self-sufficiency, providing supportive services and resources to overcome obstacles and build stability.

Many young individuals have to relocate back to their parents' homes and stay there for an extended period (Lennartz et al., 2016). This situation can have long-term financial disadvantages for young individuals as it delays the achievement of important adult milestones such as homeownership, career advancement, and starting a family. Consequently, their ability to build wealth and achieve independence may be hindered (Chan et al., 2021). In addition to these material consequences, living with parents can have a significant impact on young adults' social life and mental health. It can lead to feelings of loneliness, dependence, and a diminished sense of privacy and autonomy. (Beer et al., 2011).

Flexwoningen, while not comparable to permanent homes in terms of quality, still provides a crucial housing option by adding dwellings and addressing the housing shortage. For many spoedzoekers, the alternative is homelessness. It is important to note that flexwonen is designed for individuals who recognize its temporary nature (Oorschot, 2021). Affordability is a significant consideration in flexwonen, as the construction of flexwoningen is relatively inexpensive compared to permanent housing. This is particularly important when addressing the housing needs of spoedzoekers (Ollongren, 2019). Miller et al. (2020) emphasize that affordable housing plays a crucial role in promoting social and economic stability and fostering the well-being of individuals and communities, especially vulnerable groups. Partnerships between the public and private sectors are crucial for financing and developing affordable flexwonen projects, as highlighted by Alteneiji et al. (2020). This collaboration ensures the continued affordability of flexible housing solutions. The need for collaboration between the public and private sectors to provide temporary housing is also emphasized by Groot et al. (2020), in their paper, they also recommend policymakers to consider various forms of temporary housing solutions to address the ongoing housing shortage in the Netherlands.

Flexwonen drives innovation in the construction industry, especially in relocatable and flexible housing units. Factory construction reduces waste, minimizes disruption, and addresses the shortage of skilled workers. It also enables faster production timelines and ensures superior quality control compared to on-site construction methods (Ollongren, 2019). Flexwonen enhances circularity in the construction sector through disassembly, relocation, and potential reuse of housing components. Logistic considerations are vital, enabling refurbishment and modernization in factories and subsequent relocation to different sites. These innovative approaches, while not widely adopted in permanent housing, can be accelerated by flexwonen (Ollongren, 2019).



Rose et al. (2022), also highlight that temporary housing solutions, s flexwonen, can drive innovation in the construction industry by providing experimental sites for sustainable living practices. These temporary housing solutions create urban niches that promote affordable and sustainable housing solutions, benefiting individuals and communities.

Off-grid housing is an emerging form of flexwonen that shows potential. By reducing reliance on traditional electricity grids, off-grid housing supports the transition to renewable energy sources, aligning with sustainability goals (Spaans & Joosen, 2020).

According to research conducted by Ecorys (2018) and commissioned by the Dutch Ministry of the Interior and Kingdom Relations, flexwonen has positive social implications. It promotes integration and addresses social isolation by deliberately integrating diverse target groups and implementing appropriate management practices. Flexwonen creates opportunities for active participation and enhances social integration (Ecorys, 2018).

Challenges

While not being a comprehensive solution to the housing crisis, "flexwonen" can provide short-term relief and alleviate immediate pressure on the housing market (The Dutch Ministry of the Interior and Kingdom Relations, n.d.). However, there is currently limited availability of "flexwoningen," resulting in waiting lists for many "spoedzoekers" (Oorschot, 2021). Finding suitable locations is a major obstacle in constructing flexwoningen (NOS, 2020). The scarcity of appropriate sites hampers the Dutch Government's goal of building 37,500 flexwoningen by 2024 (NOS, 2023a).

The availability of suitable locations for future flexwonen projects is uncertain, adding to financial challenges for municipalities and housing corporations. The limited lifespan of flexwoningen hinders full investment recoupment. Operational complexities, for instance, integrating with utility infrastructure, pose logistical hurdles. Capacity limitations in municipalities and housing corporations divert resources from permanent housing development. Rental and management of flexwoningen require significant efforts, especially for vulnerable populations (Groot et al., 2022).

Debrunner & Gerber (2021) highlight the popularity of flexible housing projects as an urban development strategy, but they note a lack of legal protections for residents. They advocate for a comprehensive strategy considering stakeholders' perspectives and interests in implementing flexible housing projects.

Stakeholder analysis

A stakeholder analysis can offer valuable insights into the complex dynamics of the housing sector and can help to identify effective policy solutions that balance the interest of different stakeholders (Malik & Tariq, 2021).

Therefore, in this research, a central comparison is made between the perceived benefits and challenges of temporary housing. As stated in the research and following sub-questions the stakeholder groups are divided into three different groups, namely housing providers, municipalities, and housing and urban development experts.

Housing providers, such as housing corporations and construction companies, are one of the most important actors in the housing market. Their primary objectives include meeting housing and maximizing profitability, but they also try to consider their social responsibility (Hackworth & Moriah, 2006).

In the Dutch housing market, housing corporations and market parties are generally responsible for building homes (Groot et al., 2022). Research conducted by the Expertisecentrum Flexwonen (2019) revealed that the majority of "flexwoon" projects are not implemented by municipalities (36%), but rather by housing corporations (47%). Housing corporations primarily view flexwoningen as a temporary solution to the shortage of housing for vulnerable populations and students (Groot et al., 2022).



Currently, in the Netherlands, municipalities are responsible for ensuring an adequate supply of housing. They are considered the ultimately accountable parties or "end or outcome responsible" entities. Municipalities establish the framework within which housing construction, including flexwoningen, should take place within their boundaries. This involves identifying suitable locations and formulating criteria for the size and quality of flexwoningen (Hilhorst & Van den Bos, 2020).

If a municipality owns the land, it can also influence temporary housing through its land and real estate policies (Groot et al., 2022).

According to research by Reedijk & Luijkx (2020), municipalities tend to view the provision of sufficient flexwoningen as an effort rather than an outcome obligation. This is primarily due to the perceived lack of capacity among municipalities to effectively address the multitude of complex challenges they currently face (Hilhorst & Van den Bos, 2020). Moreover, tasks such as housing construction and the transition to sustainable heating all require decisions regarding land use (Groot et al., 2022).

However, despite the challenges faced by municipalities, they generally have a positive attitude towards the introduction of flexwoningen. Local administrators and their officials see flexwoningen as a potential temporary solution to the growing housing shortage (Groot et al., 2022).

Municipalities also view flexwonen as a possible solution to other social issues. For instance, temporary housing options for individuals with mild care needs could serve as an intermediate step between institutional care and independent living in the community (Expertisecentrum Flexwonen, 2019; Van der Velden et al., 2020).

Housing and urban development experts comprise researchers from different backgrounds and institutions. They may have differing opinions, but they share a common goal of using research and innovation to approach the housing market.

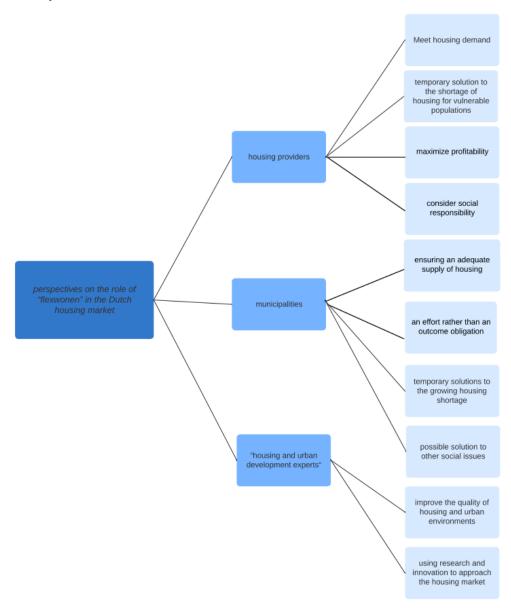
Ultimately, they aim to improve the quality of housing and urban environments through their expertise and knowledge (Koebel, 2008).

When the principles of the different stakeholders align, they can create a balanced housing market that meets the needs of diverse demographics and promotes sustainable urban development. However, when conflicting, this can lead to challenges, such as unaffordable housing, lack of innovation, or ineffective regulations. To overcome these challenges, stakeholders need to collaborate and find a balance between these principles. They can do this by leveraging their expertise and finding common ground to create solutions that meet the social, economic, and environmental goals of the community (Zeeman et al., 2016).

Expectations

Figure 1 consists of a conceptual model that explains the expectations of the stakeholder analysis based on the theoretical framework presented above.

Figure 1: Conceptual model





Methodology

This study aims to explore and understand the perspectives of various stakeholders regarding the role of flexwonen in the Dutch housing market.

To achieve the research objectives, a qualitative research design was employed. This was done by using in-depth interviews, with three different interviews for every stakeholder group: housing providers, municipalities, and housing and urban development experts. This enabled the collection of rich and in-depth data on the perceptions and experiences of different stakeholders. Convenience and snowball sampling was used to recruit participants who had relevant knowledge and experience regarding the Dutch temporary housing market. Data collection involved conducting semi-structured interviews with the selected participants, either in-person or virtually, based on their preferences. This method relied on asking questions within a predetermined thematic framework. Semi-structured interviews involved a series of predetermined questions supplemented by probe questions. This approach offered several advantages. The use of a fixed question set in a consistent order enabled convenient participant comparison. Semi-structured interviews provided flexibility for probing, establishing a personal connection, obtaining contextual understanding, and facilitating triangulation. However, there were also disadvantages to consider, such as subjective interpretation, limited sample size, resource and time intensiveness, and the potential for response bias.

Figure 2: participants of this research

Participant	Group	Function	Employer
Dr. Ir. Leo	Housing and urban	Architect /	TU Delft
Oorschot	development expert	Researcher	
Dennis	Municipality	Project leader	Municipality Olst-
Elshof		housing	Wijhe
		developments	
Jolien Groot	Housing and urban	Scientific researcher	PBL Netherlands
	development expert		Environmental
			Assessment Agency
Ian Mensink	Housing provider	Manager	Harwoonie
		construction	(construction firm)
		company	
Laura de	Housing and urban	Scientific researcher	Municipality of
Graaff	development expert		Amsterdam
Erik Loohuis	Housing provider	Project manager	Salland Wonen
		Real estate	(Housing
			corporation)
Joyce	Municipality	Legal advisor	Municipality of
Bloemert		enforcement	Nunspeet
Samantha	Municipality	Senior project	Municipality of
Volgers		manager area	Arnhem
		development	
Roel	Housing provider	Project manager	Reggewoon
Wagenmans		Real estate	(Housing Provider)

The audio recordings of the interviews were transcribed for analysis, ensuring the accuracy and completeness of the collected data. Thematic analysis was employed to address the various sub-questions, and the identified themes were subsequently compared and contrasted across different stakeholder groups to identify similarities and differences in their perspectives.



The thesis was conducted following the guidelines outlined in the Dutch Code of Conduct for Research. These standards served as recommendations to ensure that the research was carried out responsibly and transparently. Throughout the research process, the researcher strictly adhered to these guidelines.

Each participant was provided with a consent form and was required to sign it before the interview took place. This ensured that participants were fully aware of their rights and gave their informed consent to participate in the study. Additionally, every participant in this research agreed to have their name used.



Results

This section presents the key findings obtained from interviews conducted with housing providers, municipalities, and housing and urban development experts. These findings shed light on the advantages and challenges of flexwonen from diverse stakeholder perspectives.

Advantages:

According to the interviewees, one of the main reasons stakeholders choose to develop flexwoningen is the ongoing housing crisis in the Netherlands, which has created a high demand for affordable housing. To meet this demand, many municipalities and housing associations are turning to flexwoningen due to their faster construction process compared to permanent housing. Ian Mensink, project leader at Harwoonie, a construction company specializing in modular housing, supported this notion, stating the following:

"The biggest advantage is, of course, that if you follow the regular housing construction process, where developers build, for example, 100 or 200 homes, this process often takes 7 or 8 years. In the municipality of Olst-Wijhe, we managed to build the homes within a year after the idea was conceived. This is extremely fast compared to the usual procedures. This way, we can guickly create living space for over 100 people."

Flexwoningen have additional advantages, including their nitrogen-neutral nature and commitment to circularity through the use of bio-based materials. Their flexible and modular designs enable convenient relocation. Furthermore, the factory-based construction process requires fewer laborers, resulting in efficient and faster production.

Manufacturing modular homes in factories also enhance quality control. Rigorous tests and inspections can be conducted in controlled environments, ensuring the construction of well-built homes. This is particularly important since, according to the interviewees, on-site quality control can pose challenges for contractors.

Interviews with municipalities revealed that many of them possess substantial amounts of undeveloped land, particularly on the outskirts of towns and cities. However, the high costs associated with constructing permanent homes often render this land unused. Flexwonen emerges as a viable solution in these cases, as it allows for flexible rental and living arrangements. Landowners who have purchased land around urban areas can temporarily utilize their property, offsetting interest losses.

Furthermore, municipalities also reported having numerous vacant properties, especially in urban areas. The COVID-19 crisis has contributed to an increase in vacant office buildings that are unappealing to other companies due to outdated facilities and high energy costs. Consequently, these offices remain unused, making them suitable for conversion into flexwoningen.

In addition to office buildings, other types of properties, including vacation homes, may also experience periods of vacancy. These properties can be temporarily repurposed as flexwoningen, helping to address issues related to the illegal occupation of these homes, which has become prevalent due to the housing crisis.

Another significant advantage, particularly for municipalities and housing associations, is the need for a flexible living environment, often referred to as a "flexible shell." Flexwonen is primarily designed for individuals or couples and serves as a temporary housing solution. In the Netherlands, municipalities have taken on numerous responsibilities from the government in recent decades, including housing arrangements for various groups such as status holders, undocumented refugees, and individuals from healthcare institutions. These individuals often end up in the social housing sector, leading to reduced availability of social housing units for those in urgent need.



Additionally, the aging population in the Netherlands further contributes to the demand for flexible housing options. According to Dr. Ir. Leo Oorschot, the stagnation in social housing in the Netherlands over the past decade can be attributed to the effects of neoliberalism and decentralization. This has resulted in a challenging situation for many individuals who do not qualify for social housing and are unable to purchase a home. Jolien Groot, a researcher at the Netherlands Environmental Assessment Agency, stated the following about this:

"There is a real problem now for many people who fall through the cracks, who are not yet eligible for social housing and are also not able to buy or are simply not eligible for homeownership."

Flexwonen, with its flexible shell concept, can provide a solution for the group of spoedzoekers who are currently struggling to find housing. These individuals often face financial constraints, and flexwoningen are generally affordable, making them a suitable option. Moreover, the integration of diverse target groups in "flexwoon" projects can foster social integration and create opportunities for learning and mutual understanding

Challenges:

Results from the conducted interviews highlight several challenges related to the concept of flexwonen, particularly in the context of the Netherlands. One significant hurdle is the distribution of land, which is currently experiencing intense competition in the country. This has made it exceptionally difficult to obtain land for "flexwoon" projects.

One example mentioned in the interviews is the acquisition of vacant plots of land near cities by developers in the past. Initially intended for luxury homes, these plots have now become valuable opportunities to address housing challenges. However, developers face a dilemma as they have already invested a significant amount of money in these plots, but their plans clash with the municipalities' goals of inclusive development.

Municipalities aim to achieve a balanced distribution of housing options, including 30% social housing, mid-range rental housing, and high-end rental housing. They are also willing to contribute to the necessary infrastructure. Nevertheless, the developers' focus on luxury homes creates a disconnect with the municipalities' vision, complicating the situation and hindering the implementation of flexwonen projects. This exacerbates the shortage of accessible housing options and adds to the complexity of the housing crisis.

One specific challenge identified in the interviews is the difficulty of obtaining the cooperation of nearby residents when implementing flexwonen projects. Several interviewees highlighted that objection procedures for flexwoningen frequently experience delays beyond the initial timelines. Dr. Ir. Leo Oorschot provided valuable insight into this matter, stating:

"In some municipalities, there is a desire to construct flexwoningen in parks or green areas. However, this often results in conflicts with neighboring residents who are opposed to losing their green surroundings."

Additionally, a notable challenge mentioned in the interviews is the negative reputation often associated with flexwonen. Jolien Groot's interview shed light on this issue, stating:

"Neighbors often have various associations with "'flexwonen", such as the perception that it may attract young people looking to party or become residence for refugees. People are uncertain about the operational aspects of such cases, which leads to unrest."

Another significant challenge identified in the interviews is the diverse nature of residents living in flexwoningen. Due to the broad target groups, they often have different backgrounds and ideas about life. For instance, some residents may come from care institutions with specific needs, which can lead to unmanageable situations in "flexwoon" complexes.



Furthermore, an additional challenge that emerged from the interviews was the presence of uncertainties and unexplored aspects linked to the relatively new concept of flexwonen. This applies to various stakeholders such as municipalities, housing corporations, and construction companies. Many interviewees expressed that they had underestimated certain aspects and the level of effort required. For instance, they encountered difficulties with objection procedures from the neighborhood and faced complexities in obtaining specific permits. These processes took longer and involved more complexities than initially anticipated.

Despite the current comparable quality of some types of flexwoningen to permanent constructions, certain disadvantages need to be addressed. One of these drawbacks is the issue of excessive heat during the summer, resulting from temperature differentials. This problem arises due to the prevalent use of wood in the construction of flexwoningen, which tends to retain heat on warmer days. The natural ventilation provided in these homes is often inadequate, and even the implementation of mechanical ventilation can present challenges. Finding suitable solutions to address this challenge is imperative.

The provision of utilities emerges as another significant obstacle in the implementation of flexwoningen. Due to the rapid construction nature of these housing units, the required infrastructure, including electricity and sewage connections, often experiences a longer waiting list. As a result, the installation of these essential utilities may not occur as promptly as initially anticipated.

Another major problem identified in the interviews is the limited exploitation period associated with flexwoningen. Housing corporations and municipalities expressed concerns that the typical term of 5 or 10 years is too short. Housing corporations must acquire and install flexwoningen for a specific period, while municipalities are responsible for developing the necessary infrastructure, including roads, electricity, sewage systems, street lighting, and waste facilities. However, after the expiration of the term, these investments often need to be removed. This lack of sustainability serves as a significant deterrent for many municipalities and housing corporations, leading to hesitations in investing in flexwoningen. Furthermore, this situation creates uncertainty and ambiguity.

The limited exploitation period also affects the utilization of flexwoningen in vacant office spaces. Modular concepts are not suitable in such cases, as extensive renovations are necessary to accommodate homes for 5 or 10 years. However, many municipalities and housing corporations struggle to secure funds for such substantial investments within such short durations, as it would not be cost-effective for them.

To enhance the financial viability of these projects, the government has provided subsidies. However, based on conversations with housing corporations and municipalities, many of these parties found it challenging to meet the specific requirements for qualifying for these subsidies. Additionally, the response time for subsidy applications is often lengthy, leading these parties to exclude subsidies from their business cases.

Stakeholder analysis:

Housing providers

When looking solely at their perspective on flexwonen after the interviews, housing providers revealed a few key findings. Firstly, it was observed that the initiative for flexwonen often originates from the municipalities rather than the housing providers themselves.



However, despite this, collaboration between the various stakeholders generally proceeded smoothly. All parties involved expressed a willingness to contribute towards addressing the issue of a high number of spoedzoekers.

For instance, many housing corporations are aware that flexwoningen projects may not yield financial gains. Nevertheless, they willingly participate in such initiatives due to their strong commitment to fulfilling their social responsibilities. It's important to note that their ability to do so hinges on having a stable financial foundation already in place.

However, to mitigate potential losses on these projects, housing corporations often engage in negotiations with municipalities to extend the duration of exploitation. A concrete example can be seen with Salland Wonen, a housing corporation currently constructing flexwoningen in collaboration with the municipality of Wijhe-Olst. They have reached an agreement with the municipality stating that after a period of 10 years, the homes must be relocated. However, Salland Wonen has successfully negotiated the option to retain these homes on municipal grounds for an additional 20 years. After the specified period, Salland Wonen plans to take advantage of the newly established buy-back scheme for flexwoningen initiated by the Dutch government. A similar approach has been adopted in the municipality of Arnhem. In this case, the homes are also required to be relocated after a period of 10 years. However, once the 10-year mark is reached, the homes will be permanently placed elsewhere within the municipality.

In addition to constructing and placing units on temporary grounds, flexwonen can also involve the conversion of office buildings into apartments. However, one significant challenge with this approach is that private parties often own office buildings. For instance, Salland Wonen currently rents a former office building for a period of 15 years. The transformation of this building into apartments has been carried out by the private party. However, the social rents charged by the housing corporation are lower than the overall rent paid by the housing corporation to the private party. As a result, even in this flexwonen project, the housing corporation does not generate any profits. According to Roel Wagenmans from the housing corporation Reggewoon, the movability of flexwoningen are also a significant challenge.

"The question remains as to the extent to which the units are truly relocatable. It does come at a considerable cost, to be honest. I believe it's around 20,000 euros per dwelling. The transportation costs are not much cheaper than on-site construction, so I think in the future, prices in this regard need to be taken into consideration."

When questioned about their plans to continue developing "flexwoon" projects, the majority of housing corporations expressed their desire to do so. However, they emphasized that they face a financial viability challenge and must find a suitable balance to maintain the financial health of their organizations.

Municipalities:

Municipalities, in general, have shown great enthusiasm for flexwonen and have highlighted several advantages, particularly the ability to provide quick housing solutions for spoedzoekers. Based on the interviews conducted, it is evident that municipalities often take the initiative to initiate the construction of flexwoningen. Nevertheless, municipalities also acknowledge certain challenges they continue to face. Convincing housing corporations to participate in flexwoon projects has proven to be a struggle in some cases. Additionally, municipalities bear relatively high costs as they are often responsible for the infrastructure associated with these projects.

To mitigate potential financial losses, municipalities often attempt to incorporate "flexwoon" projects within larger, long-term construction plans. By integrating these projects into future permanent construction phases, municipalities can offset their losses through the sale of land plots.



Also, the process of addressing concerns raised by residents and navigating the permit approval process can be a complex and time-consuming task, adding to the overall difficulties faced during the implementation of "flexwoon" projects.

Municipalities frequently opt for flexwoningen as a strategy to retain their land positions in specific areas while simultaneously addressing the high demand for housing. They recognize that by implementing flexwonen, they can effectively achieve two goals at once. A notable example illustrating this approach was highlighted in the interview with Samantha Volgers, who is involved in the development of flexwoningen in the municipality of Arnhem. She explained that the municipality possesses a piece of land situated between two train tracks, and there are plans for potential changes to the tracks within the next decade. However, many details regarding this development remain uncertain. By implementing flexwonen, the municipality can ensure that the houses can be relocated after 10 years, allowing for the construction and modification of the railways. In the meantime, this land can be utilized for providing much-needed housing for the residents of Arnhem. This approach demonstrates the strategic use of flexwonen to maximize land utilization while considering, in this case, future infrastructure developments.

Housing and urban development experts:

Housing and urban development experts acknowledge the potential of flexwonen to address the current housing crisis, but they also express critical viewpoints. Jolien Groot's statement captures this sentiment, stating:

"What I appreciate about the policy is that you think about it beforehand. If you haven't delved into it deeply yet, you might think there is a quick solution, but in practice, it's not easy."

One example of this complexity is that while municipalities see flexwonen as a rapid means of expanding their housing supply, concrete plans for the future of these homes, particularly when they need to be relocated after a certain period (e.g., 10 years), are still lacking. Experts raise concerns about the substantial effort and ambition required for flexwonen projects, emphasizing that such efforts should not come at the expense of permanent housing solutions. While municipalities need flexible housing options, it is widely acknowledged that flexwonen is not a permanent fix.

Furthermore, it is important to note that flexwoningen primarily caters to one or two-person households. While there is a limited housing stock available for individuals in the Netherlands, housing and urban development experts caution against assuming that flexwoningen will be the sole type of housing constructed by housing corporations in the future.

When discussing the future of flexwonen in the Netherlands, housing and urban development experts hold varying opinions. However, there is general agreement that there is currently a demand for flexwonen due to factors including temporary workforce influx, individuals seeking short-term accommodation, and growing migration flow. Additionally, the uncertainties brought about by climate change necessitate considerations about suitable living areas and addressing potential risks, such as flooding.

Recognizing flexwonen as a versatile and transportable building concept, experts see its potential even in the distant future, aligning with social and climate adaptation goals. Moreover, flexwonen contributes to addressing the nitrogen crisis, and its construction methods are often viewed as more intelligent and efficient compared to traditional approaches. It is conceivable that in the future, flexwoningen may be referred to as modular buildings or adopt other terminology while retaining their fundamental characteristics.



Conclusion:

Flexwonen has gained attention as a potential solution to address the pressing issue of affordable housing in the Netherlands. This study examines the perceptions of different stakeholders, such as housing providers, municipalities, and housing and urban development experts, regarding the benefits and challenges of flexwonen in the Dutch housing market, and explores how these perspectives vary across stakeholder groups.

Its advantages, including faster construction, environmental benefits, quality control, land utilization, and flexibility in meeting diverse housing needs, position it as a promising approach to address the housing crisis. However, the challenges associated with land distribution, neighborhood objections, negative reputation, resident mix complexity, uncertainties, limited exploitation periods, and subsidy eligibility must be effectively addressed for successful implementation.

Housing providers demonstrate a commendable commitment to their social responsibilities, actively participating in flexwonen projects despite financial challenges. Through negotiations with municipalities and innovative strategies for extended exploitation periods and relocation options, housing providers strive to find a balance between social impact and financial viability. However, the practicality and associated costs of relocating flexwoningen remain notable challenges.

Municipalities show great enthusiasm for flexwonen as a viable solution to the housing crisis, actively initiating and supporting these projects. They seek to integrate "flexwoon" initiatives into long-term construction plans to maximize land utilization and offset infrastructure costs. However, addressing concerns raised by residents, navigating the complex permit approval process, and ensuring financial sustainability remain significant tasks for municipalities.

Housing and urban development experts recognize the potential of flexwonen in addressing the housing crisis, but they emphasize the need for comprehensive planning and a realistic understanding of its limitations. They caution against viewing flexwonen as a permanent solution and stress the importance of considering future relocation needs and the diversity of housing stock required in the long term. Experts highlight the benefits of flexwonen in adapting to temporary workforce influx, addressing climate change uncertainties, and promoting sustainable construction practices.

The perspectives of all the different stakeholders differ from each other. While stakeholders view flexwonen, because of its numerous advantages, as a potential solution to the current housing crisis. Its challenges must certainly not be overestimated. Since flexwonen is relatively new, future research is needed to stay relevant with the rapidly changing housing market and delve deeper into the perspectives of other stakeholders, for instance, policymakers and residents.

By fostering collaboration and addressing the challenges at hand, the implementation of flexwonen has the potential to transform the Dutch housing market, offering a timely and promising solution to the urgent need for affordable housing.



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Appendix:

data collection instrument: In-depth interviews

Section 1: Introduction and Demographics

1. Please briefly describe your educational and professional background and your area of expertise in the Dutch temporary housing market.

Section 2: Perceptions of Stakeholders on Benefits and Challenges of Temporary Housing

- 1. What are your perspectives on the primary benefits of temporary housing in the Dutch market/'specific project'?
- 2. What are your views on the main challenges associated with temporary housing in the Dutch market?

Section 3: Primary Drivers for Housing Providers to Invest in Flexwonen

- 1. What are the perspectives of housing providers regarding the implementation of flexwonen initiatives in collaboration with municipalities?
- 2. What financial challenges do housing providers commonly encounter when implementing flexwonen initiatives?
- 3. How do housing providers navigate the funding and financing aspects of flexwonen projects to ensure their financial viability?
- 4. What strategies or approaches have housing providers found effective in overcoming financial hurdles and achieving sustainable financial models for flexwonen initiatives in collaboration with municipalities?

Section 4: Municipalities' Perspectives on Flexwonen

- 1. What are the main perspectives of municipalities regarding the utilization of flexwonen as a strategic land utilization tool?
- 2. What are the key challenges that municipalities commonly encounter when implementing flexwonen initiatives?
- 3. How do municipalities navigate the regulatory and legal frameworks when utilizing flexwonen as a land utilization strategy?
- 4. What strategies or best practices have municipalities found effective in successfully implementing flexwonen initiatives for strategic land utilization?

Section 5: Housing and urban development experts' Perspectives on Flexwonen as a Housing Solution

- 1. How do housing and urban development experts view flexwonen as a housing solution for addressing the housing crisis?
- 2. What considerations are important when developing long-term plans for homes relocated through flexwonen?
- 3. In what ways does flexwonen accommodate the housing needs of different household types?
- 4. What are the social and climate adaptation implications of implementing flexwonen as a housing solution?

Section 7: Conclusion

1. Is there anything else you would like to add regarding the benefits and challenges of temporary housing in the Dutch market?