TEMPORARY BEINGS

Understanding the Housing Conditions of Invisible Liquid Migration in the Netherlands

Graduation Studio Report

Planning Complex Cities

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Understanding the Housing Conditions of *Invisible* Liquid Migration in the Netherlands

COLOPHON

Master Thesis-P5 Report
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Understanding the Housing Conditions of *Invisible* Liquid Migration in the Netherlands

Graduation Lab: Planning Complex Cities

Supervisors

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"The migrant is in several other ways an 'ideal' worker"

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AS THE BLANKET LIFTS,
UNVEILING FRAGMENTS
BEFORE THE WHOLE.

IN FRAGMENTS REVEALED,
AN URBAN FABRIC TAKES
ITS FORM,

PARTIAL IMPRESSIONS
YIELD TO A PANORAMIC
SIGHT,

THE CITY UNFOLDS,
PARTIALLY THEN COMPLETE,

IN FLEETING MOMENTS,
GLIMPSES OF THEIR
SPATIAL PRESENCE,

CITIES EMERGE, A PARTIAL
GLIMPSE THEN THE
COMPLETE SCROLL.

A SYMPHONY OF
STRUCTURES, RISING
THROUGH THE NORM.

A DANCE OF URBANITY,
BATHED IN SHIFTING LIGHT.

AN INFRASTRUCTURE
NARRATIVE IS WRITTEN, A
STORY REPLETE.

A POETIC YET DIFFERENT
LAYOUT IN THE FRINGES,
FIXED IN EXISTENCE.

Fig 1: Photo Essay from the Aircraft
Source: Photographed by Author

INTRODUCTION

Fig 2: Horizontal boxes or "verdozing" in landscapes of trade.
Source: Author

MOTIVATION

Emboldened by the prospect of a fresh academic chapter on a different continent, I engaged in a comparative urban analysis as my aircraft transited from the dense complexity of Mumbai to the ordered urbanity of Western Europe. These geographical observations from the sky offered a novel vantage point - Eurocities presented as legible constructs, akin to stamps; their layout starkly discernible against the sprawling density I knew from home. It was this shift in scale from the towering skyline of Mumbai to the low-rise, windmill-punctuated Dutch horizon that seeded the conceptual underpinnings of my study.

My scholarly curiosity in migratory dynamics is deeply intertwined with my narrative as an 'expatriate' - the term I was now given in a Western country. The European Union's (EU) Freedom of Movement (FoM) sparked a particular interest regarding migratory flows within the EU. Tools such as the 'Temper' platform unveiled the fluidity of temporary work arrangements and helped crystallise my focus on the phenomena of liquid mobilities among seasonal workers. These uncertain mobilities contribute to the broad academic debate on labour migration.

This project seeks to illuminate the multifaceted nature of seasonal labour movements within Europe where I metaphorically agree with the phrase "Europe as a Chessboard." The Netherlands, with its unique labour policies and the market, becomes the case study for this investigation. My objective is to unravel the complex interdependencies between labour mobility and the transient employment opportunities that characterise Europe's increasingly flexible workforce.

INTRODUCTION

In an increasingly interconnected world, labour migration has become a defining feature of the globalised economy. The free movement of people, goods and services while fostering economic growth and cultural exchange, also presents complex challenges for nations and individuals alike. The principle of free movement of people in the EU has facilitated unprecedented levels of labour mobility. Within this intricate web of migration patterns, seasonal labour migration stands out as a distinct and often overlooked phenomenon. These cycles and loops are hidden. Characterised by its liquid nature, it involves the movement of workers across borders to meet the fluctuating demands of industries such as agriculture, horticulture and logistics. This form of migration presents unique challenges related to precarious employment, social integration and spatial inequalities.

The Netherlands, with its liberal labour market policies, strong agricultural and logistics sector and increasing reliance on a flexible workforce, provides a compelling case study for investigating the dynamics of seasonal labour migration within the EU. The country has witnessed a significant influx of seasonal workers in recent years, primarily from CEE countries and after Brexit. This influx has sparked debates about the economic, social and spatial impacts of seasonal labour on Dutch society.

In NL, this spatial impact is seen in the form of flexible housing. Flexible housing refers to housing with a temporary component: short-term tenure contracts, temporary locations or buildings with a fixed period of use (Groot et al., 2024). This form of housing was recently incorporated to ramp up housing production and accommodate flexible housing groups such as temporary labour. Flexible housing projects can be realised quickly and at volume for heterogeneous target groups (Groot et al., 2024). It results in ad-hoc camp-like settings hidden in Dutch production landscapes - a rapid response presented for important needs. Hyper productivity is expected by owners that house labourers in these hyper-controlled environments. Labour demands are not adequately met. While most published journals and articles speak about refugee housing in NL, it is important to note that temporary labourers face different issues.

Chapter 1 establishes the project's relevance and provides a broader contextual foundation. This foundation is built through background research including the analysis of academic papers and relevant documents related to labour migration. Chapter 2 outlines the research methodology, to delve deeply into the complexities of labour migration within a globalised world. Chapter 3 then lays out the central concepts and theories underpinning the project. Focusing on the province of Limburg (refer to Fig. 3), Chapter 4 addresses the research questions established. This chapter investigates the business ecosystem of temporary jobs, examines ten housing conditions through various lenses of habitability and worker demands and evaluates the interdependencies among different types of seasonal work. Drawing upon fieldwork analysis and interviews, Chapter 4 ultimately proposes spatial planning and urban design principles and strategies to address the urgent need for temporary labour housing in NL. Chapter 5 concludes the project by suggesting relevant measures for navigating the emerging and debated intersection of living and working conditions within the Dutch production landscape.

Fig 3: Temporary Living and Working Arrangements in Limburg
Source: Author

ABSTRACT

This project delves into the increasingly prevalent phenomenon of liquid labour mobilities resulting from the ever-changing boundaries of the European Union, examining their often-overlooked spatial implications in the Netherlands. Focusing on the critical presence of Central and Eastern European labour migrants engaged in precarious seasonal or 'flex' work arrangements, the research investigates the intersection of global mobility circuits and the local demand for temporary labour within the Dutch production landscape, particularly in the agriculture, horticulture and trade logistics sectors. Through interviews, spatial analysis of ten sites and policy and literature reviews, this study examines how these mobilities are facilitated and managed, the often-exploitative role of temporary employment agencies and the impact of precarious housing and job insecurity on the lives of seasonal workers. By scrutinising these dynamics, the project proposes novel strategies for sustainable and democratic seasonal neighbourhoods that respond to the underexplored challenges of flex-work and seasonal migration. Drawing upon cross-geography urban theory, this research suggests innovative living and working strategies and principles that emphasise both the societal and economic imperatives of ensuring just and equitable conditions for temporary labourers.

Keywords:

Guestworkers, Freedom of Movement, Flexwork, Temporary accommodation, The Netherlands, Labour migration, Dutch production landscapes

ABBREVIATIONS, GLOSSARY AND TERMS

Abbreviations

CBS Statistics Netherlands
EEA European Economic Area
EMN European Migration Network
EU European Union
GVVA Combined residence and work permit
IND Immigration and Naturalisation Service
TWV Work permit
UWV Employee Insurance Agency
FoM Freedom of Movement
DC Distribution Centre
NLA Netherlands Labour Authority
CEE Central and Eastern European
TAW Temporary Agency Work
WEC World Employment Confederation
ILO International Labour Organisation
NL The Netherlands

Glossary

Labour migration A relocation of people from one capital to another, or within their own country, for job market purposes.

Mobility within the EU EU nationals and legally staying nationals from third countries who, through their Right to Freedom of Movement, move from one EU Member State to another.

Liquid Mobilities EU migration is heterogenous and liquid migration is one of the types. It pertains especially to uncertainties and opportunities in the labour market (Engbersen, 2018). Many mobile workers have temporary jobs and work below their actual educational qualifications in European countries, but they also have limited opportunities in the labour markets of their origin countries (Nowicka 2012; Verwiebe et al. 2014; Voitchovsky 2014; McCollum and Findlay (2015). This contributes to a liquid life: "lived under conditions of constant uncertainty" (Bauman 2005:2).

Flex-housing is a form of (social) rental housing where the dwelling unit, the building location or the inhabitation period are temporary. Flex-housing developed as a potential stop-gap solution in Dutch housing policy, to temper the acute housing shortages in the country and provide accommodation to a set of vulnerable groups of residents.

Terms

Temporary Labour or **Migrant Workers** used for Seasonal Workers, Flex Workers, Liquid Labour, Pendulum Workers, Circular Migrants

Temporary Work used for Seasonal Work, Flex Work

Invisible or Invisiblities used for undocumented migrant labour/temporary labour

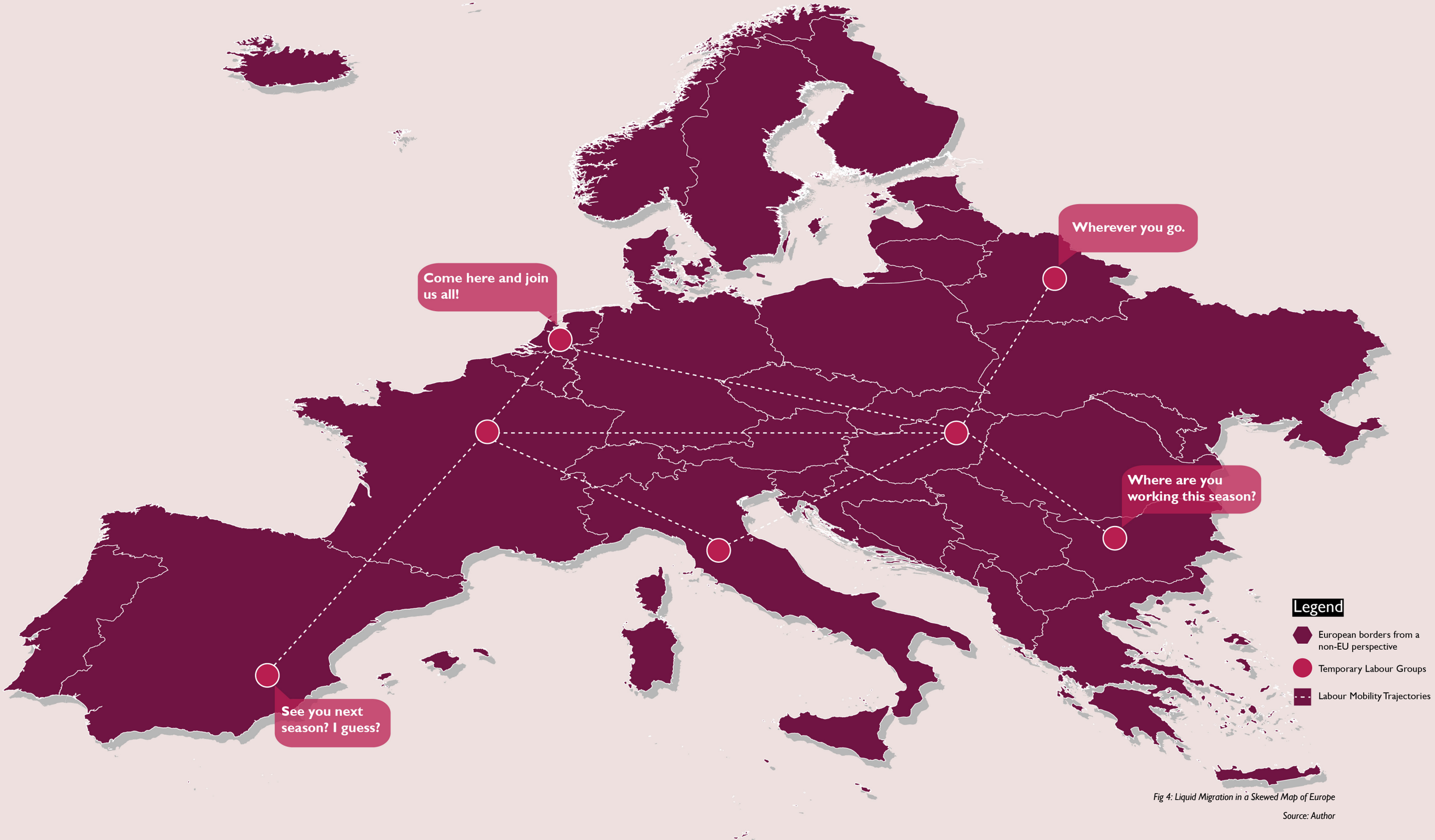


Fig 4: Liquid Migration in a Skewed Map of Europe

Source: Author

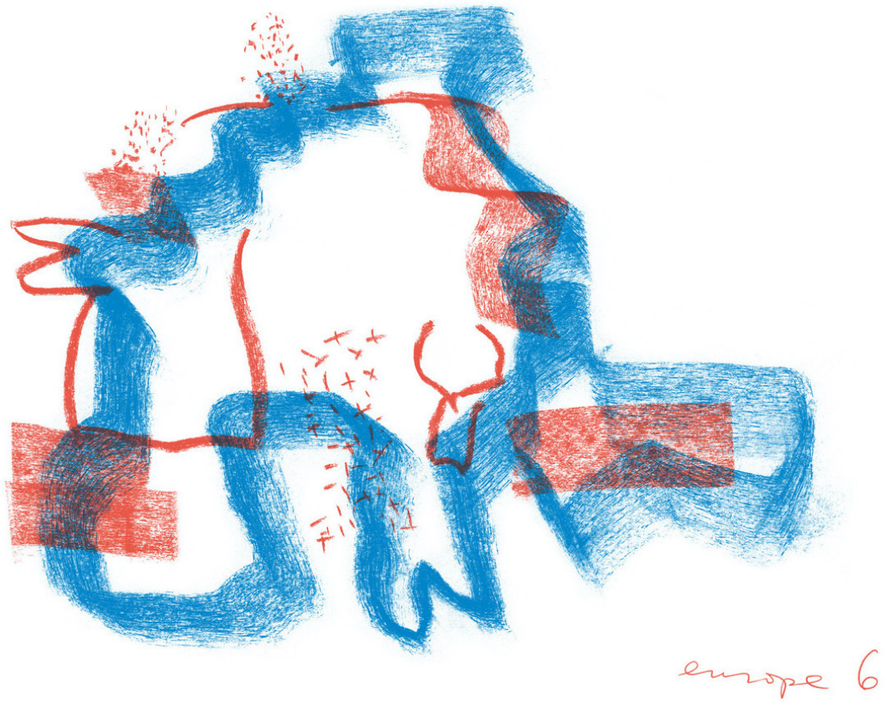
Fig 5: Can you figure the unusual patterns?
Source: Google Earth

PREFACE

Growing up in the dense and metropolitan city of Mumbai, I observed migration closely. Every political or social event had a massive effect on the city. Mumbai, a big bustling city taught me enough about city dynamics especially after strengthening my experiences with literature and reading what other authors write about. While brainstorming a topic for my graduation project, the sheer diversity of European nationalities at the University, caught my attention. I started researching about the 2004 expansion of the EU incorporating ten additional member states. Speaking with colleagues from Eastern Europe, I quickly understood the profound impact of this expansion. It marked a turning point for European demographics, as new freedoms of movement reshaped East-West migration patterns and gave rise to a diverse range of transient and cyclical living and working arrangements. This era of movement, characterised by temporality, circular and pendular mobility and even 'liquidity', challenges traditional notions of migration and integration and highlights a fluidity that defies old migration dichotomies.

My longstanding interest in labour conditions drew me to the often-overlooked experiences of Central and Eastern European labourers who journey to the Netherlands for seasonal or contingent work. These individuals, though critical to the workforce, particularly during economic downturns, frequently face social exclusion and invisibility within Dutch society. This stark contrast between their contributions and their marginalised status ignited a desire to shed light on their realities and advocate for more equitable conditions.

This project delves into the intricate interplay of migrant labour mobility and the Dutch production landscape, interrogating the precarious employment, uncertain and substandard housing arrangements and inequitable wages faced by these labourers. Driven by a desire to understand the spatial implications of this "liquid" workforce, I embarked on a journey of visual investigations, site visits and interviews. I hope that by mapping these spatial reverberations and amplifying the voices of these often-unheard workers, this project can contribute to a more nuanced understanding of labour migration and inspire more inclusive urban planning strategies that value the contributions of all residents.



National boundaries, it would seem, hold very little meaning at all. The squiggles hint at other political geographies, from the deeper past or some unimaginable future. A linguistic map of Europe, meanwhile, might look more like one of these than it would resemble a map of political borders.

Fig 6: Europe 6 by Rem Koolhaas and Patrick Doan
Source: https://europeanreviewofbooks.com/the-pinnacle-of-cartography-is-the-pinnacle-of-uselessness/en.

European Union timeline

Year of entry to the European Community (EC) / European Union (EU)

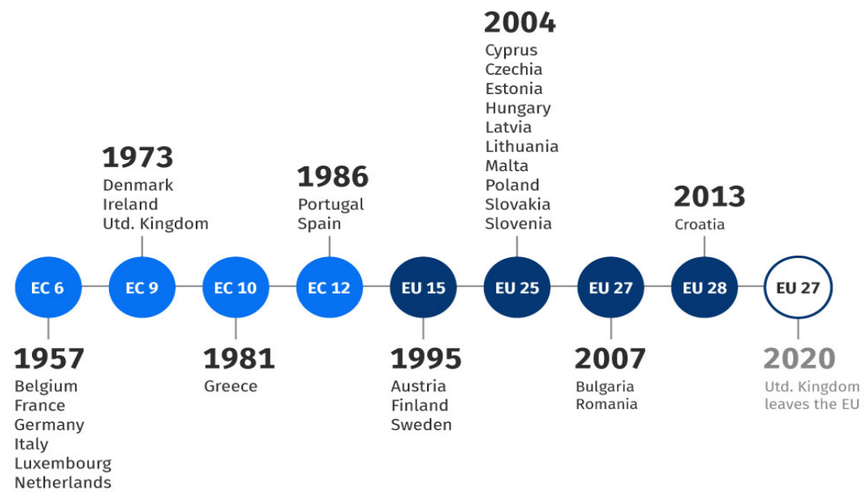


Fig 7: Timeline History of Countrywise European Integration
Source: https://europa.eu/

EVER-CHANGING DEFINITION OF THE EUROPEAN UNION INITIATING FREEDOM OF MOVEMENT

The free movement of people stands as a fundamental pillar of European integration, representing one of the four essential freedoms within the EU alongside the free movement of goods, services and capital (Delivet, 2017; Mance, 2022). These interlinked freedoms are pivotal to comprehending the cohesive structure of the EU, an alliance formed through the collaborative efforts of numerous nations over time (Refer to Fig. 7).

The FoM principle is a cornerstone of cooperation among EU countries granting EU citizens the right to work and reside freely in other EU nations, ensuring parity in access to employment, working conditions and various social and tax advantages (Vasilopoulou et al., 2019). This unique characteristic of the EU is intrinsically tied to the concept of EU citizenship which is automatically conferred upon nationals of EU member states and practically activated through free movement. It is crucial to distinguish EU freedom of movement from immigration from outside the EU (Vasilopoulou et al., 2019).

European integration, FoM and immigration collectively contribute to shifting demographics and the erosion of territorial boundaries (Hooghe and Marks, 2018). This transformation strengthens flows and caters to individuals seeking better opportunities absent in their home countries. Intra-EU migration has historically flowed from less affluent to more prosperous member states with economic factors, particularly related to the labour market driving individuals to seek enhanced job prospects (European Commission, 2014a, 2014b, 2017; Giuletti, 2014; Kahanec et al., 2014; Portes, 2015). Fig. 9 illustrates the stark differences between the land and labour costs in the East as compared to the West of the European countries. The financial crisis coupled with the gradual removal of transnational restrictions on workers from Central and Eastern Europe has further fuelled this increase in labour mobility (Vasilopoulou et al., 2019).

The rational model posits that support for European integration aligns with economic utility given the divergent socio-economic situations across EU countries (Eichenberg and Dalton, 1993; Gabel and Whitten, 1997; Hooghe and Marks, 2018). Variances in socio-economic conditions create push and pull factors prompting individuals to migrate to countries offering superior standards of living and employment opportunities (Mance, 2022). This is particularly evident in the case of the low-skilled labour market.

Examining the United States context, Scheve and Slaughter (2001) found that low-skilled citizens are more likely to oppose immigration. The EU similarly divides citizens between those benefiting from transnationalism and supporting EU integration and those perceiving losses and favouring demarcation (Vasilopoulou et al., 2019).

Fig. 8 illustrates findings from a study conducted by Vasilopoulou et al., in 2019 that more countries support the FoM as compared to the whole of EU itself. The project aims to encourage this preferred and unique qualities of FoM for EU citizens.

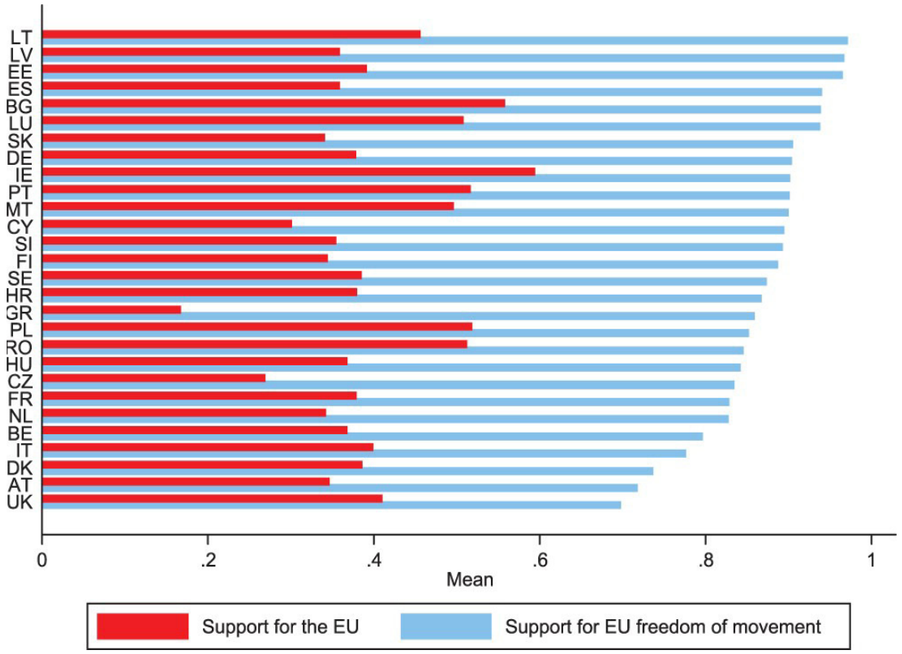


Fig 8: Support for the EU and for EU freedom of movement by country.
Source: Eurobarometer 84.3 (November 2015), 85.2 (May 2016), 86.2 (November 2016) and 87.3 (May 2017). Results for general EU support without Eurobarometer 84.3.

Fig 9: Wage differences across Europe
Source: Eurostat

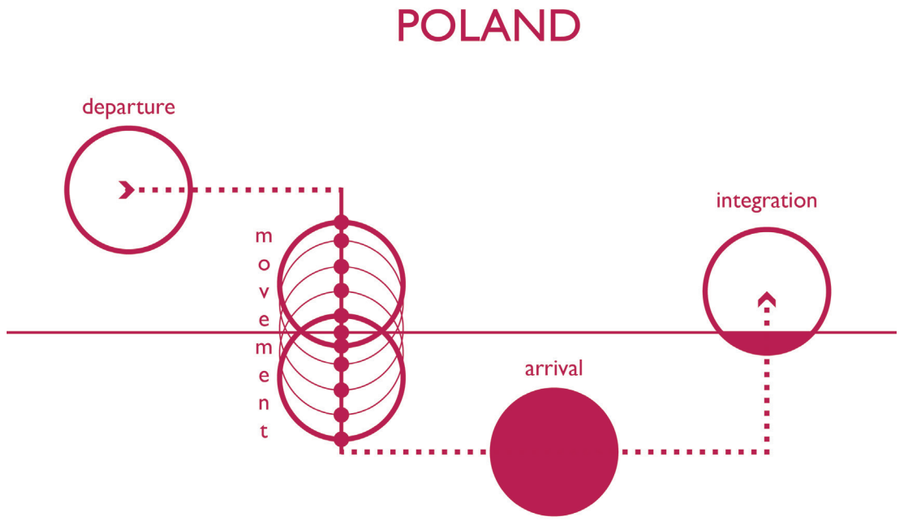


Fig 10: Typical Migration Trajectories of Temporary Migrant Labour from Poland to the Netherlands
Source: Author

Fig 11: Workers walking to the city center post working hours
Source: Author

FREE YET REGULATED MOVEMENT AND MOBILITIES IN THE EU

"Migrants are a very specific bunch," mentioned Saskia Sassen on a public radio in the UK, in 2018. They are a convergence of mobile capital and migrant mobility that reveals a nuanced perspective.

Kahanec and Guzi (2016) observe that immigrants strategically respond to labour shortages, migrating to sectors, occupations and countries where their labour is most needed. Constant (2013) consolidates existing evidence to dispel the notion that immigrants displace native workers, asserting that immigrants contribute to job creation over the long term. Kahanec and Pytlikova (2016) document the positive macroeconomic effects of EU mobility on GDP per capita and employment rates with marginal negative effects on output per worker in receiving countries (Ritzen, 2017).

Post-EU accession, the Baltic States, Bulgaria, Romania and Poland witnessed significant outflows of both skilled and unskilled workers (Kahanec and Zimmermann, 2016). Notably, approximately 6% of the Polish population lived abroad in another EU country by 2015 (Ritzen, 2017). Poles, for instance, gained renown for their excellence and dependability as workers in the UK (Canoy et al., 2010). Mobility policies wield considerable influence over the scale and direction of migration (Palmer and Pytliková, 2015). The EU's mobility policy, lauded by Kahanec and Zimmermann (2016), is viewed as a significant success, advocating for its visibility to promote EU cooperation and counteract rising nationalist sentiments (Ritzen, 2017).

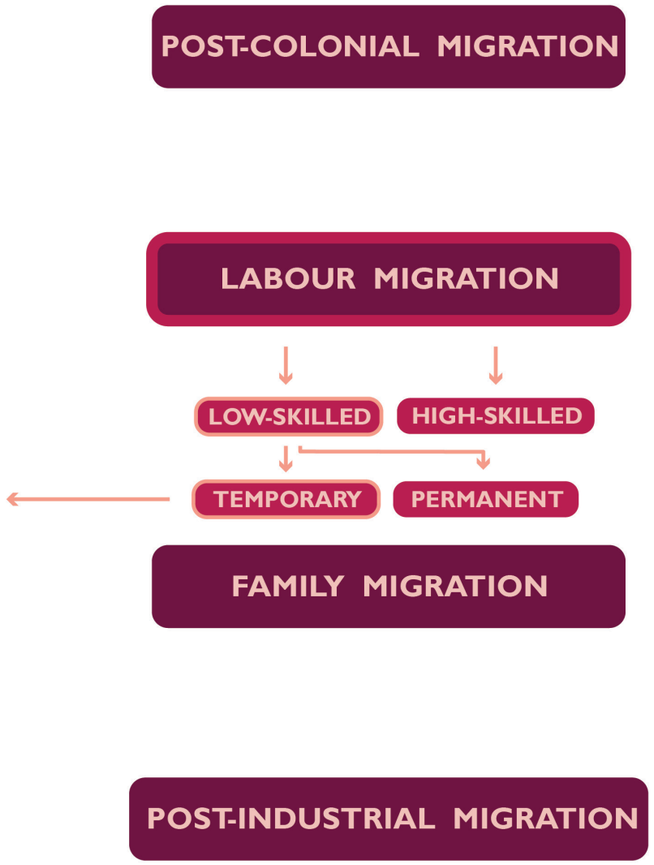
Despite the advantages, there is a growing sentiment against mobility, occasionally manifesting as stereotypes against immigrants or individuals with an immigrant background (Ritzen, 2017). Historical apprehensions toward migrant labour rooted in concerns about wage suppression and cultural differences persist (Goldthorpe, 1984; Castles and Kosack, 1973; Miles and Phizacklea, 1992). By 2000, despite increasing economic integration, only slightly over 1% of EU citizens lived outside their country of birth. Recognising the downsides of limited mobility, especially with the move towards monetary union, the EU initiated efforts to transform the formal right to free movement into a tangible prospect for its citizens (Portes, 2015). The macroeconomic and fiscal benefits for destination countries have been relatively small while sending countries except for potential long-term effects on the Baltic states have also experienced benefits. Negative impacts on labour markets, surprisingly, have been limited (Portes, 2015).

Drawing on Saskia Sassen's insights from "Guests and Aliens," the historical complexities of migrant integration come to the forefront. Sassen's work illuminates how the evolving dynamics of mobility are entwined with economic forces creating a socio-economic fabric where migrants navigate their roles as both guests and agents of change. This interplay between economic interests and migrant experiences offers a deeper understanding of the intricate history of seasonal labour migration in the EU. The labour migrant has to always fit in the specific requirement but most often, does not and cannot (Fig. 11).

Fig 12: Countries of Interest in EU
Source: Author

Fig 13: The Temporary Migrant in a Rotating Wheel of 'Labour'
Source: Author

TYPES OF MIGRATION IN THE NETHERLANDS



Source: Migration Diversity and Social Cohesion: Reassessing the Dutch Policy Agenda. Research for Policy, 2023.

LABOUR MIGRATION

Labour migration is defined as the relocation of people from one State to another, or within their own country, for job market purposes (EMN, 2015).

The Seasonal Workers Directive defines a seasonal worker as "a third-country national who retains his or her principal place of residence in a third country and stays legally and temporarily in the territory of a Member State to carry out an activity" As seasonal work offers little job security and often provides low wages, the priority work force is seldom interested in seasonal jobs, especially in agricultural sectors.

In The Netherlands, migrants coming seasonally or yearly for a period of time are referred to as 'migrant labourers', whereas other temporary migrants staying longer than one year before returning home are termed 'labour migrants' (Lucassen, 1994). The project focuses on 'migrant labourers' specifically and uses the term 'temporary labour' to address this group. There is a productive relation that has existed between industry and labour which often goes unseen when we talk about the economic accomplishments of growth-oriented countries. Different economies require different forms of labour depending on the supply and demand markets.

International and inter-regional labour migrations have been both a widespread and a strategic component of Europe's urbanisation and industrialisation history over the last three centuries, like the seasonal long-distance migrations of the Hollandgänger from Westphalia to Amsterdam in the late 1700s (Sassen, 1999). The Netherlands has a long standing history of seasonal migration for various kinds of jobs which is illustrated in Fig. 21. This is not a new concept but unique where destinations change frequently and migration pathways become unpredictable (Grabowska-Lusińska & Okólski 2009). Dutch society is becoming one of 'transient' migration (Jennissen et al., 2023). Fig. 14 shows that temporary migration (despite the limit being two years) is at an all-time rise here. Amongst Polish workers, for instance, there is considerable variety. A substantial number return home once they have accumulated sufficient resources, others commute back and forth on a regular basis, depending upon the availability of jobs, and others still move on to other European countries for work (Jennissen et al., 2023) (Refer to Fig. 10). A networked system of mobile working systems rather than settling in for permanent migration is formed. For this project, Polish workers, are selected, as a focus to research on the concept of 'temporary labour' since there is documented data available for this group, however, it applies to all temporary lbour migrant groups. Fig. 15 shows the high number of Polish workers as compared to the others occupied in seasonal farm work programs. This holds true to other logistics sectors as well. Temporary labourers are employed either directly by the host organisation, MNC or employer or they're hired by temporary agencies (refer to Fig. 16). Temporary employment agencies hire super-diverse labour and advertise job opportunities (Fig. 17 and Fig. 18) only to invite them to work in controlled environments. The availability and quality of housing for foreign workers became an urgent issue in the 1960s. The newcomers found themselves living in overcrowded hostels, guest houses or private boarding houses (Jennissen et al., 2023). Unscrupulous landlords and employment agencies offer low-quality housing for temporary labourers, even today.

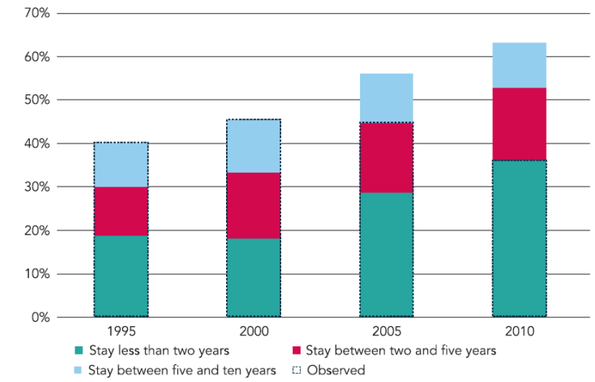


Fig 14: Departure rates (observed and forecast) of foreign-born immigrants by year of immigration and length of stay in the Netherlands
Source: Statistics Netherlands (CBS)

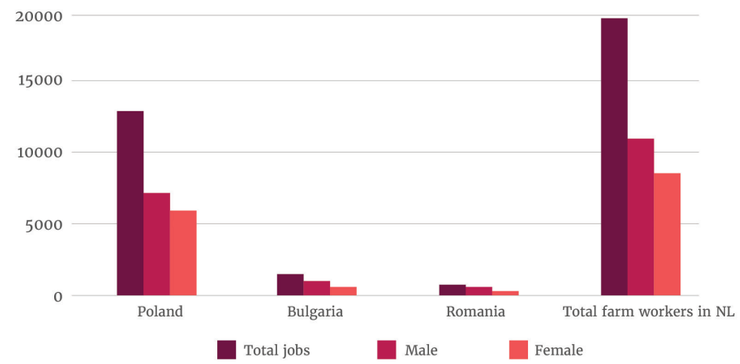


Fig 15: Migrant employment in agriculture by main countries of origin, 2017
Source: Open Society Foundations

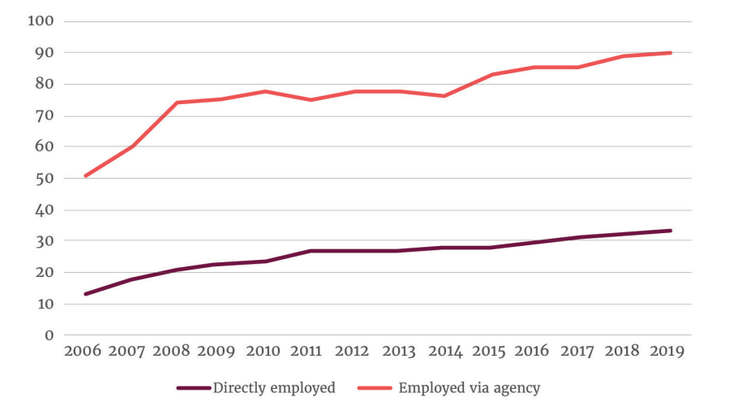


Fig 16: Migrant workers as share of the workforce in Dutch agriculture, 2006–2019 (%)
Source: European Journal of Migration and Law 24, 2 (2022)

Fig 17: A 'happy' temporary worker
Source: "Looking for a Job | Seasonalwork.NL." Accessed January 26, 2024. https://seasonalwork.nl/en/.

Fig 18: A 'beautiful' temporary worker in a horticultural greenhouse
Source: "Looking for a Job | Seasonalwork.NL." Accessed January 26, 2024. https://seasonalwork.nl/en/.

Fig 19: Collaborative Living and Working Arrangements
Source: Author

SOCIETAL AND SCIENTIFIC RELEVANCE

Societal Relevance

The glossy facade of recruitment campaigns often masks the harsh realities awaiting temporary labourers in the Netherlands. Employment agencies, through their marketing materials, entice workers with promises of opportunity, only to subject them to highly controlled environments where they are often dehumanised and treated as mere tools in a machine. My research, through visual investigations, site visits and interviews, aims to expose this stark contrast between the advertised reality and the exploitative lived experiences of these labourers. Often, Dutch citizens themselves are unaware of this issue so it would be an eye-opener to a wider audience, outside of the academic field.

By shedding light on the precarious employment, substandard housing and inequitable wages faced by temporary workers, this project challenges the normalisation of these exploitative practices. The normalization serves to perpetuate a system that benefits from the vulnerable position of temporary labour within an increasingly globalised economy. Ultimately, this research seeks to raise awareness about these critical issues and advocate for more inclusive urban planning strategies that value the contributions and safeguard the well-being of all residents, regardless of their migration status.

Scientific Relevance

This project employs design strategies and storytelling as methodological tools to unravel the complexities of flexible housing for temporary labour within a Dutch society that predominantly values permanence. Building on the work of Seasonal Matters Rural Relations by Seasonal Neighbours, Landscapes of Trade by Merten Nefs, Automated Landscapes by Merve Bedir, Ludo Groen, Marten Kuijpers, Víctor Muñoz Sanz and Marina Otero Verzier and Housing Migrant Workers: The Form of the Corporate City Along the Rotterdam-Venlo Logistics Corridor, this research addresses a critical knowledge gap by critically assessing the housing conditions provided to this often-invisible group and aligning their needs with potential areas for improvement. By visualising the spatial implications of temporary migration and giving voice to the lived experiences of these workers, this project offers a novel perspective on the rise of flexible work arrangements in the Netherlands. This research contributes to emerging scholarship on 21st-century mobility by examining how these trends, while presented as opportunities for some, often function as precarious necessities for others.

PROBLEM DEFINITION

Problem Context

The notion of temporary mobility workers derives from Europe's distinctive free-movement area which has substantially reduced migration and mobility barriers, a concept initially introduced to promote blue-collar cross-border employment for industrial work (Koikkalainen, 2021). The temporary work regimes now primarily enable low-skilled labour migration from CEE countries to higher economic areas in the Netherlands, a move that is, for many, less about opportunity and more about survival under dire conditions for minimal wages. This situation epitomises the Marxian "reserve army of labour", that is pertinent to contemporary Europe (King, 2018).

Temporary mobility workers refer to individuals taking on short-term employment in foreign countries and their proliferation in the Netherlands correlates with the country's high demand for labour in the agricultural and logistics sectors. The precariousness of these positions, often with inadequate job security, low wages and limited career progression is a stark reality for these individuals (Booth, Francesconi, & Frank, 2002; Giesecke & Groß, 2003; OECD, 2014). Furthermore, this employment trend is increasingly associated with the rise of social inequality (Gash & McGinnity, 2007).

Housing represents a significant plight for temporary mobility workers whose accommodations are generally isolated within the urban periphery and may be substandard, posing severe challenges to their quality of life and social inclusion. This situation is paradoxically juxtaposed with the positive portrayal featured on temp agency or uitzenbureau websites which often belies the harsh living and working realities of these labourers.

Problem Analysis

The Netherlands as a Case Study

Since the late 1970s, national economies have become increasingly globalised. Western nations have becomepart of the dynamic international economy with many companies preferring a more flexible workforce that can better cope with the variable workload emanating from global economic cycles (Boumeester, 2018). EU internal mobility, notably from CEE states is sufficient to satisfy all Dutch labour market needs. The Netherlands is a highly developed welfare state (Esping Anderson 1990) with strictly regulated labour markets. This includes nationally valid minimum wage levels (in The Netherlands since 1968). As Kremer (2016) observes, the Netherlands was suffering from a "guest worker" trauma whereas at the same time, the demand on the Dutch labour market was no longer for the type of workers who were recruited in the 1960s (refer to Fig, 21). And, indeed, expecting the same outcome – a part of the population that experiences difficulties integrating – would not have been merited (Doomernik 2015). It is interesting to note that work in the Dutch greenhouses in the 1980s and 1990s often was done by irregular migrants (Barkema et al., 2023). With the inclusion of Central European countries in 2004 many of these became regular (Siegmann and Williams 2020). Their recruitment either is by "traditional" connections between certain locations

Fig 20: Locating The Netherlands as case of interest
Source: Provided by Nikos Katsikis during Geographical Urbanism

Fig 21: History of Guest-workers or Aliens in The Netherlands
Source: Multiple Sources

in Poland, Bulgaria and Romania and Dutch farmers. This then mainly serves harvesting crops from the fields – typically seasonal work. Or recruitment is through intermediaries (i.e. temp agencies). The steep rise in the numbers of one-person agencies in Poland suggests that CEE countries are being used as conduits for employment contracts offering employers opportunities to circumvent collective bargaining agreements (CBAs), thus lowering wages and social security costs (Siegmann and Williams 2020: 18). Workers in the Netherlands live on the outskirts of the city limits where large numbers of *verdozing* ('boxification') phenomena are observed. While the European Union (EU) has promoted transnational corridors to enable 'seamless flows', the Dutch have attempted to become a *distributieland* ('distribution country', formally translated as 'Gateway to Europe') (Nefs et al., 2023). These spaces host logistics complexes, farmlands and other units that employ temporary workers. Along with employment, they are housed in hyper-precarious living units in various spatial settings. This exploration and identification of the Netherlands as a case study to understand the temporary EU mobility framework allows the project to understand the labourers' 'transnational mobility power' (Alberti, 2014; Andrijasevic and Sacchetto, 2016; Smith, 2006) but emphasises their unmet demands for survival and fair working conditions.This form of setting is observed across EU and is not specific to the Netherlands. Using it as a starting point helps to draw the initial basic concepts, mobilities and spatialities to further enlarge it as an overlapping footloose system prevalent in contemporary times.

Problem Statement

Thousands of migrant workers, vital to the Netherlands' agricultural and logistics sectors, face exploitative labour practices and inadequate housing, highlighting a stark disconnect between their essential contributions and the conditions they endure. In the Netherlands, approximately 60% of the land is allocated to intensive agricultural use and logistics infrastructure, integral to the country's export-led economy. Low-skilled workers from CEE nations such as Poland, Romania and Bulgaria largely meet the burgeoning demand for labour in these sectors. These individuals, often recruited through deceptive seasonal work programs to earn a higher wage, are frequently subjected to substandard housing and deplorable living and working conditions that violate their basic rights. This situation stands in stark contradiction to their crucial role in supporting the Dutch economy and raises critical questions about the sustainability and ethics of a globalised economy that relies on a vulnerable and exploited workforce.

CASA D'ITALIA, ARNHEM. 1956.

THEN

Fig 22: Guest-workers Housing for South European Workers
Source: Gelders Archief, no. 3044 – 293.

WORKER'S HOUSING, EGCHEL, LIMBURG. 2020.

NOW

Fig 23: Temporary Labour Housing for CEE Workers
Source: Author

A NEW LANDSCAPE OF TRADE

The term ‘unoccupied land’ transcends its literal meaning as migrants intricately weave connections showcasing their resilience and profound comprehension of their capabilities.This underscores their adeptness in navigating novel territories. The hidden cities in the hinterland display the transformative influence wielded by temporary labour and their settings.

Quoting Harvey (1985), new infrastructure networks necessitate immobilisation in space to facilitate greater movement elsewhere. This implies that liberation from spatial embeddedness requires the creation of new territorial configurations, intertwining social processes within a novel geography of places and interconnected flows (Swyngedouw, 1993). I compare this analogy to the territories of the urban fringes where the production landscapes emerge (next section), in NL which is the focus site for this study. It is present all over the Netherlands (refer to fig. 25).

In a globalised world, spatialising the mobility of labour and capital prompts essential inquiries: What transpires to the notion of place in a global economy? How is globalisation etched into economic and cultural spaces, built forms and spatial constructs? (Sassen, 2012). Sassen challenges the traditional conception of a unitary economic system urging a re-examination of economic globalisation’s narrative, one that inclusively incorporates spatial, economic and cultural facets intrinsic to the global economy as manifested in cities. All cities across the world are starting to display spaces and zones that are powerfully connected to other ‘valued’ spaces across the urban landscape as well as across national, international and even global distances (Graham et al., 2001).

This global economy is a new narrative constructed in the EU in the form of trade landscapes often at the fringes of ‘city’ boundaries or in a ‘hidden’ territorial setting further along strategic infrastructural nodes. Analytic moments wherein two systems of representation intersect, often perceived as spaces of silence or absence, become critical arenas to unravel the operations -analytic, of power and of meaning -that unfold in these spaces (Sassen, 2012). These spaces are often ‘hidden’ or are ‘absent’ from the noise of the mainstream city. This is where trade takes place. While the EU has promoted transnational corridors to enable ‘seamless flows’, the Dutch have attempted to become a distributieland (‘distribution country’, formally translated as ‘Gateway to Europe’) (Nefs et al,. 2023). As Lewis Mumford hinted back in 1934, these spaces are formed as an interplay of cities, mobilities and technologies in the form of production landscapes. The economies in the Dutch production landscape are seen in Fig. 24.

Moreover, it accentuates that the distribution and installation of economic operations across diverse terrains represent just one manifestation of economic activity’s materialisation (Sassen, 2012). As the global permeates the urban, particularly in the hinterland, the emergence of multiple footloose global cities in the fringes becomes an extraordinary means by which the dynamics of economic activity unfold. This project focuses on the various trade landscapes and the housing it offers which is further explained in the next section.

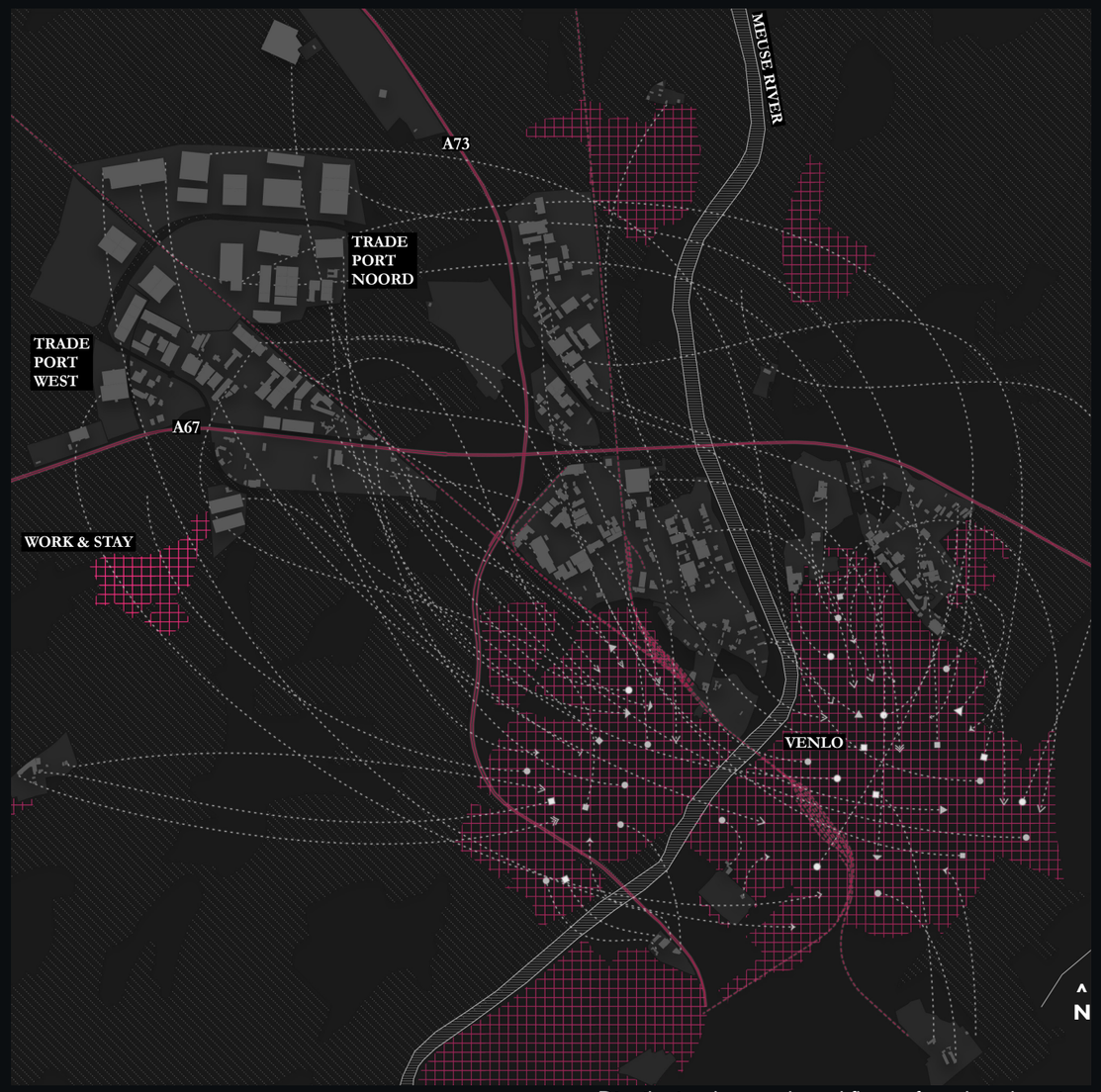
Fig 24: Economic Fabric - Greenhouses, farmlands and distribution centres as part of the Production Landscapes
Source: Author

DISTRIBUTION CENTRES,
GREENHOUSES
AND FARMLANDS
OCCUPY MAJOR PARCELS
OF THE TOTAL LAND AREA
OF THE NETHERLANDS

Legend

- Discontinuous Urban Fabric
- Distribution Centres
- Farmlands
- Farmlands
- Country Territories
- Hydrography
- Railways
- Roadways

Fig 25: Production Landscapes of Greenhouses + Farmlands + Distribution Centres
Source: Open Source Data by Merten Nefs was used to produce these maps



Distributional networks and flows of goods and services

Legend

- Agricultural farmlands of production
- Intersitial spaces of interaction in the city
- River
- Logistics estates of production
- Logistic distribution center boxes
- Networks of distribution
- Goods and services
- Major distribution and infrastructural networks

Fig 26: Interdependence of the City and the Production Landscape
Source: Open-source datasets by Merten Nefs were used for producing these maps

DUTCH PRODUCTION LANDSCAPES

Work and living arrangements for labour within the contemporary Dutch context are increasingly situated within what can be called the hinterland. The once-rural hinterlands have transformed into sprawling production centers serving the needs of urban areas (refer to Fig. 26). This phenomenon emphasises the multifunctional nature of urban spaces transcending conventional city boundaries to encompass these hinterland territories. Consequently, these hinterlands become critical nodes for moving and storing goods, temporary labour and resources.

A new form of "footloose city" emerges within these Dutch production landscapes. These economic landscapes typically encompass agricultural lands, horticultural lands (including greenhouses) and vast distribution centers characterised by their "boxification" or *verdozing* (see Fig. 24). Profit-driven motives often dictate land use, resource allocation and labour practices profoundly influencing the distribution process, particularly given the limited land availability in the Netherlands. Land designated for profit-making often conceals flexible housing solutions for the labourers who build up to these profits. These labourers are tasked with ensuring the efficient flow of goods and resources to mainland cities and beyond, maintaining profit margins and market pressures. The case study focuses on Limburg, a region that serves as a crucial trade junction for the Netherlands, Germany and Belgium.

The strenuous work performed by labourers within these landscapes transcends mere routine tasks; it encompasses not only the movement of goods but also the transformation of the landscape itself. The increasing demands of urban consumption have led to a social and spatial division of labour within these vast spaces. While technological advancements are gradually replacing some forms of labour, temporary workers remain essential to these integrated production landscapes. Fig. 25 illustrates the scattered distribution of production landscapes alongside the discontinuous urban fabric of the Netherlands. The flow of goods and services from, through and towards these landscapes is ultimately driven by the consumption patterns of the city.

Notably, agricultural farmlands and greenhouses operate within a time-phased conundrum, resulting in a temporary and fluctuating demand for labour. This seasonality leads to varying intensities of production, services and employment opportunities throughout the year, as elaborated upon in subsequent sections. Figures 27 and 28 depict the linear nature of these jobs, movements and flows.

The horizontal expanse of these landscapes can obscure their significance in varied work and living arrangements for temporary labour. These landscapes are so spread out that it's easy to overlook the complex and often challenging realities faced by the temporary workers who live in small-scale housing. One might see fields or warehouses and not think about the people living and working there, often in precarious conditions.

Fig 27: The Linear Deceiving Landscape

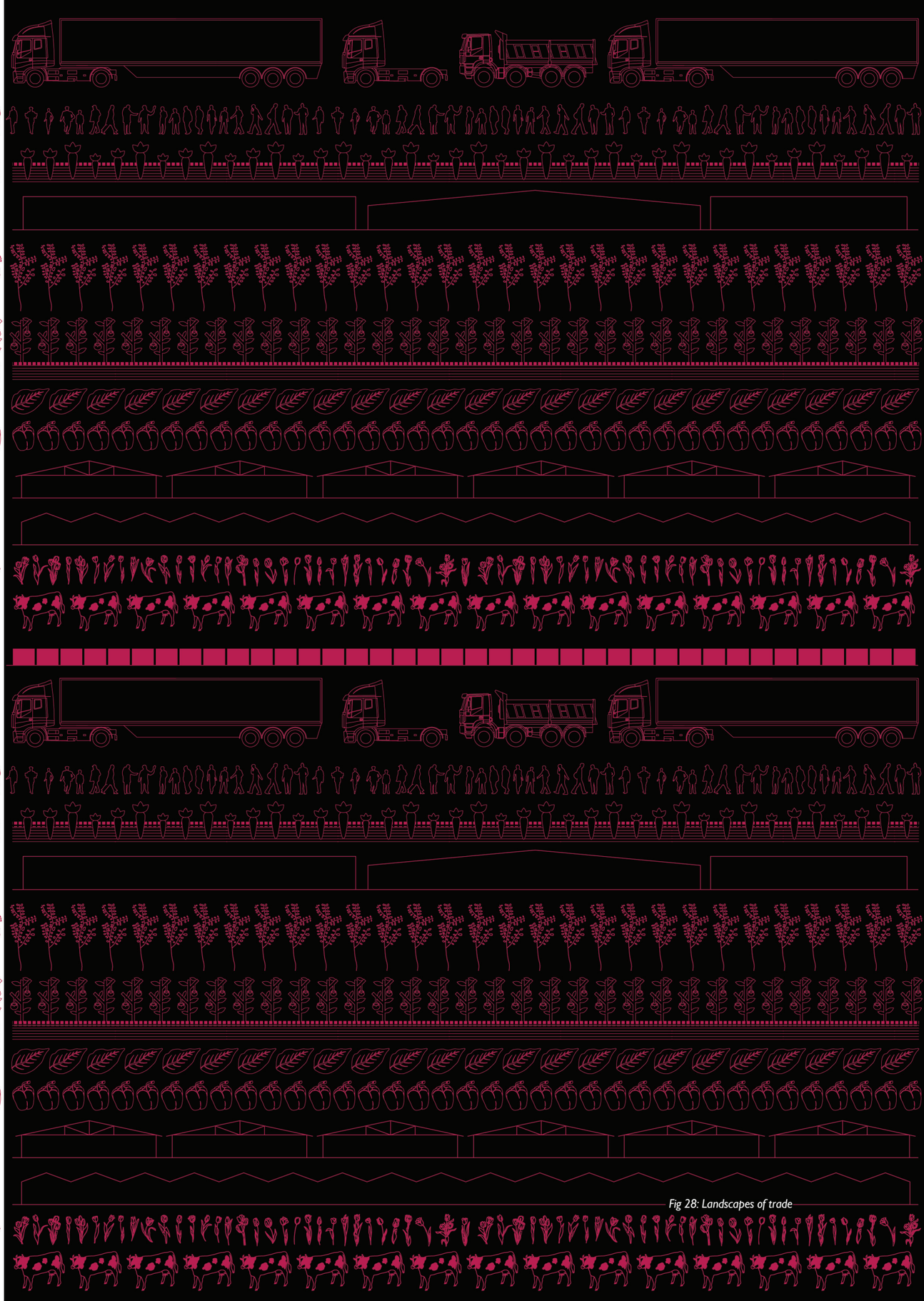


Fig 28: Landscapes of trade

The Unboxed Landscape of the Volume of Employed Migrant Workers

Legend

- Very High Jobs (>160 jobs/ha)
- High Jobs (80-160 jobs/ha)
- Medium Jobs (40-80 jobs/ha)
- Low Jobs (20-40 jobs/ha)
- Very Low Jobs (1-20 jobs/ha)
- No data available/To be speculated further
- Agricultural farmlands of production

Fig 29: A City Formation in The Production Landscape (People)
Source: Open-source datasets by Merten Nefs were used for producing these maps

The Unboxed Landscape of the Volume of Produced Goods and Services

Legend

- Transport and Logistic Services (>500 m2 & <2500 m2) — S
- Transport and Logistic Services (2500 m2 - 10000 m2) — M
- Transport and Logistic Services (10000 m2 - 20000 m2) — L
- Transport and Logistic Services (20000 m2 - 40000 m2) — XL
- Transport and Logistic Services (>40000 m2) — XXL
- Trade, Import, Export (>500 m2 & <2500 m2) — S
- Trade, Import, Export (2500 m2 - 10000 m2) — M
- Trade, Import, Export (10000 m2 - 20000 m2) — L
- Trade, Import, Export (20000 m2 - 40000 m2) — XL
- Trade, Import, Export (>40000 m2) — XXL
- Agricultural farmlands of production

Fig 30: A City Formation in The Production Landscape (Goods and Services)
Source: Open-source datasets by Merten Nefs were used for producing these maps

RESEARCH AIM AND OBJECTIVE

The project sets out to provide an in-depth exploration of the intra-European Union mobility networks, specifically regarding temporary or on-call flex workers. The core aim is to scrutinise the implications, nuances and economic dependencies of these labour networks. It emphasises the exploitative conditions often encountered by these workers within controlled setups orchestrated by temporary employment agencies with a special focus on housing in the Netherlands. The project seeks to bridge the gap between workers' expectations and the realities of labour fulfilment highlighting the differential of promises versus actual conditions.

The objective extends to revealing and characterising the self-tailored mobility network, a pattern of seasonal worker movement precipitated perhaps because of seeking less exploitative environments. From making a suitable job choice to seeking an accommodation close to their workplace, the worker tries to make the best choice. It also implies the reliance of fast-paced EU economies on low-skilled labour, thus placing these workers as pivotal yet invisible within the global economic infrastructure.

By fostering dialogue on mobility as a means of survival and analysing the complex roles host and sendin

g countries play, the project strives to enhance understanding and foster policy and design discourse. Through a thorough analysis of the spatial patterns of work and residence, the research will develop a typological framework aimed at testing and proposing new, equitable conditions for these workers, enhancing visibility and awareness of this marginalised group in strategic urban fringes. This blend of analysis and advocacy aims to contribute substantively to academic discourse, policy reform and urban design interests concerning mobile labour within the EU.

Fig 31: Strict Rules for Accommodation in Worker's Housing
Source: Author

RESEARCH QUESTIONS

SRQ1

What are aspects of the system of 'temporary' jobs in the EU? How does it function in The Netherlands?

existing

SRQ2

What are the current housing environments of the migrant worker? What aspects of spatial justice are at stake in flexwonen for the temporary workers?

explore

SRQ3

Who is the contemporary temporary worker? What is their lifestyle and living environments?

evaluate

SRQ4

How will the policy for flexible housing accomodate this new way of living?

reflect

RQ1

How can the design and implementation of flexible housing strategies cater to the demands of temporary mobility workers in The Netherlands?

propose

Fig 32: Main Research Question and Sub Research Questions

METHODOLOGY

RESEARCH METHODOLOGY

SRQ1
What are aspects of the system of 'temporary' jobs in the EU? How does it function in the Netherlands?

Methods:

Steps Taken During Analysis and Intended Outcomes:

This research investigated the system of 'temporary' jobs in the EU, focusing on its function in the Netherlands.

To address this question, the study employed a mixed-methods approach:

Primary Methods:

Website Research: This method involved a systematic analysis of various online platforms relevant to temporary employment in the Netherlands. This included websites of temporary employment agencies (*uitzendbureaus*), government portals providing labour market data and online platforms where temporary job opportunities were advertised. This approach provided insights into the types of temporary jobs available, the sectors seeking temporary workers and the recruitment strategies employed.
Stakeholder Interviews: Semi-structured interviews were conducted with key stakeholders involved in the temporary labour market. This included representatives from temporary employment agencies, employers who frequently hired temporary workers and temporary workers themselves. These interviews provided qualitative data on the experiences, perspectives and challenges faced by different actors within this system.
Literature Review: A comprehensive review of existing academic literature provided a theoretical and contextual foundation for the research. This included examining studies on temporary employment, labour migration within the EU and the Dutch labour market specifically.

Secondary Methods:

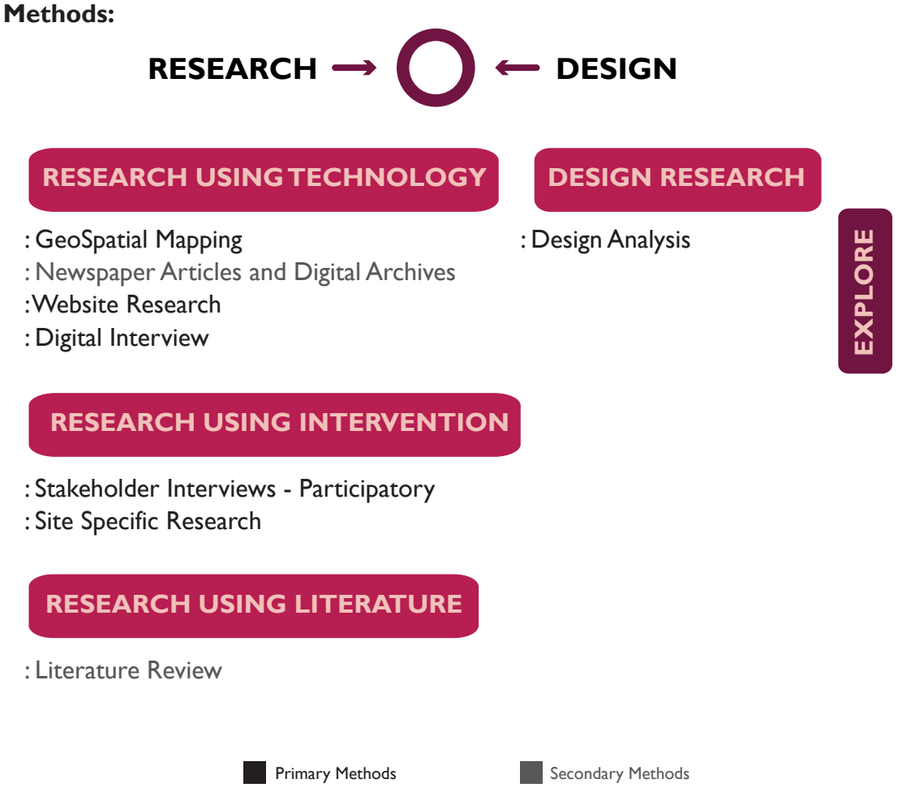
Statistical Data Analysis: Publicly available statistical data from sources such as Eurostat and Statistics Netherlands was analysed to understand the scope and trends of temporary employment in the EU and the Netherlands. This quantitative data complemented the qualitative findings from the primary methods.
Site-Specific Research: Depending on the accessibility and ethical considerations, site visits to locations with a high concentration of temporary workers (e.g., greenhouses) were conducted to observe the spatial dynamics of temporary labour.

By combining these methods, the research aimed to provide a nuanced and comprehensive understanding of the system of temporary jobs in the EU, with a specific focus on its operation and implications within the Netherlands.

RESEARCH METHODOLOGY

SRQ2
What are the current housing environments of the migrant worker? What aspects of spatial justice are at stake in *flexwonen* for the temporary workers?

Methods:



Steps Taken During Analysis and Intended Outcomes:

This research investigated the housing environments of migrant workers, specifically examining the spatial justice implications of *flexwonen* (flexible housing) in the Netherlands.

A mixed-methods approach was employed to address these questions:

Primary Methods:

Geospatial Mapping: Visual investigations through open-source satellite imagery helped in mapping the geographical distribution and spatial characteristics of *flexwonen* facilities across the Netherlands. This method helped visualise the concentration of these unusual housing solutions and distance to their workplaces and other amenities.
Website Research: Websites of flexwonen providers and online platforms discussing temporary housing were analysed. This provided insights into the legal frameworks, typologies and intended target groups of flexwonen.
Digital Interviews: Semi-structured interviews were conducted digitally (e.g., via video call) with artists who have conducted research of these flows and relationships with housing and seasonal labour.
Design Analysis: Images and descriptions of *flexwonen* facilities were analysed to understand their design features, spatial configurations and potential implications for residents' living experiences.
Stakeholder Interviews - Participatory: In-depth, participatory interviews were conducted with migrant workers, real estate developers and employees from employment agencies. This approach allowed them to share their perspectives on the living conditions, challenges and spatial justice implications of this housing model. Profit-oriented perspectives offered contradictory opinions.
Site-Specific Research: Fieldwork was conducted at selective *flexwonen* locations. This involved observations of the physical environment, informal conversations with residents and spatial documentation through sketches and photography to understand the ritualistic practices within these spaces.

Secondary Methods:

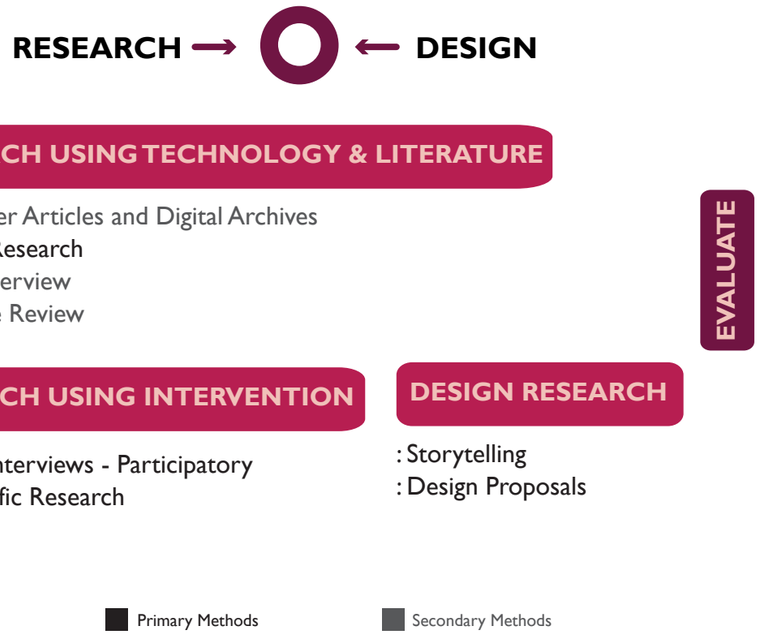
Newspaper Articles and Digital Archives: Newspaper articles, online news platforms and digital archives were analysed to understand the public discourse surrounding *flexwonen*.
Literature Review: A comprehensive review of academic literature on temporary housing, migrant labour, spatial justice and housing rights provided a theoretical framework for analysing the data collected and situating the findings within broader societal and geographical contexts.

By combining these methods, the research aimed to provide a nuanced understanding of the spatial realities and justice implications of 10 *flexwonen* sites for migrant workers in the Netherlands. This multifaceted approach allowed for a critical examination of various offers and problems faced by those residing in these housing environments. The findings contribute to the context of increasing labour migration and evolving hinterland or rural landscapes. The research gave different spatial insights into the sites.

RESEARCH METHODOLOGY

SRQ3
Who is the contemporary temporary worker? What are their lifestyles and living environments?

Methods:



Steps Taken During Analysis and Intended Outcomes:

This research explored the contemporary temporary worker, aiming to understand their lifestyles and living environments. The study sought to answer the following question: Who is the contemporary temporary worker and what characterises their lived experiences?

A mixed-methods approach was employed to address this question:

Primary Methods:

Website Research: This method involved analysing online platforms relevant to temporary workers including websites of temporary employment agencies and online forums where temporary workers share their experiences. This provided insights into their demographics, skills required, job descriptions and perspectives.
Worker Interviews - Participatory: In-depth, semi-structured interviews were conducted with temporary labour themselves employing a participatory approach that encouraged them to share their stories, perspectives and challenges. This method prioritised their voices and experiences.
Site-Specific Research: Fieldwork was conducted at a location with a high concentration of temporary workers. These involved observations of the living and working conditions as well as informal conversations with workers to understand their daily routines and interactions within this specific context.
Storytelling: The research utilised storytelling through informative charts as a method to present the lived experiences of temporary workers in a compelling and relatable manner. This involved weaving narratives based on interview data, observations and existing literature to create a nuanced portrayal of their lives.
Design Proposals: Based on the research findings, design proposals were developed, included in subsequent sections to suggest improvements to the living and working conditions of temporary workers.

Secondary Methods:

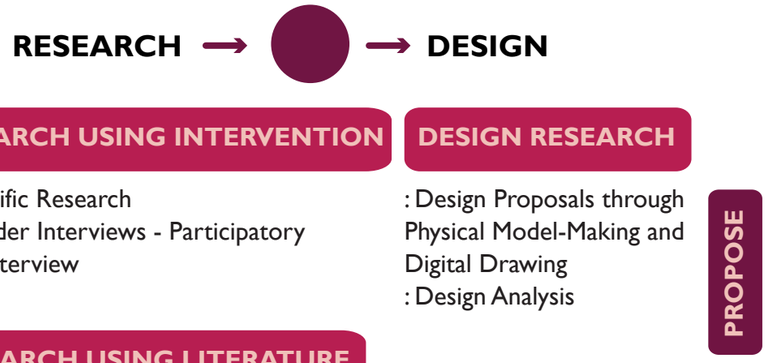
Newspaper Articles and Digital Archives: Newspaper articles and digital archives were analysed to understand how temporary workers are portrayed in the media and to uncover historical trends and events that have shaped their current situation.
Digital Interviews: In cases where in-person interviews were not feasible, digital interviews (e.g., video calls) were conducted with relevant stakeholders such as researchers, policymakers or representatives from NGOs working with temporary workers.
Literature Review: A review of academic literature on temporary work, migration and social inequality provided a theoretical framework for analysing the data collected and situating the findings within broader societal contexts.

By combining these methods, the research aimed to provide a rich and multifaceted understanding of the contemporary temporary worker, moving beyond legal definitions to explore what is required of them to fill the various jobs, the realities of their everyday lives and the spaces they inhabit.

RESEARCH METHODOLOGY

RQ1
How can the design and implementation of flexible housing strategies cater to the demands of temporary mobility workers in The Netherlands?

Methods:



Steps Taken During Analysis and Intended Outcomes:

This research investigates how the design and implementation of flexible housing strategies can better cater to the needs of temporary labour in the Netherlands. Building upon the insights gained from previous research regarding the spatial justice implications of current flexwonen models, this phase focuses on developing design principles and strategies that prioritise the agency of migrant workers.

A multi-pronged methodological approach was employed:

Primary Methods:

Site-Specific Research: The research conducted in the earlier sections were used to inform the design. Mixed-media methods were used to use this research.
Stakeholder Interviews - Participatory: The interviews conducted in the earlier sections were used to inform the design.
Digital Interviews: The interviews conducted in the earlier sections were used to inform the design.
Design Proposals through Physical Model-Making and Digital Drawing: Informed by the data gathered, a series of design strategies were developed exploring innovative spatial configurations, inclusivity in the existing society and programmatic integrations for flexible housing solutions. These proposals were visualised through physical models and digital drawings, allowing for iterative design development and communication of spatial ideas.
Design Analysis: The design proposals were critically analysed about relevant spatial justice frameworks considering aspects such as accessibility, affordability, privacy, community building and connection to the surrounding urban fabric.
Policy and Regulatory Analysis: A review of relevant Dutch building regulations, bylaws, area development and zoning plans was conducted. Existing regulations and restrictions related to temporary housing including permitted building typologies, densities and durations of use. Potential barriers or opportunities presented by current regulations for implementing innovative and equitable strategies. Case studies of how other Dutch municipalities have addressed regulatory challenges related to temporary housing.

Secondary Methods:

Case Study Research: Relevant international case studies of innovative and successful temporary housing solutions were analysed to identify best practices, transferable strategies and potential pitfalls to inform the design proposals.
Literature Reviews: Some recently published academic papers speak of the quality and requirements for flexible housing to be psychologically suited to workers' needs. This strengthened the design principles.

By integrating design thinking with policy analysis and a deep understanding of the lived experiences of temporary labour, this project aims to offer tangible and actionable design and policy recommendations for creating more just equitable and supportive housing environments for them. A comprehensive review of Dutch building regulations, bylaws and zoning plans was conducted to identify existing frameworks, potential barriers and opportunities related to temporary housing. This analysis informed the feasibility and contextualisation of the design proposals.

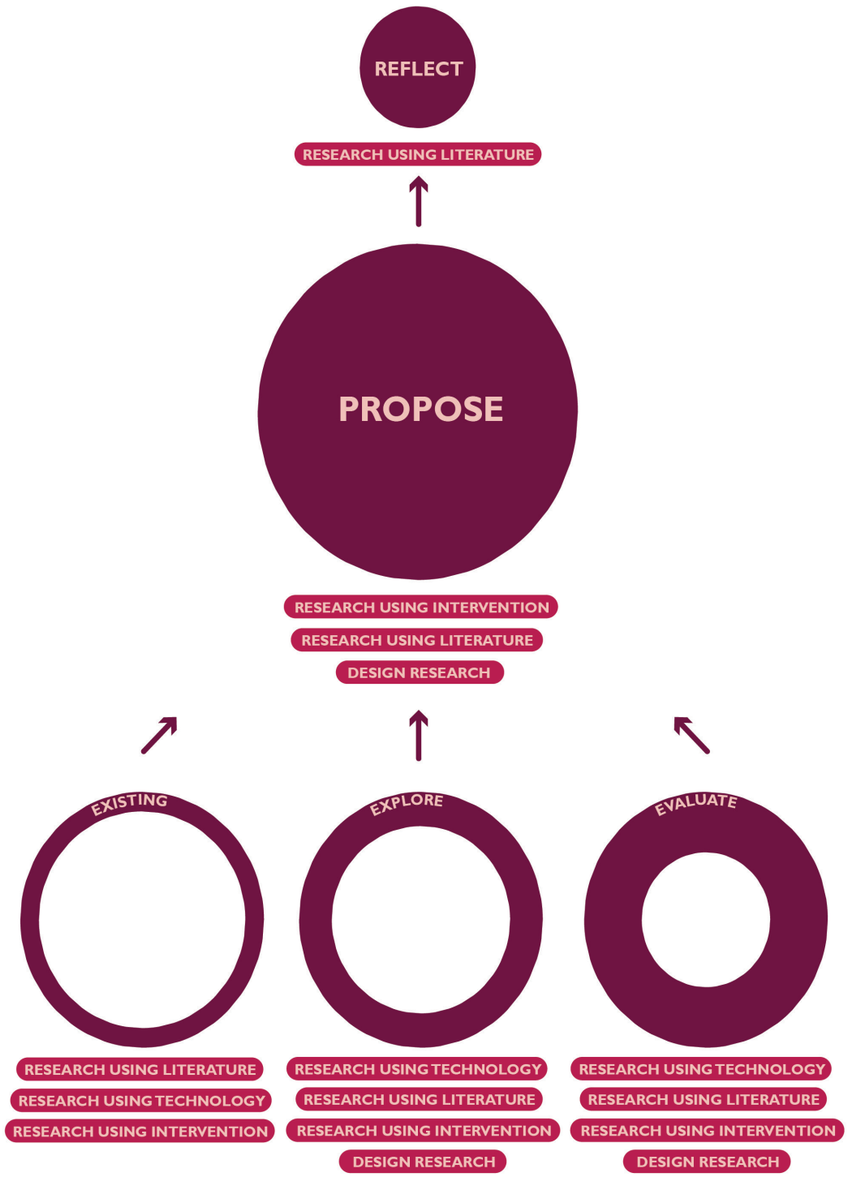
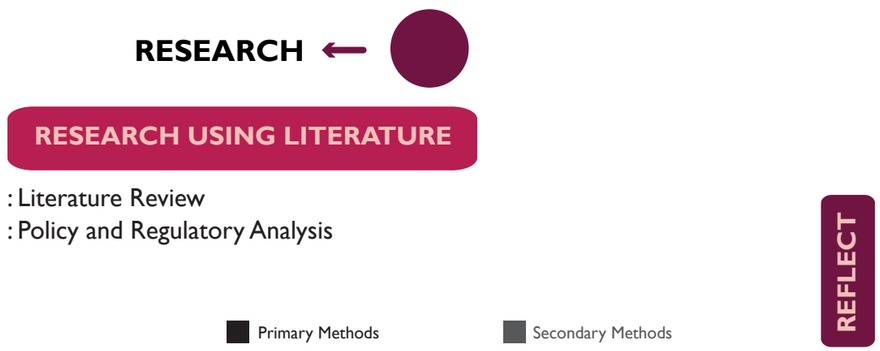


Fig 33: Methodological Framework

RESEARCH METHODOLOGY

SRQ4
How will the policy for flexible housing accomodate this new way of living?

Methods:



Steps Taken During Analysis and Intended Outcomes:

This research examines how Dutch flexible housing policies can adapt to the evolving needs of seasonal workers facing increasing market pressures.

Two **primary methods** guided the research:

Targeted Literature Reviews: This involves briefly reviewing existing research and reports to understand:
Automation's Impact: Some seasonal jobs are susceptible to automation and this might change the demand for workers and their housing needs. It is important to keep this in mind.
Policy Best Practices: Flexible housing policies in the Netherlands were examined and a focus was on changing labour markets to ensure equitable access and decent living standards.

Policy and Regulatory Analysis: This involves:
Assessing Current Policies: Analysing existing Dutch housing policies, building regulations and zoning plans to determine their capacity to accommodate workers' housing.
Developing Policy Recommendations: Based on the research findings, concrete policy adaptations to ensure housing affordability, integrate upskilling opportunities, promote inclusive housing solutions and offer long-stay or eventually integration in the Dutch society opportunities for a potentially evolving seasonal workforce.

This approach will provide valuable insights for policymakers and designers seeking to create a more resilient and equitable housing system for seasonal or temporary labourers in the face of shifting methods.

EXISTING

SRQ1
What are aspects of the system of 'temporary' jobs in the EU? How does it function in the Netherlands?

EXPLORE

SRQ2
What are the current housing environments of the migrant worker? What aspects of spatial justice are at stake in *flexwonen* for the contemporary workers?

EVALUATE

SRQ3
Who is the contemporary temporary worker? What are their lifestyles and living environments?

PROPOSE

RQ1
How can the design and implementation of flexible housing strategies cater to the demands of temporary mobility workers in The Netherlands?

REFLECT

SRQ4
How will the policy for flexible housing accomodate this new way of living?

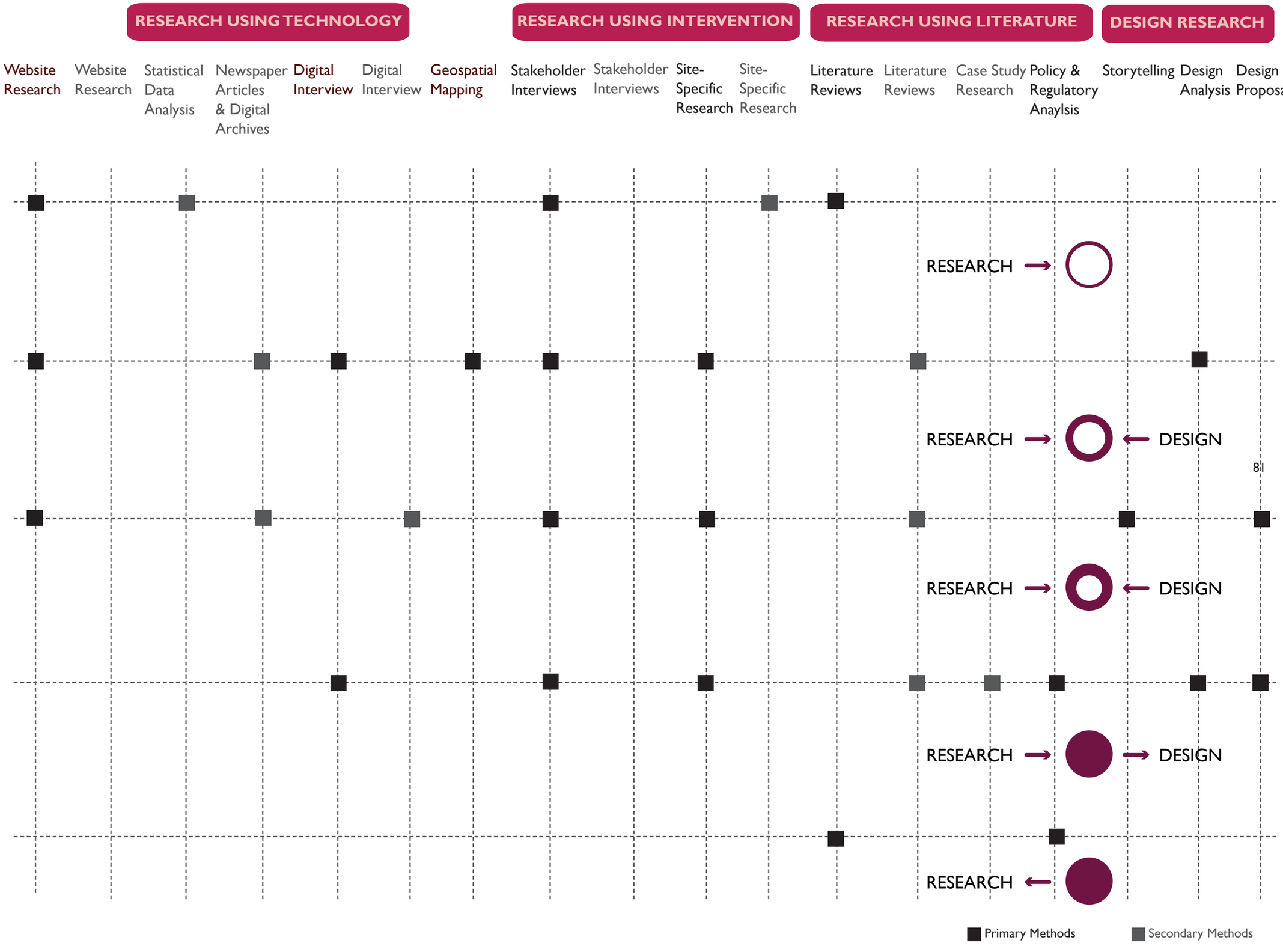


Fig 34: Research Methods

Fig 35: Research Framework

RESEARCH FRAMEWORK & METHODOLOGY

The research framework along with the research methods is the basis and compass of the entire research. The diagram here (see Fig. 35) shows the whole research process, the various sections and the flow of the project. Every section feeds into research into the other, finally strengthening it for the methods as explained in Fig. 34. The research methods answer four sub-questions and one main question. The first question sets the base for the system of temporary jobs in the EU then it goes on to the scale of Limburg to understand the spatial conditions of 10 flexible housing sites situated in North Limburg with varying characteristics. This comparative analysis adds to the understanding of these sites and workers' requirements and what the site lacks. It further explains that it boils down to the scale of the worker and their living environments in these housing conditions emphasised. Using this analysis along with site-specific fieldwork and interviews, design strategies and principles are proposed. Through policy analysis, the project reflects on the research and design. Finally, the project concludes and discusses the limitations experienced during the entire project.

Regarding the practical development of the above, the research shows progress in different aspects, according to periods defined by the curriculum (P1 to P5) (see Fig. 36).

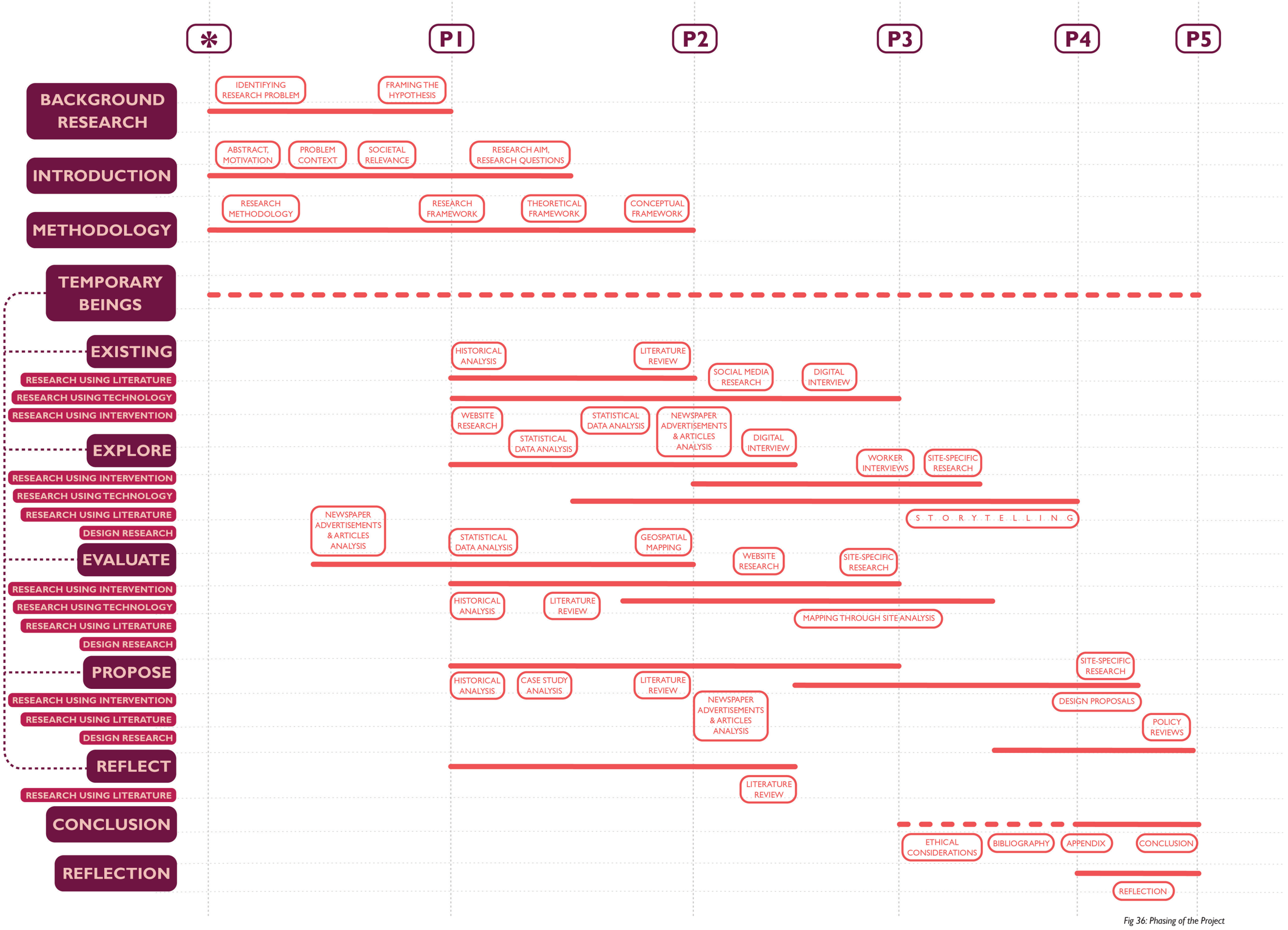


Fig 36: Phasing of the Project

THEORIES & CONCEPTS

The previous section describes the methods that are underpinned by the theoretical and conceptual frameworks. Fig. 37 aims to draw the pertinent theories for this project primarily through literature reviews and policy analysis. These theories play a crucial role in delineating the foundational aspects of inquiry and throughout investigation have unveiled a recurrent pattern wherein numerous authors employ synonymous phrases or terms. Migration is not a new concept in Europe but placing it in the right framework is integral to the project. This theoretical framework (refer to Fig. 37) provides a visual representation of how the occurrence of one event led to an other wherein a larger geographical or territorial change leads to the formation of several subsequent events. These identified theories serve as pivotal entry points to comprehending the multifaceted challenges confronted by temporary labour. Through systematic exploration, these theories offer insights into the critical dimensions of the issues at hand, contributing to an in-depth understanding of the complexities surrounding seasonal labour mobilities, arising from an ever-changing geographical boundary. Change and flexibility are inevitable in this process. In Fig. 37, Flexible Housing is the final point of interest due to the 2004 Expansion of the EU.

The key authors that speak of these theories:

Expansion of the EU
: Borderless Europe: Seven Decades of Free Movement by Saara Koikkalainen, 2021

Freedom of Movement
: Opportunity or threat? Public attitudes towards EU freedom of movement by Sofia Vasilopolou & Liisa Talving, 2018
: The Seventh Man by John Berger and Jean Mohr, 1975

A New Landscape of Trade
: The Dutch 'Gateway to Europe' Spatial Policy Narrative, 1980–2020: A Systematic Review by Merten Nefs, Wil Zonneveld & Paul Gerretsen, 2023
: Globalization: Its Diverse Actors And Spaces by Saskia Sassen, 2008
: Housing Migrant Workers: The Form of the Corporate City Along the Rotterdam-Venlo Logistics Corridor by Renzo Sgolacchia, 2023
: Automated Landscapes by Merve Bedir, Ludo Groen, Marten Kuijpers, Víctor Muñoz Sanz and Marina Otero Verzier

THEORETICAL FRAMEWORK

New Mobility Patterns
: Theorising New European Youth Mobilities by Russell King, 2018
: Between 'Labour Migration' and 'New European Mobilities' by Maricia Fischer-Souan, 2019
: The Mobility of Workers Living at Work in Europe by Antonella Ceccagno, 2019
: Settled in Mobility': Engendering Post-Wall Migration in Europe by Mirjana Morokvasic, 2004
: Integration Processes and Policies in Europe by Blanca Garcés-Mascareñas & Rinus Penninx, 2016
: Liquid Migration and its Consequences on Local Integration Policies by Godfried Engberson, 2018

Temporary Living Arrangements
: The Netherlands as a Country of Immigration by Roel Jennissen, Mark Bovens, Godfried Engbersen and Meike Bokhorst, 2022
: Towards better home design for people in temporary accommodation: exploring relationships between meanings of home, activities, and indoor environmental quality by Marjolein E. Overtoom, Marja G. Elsinga & Philomena M. Bluyssen, 2022

Temporary Working Arrangements
: How (Seasonal) Agricultural Demands for Labour Are Met by Immigrant Workers in the Netherlands and Germany by Doomernik, Jeroen, Wendelien Barkema and Vincenzo Gomes, 2023
: Flexible Employment Relationship by Statistic Netherlands
: The Effects of Time-Spatial Flexibility and New Working Conditions on Employees' Work-Life Balance: The Dutch Case by Peters, Pascale, Laura Den Dulk and Tanja Van Der Lippe, 2009
: Seasonal Matters Rural Relations by Seasonal Neighbours, 2024

Flexible Housing
: Flex-Housing and the Advent of the 'Spoedzoeker' in Dutch Housing Policy by Oana Druta & Mina Fatemidokhtcharook, 2023
: Exploring Perceptions of Flexwonen: Benefits and Challenges in the Dutch Housing Market by J. M. Exel, 2023
: Integrating refugees through 'flexible housing' policy in The Netherlands by Jolein Groot & Richard Ronald, 2024
: SNF Reglement Registratie, 2024

The theories are selected based on the similarities of the situational dynamics observed in The Netherlands, particularly. These theories are drawn from literature reviews of academic journals, papers, reports, policy documents and books. Their complementing, as well as synonymous nature (Fig. 38) helps in exploring concepts for the conceptual framework and then design strategies in the further sections of the project.

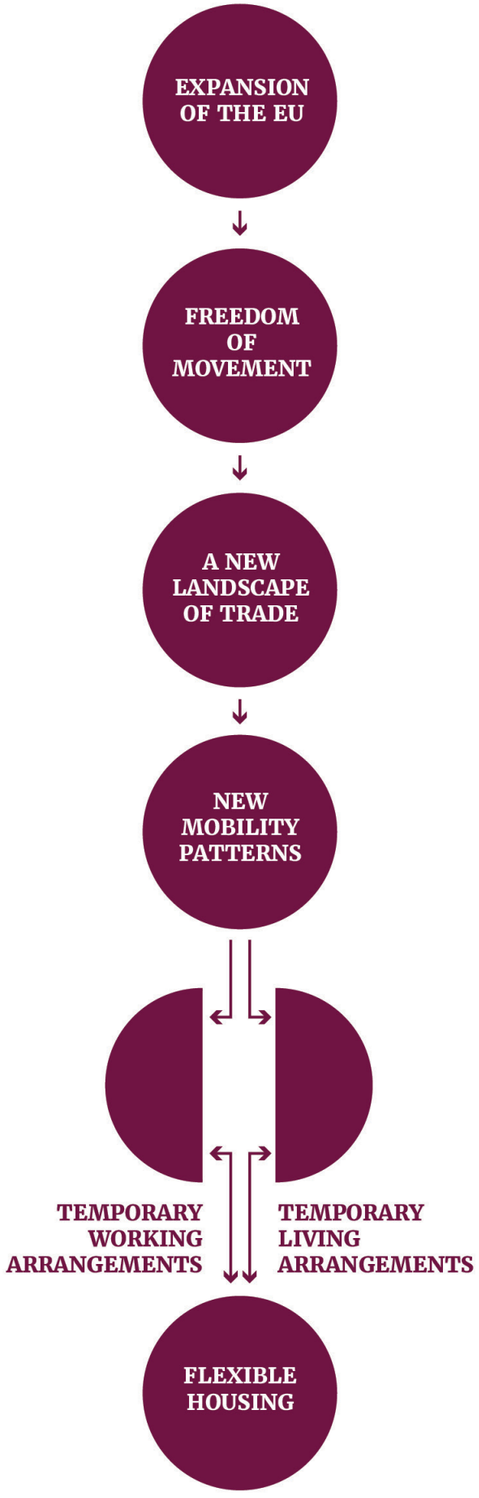


Fig 37: Theoretical Framework

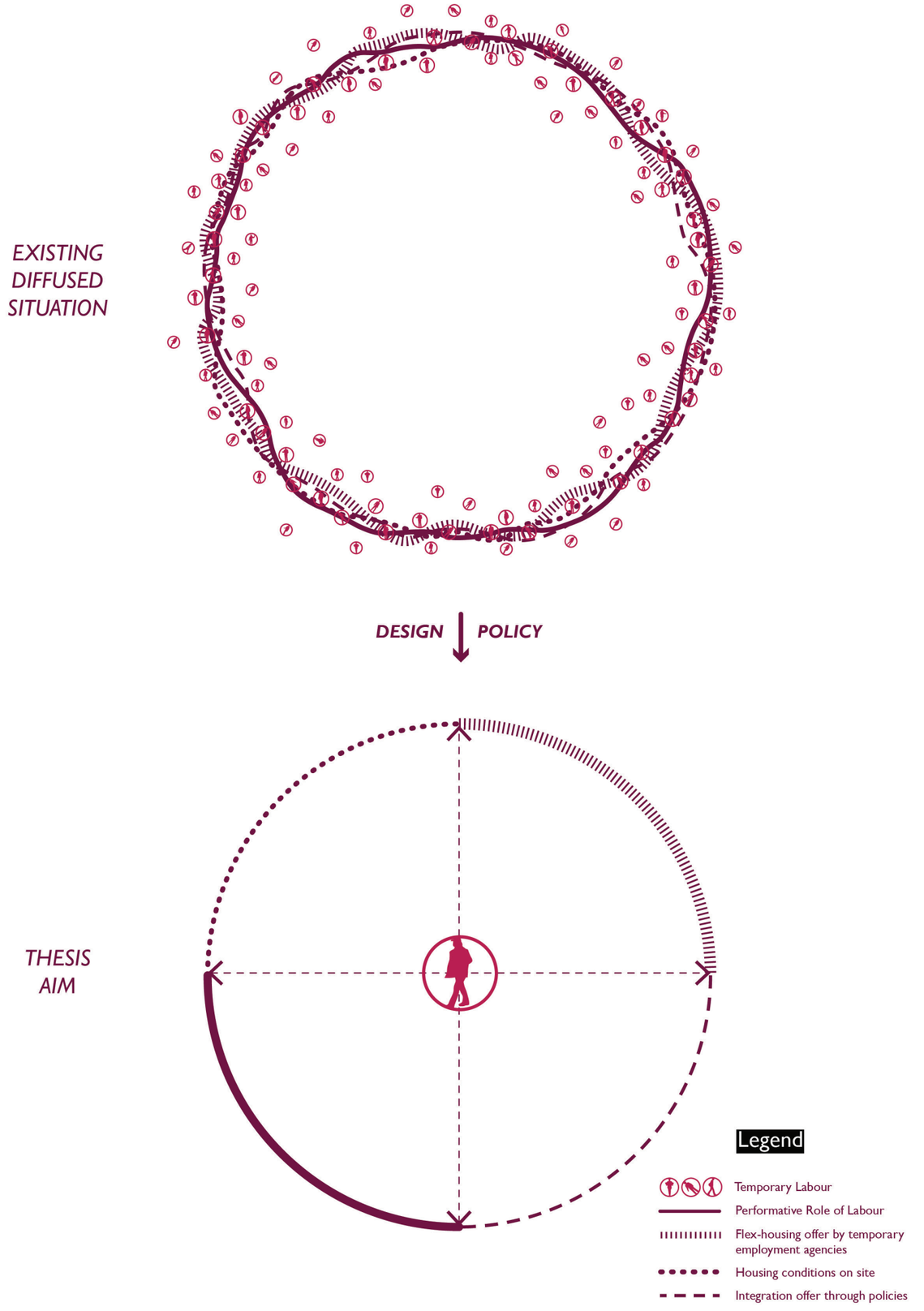


Fig 38: Conceptual Framework

CONCEPTUAL FRAMEWORK

Recognising temporary labour as the nucleus of this investigation, the framework critically examines the existing systems and structures that often relegate them to the margins of society, rendering them "invisible" and denying them a "just place." It aims to position the experiences and needs of temporary workers at the forefront. It acknowledges the inherent tension between the opportunities presented by EU expansion, increased labour mobility and the restrictions these individuals face, often relegated to precarious and poorly protected positions. The conceptual framework critically analyses the performative nature of current systems surrounding temporary labour, including:
Performative Role of Labour: The types of seasonal or temporary work available, often characterised by instability and insecurity.

Flex-Housing Offer: The provision of "flex-housing" and the entire package by temporary employment agencies, often inadequate and lacking basic living standards.
Integration: The policies and practices aimed at integrating temporary workers into Dutch society, are often fragmented, loosely applied, and failing to address their unique needs.
Housing Conditions: Location and amenities provided need improvement and better planning.

This framework sheds light on these often-hidden unjust offers embedded within these systems. It highlights how current practices, characterised by uncertain and poor decision-making, perpetuate the marginalisation and exploitation of temporary workers.
Through a thorough analysis of temporary workers' demands and experiences, this project proposes a reconfiguration and restructuring of existing systems.

It advocates for:

Just Housing: Moving beyond the bare minimum of "flex-housing" to ensure access to safe, dignified and adequate housing that meets the needs of temporary workers.
Meaningful Integration: Developing and implementing policies and practices that foster genuine social inclusion and recognise the rights of temporary workers as members of Dutch society.
Worker Agency: Empowering temporary workers to advocate for their rights and participate in shaping the systems that directly impact their lives.

This project aims to move beyond "temporary living" limitations and contribute to a more equitable, inclusive and spatially justified model of labour migration and urban development in NL by centering temporary labour within a framework of justice and agency. The next section will answer the research questions.

Fig 39: Unveiling Concepts and Theories for the Main Section
Source: Author

Fig 40: Different Scales of Work of Different Scales of Living Units in the Dutch Production Landscape
Source: https://www.workinn.nl/waalwijk.htm

Fig 41: Spatial Patterns in Production Landscapes
Source: GeoSpatial Mapping via Google Earth

Fig 42: Unveiled Concepts and Theories for the Main Section
Source: Author

TEMPORARY BEINGS

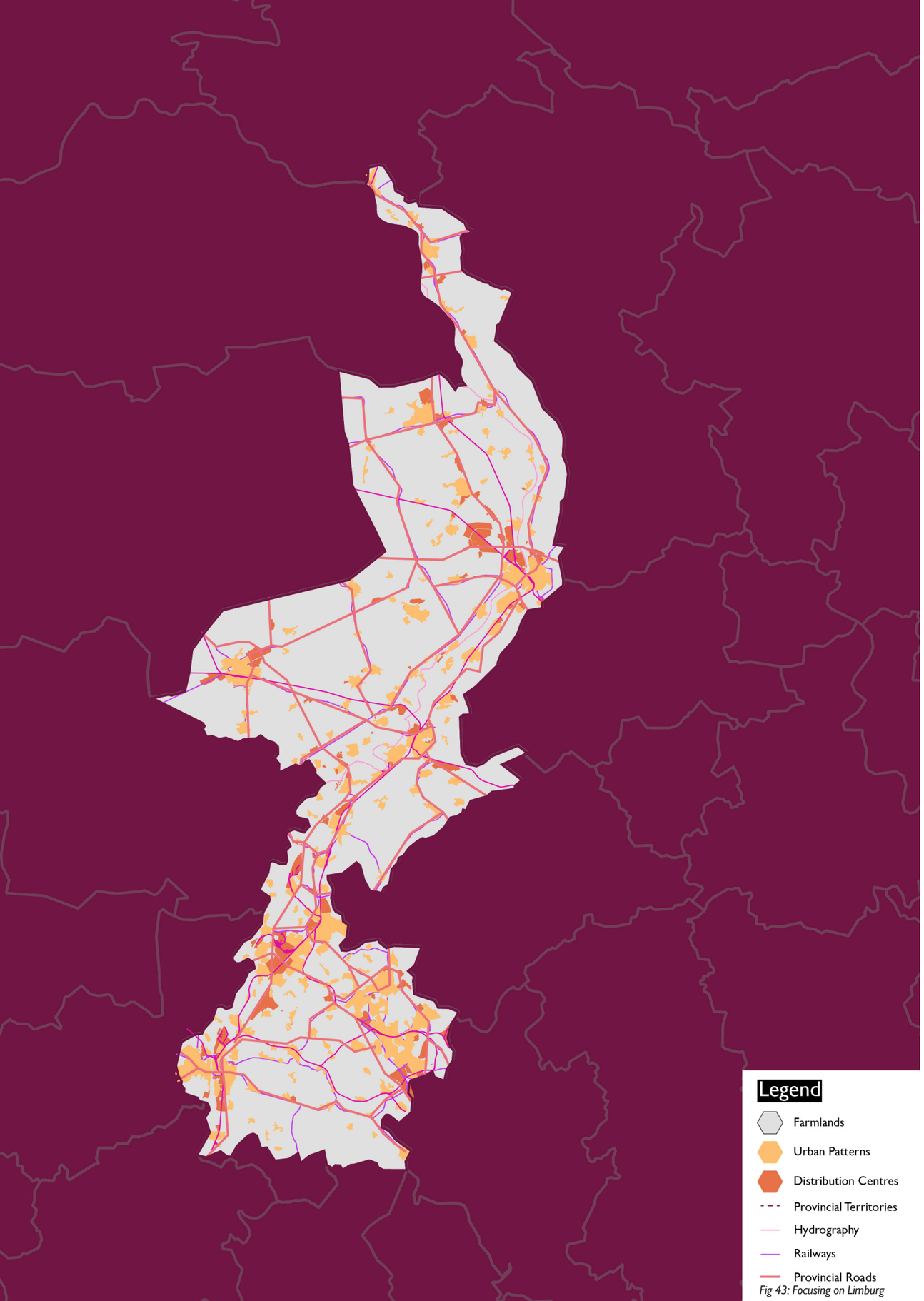


Fig 43: Focusing on Limburg

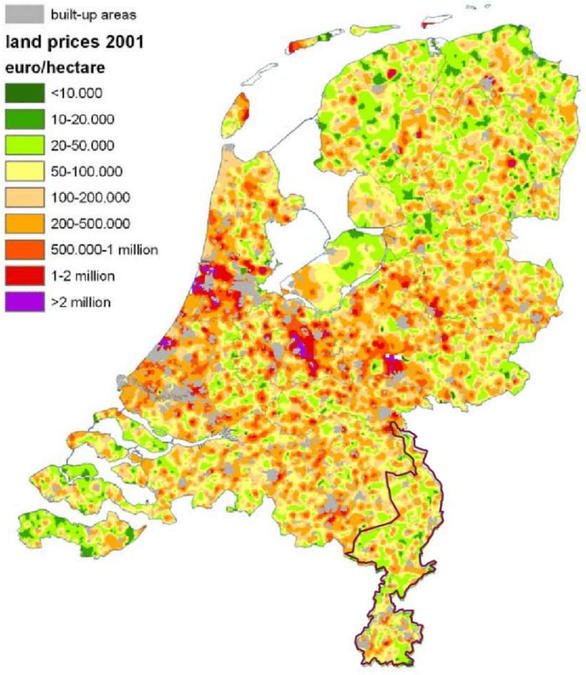
FOCUSING ON LIMBURG

While the European Union promotes transnational corridors to enable "seamless flows," the Netherlands has positioned itself as a distributieland ("distribution country," formally translated as "Gateway to Europe") (Nefs et al., 2022). These transnational territories attract mobile temporary labour seeking better employment opportunities. This pattern of corridor labour migration is particularly evident in Venlo, a city within the southeastern province of Limburg, which is rapidly emerging as an inland logistics hub within the Rotterdam port corridor (Raimbault et al., 2016). As a crucial node in the hinterland trade network, Venlo relies heavily on this temporary labour.

Limburg, particularly Venlo, alongside Noord-Brabant and Randstad, has witnessed a surge in distribution center construction, often encroaching upon green spaces and agricultural land (Oostveen, 2020). This geographic location serves as a key entry point to the Netherlands from other European countries, particularly those to the east. Despite the existing concentration, the demand for distribution centers is projected to rise due to rapid urbanisation and globalisation. Furthermore, Limburg's high agricultural production capacity, driven by affordable land prices, makes it attractive for various farm types, further increasing the demand for migrant labour (refer to the three maps in Fig. 44, 45 & 46).

Strockmeijer et al. (2020) highlight that labour migrants often experience short-term employment due to the personnel policies of companies and employment agencies that prioritise cost reduction through high turnover. This market-based ecosystem, characterised by varying seasonal demands across sectors, underscores the precarious nature of temporary labour. Labour migrants constitute approximately 26.4% of the workforce in the Dutch agricultural sector (Heyma et al., 2018).

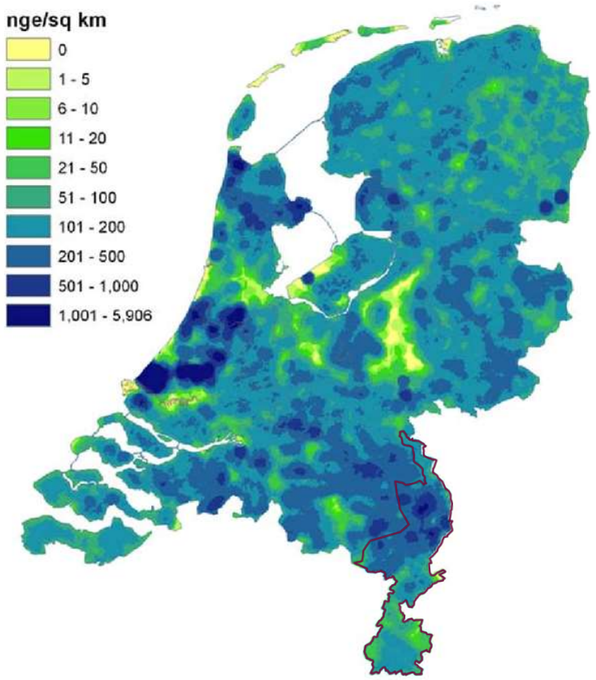
Geospatial mapping reveals a network of housing sites across Limburg highlighting the commodification of housing for temporary workers. These visual investigations often characterised by limited and inadequate planning strategies create conditions ripe for exploitation. Researchers have documented instances of overcrowding, substandard living conditions marked by poor maintenance, inadequate security and a lack of hygiene and privacy - all contributing to a pervasive sense of injustice (Arcury et al., 2012; Joyner et al., 2015; Berkhout et al., 2011). These findings underscore the harsh realities faced by temporary workers residing in housing provided by employment agencies and/or employers.



Farms by type

Source: Vrolijk et. al., 2005

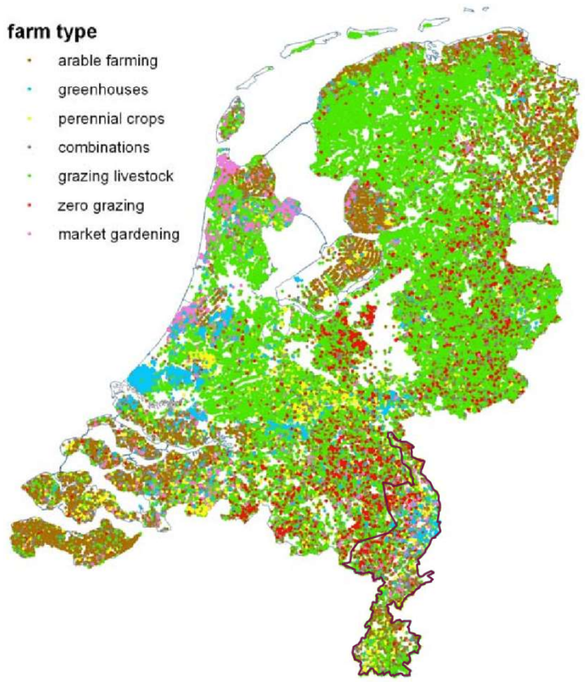
Fig 44: Why Limburg
Source: Multiple Sources



Agricultural Production Capacity

Source: Vrolijk et. al., 2005

Fig 45: Why Limburg
Source: Multiple Sources



Agricultural Land Values

Source: Vrolijk et. al., 2005

Fig 46: Why Limburg
Source: Multiple Sources

This project investigates the housing conditions provided by temporary agencies to workers (and directly by employers to workers) in Limburg. Recognising that housing needs are intrinsically linked to the intended length of stay (Engbersen, 2013; Ministerie van Binnenlandse Zaken en Koninkrijksrelaties, 2013), the research considers a spectrum ranging from short-stay to long-stay arrangements, as explained in Table 1. Table 2 explains the three sectors that are highly reliant on labour migrants. This is explained in detail in the subsequent sections. However, the uncertainty inherent in EU labour migration, often characterised by fluid transitions between temporary and permanent settlement, adds complexity to this equation (Strockmeijer, 2020; Engbersen, 2018; Bygnes & Erdal, 2017; Drinkwater & Garapich, 2015).

Bleker et al. (2020) and Engbersen et al. (2012) emphasise that labour migrants often lack clarity regarding the potential duration and trajectory of their stay. It is a situational decision depending on the conditions they find themselves in. In most cases, if the condition suits and fulfils their needs, there is a possibility of long stays.

The subsequent sections delve deeper to simplify this complex ecosystem examining the transnational operations of agencies, the lived experiences of temporary workers within these housing conditions and their implications on their lifestyles and well-being. Ultimately, the project aims to generate design proposals that address the identified challenges and contribute to just and equitable housing solutions for temporary workers in Limburg.

SHORT STAY >6 MONTHS	*Short-stay labour migrants intend to settle as seasonal workers and then to remigrate ((Engbersen, 2013; Ministerie van Binnenlandse Zaken en Koninkrijksrelaties, 2013). They would mainly be looking for quickly accessible, cheap and safe housing with sober facilities to stay in for a few months (ibid.). They would not find it a problem to share facilities or sometimes even rooms, if prices are lower (ibid.).*
MID STAY 6 MONTHS - 2 YEARS	*Mid-stay labour migrants stay in the Netherlands for a longer period of time, but still plan to remigrate (ibid.). They have a greater need for privacy and comfort and depending on the costs, opt for higher quality housing (ibid.). Mid-stay labour migrants often settle in rooms, studios, small apartments and housing types as we also know them in student housing, as independent houses are often not available quickly (ibid.). Most mid-stay migrant workers have no objection to sharing facilities (ibid.).*
LONG STAY < 2 YEARS	*Long-stay labour migrants intend to settle permanently in the Netherlands (ibid.). Some come to the Netherlands with that wish, others decide this during their stay in the Netherlands (ibid.). It often involves couples or people who bring their families over. This permanent settlement makes them regular residents (with an international background). That is why their housing requirements correspond to regular independent housing (ibid.).*

Table 1: Length of Stay
Source: Engbersen, 2013; Ministerie van Binnenlandse Zaken en Koninkrijksrelaties, 2013

	HORTICULTURE & AGRICULTURE			
SHORT STAY >6 MONTHS	APPLES & PEARS	CELERY - FIELD & GREENHOUSE	TULIPS IN GREENHOUSE	
	ASPARAGUS ON FIELD	ENDIVE - FIELD & GREENHOUSE		
	BROCCOLI & CAULIFLOWER	PAKCHOI - FIELD & GREENHOUSE		
	LETTUCE - FIELD & GREENHOUSE	PUMPKIN		

	LOGISTICS		HORTICULTURE & AGRICULTURE	
MID STAY 6 MONTHS - 2 YEARS	WAREHOUSE EMPLOYEES	PRODUCTION EMPLOYEE	LEEKS	FLEXIBLE AGRI - WORKER ON FIELD
	WAREHOUSE OPERATORS		ZUCCHINI	STRAWBERRY IN GREENHOUSE
	ORDER PICKERS		PAPRIKA IN GREENHOUSE	TULIPS ON FIELD
	FORKLIFT DRIVERS		COURGETTE IN GREENHOUSE	
LONG STAY < 2 YEARS	WAREHOUSE EMPLOYEES	PRODUCTION EMPLOYEE	TULIPS ON FIELD	
	WAREHOUSE OPERATORS		NURSERY IN GREENHOUSE	
	ORDER PICKERS		TOMATOES IN GREENHOUSE	
	FORKLIFT DRIVERS			

NOTE:
- THE STEREOTYPE BASED ON YOUR NATIONALITY WILL PLAY A BIG ROLE IN JOB RECRUITMENT.
- COMMON SENSE IS NON-NEGOTIABLE.
- SOME JOBS MAY REQUIRE LANGUAGE SKILLS BASED ON THE PROVINCE.

Table 2: Sectors and their work requirements in terms of length of stay
Source: Multiple Sources

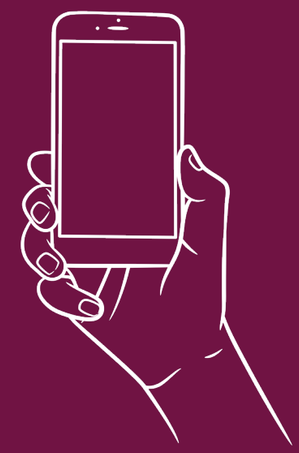


Fig 47: Presence of Temporary Employment Agencies all over Limburg
Source: Author

WHAT ARE THE ASPECTS OF THE SYSTEM OF TEMPORARY JOBS IN THE EU? HOW DOES IT FUNCTION IN THE NETHERLANDS?

EXISTING

Agency Work is a triangular employment relationship (refer to Fig. 48), defined in ILO Convention 181 as: "Services consisting of employing workers to make them available to a third party, who may be a natural or legal person ("user enterprise") which assigns their tasks and supervises the execution of these tasks". (WEC, 2019) Agency Work is applicable in the Netherlands to recruit workers from CEE countries to work in service sectors that demand low-skilled labour. Agencies are institutions that work on a trust basis and form a cross-European network ensuring the needs of the workers and their 'customers' who are the owners/employers, are met. It works on the economics of market supply and demand. An interviewee mentioned that this system works efficiently based on trust and loyalty through prior word of mouth and professional social experiences with fellow employers, who rely on the same mode of employment every year. Employers demand a surplus of workers more than necessary for a suitable job. For example, if the vacancy opens up for 10 workers, the agencies request 12 workers' applications. Eventually, 8 workers turn up and after two weeks, experiencing the dire working conditions, 4 workers remain. The sector of Temporary Agency Work (TAW) is particularly developed and well-organised in the Netherlands, representing considerable job opportunities in the country's economy: in 2018, it amounted to more than 3% of the national income, generating a revenue of 21 billion euros. (WEC, 2019) TAW is well-equipped as a business ecosystem and provides instant services for companies' demands for flexible or temporary labour. The history of TAW in the Netherlands is entrenched in the progressive flexibilisation of labour market legislation and growing social acceptance towards atypical forms of employment. (Maran, 2020). The value of TAW remains significant for Dutch sectors, particularly for this project in the agriculture, horticulture and logistics sectors. Major motives for companies to hire temp agency workers are peaks in production, mostly predictable peaks, as well as replacement of staff falling ill. (Tijdens et al., 2006) Temporary Agencies or *uitzendbureau* provide social security to workers who work in these companies hence, the majority of workers from Poland are reliant on them. They are the 'middlemen' or 'traders', in economic terms (refer to Fig. 48). Most of the recruited workforce in the multi-level operations of the agencies are of Polish nationality, thus trust and comfort among the workers is high. The system is tailored depending on their assumed needs. There are different kinds of agencies typically larger ones, in terms of geographical operations and smaller ones. The former operates all over the Netherlands but mainly in 24*7 web shops and logistics centers. Smaller ones particularly work with small-scale agricultural farmers and horticulturalists. The farmers or greenhouse owners are the 'customers', and temporary labour caters to their demands (refer to Fig. 48). One small-scale agency operates (interviewee) in the southern half of the Netherlands, especially in Limburg, they do not compete with the larger agencies. Demand and supply can not be predicted hence, can experience fluctuations. The larger agencies also depend on Dutch workers whereas the smaller ones,

usually employ non-Dutch temporary labour, mainly Eastern Europeans. This particular small-scale agency has a cross-geography business connection in the Netherlands as well as Poland (refer to Fig. 49). They have more offices in different cities in Poland (refer to Fig. 48). The Poles from the nearby villages enroll in these temporary agencies and then when 'called for', they 'are transported' to The Netherlands. It's a system in a closed capsule (refer to Fig. 49). Many small-scale agencies in the Netherlands and Poland share such business networks. Companies or employers choose these agencies based on geographical proximity and their past professional experiences.

The Dutch economy would be much worse if there was no temporary agency work (ABU, 2019). TAW can be accessed through platforms of an extensive digital network of online temporary agency websites (refer to Fig. 53). These websites post frequent job vacancies stating the required working hours, wages, benefits, employment contracts and the other services they offer. Some Dutch websites have translation options in Polish, Romanian and English suggesting their preferred target groups. Based on these options, through mutual networks and personal skills and interests, individuals can look out for the most suitable job. The websites look attractive, and well-developed and use images of happy migrant workers, working in safe and promising conditions. The websites are updated as per the ongoing marketing pressures. Workers can apply for jobs directly via the websites. These jobs require a low level of skills, compared to other sectors and the workers are promised job satisfaction and a smooth relocation process. Everything is organised for them and presented as a 'package deal' (refer to Fig. 50 & 51). The regular worker is subjected to this concealed capsule of package deals offered under the name of TAW. Their role in performing labour, inviting them to the Dutch society is reduced to these offers. These offers lack integration strategies with the Dutch society, it has a profit-oriented motive. The overall message on various websites is the same, to come, work and supply to NL.

Customers or companies also use these websites to strike deals with temporary agencies that will further hire workers for their business. This is how temporary agency websites create this triangle relationship. It's a continuous cycle.

The entire process, of the customers, temporary agency and workers is illustrated in Fig. 51. Everything is arranged for the workers, from A to Z. This system works efficiently in the current digital era. The following are the questions that are collectively answered for temporary workers, throughout all websites:

WHAT KIND OF ACCOMMODATION DO WE OFFER YOU?

WHAT KIND OF WORK DO WE OFFER YOU?

WHAT HOURLY WAGES DO YOU OFFER?

HOW MANY HOURS CAN YOU WORK PER WEEK?

DO WE GUARANTEE TRANSPORT?

IS SPEAKING A PARTICULAR LANGUAGE REQUIRED?

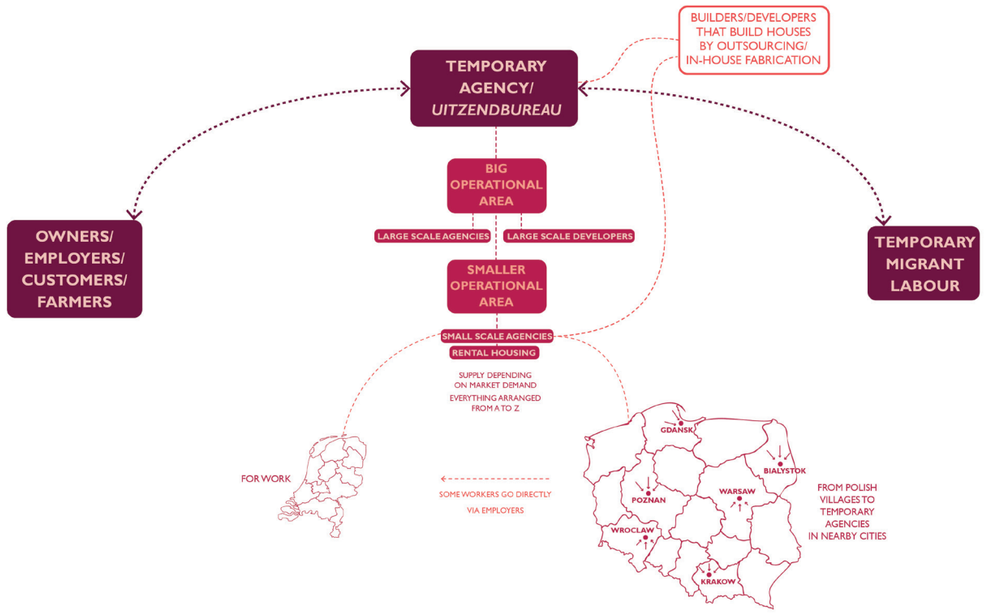


Fig 48: Triangular Employment Relations via TAW between the Netherlands and Poland
Source: Author via interviewees

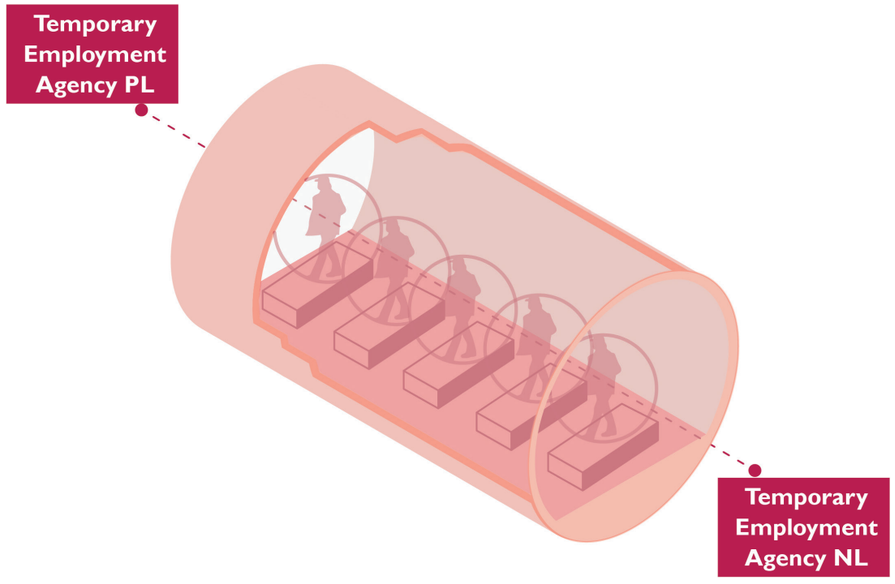


Fig 49: Cross-Geography trade between NL and PL, in a closed capsule network
Source: Author via interviewees

1. In The Netherlands, we determine the necessary competencies and job requirements for your future flex workers. This way we know exactly which flex workers we should be looking for.

2. During a selection interview, we will work with you to determine whether we have set up the correct competency profile. This profile forms the basis for the recruitment abroad.

3. Once the profile has been determined, we will start targeted recruitment and selection abroad. In a personal conversation, with the potential flex worker, we will check whether he/she is suitable for you.

4. Once the right flex workers have been selected, we provide them with information about your company and your activities. This way they come to the Netherlands well prepared.

5. Before the flex workers leave abroad, we check whether all documents are in order to be able to start working in NL right away.

6. Bus journey from your home country to sending country.

7. New workers arrive at the temp agency, receive guidance, a good start and a warm welcome.

8. Living space, transport from home to work.

9. The company's project manager accompanies your temporary workers to their work address. This way they know the way and are sure to start on time.

10. Before your flex workers start work, we provide them with an explanation of the safety rules and other house rules. We also hand out the 'working at' booklet, which lists the rules.

11. After completing the formalities, you introduce the work to the worker with the project manager. The worker should be efficient from day one.

12. We keep a finger on the pulse throughout the entire working period through periodic testing of the work performed, a permanent point of contact and good communication.

13. In the meantime, we conduct satisfaction surveys to check whether you are still satisfied with your flex workers.

14. Back to home country, once the work has been completed.

15. Regular contact for on-call work.

Fig 51: Everything Arranged from A to Z, advertisement of TAW for new customers/companies
Source: Temp Agency Website - https://www.eena.nl/customer-journey/

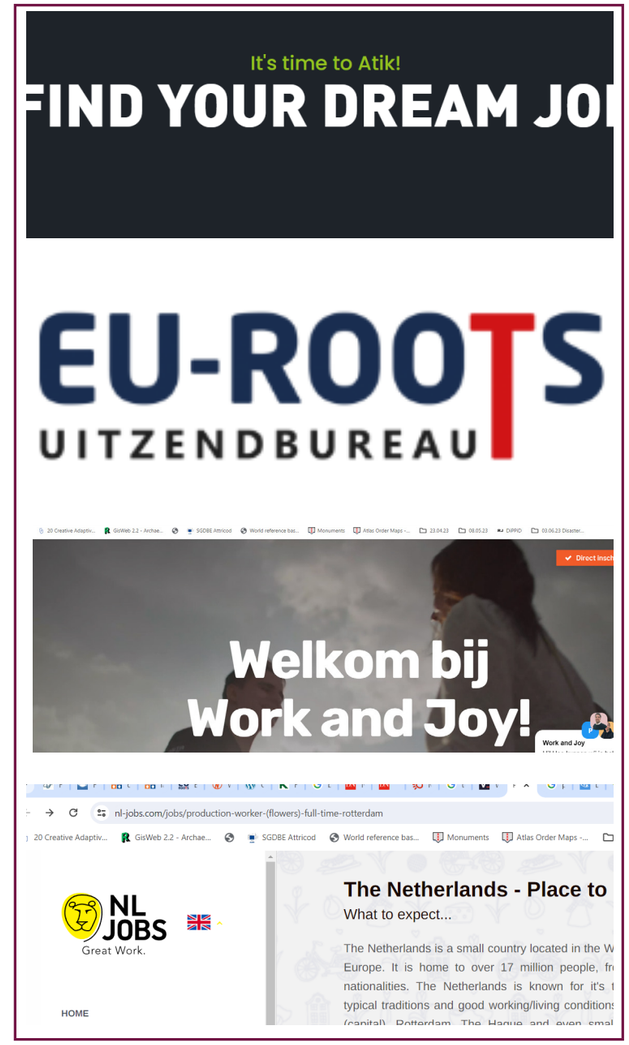


Fig 52: Forming a Cross-Geography Digital Network
Source: Various Uitzendbureau or Temp Agency Websites

Fig 53: Temporary Agency Rental Cars outside Worker's Housing
Source: Author

These questions along with their answers, cater to the primary needs of the workers. This ensures a safe and secure hello, in the Netherlands. However, the promises made by the agencies and TAW do not live up to its promises. Tall claims are exposed when the workers arrive here.The responsibility that the agencies promise starts fading away over time. Reality unfolds itself when the workers realise that their work schedules are quite dependent on the seasonal or temporary nature of their jobs. There are severe downsides that these sectors face. Just like other economic sectors, these face economic brunts of market and seasonal pressures. For example, distribution centers can face dry stock due to halts in imports and exports from other countries. They can also face peaks during major holiday seasons like Christmas and Black Friday and would require more workers than usual. Agricultural seasonal work is extremely dependent on the climate, pests and soil conditions. These factors can falter and limit productivity hence affecting the worker's schedules. The greenhouses also face similar conditions for if a greenhouse gets heated up, due to extremely high outdoor temperatures, the work is halted until the weather is optimal. Sometimes, plant viruses destroy huge chunks of production. November to March is a dead season. In 2022, when the gas prices went up, greenhouse owners were unable to keep up with the costs of the operations thus, there was no work and no workers. The digital and physical infrastructure that the temporary agencies provide is beneficial for the workers to deal with these uncertainties of the job market. The temporary nature of work has these inevitable issues attached to it thus, sometimes workers can find other jobs but most of the time, the vacant job positions are filled in advance, leaving the worker unemployed. Some situations force them to evacuate their living arrangements and eventually, the country. Extreme conditions of unemployment can also result in homelessness on the streets of big cities in Limburg like Venlo. The uncertainty of temporary work also results in uncertainty about the workers' role in a high-functioning economy in NL. This business ecosystem of TAW invites temporary labour to a system that caters to the requirement of the 'ideal worker', perfectly fit for those jobs. Although the system itself is faulty. The labourer can figure that out soon enough. The labourers, who, with few resources relocate themselves, get stuck in debt. Workers are highly dependent on the weekly wages, paid via the agencies. No work means no wage hence, the worker has no value in this system and is kicked out, back to the sending country, instantly. To conclude, this section deems the system of TAW as fragile and unjust to the labourer's needs. They seem glossy and welcoming digitally but are poorly managed on site. Market pressures are not solved by companies thus, labourers face the brunt of it. This system must be strengthened. Next chapter scales down to housing conditions provided to temporary labour who sign up for these jobs. These crucial points along with fieldwork help in analysing flexible housing conditions on site. The exploited temporary labour in extremely controlled environments must be provided with a sense of home and belonging.

Fig 54: Cemetery in Amsterdam hidden away in the trees
Source: Google Earth

Fig 55: Workers ' Housing in Limburg hidden away in the trees
Source: Google Earth

Fig 56: Workers ' Housing in Limburg hidden away in the fences
Source: Author

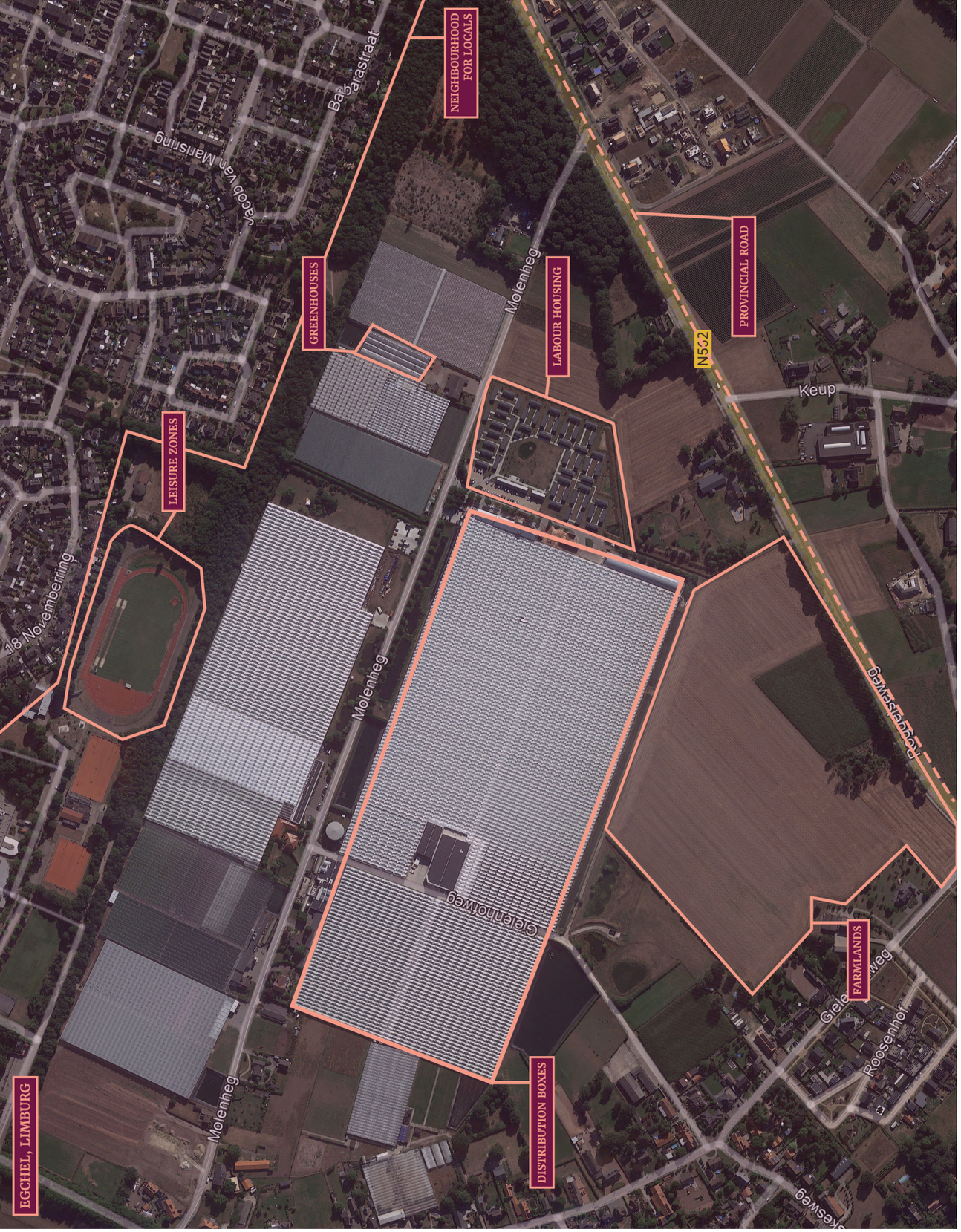


Fig 57: A temporary labour work-live ecosystem in Egchel, Limburg
Source: Marking over Google Earth image

EGCHEL VILLAGE IN LIMBURG PROVINCE

Site specific research on this site in the village of Egchel further helped in devicing categories to analyse ten sites in Limburg. The housing conditions within Egchel village situated amidst the picturesque landscapes of Limburg, the Netherlands were investigated. This site epitomises the relationship between work, live and leisure offering valuable insights into the evolving landscape of temporary migrant worker accommodations. In Fig. 57, the scale of the housing seems to be a by-product of 'work' - the massive greenhouses surrounding it. Studying this site by visiting it acts as an impetus to understand the other sites, with similar (or different) situations. This site provides with the necessary tools required. It is positioned between expansive agricultural farmlands, enveloped by nature reserves to its bottom right and the greenhouses. Characterised by its isolation from the bustling urban fabric, the site offers a private accomodation for its workers, juxtaposed against the backdrop of bustling greenhouse activity, most of which is boxed.

Comprising 50 chalets capable of accommodating 200 workers, the housing complex serves as a vital addition to the small village of Egchel providing accommodations for temporary labour from April to November. The site's flexible housing typology underscores its adaptability to the diverse needs of its transient inhabitants.

The site was accessed through barren farmlands further into the chalet complex. Distinguished by its grey-modern modules and serene surroundings, the site seems dystopic devoid of human activity. It is punctuated only by intermittent greenhouse machinery noises emblematic of its integration within the agricultural landscape. Security measures including a comprehensive CCTV surveillance system underscore the site's commitment to ensuring the safety of its occupants or a measure to control them and keep the outsiders away. The adjacent narrow pathways connect to the surrounding forest where industrial activity and nature coexist. On the first site visit, I used the route with the barren lands and on the second visit it was this place of interaction where locals walk their dogs in their free time. Benches and trash cans suggested frequent human activity but mostly, the forest seemed dead.

It connects further to the sports fields funded by greenhouse companies, the municipality of Peel en Maas and local establishments providing fitness opportunities for the worker. This is where the integration within the broader urban fabric of Egchel began. It is evident through the presence of a mosque, gymnasium and nearby primary school. The site is a component of the local community. However, its placement proves otherwise. The Egchel site offers an ecosystem of broader trends in temporary worker housing – living next to the workplace with some basic amenities and facilities. Through rigorous observation and analysis (Fig. 58), this case study provides valuable insights into the multifaceted nature of temporary migrant worker housing in contemporary Dutch society. This site is an improved attempt which was built in 2020 - relatively new. The further section discusses the observations in detail to understand its limitations and will eventually provide a framework to study all the sites through comparative analysis.

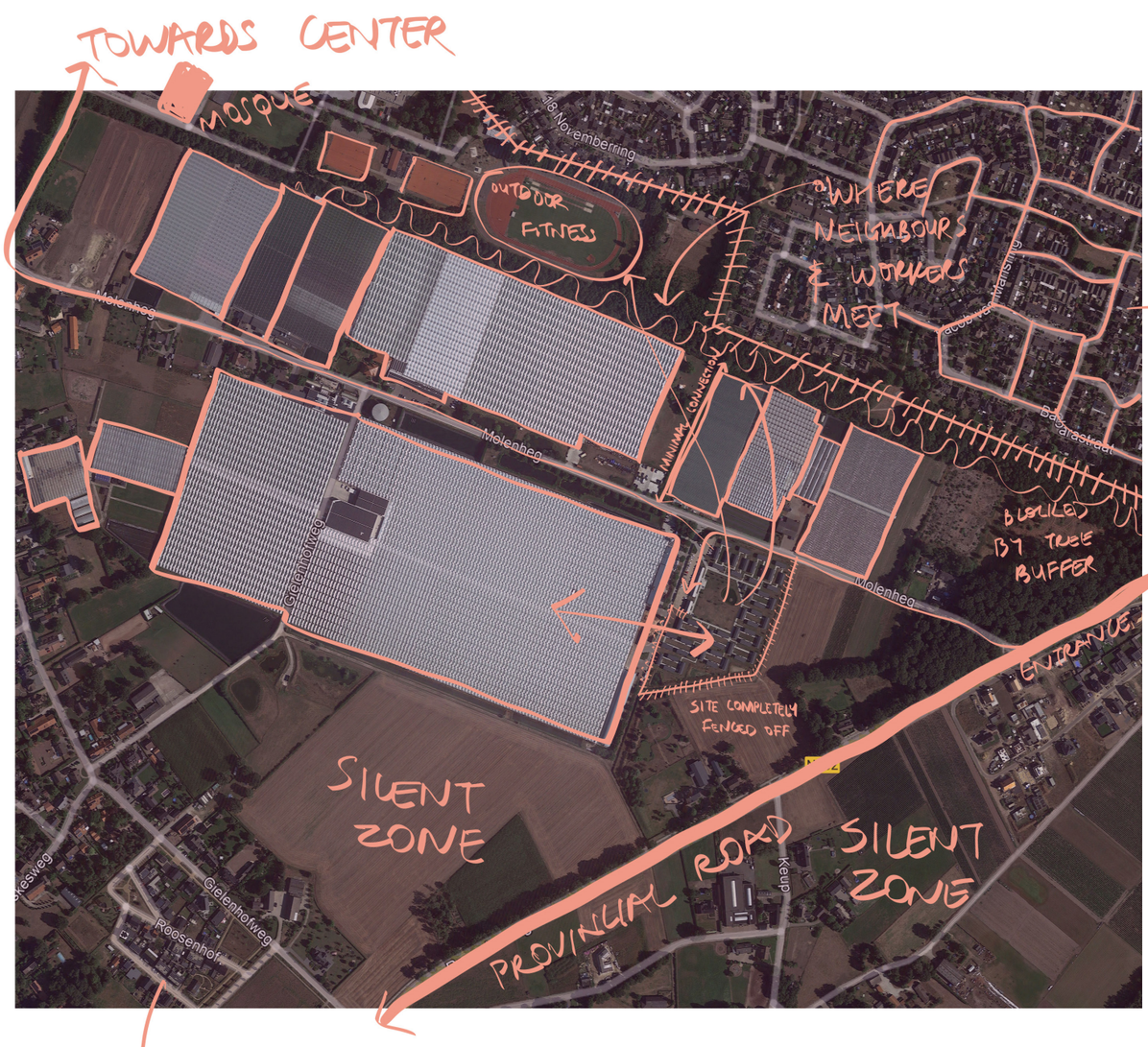


Fig 58: Fieldwork Analysis
Source: Sketching over Google Earth Image

Fig 59: Pathway to the site - Route 1
Source: Author

Fig 60: A dormant site post working hours at 18:00h
Source: Author

Fig 61: A barbeque stand waiting to be used when the sun shines
Source: Author

Fig 62: Shared courtyards between chalets
Source: Author

Fig 63: Site analysis sketches
Source: Author

SITE OBSERVATIONS

Situated within rural Limburg, the site is managed by the adjoining horticultural company. The land is owned by the company with a ten-year contract for these flexible or temporary 'homes' granted by the municipality of Peel en Maas. The chalets are built and imported from Poland. This initiative houses temporary migrant workers who work in the company's paprika and courgette greenhouses. The proximity to the workplace makes it a highly controlled zone (refer to Fig. 65). In addition to the chalets, the site features three temporary buildings designated for storage, a gymnasium, a clubhouse, laundry facilities and technical purposes. Each chalet is equipped with basic facilities including beds, bathroom facilities and kitchen amenities ensuring privacy for residents. Adherence to house rules is ensured with strict prohibitions on activities such as drug use. The perfect-looking nature of the houses is due to these strict rules that restrict casual behaviour. The order of control goes too far where free activity amongst the workers is reduced. There is a feeling of discomfort throughout the site. The site management in collaboration with local authorities undertakes regular monitoring and enforcement activities to ensure compliance with regulatory standards. This happens at the cost of the temporary worker. The site's inhabitants are characterised by diversity with workers from various nationalities such as Polish, Romanian, Portuguese, Lithuanian and Bulgarian. This eclectic mix of cultures enriches the social fabric albeit presenting challenges related to language barriers and cultural differences. To mitigate potential conflicts, strategic housing arrangements based on stereotypes associated with nationalities are made to foster harmonious coexistence among residents. There are picnic tables, entrance steps and barbecue grills that bring everybody together, mainly during summer. Peak seasons witness heightened activity levels with workdays typically commencing at dawn and concluding in the late evening. The nature of work varies depending on seasonal demands with tasks requiring the worker to stand all day thus ensuring physical fitness. After a hard day's toil, the workers want to relax and communicate with family back home and barely use the facilities provided. The facilities are not enticing enough for them. Experience is highly valued in the workforce with returning workers often preferred for their familiarity with tasks and the work environment. However, challenges such as disruptions due to extreme weather conditions or plant diseases persist further halting work in the greenhouses. If there is no work for more than a week, the worker is exempt from living on the premises which leads to homelessness and uncertainty about their future. The worker is locked in a controlled capsule during their stay, at work and when they're jobless. The site offers accommodations and amenities to temporary workers if they contribute to the agricultural economy of the Netherlands. The limited infrastructure, lack of space appropriation and highly regulated environments lead to workers' exploitation. These observations expose the challenges and possibilities to propose the lenses to view the other ten sites then, eventually, the design principles. First, how the temporary agencies provide these houses will be explained and then the ten sites will be analysed.

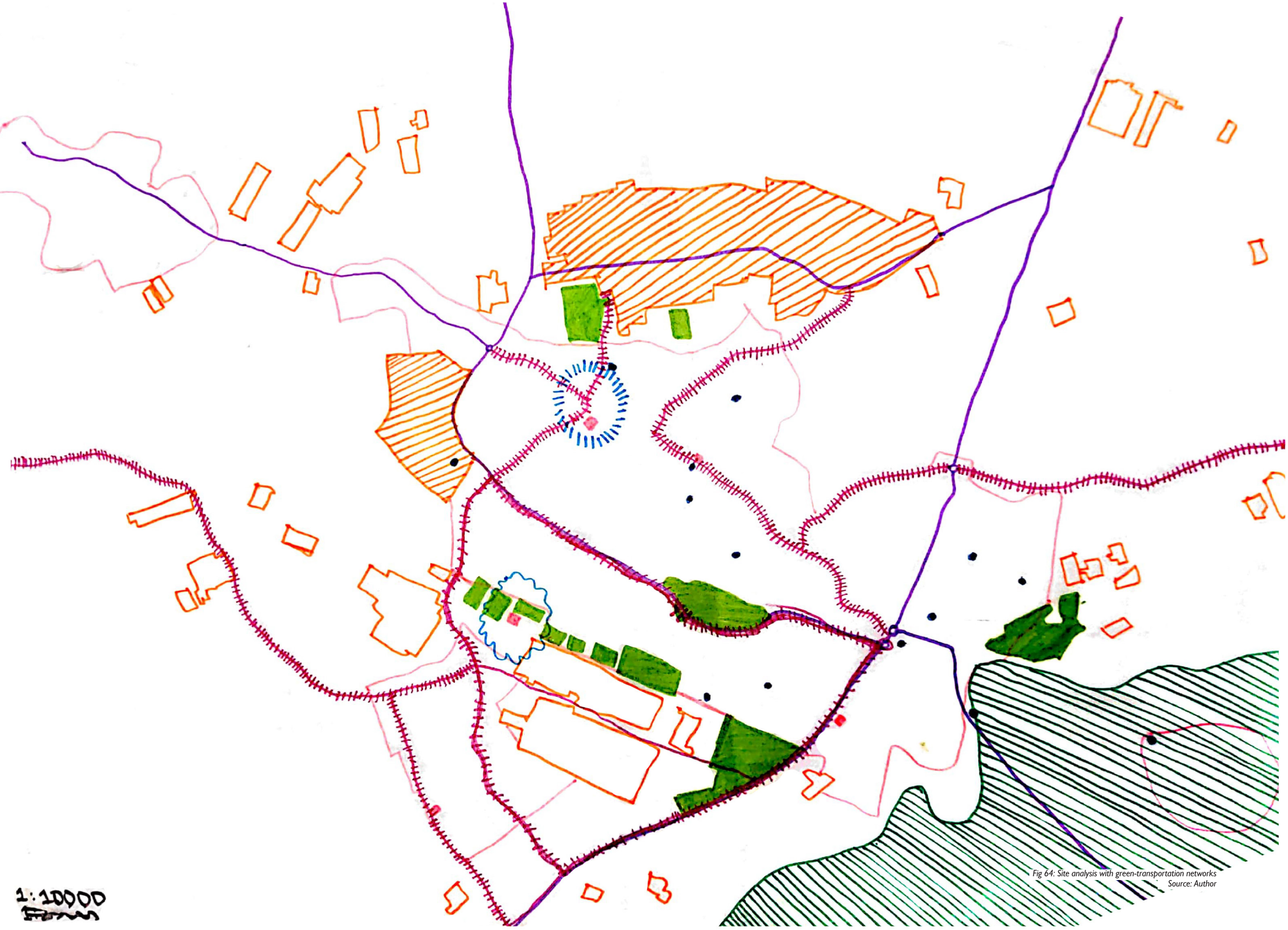


Fig 64: Site analysis with green-transportation networks
Source: Author

Panningen Centrum

Panningen

Helden

Major Interaction Zones

Egchel

Natura 2000

Scale - 1:10000

Legend

- Farmlands
- Urban Patterns
- Leisure Zones
- Work Zones
- Discontinuous Urban Fabric
- Logistic Estates
- Live Zones
- Religious Buildings
- Public Transport Roads
- Provincial Roads
- Secondary & Tertiary Roads
- Pathways
- Daily Routine of a Worker
- Interaction Belts

Fig 65: Site Analysis Synthesised
Source: Author

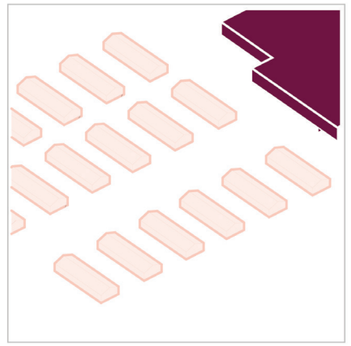
WHAT ARE THE CURRENT HOUSING ENVIRONMENTS OF THE MIGRANT WORKER? WHAT ASPECTS OF SPATIAL JUSTICE ARE AT STAKE IN 'FLEXWONEN' FOR THE TEMPORARY WORKERS?

EXPLORE

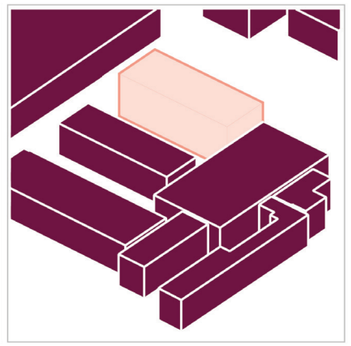
The "package deal" offered by temporary agencies includes a very tempting offer for temporary labour - a house. Given the housing shortage in the Netherlands, being offered a house helps check off one important item on the relocating labourer's "to-do list." When signing up with a temporary agency for a job, the agency offers a suitable location and usually houses the labourer in a location close to their workplace. The perfect example is the site studied in the previous section. "Close" can have different meanings depending on the nature of the work. Inspectie SZW (2019) found that housing for migrant workers also forms a revenue model for their employers. In some cases, landlords charged more rent than legally allowed (ibid.). The labourer has little to no agency in choosing a preferred kind of "stay." Often, kinship networks and strong ties with friends belonging to the same community help facilitate easy replacements without involving a temporary agency. In some cases, the employer houses their staff on company premises which is often the case for large trade parks and farmworkers' housing. The site in Egchel is a suitable example. This system operates both formally and informally.

Fig. 66 includes the various typologies of houses offered in the focus area of Limburg. These houses usually fall under the category of "flexwonen" or flexible housing. Flex homes are homes that exist temporarily or are permanent homes rented under a temporary contract (PBL 4781, 2022). The idea is that such flexible housing can be realised quickly and is more accessible than regular housing; they can, as it were, add a "flexible shell" to the housing supply. In the National Housing and Construction Agenda, the government expresses the ambition to build 15,000 flexible homes per year until 2030. These flexible homes are offered to groups in vulnerable positions - socially or economically. Given the variety of housing stock available in the Netherlands, the focus on these homes forms the basis of the housing available to temporary labour. Flex housing is a "quick" way of supplying housing stock and often results in the mass production of modular units in factories or utilising retired stock through "adaptive reuse" measures. There are pros and cons to both. Most researchers speak about overcrowding in these homes or dorms, hygienic issues, stigmas associated with locals in these neighbourhoods and the nuisance to society that they are. These factors are important but this project first enters the spatial planning aspects of these homes and will get back to these issues in the design proposal section.

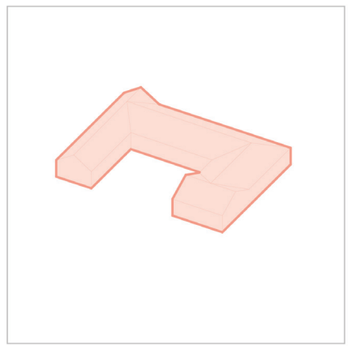
Visual investigations through geospatial mapping (Fig. 67) helped in recognising this 'different' phenomenon. Subsequent site visits and analysis (Fig. 65), interviews and newspaper article reviews strengthened the research and proved an assumption to be true. Fig. 54 compares a cemetery in Amsterdam to a workers' housing block (an office transformed into multiple rooms) in Fig. 55 showing spatial planning strategies to "hide" and keep them away. This project constantly seeks to question - Why should the labourers be hidden? This idea of spatial justice is at stake. The analysis of ten sites in Limburg is the starting point for uncovering why this system is problematic (Fig. 68).



MODULAR UNITS



MODULAR TOWER



TRANSFORMATION

Fig 66: Workers ' Housing Typologies considered in the project
Source: Author

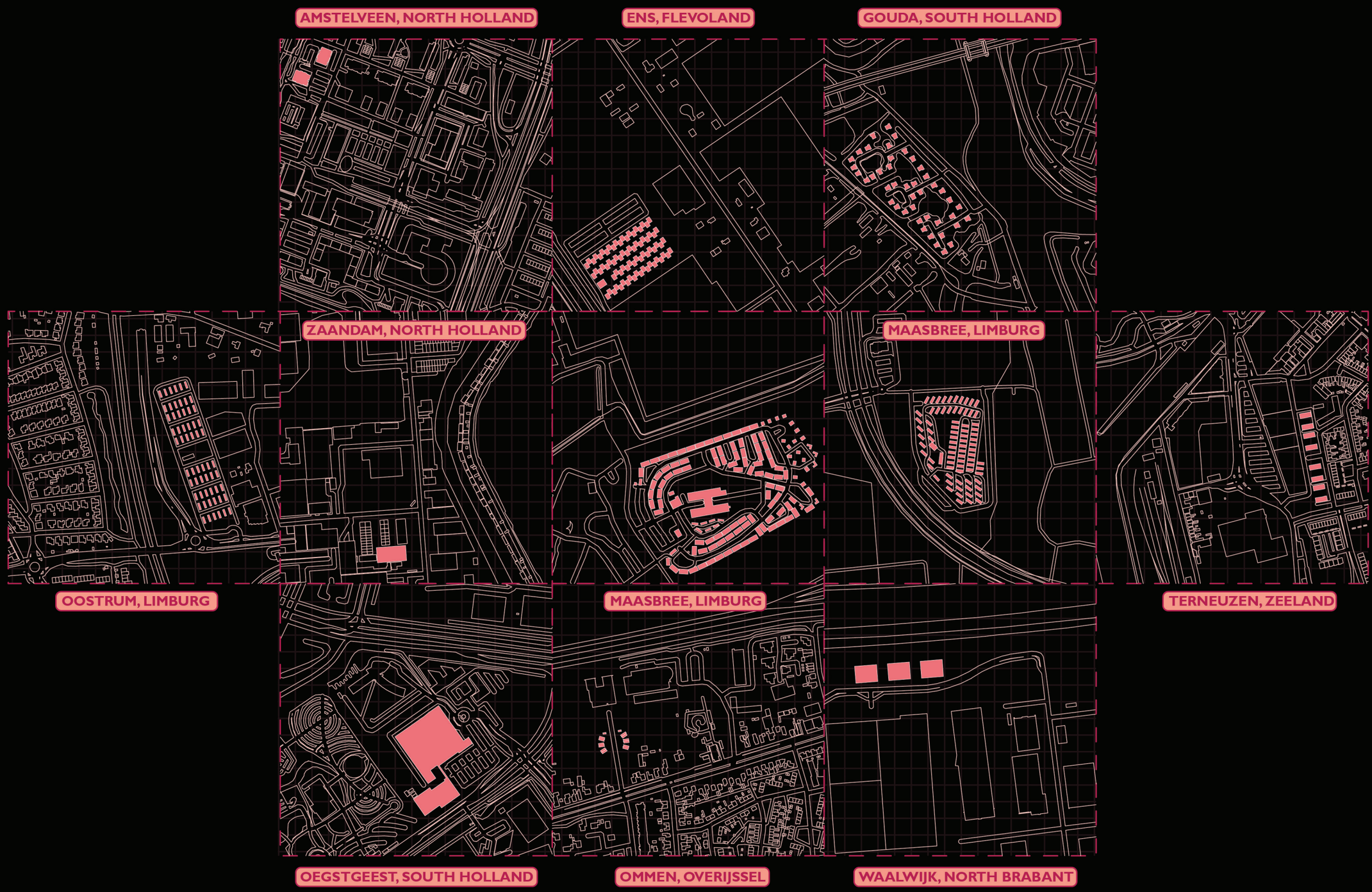
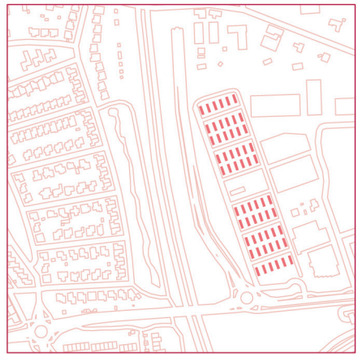
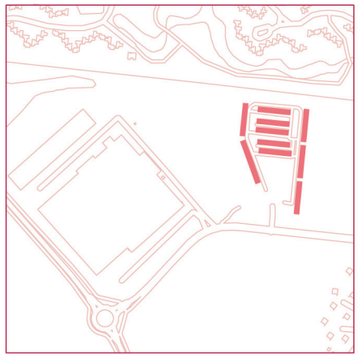
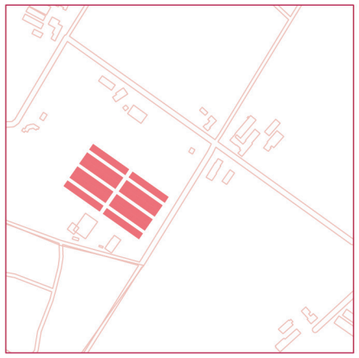
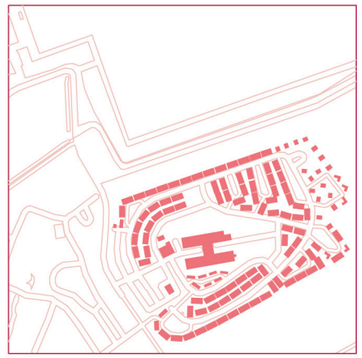


Fig 67: Visually investigating different spatial patterns in the Netherlands
Source: Author

VENRAY	OOSTRUM	AMERICA	MEIJEL	MAASBREE
				

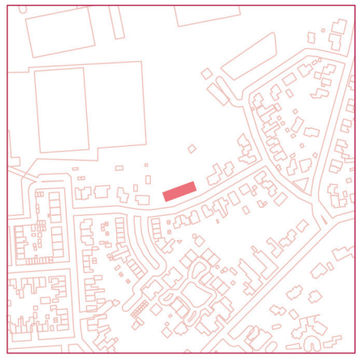
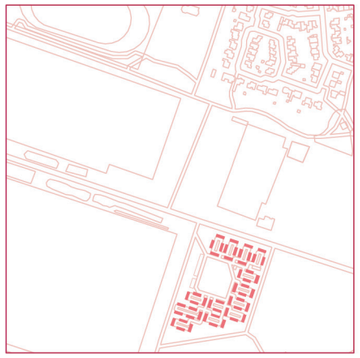
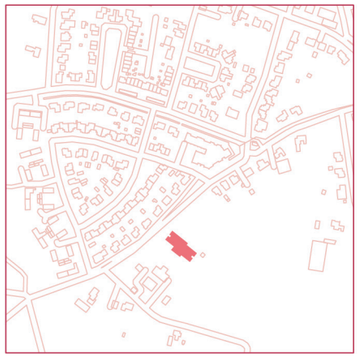
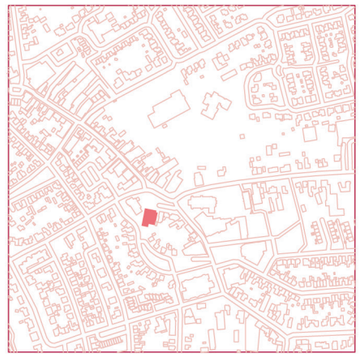
VENLO	PANNINGEN	EGCHEL	BAARLO	MEIJEL
				

Fig 68: Ten housing sites for analysis in North Limburg
Source: Multiple Sources for images

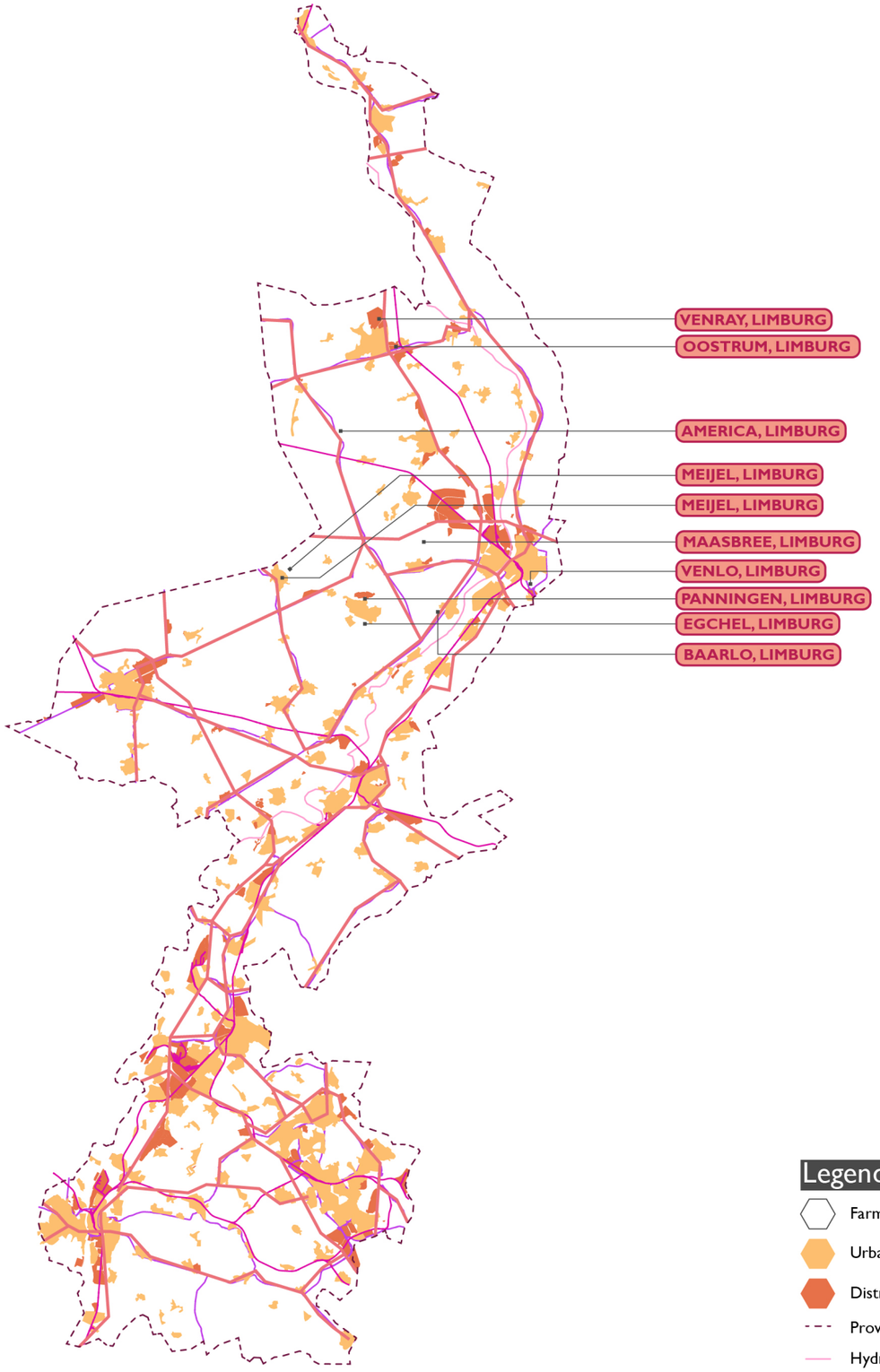


Fig 69: Map of Limburg with sites
Source: Author

VENRAY, LIMBURG

OOSTRUM, LIMBURG

AMERICA, LIMBURG

MEIJEL, LIMBURG

MAASBREE, LIMBURG

VENLO, LIMBURG

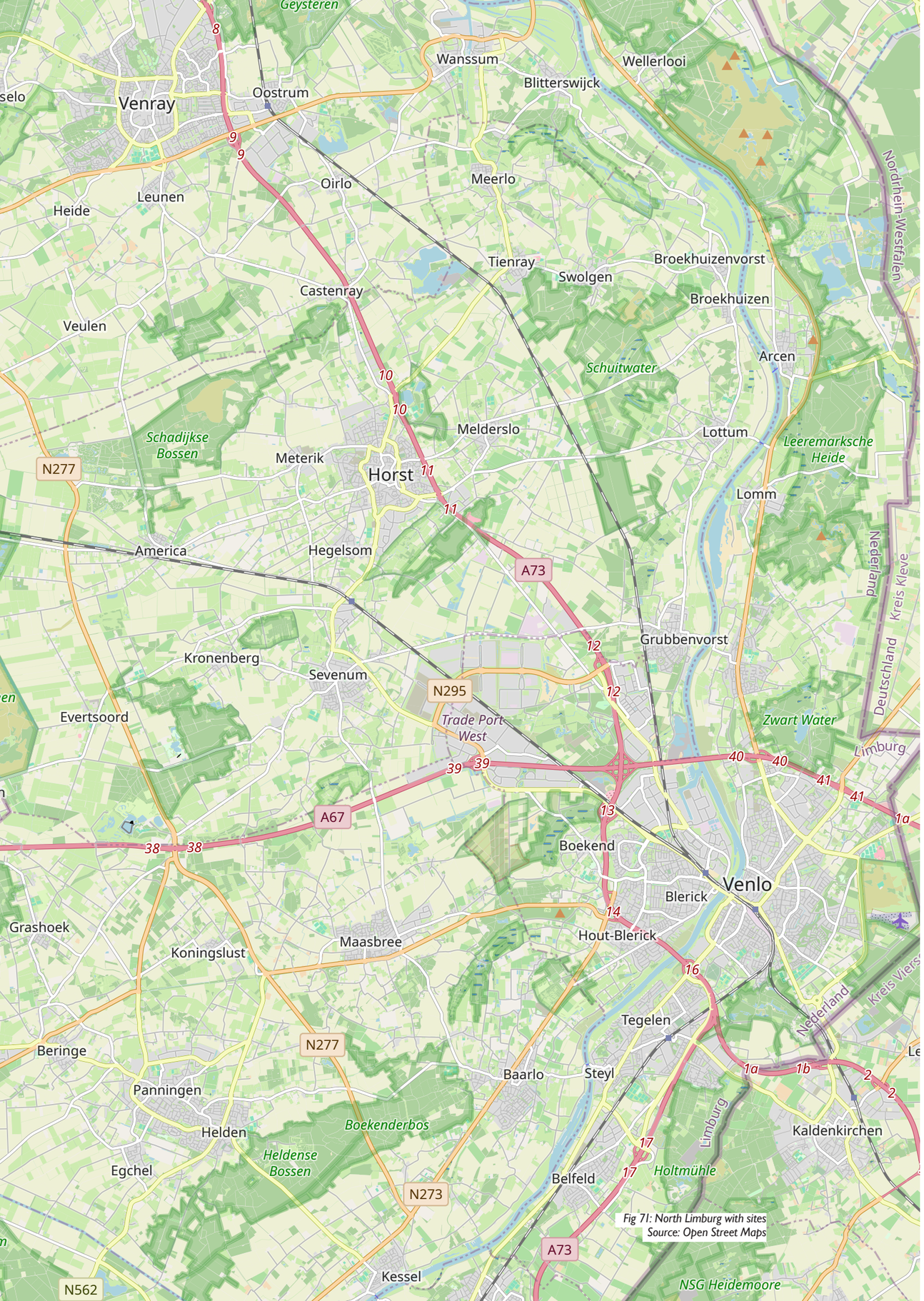
PANNINGEN, LIMBURG

EGCHEL, LIMBURG

BAARLO, LIMBURG

MEIJEL, LIMBURG

Fig 70: Different spatialities of the ten sites
Source: Google Earth



Legend

- Motorway
- Main road
- Railway
- Light rail
- Airport Runway · Taxiway
- Airport apron
- Administrative boundary
- Lake · Reservoir
- Intermittent waterbody
- Glacier
- Reef
- Wetland
- Forest · Wood
- Orchard · Vineyard
- Grass · Meadow
- Farmland
- Heathland
- Scrubland
- Bare rock
- Sand
- Park
- Golf course
- Built-up area
- Farm
- Brownfield site
- Cemetery
- Allotments
- Sports pitch
- Sports centre
- Nature reserve
- Military area
- Summit · Peak

Fig 71: North Limburg with sites
Source: Open Street Maps

HOUSING IN NORTH LIMBURG

The Netherlands is currently grappling with spatial complexities arising from competing land use demands. This project maps these complexities, focusing specifically on housing for temporary labour in the province of Limburg. With a population of 1,133,174 (City Population, 2024), Limburg faces a shrinking and aging demographic. This demographic shift intensifies the demand for temporary labour, particularly from Central and Eastern European countries, as illustrated by the high concentration of CEE workers in North Limburg (refer to Fig. 72). Projections indicate that the number of labour migrants in Noord-Limburg is expected to double by 2030, further exacerbating existing spatial pressures (Bleker et al., 2020; Etil, 2018).

Through geospatial mapping, this research identified ten distinct residential patterns for temporary labour within the tightly regulated Dutch urban fabric. These patterns characterised as "anomalies" or "different" emerged as distinct from established housing typologies. The identification process was further aided by mapping two trailer park settings and cross-referencing them with the Flexwonen website, a national database of flexible housing typologies in the Netherlands. This process revealed that these housing solutions often fall under the category of "flex-housing."

Flex-housing, a form of (social) rental housing characterised by temporary dwelling units, building locations, or inhabitation periods, has emerged as a potential stopgap solution to address the acute housing shortages in the Netherlands (Druta et al., 2023). However, the externalities of these housing solutions particularly their siting within the existing urban fabric raise concerns. Preliminary analysis suggests that some flex-housing projects may not adhere to established zoning regulations. Additionally, while some sources posit the normalcy of housing labour on company premises, this project questions the spatial and social implications of such practices. These locations have the potential to create highly controlled environments raising concerns about worker agency and freedom of movement.

Regulations and zoning for flexible housing vary significantly across municipalities and provinces in the Netherlands. However, a common challenge emerges when considering the allocation of land for these housing solutions: land availability. Interviews with real estate developers specialising in housing provision reveal that securing suitable land is both a major bottleneck and a time-consuming process.

Several factors contribute to this scarcity. Firstly, flexible housing projects necessitate connection to existing utilities which can be problematic given the stigmatised attitude towards temporary labour often held by local Dutch communities. This social stigma makes it challenging to secure locations that meet the specific requirements of flexible housing such as minimum floor space (SnF regulations) and proximity to public transportation (PBL, 4202, 2020). While the assumption is often made that migrant workers lack personal vehicles necessitating access to public transport, observations reveal that rental cars provided by temporary agencies sometimes compensate for this gap (refer to Fig. 53).

Secondly, zoning regulations often allocate vacant land for purposes such as

agriculture, energy generation or natural areas further limiting the options for flexible housing. While temporary leases (e.g., ten years for the Egchel site) are sometimes granted for these lands with the stipulation that the land reverts to its original zoning designation after the lease expires, this precarious arrangement highlights the vulnerable position of flexible housing initiatives.

Despite these challenges, alternative solutions are being explored such as repurposing vacant or retired housing stock and buildings. While some of these structures may be dilapidated others offer potential benefits that warrant further investigation.

It is crucial to recognise that temporary labourers contribute significantly to vital economic sectors and deserve access to adequate living spaces, outdoor areas and basic facilities on par with the rest of the population. The issue of inadequate housing for migrant workers is not new; a "National Declaration of Parties" was signed in 2012 to address the need for (temporary) housing solutions for this demographic (Geen tweederangsburgers, 2020). However, the problem still persists in 2024 often overlooked due to its perceived temporary nature.

A paradigm shift is necessary. Instead of viewing these housing solutions through a temporary lens, a more sustainable approach would be to adopt a permanent perspective. This entails envisioning a building designed for a fluctuating population where individuals come and go based on their personal aspirations and work contracts which, as explained in the previous chapter, can range from short-stay to long-stay. By adopting a permanent perspective, many of the indirect problems associated with temporary housing such as land availability, social stigma and funding challenges could be mitigated.

While financing remains a hurdle for many housing projects, it is important to acknowledge that housing labour migrants in the Netherlands are primarily a municipal responsibility encouraging tailored solutions (Hussen, 2020). Therefore, providing municipalities with concrete recommendations is crucial.

This research delves deeper into the complexities of housing for temporary labour by analysing ten sites in Limburg through a mixed-methods approach. This includes site-specific research, website analysis, stakeholder interviews, geospatial mapping and literature reviews. By employing storytelling through charts, the aim is to unpack these spatial complexities and identify the core requirements for suitable housing for temporary labour. Ultimately, this research seeks to answer the question: Is there a right way to define housing for temporary labour? Let's explore!

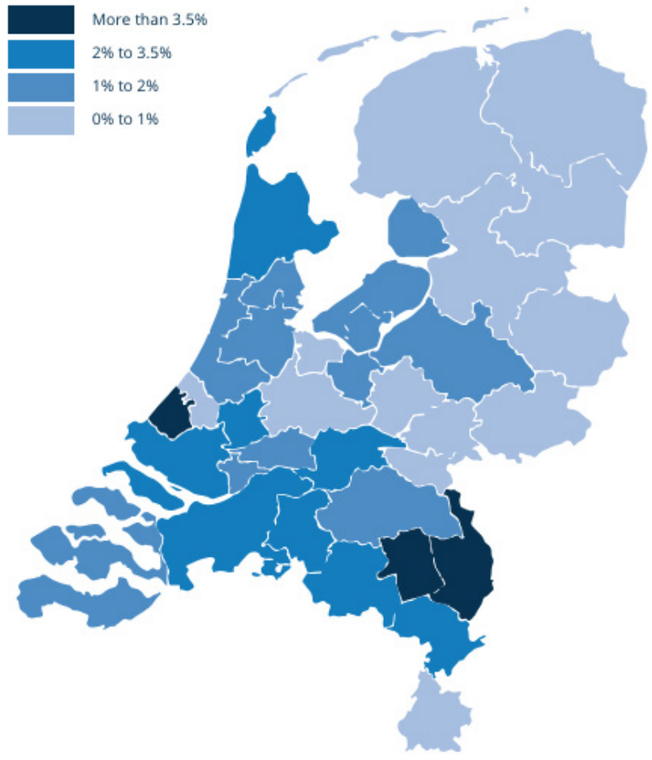


Fig 72: Number of jobs filled by CEE workers in North Limburg
Source: SEO 2018, ABU

Ten sites are selected, in North Limburg for their diverse spatial characteristics for an exploration of housing challenges encountered by temporary labour. Using a multiple case studies approach, the characteristics include:

Housing Attributes

Length of Stay: the duration of residency provided by housing services.
Dwelling Density: the number of residential units and the beds provided.
Housing Typology: the type of real estate property (Fig. 56).

Mixed Occupancy: coexistence of diverse vulnerable groups in the same complex.
Stakeholders: the primary individuals or entities involved in the planning, development or management of the housing project.

Facilities and Amenities

Physical Fitness Facilities: infrastructure provided for promoting physical fitness for strenuous labour performed.
Designated Car Parking: allocated areas for parking vehicles (personal or rental provided by temporary agencies).
Proximity to Essentials: the closeness of essential services - grocery stores, pharmacies and medical centers from the housing complex.
Community Facilities (Indoor/Outdoor): shared spaces and amenities available for communal use - indoors and outdoors.

Employment and Mobility

Proximity to Workplace (Work-Live-Leisure): the distance between the housing site, places of employment and leisure activities.
Occupational Sector: the specific industry or sector employing temporary labour.
Length of Stay: the duration of residency as expected by the nature of work.

Physical Environment

Degree of Isolation: the extent to which the housing site is physically separated from its surrounding urban environment.
Integration with City Vibrancies: the level of connection and interaction between the housing development and surrounding urban fabric and the 'neighbours'.
Visual Barrier Measures: physical strategies implemented to create visual obstructions to create distance between the 'neighbours' and housing complex.
Degree of Privacy: the extent to which residents can maintain personal privacy within their living spaces.

Space Utilisation

Major Zoning Areas: land use zones around the development delineating functional areas - residential, industrial, major roadways or isolated zones.
Space Efficiency: space utilisation within the complex is divided into total plot area, parking area, living areas and leisure areas.

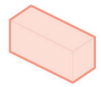
Several categories have been devised to assess the spatial attributes of these sites drawing from both existing documentation and online resources. Certain categories were developed in the catalogue through fieldwork observations and interviews that were deemed relevant to understanding the planning of these housing arrangements.

Fig 73: Modular Tower in Venray
Source: Author

VENRAY

HOUSING ATTRIBUTES

Length of Stay	Dwelling Density	Housing Typology	Mixed Occupancy	Stakeholders
LONG STAY	30 rooms ; 92 beds *Couples & singles*	MODULAR TOWER	NO	REAL ESTATE DEVELOPER, TEMPORARY AGENCY



FACILITIES & AMENITIES

Physical Fitness Facilities	Designated Car Parking	Proximity to Essentials	Community Facilities
GYMNASIUM	YES	0 — 2km — 3km	• Indoor • Outdoor INDOORS

EMPLOYMENT & MOBILITY

Occupational Sector		Length of Stay	Proximity to Workplace
LOGISTICS	→	LONG STAY	ON-SITE

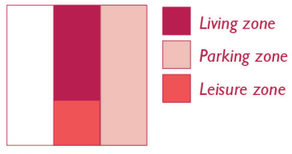
PHYSICAL ENVIRONMENT

Degree of Isolation	Integration with City Vibrancies	Degree of privacy
LOW — HIGH — VERY HIGH	LOW — HIGH — VERY HIGH	LOW — HIGH — VERY HIGH

Visual Barrier Measures

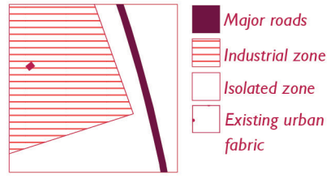
SPACE UTILISATION

Space Efficiency



TOTAL AREA=3724 sq.m.

Major Zoning Areas



COMMENTS/ SUGGESTIONS

- *MOVE FROM 'WORK' ZONE*
- *TYPOLOGY WORKS WELL*
- *FIT INTO URBAN FABRIC INSTEAD OF INDUSTRIAL ZONE*
- *CLUB WITH THE OOSTRUM SITE*

Fig 74: Modular Units in Oostrum
Source: Flexwonen Website

OOSTRUM

HOUSING ATTRIBUTES

Length of Stay	Dwelling Density	Housing Typology	Mixed Occupancy	Stakeholders
SHORT STAY	60 modules ; 240 beds *Couples & singles*	MODULAR UNITS	NO	REAL ESTATE DEVELOPER

FACILITIES & AMENITIES

Physical Fitness Facilities	Designated Car Parking	Proximity to Essentials	Community Facilities
GYMNASIUM	YES	0 – 2km – 3km	• Indoor • Outdoor INDOORS

EMPLOYMENT & MOBILITY

Occupational Sector	Length of Stay	Proximity to Workplace
LOGISTICS	→ LONG STAY	ON-SITE & OFF-SITE

LIVE / LEISURE / WORK

PHYSICAL ENVIRONMENT

Degree of Isolation	Integration with City Vibrancies	Degree of privacy
LOW – HIGH – VERY HIGH	LOW – HIGH – VERY HIGH	LOW – HIGH – VERY HIGH

Visual Barrier Measures

SPACE UTILISATION

Space Efficiency

Living zone
Parking zone
Leisure zone

TOTAL AREA=28557 sq.m.

Major Zoning Areas

Major roads
Industrial zone
Isolated zone
Existing urban fabric

COMMENTS/ SUGGESTIONS

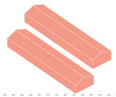
- *MOVE FROM 'WORK' ZONE*
- *FIT INTO URBAN FABRIC INSTEAD OF INDUSTRIAL ZONE*
- *UTILISE VACANT BUILDINGS AVAILABLE ON SITE*
- *CLUB WITH THE VENRAY SITE*

Fig 75: Modular Units in America
Source: https://www.gfactueel.nl/van-dijck-groenteproducties-van-binnenuit-bekeken/

AMERICA

HOUSING ATTRIBUTES

Length of Stay	Dwelling Density	Housing Typology	Mixed Occupancy	Stakeholders
SHORT STAY	50 homes ; 300 beds *Couples & singles*	FIXED LONG MODULAR UNITS	NO	COMPANY OWNER

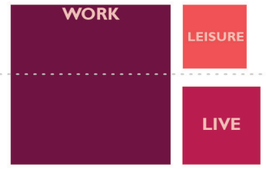


FACILITIES & AMENITIES

Physical Fitness Facilities	Designated Car Parking	Proximity to Essentials	Community Facilities
NOT PROVIDED	YES	0 — 2km — 3km	• Indoor • Outdoor OUTDOORS

EMPLOYMENT & MOBILITY

Occupational Sector	Length of Stay	Proximity to Workplace
AGRICULTURE →	SHORT STAY	ON-SITE



PHYSICAL ENVIRONMENT

Degree of Isolation

LOW — HIGH — VERY HIGH

Integration with City Vibrancies

LOW — HIGH — VERY HIGH

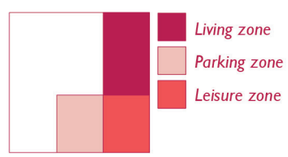
Degree of privacy

LOW — HIGH — VERY HIGH

Visual Barrier Measures

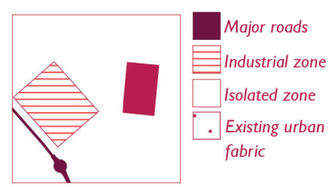
SPACE UTILISATION

Space Efficiency



TOTAL AREA=23000 sq.m.

Major Zoning Areas



COMMENTS/ SUGGESTIONS

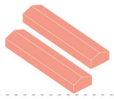
- *MOVE FROM 'WORK' ZONE*
- *INCREASE THE POPULATION OF THE VILLAGE OF AMERICA*
- *UTILISE VACANT BUILDINGS AVAILABLE ON SITE*

Fig 76: Modular Units in Meijel
Source: https://www.omroeppenm.nl/kogel-door-de-kerk-400-arbeidsmigranten-op-camping-nieuwe-hof

MEIJEL

HOUSING ATTRIBUTES

Length of Stay	Dwelling Density	Housing Typology	Mixed Occupancy	Stakeholders
SHORT STAY	200 rooms ; 400 beds *Couples*	LONG MODULAR UNITS	NO	REAL ESTATE DEVELOPER, TEMPORARY AGENCY

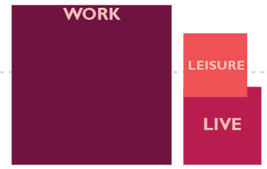


FACILITIES & AMENITIES

Physical Fitness Facilities	Designated Car Parking	Proximity to Essentials	Community Facilities
GYMNASIUM & SPORTS GROUNDS	YES	0 — 2km — 3km	• Indoor • Outdoor INDOORS OUTDOORS

EMPLOYMENT & MOBILITY

Occupational Sector		Length of Stay	Proximity to Workplace
LOGISTICS	→	LONG STAY	OFF-SITE



PHYSICAL ENVIRONMENT

Degree of Isolation	Integration with City Vibrancies	Degree of privacy
LOW — HIGH — VERY HIGH	LOW — HIGH — VERY HIGH	LOW — HIGH — VERY HIGH

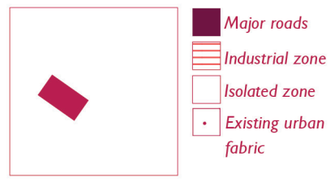
Visual Barrier Measures

SPACE UTILISATION

Space Efficiency

TOTAL AREA=37472 sq.m.

Major Zoning Areas

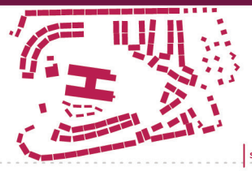


COMMENTS/ SUGGESTIONS

- *MOVE FROM 'ISOLATED' ZONE*
- *FIT INTO THE URBAN FABRIC OF THE VILLAGE OF MEIJEL*
- *UTILISE VACANT BUILDINGS AVAILABLE ON SITE*

Fig 77: Surveillance in Maasbree
Source: Author

MAASBREE

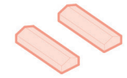


HOUSING ATTRIBUTES

Length of Stay
SHORT STAY

Dwelling Density
127 modules ; 750 beds
Couples x Singles

Housing Typology
MODULAR - HOLIDAY PARK



Mixed Occupancy
NO

Stakeholders
TEMPORARY HOUSING AUTHORITY

FACILITIES & AMENITIES

Physical Fitness Facilities
GYMNASIUM

Designated Car Parking
YES

Proximity to Essentials

Community Facilities
- Indoor
- Outdoor

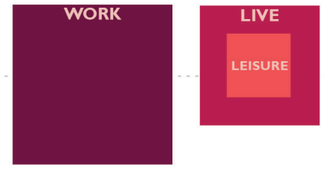
INDOORS

EMPLOYMENT & MOBILITY

Occupational Sector
GREENHOUSE & POWERPLANT

Length of Stay
→ LONG STAY

Proximity to Workplace
OFF-SITE



PHYSICAL ENVIRONMENT

Degree of Isolation

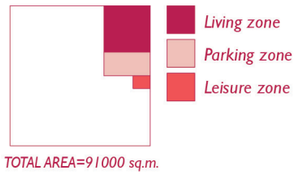
Integration with City Vibrancies

Degree of privacy

Visual Barrier Measures

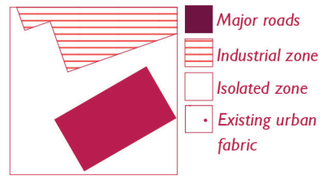
SPACE UTILISATION

Space Efficiency



TOTAL AREA=91000 sq.m.

Major Zoning Areas



COMMENTS/ SUGGESTIONS

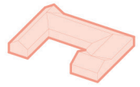
- *HEAVILY CONTROLLED SITE, CCTV CAMERAS INSTALLED EVERYWHERE*
- *INCREASE LEISURE FOR TEMPORARY LABOUR*

Fig 78: Transformed Monastery in Venlo
Source: Flexrooms Website

VENLO

HOUSING ATTRIBUTES

Length of Stay	Dwelling Density	Housing Typology	Mixed Occupancy	Stakeholders
N.A.	172 rooms & 9 apartments; 317 beds *Couples & singles*	TRANSFORMATION	NO	TEMPORARY HOUSING AUTHORITY

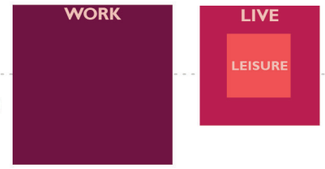


FACILITIES & AMENITIES

Physical Fitness Facilities	Designated Car Parking	Proximity to Essentials	Community Facilities
GYMNASIUM	YES	0 — 2km — 3km	• Indoor • Outdoor → INDOORS

EMPLOYMENT & MOBILITY

Occupational Sector	Length of Stay	Proximity to Workplace
N.A.	N.A.	OFF-SITE



PHYSICAL ENVIRONMENT

Degree of Isolation — LOW HIGH VERY HIGH

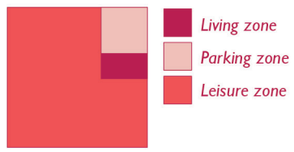
Integration with City Vibrancies — LOW HIGH VERY HIGH

Degree of privacy — LOW HIGH VERY HIGH

Visual Barrier Measures

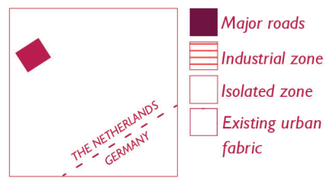
SPACE UTILISATION

Space Efficiency



TOTAL AREA=36000 sq.m.

Major Zoning Areas



COMMENTS/ SUGGESTIONS

- *ISOLATED SITE, AT THE BORDER OF NL AND GERMANY*
- *OUTDOOR SPACE, IS NOT DESIGNED FOR LEISURE DESPITE ABUNDANCE OF AVAILABLE PLOT*
- *ONLY INTERIOR OF THE MONASTERY COMPLEX IS PLANNED*

Fig 79: Modular Tower in Panningen
Source: Author

PANNINGEN

HOUSING ATTRIBUTES

Length of Stay	Dwelling Density	Housing Typology	Mixed Occupancy	Stakeholders
MID STAY	20 apartments ; 48 beds *Couples & singles*	MODULAR TOWER with exoskeleton	YES, with other vulnerable groups	CITY HOUSING AUTHORITY MUNICIPALITY

FACILITIES & AMENITIES

Physical Fitness Facilities	Designated Car Parking	Proximity to Essentials	Community Facilities
SPORTS FIELD	YES	0 — 2km — 3km	• Indoor • Outdoor NONE

EMPLOYMENT & MOBILITY

Occupational Sector	Length of Stay	Proximity to Workplace
N.A.	N.A.	OFF-SITE

WORK

LIVE

PHYSICAL ENVIRONMENT

Degree of Isolation	Integration with City Vibrancies	Degree of privacy
LOW — HIGH — VERY HIGH	LOW — HIGH — VERY HIGH	LOW — HIGH — VERY HIGH

Visual Barrier Measures

SPACE UTILISATION

Space Efficiency

Living zone
Parking zone
Leisure zone

TOTAL AREA=2730 sq.m.

Major Zoning Areas

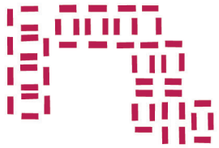
Major roads
Industrial zone
Isolated zone
Existing urban fabric

COMMENTS/ SUGGESTIONS

- *ALREADY A PART OF A NEIGHBOURHOOD WITH A BEAUTIFUL AND ORNAMENTAL EXOSKELETON*
- *TIGHT PLOT HENCE NO PROVISION FOR LEISURE*
- *BUILDING SIZE CAN BE MADE BIGGER TO ACCOMMODATE MORE PROGRAMS*
- *SHOULD BE CLUBBED WITH EGCHEL SITE*

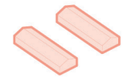
Fig 80: Modular Units in Egchel
Source: Author

EGCHEL



HOUSING ATTRIBUTES

Length of Stay	Dwelling Density	Housing Typology	Mixed Occupancy	Stakeholders
MID STAY	50 modules ; 200 beds *Couples & singles*	MODULAR UNITS	NO	COMPANY OWNER TEMPORARY AGENCY



FACILITIES & AMENITIES

Physical Fitness Facilities	Designated Car Parking	Proximity to Essentials	Community Facilities
GYMNASIUM & SPORTS FIELD	YES	0 — 2km — 3km	• Indoor • Outdoor OUTDOORS

EMPLOYMENT & MOBILITY

Occupational Sector	Length of Stay	Proximity to Workplace
GREENHOUSE →	MID STAY	ON-SITE

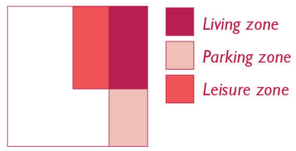
PHYSICAL ENVIRONMENT

Degree of Isolation	Integration with City Vibrancies	Degree of privacy
LOW HIGH VERY HIGH	LOW HIGH VERY HIGH	LOW HIGH VERY HIGH

Visual Barrier Measures

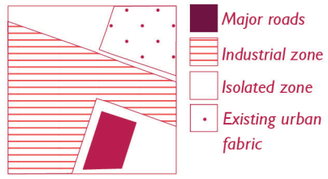
SPACE UTILISATION

Space Efficiency



TOTAL AREA= 18000 sq.m.

Major Zoning Areas



COMMENTS/ SUGGESTIONS

- *VERY CLOSE TO THE WORKPLACE*
- *NO INTEGRATION WITH EXISTING COMMUNITY ON SITE DESPITE POSSIBILITIES*
- *SHOULD BE CLUBBED WITH PANNINGEN SITE*

Fig 81: Modular Units in Baarlo
Source: Flexwonen Website

BAARLO

HOUSING ATTRIBUTES

Length of Stay	Dwelling Density	Housing Typology	Mixed Occupancy	Stakeholders
MID STAY	10 apartments ; 10 x 2 beds *Couples*	LONG MODULAR UNITS	YES, with other vulnerable groups	REAL ESTATE DEVELOPER, TEMPORARY AGENCY

FACILITIES & AMENITIES

Physical Fitness Facilities	Designated Car Parking	Proximity to Essentials	Community Facilities
GYMNASIUM	YES	0 — 2km — 3km	• Indoor • Outdoor INDOORS OUTDOORS

EMPLOYMENT & MOBILITY

Occupational Sector	Length of Stay	Proximity to Workplace
N.A.	N.A.	OFF-SITE

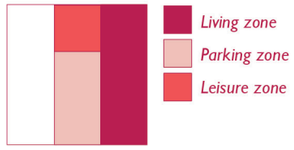
PHYSICAL ENVIRONMENT

Degree of Isolation	Integration with City Vibrancies	Degree of privacy
LOW HIGH VERY HIGH	LOW HIGH VERY HIGH	LOW HIGH VERY HIGH

Visual Barrier Measures

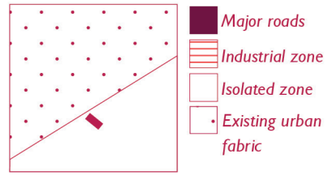
SPACE UTILISATION

Space Efficiency



TOTAL AREA=2656 sq.m.

Major Zoning Areas



COMMENTS/ SUGGESTIONS

- *INCREASE THE POPULATION OF THE VILLAGE OF BAARLO*
- *NO INTEGRATION WITH EXISTING COMMUNITY ON SITE DESPITE POSSIBILITIES*
- *GOOD SPATIAL QUALITY*
- *ISOLATION CAN BE REDUCED*

Fig 82: Transformed Hotel in Meijel
Source: Flexwonen Website

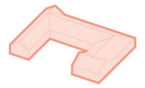
MEIJEL

HOUSING ATTRIBUTES

Length of Stay
SHORT STAY

Dwelling Density
35 rooms ; 70 beds
Couples x Singles

Housing Typology
TRANSFORMATION



Mixed Occupancy
YES, with other vulnerable groups

Stakeholders
COMPANY
OWNER
TEMPORARY AGENCY

FACILITIES & AMENITIES

Physical Fitness Facilities
NOT PROVIDED

Designated Car Parking
YES

Proximity to Essentials

Community Facilities
- Indoor
- Outdoor

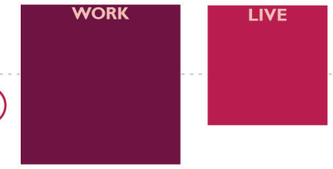
INDOORS

EMPLOYMENT & MOBILITY

Occupational Sector
N.A.

Length of Stay
N.A.

Proximity to Workplace
OFF-SITE



PHYSICAL ENVIRONMENT

Degree of Isolation

Integration with City Vibrancies

Degree of privacy

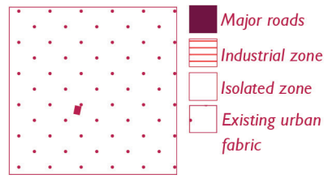
Visual Barrier Measures

SPACE UTILISATION

Space Efficiency

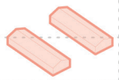
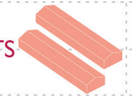
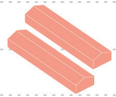
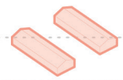
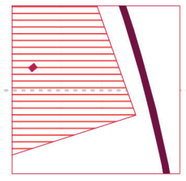
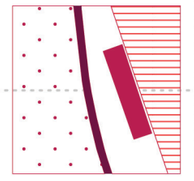
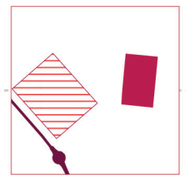
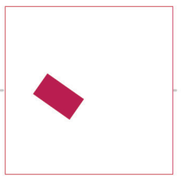
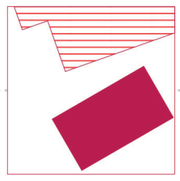
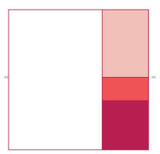
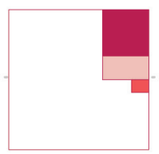
TOTAL AREA=700 sq.m.

Major Zoning Areas



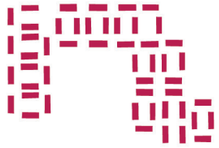
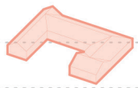
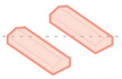
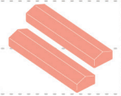
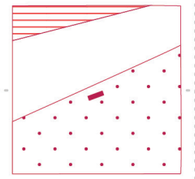
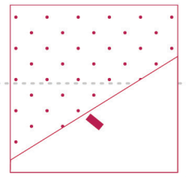
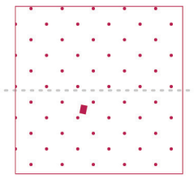
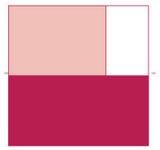
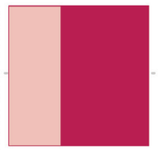
COMMENTS/ SUGGESTIONS

- *ALREADY A PART OF A NEIGHBOURHOOD*
- *A DISTINCT BANNER KEEPS THE 'NEIGHBOURS' WARY OF THE LABOUR'S EXISTENCE*
- *GOOD SPATIAL QUALITY*
- *THERE IS AN AVAILABLE LEISURE 'SQUARE' OUTSIDE WHICH CAN BE DESIGNED AND UTILISED*

	VENRAY	OOSTRUM	AMERICA	MEIJEL	MAASBREE
					scale 0.5x
HOUSING ATTRIBUTES					
Length of Stay	LONG STAY	SHORT STAY	SHORT STAY	SHORT STAY	SHORT STAY
Dwelling Density	30 rooms ; 92 beds	60 modules ; 240 beds	50 homes ; 300 beds	200 rooms ; 400 beds	127 modules ; 750 beds
Housing Typology	*Couples & singles*	*Couples & singles*	*Couples & singles*	*Couples*	*Couples x Singles*
Mixed Occupancy	MODULAR TOWER	MODULAR UNITS 	FIXED LONG MODULAR UNITS 	LONG MODULAR UNITS 	MODULAR - HOLIDAY PARK 
Stakeholders	NO	NO	NO	NO	NO
	REAL ESTATE DEVELOPER, TEMPORARY AGENCY	REAL ESTATE DEVELOPER	COMPANY OWNER	REAL ESTATE DEVELOPER, TEMPORARY AGENCY	TEMPORARY HOUSING AUTHORITY
FACILITIES & AMENITIES					
Physical Fitness Facilities	GYMNASIUM	GYMNASIUM	NOT PROVIDED	GYMNASIUM & SPORTS GROUNDS	GYMNASIUM
Designated Car Parking	YES	YES	YES	YES	YES
Proximity to Essentials	0 2km 3km	0 2km 3km	0 2km 3km	0 2km 3km	0 2km 3km 3.5km
Community Facilities • Indoor • Outdoor	INDOORS	INDOORS	OUTDOORS	INDOORS OUTDOORS	INDOORS
	WORK LIVE LEISURE	WORK LIVE LEISURE	WORK LEISURE LIVE	WORK LEISURE LIVE	WORK LIVE LEISURE
EMPLOYMENT & MOBILITY					
Proximity to Workplace	ON-SITE	ON-SITE & OFF-SITE	ON-SITE	OFF-SITE	OFF-SITE
Occupational Sector	LOGISTICS ↓ LONG STAY	LOGISTICS ↓ LONG STAY	AGRICULTURE ↓ SHORT STAY	LOGISTICS ↓ LONG STAY	GREENHOUSE & POWERPLANT ↓ LONG STAY
Length of Stay					
PHYSICAL ENVIRONMENT					
Degree of Isolation	LOW HIGH VERY HIGH	LOW HIGH VERY HIGH	LOW HIGH VERY HIGH	LOW HIGH VERY HIGH	LOW HIGH VERY HIGH
Integration with City Vibrancies	LOW HIGH VERY HIGH	LOW HIGH VERY HIGH	LOW HIGH VERY HIGH	LOW HIGH VERY HIGH	LOW HIGH VERY HIGH
Visual Barrier Measures	*SOME TREES, DRAW SECTION*	*SOME TREES, DRAW SECTION*	*SOME TREES, DRAW SECTION*	*SOME TREES, DRAW SECTION*	*SOME TREES, DRAW SECTION*
Degree of privacy	LOW HIGH VERY HIGH	LOW HIGH VERY HIGH	LOW HIGH VERY HIGH	LOW HIGH VERY HIGH	LOW HIGH VERY HIGH
SPACE UTILISATION					
Major Zoning Areas					
Space Efficiency					
	TOTAL AREA=3724 sq.m.	TOTAL AREA=28557 sq.m.	TOTAL AREA=23000 sq.m.	TOTAL AREA=37472 sq.m.	TOTAL AREA=91000 sq.m.

Working zone *Living zone* *Parking zone* *Leisure zone* *Existing urban fabric* *Industrial zone* *Isolated zone* *Major roads*

Fig 83: Housing Catalogue 1-5
Source: Author

	VENLO	PANNINGEN	EGCHEL	BAARLO	MEIJEL
					
HOUSING ATTRIBUTES					
Length of Stay	N.A.	MID STAY	MID STAY	MID STAY	SHORT STAY
Dwelling Density	172 rooms & 9 apartments; 317 beds	20 apartments ; 48 beds	50 modules ; 200 beds	10 apartments ; 10 x 2 beds	35 rooms ; 70 beds
Housing Typology	*Couples & singles* TRANSFORMATION 	*Couples & singles* MODULAR TOWER with exoskeleton	*Couples & singles* MODULAR UNITS 	*Couples* LONG MODULAR UNITS 	*Couples x Singles* TRANSFORMATION
Mixed Occupancy	NO	YES, with other vulnerable groups	NO	YES, with other vulnerable groups	YES, with other vulnerable groups
Stakeholders	TEMPORARY HOUSING AUTHORITY	CITY HOUSING AUTHORITY MUNICIPALITY	COMPANY OWNER TEMPORARY AGENCY	REAL ESTATE DEVELOPER, TEMPORARY AGENCY	COMPANY OWNER TEMPORARY AGENCY
FACILITIES & AMENITIES					
Physical Fitness Facilities	GYMNASIUM	SPORTS FIELD	GYMNASIUM & SPORTS FIELD	GYMNASIUM	NOT PROVIDED
Designated Car Parking	YES	YES	YES	YES	YES
Proximity to Essentials	0 2km 3km	0 2km 3km	0 2km 3km	0 2km 3km	0 2km 3km 3.5km
Community Facilities • Indoor • Outdoor	INDOORS	NONE	OUTDOORS	INDOORS OUTDOORS	INDOORS
EMPLOYMENT & MOBILITY					
Proximity to Workplace	OFF-SITE	OFF-SITE	ON-SITE	OFF-SITE	OFF-SITE
Occupational Sector	N.A.	N.A.	GREENHOUSE	N.A.	N.A.
Length of Stay	N.A.	N.A.	↓ MID STAY	N.A.	N.A.
PHYSICAL ENVIRONMENT					
Degree of Isolation	LOW HIGH VERY HIGH	LOW HIGH VERY HIGH	LOW HIGH VERY HIGH	LOW HIGH VERY HIGH	LOW HIGH VERY HIGH
Integration with City Vibrancies	LOW HIGH VERY HIGH	LOW HIGH VERY HIGH	LOW HIGH VERY HIGH	LOW HIGH VERY HIGH	LOW HIGH VERY HIGH
Visual Barrier Measures	*SOME TREES, DRAW SECTION*	*SOME TREES, DRAW SECTION*	*SOME TREES, DRAW SECTION*	*SOME TREES, DRAW SECTION*	*SOME TREES, DRAW SECTION*
Degree of privacy	LOW HIGH VERY HIGH	LOW HIGH VERY HIGH	LOW HIGH VERY HIGH	LOW HIGH VERY HIGH	LOW HIGH VERY HIGH
SPACE UTILISATION					
Major Zoning Areas					
Space Efficiency	*TOTAL AREA=36000 sq.m.*	 *TOTAL AREA=2730 sq.m.*	*TOTAL AREA=18000 sq.m.*	*TOTAL AREA=2656 sq.m.*	 *TOTAL AREA=700 sq.m.*

Working zone *Living zone* *Parking zone* *Leisure zone* *Existing urban fabric* *Industrial zone* *Isolated zone* *Major roads*

Fig 84: Housing Catalogue 6-10
Source: Author

HOUSING CATALOGUE OBSERVATIONS

Housing Attributes

Length of Stay: Analysis reveals that most of the sites prioritise short-stay and mid-stay facilities suggesting a resource capacity limited to approximately two years. This temporal constraint may pose challenges for labourers seeking longer-term housing solutions.

Dwelling Density: Significant variation in dwelling density is observed across housing types. While modular hotels demonstrate a capacity of up to 100 beds, trailer parks, individual units and collective modular units exhibit a higher potential accommodating between 150 to 750 beds. This range highlights the diverse spatial implications of different housing models.

Housing Typology: The typology of housing employed is demonstrably influenced by site-specific locational factors. Further investigation into the correlation between location and typology selection is warranted.

Mixed Occupancy: The analysis indicates that most housing complexes primarily cater to temporary labourers often designated as "foreign employees." While some facilities demonstrate a capacity for accommodating other vulnerable groups, these provisions are generally limited to short-stay arrangements for those with urgent housing needs. This finding underscores the need to explore more inclusive housing models that address the diverse needs of various vulnerable populations.

Stakeholders: Private stakeholders including company owners, real estate developers, temporary agencies and housing authorities, predominantly drive the acquisition, rental and development of land and housing units. This prevalence of private sector involvement, often motivated by profit maximisation can result in the prioritisation of economic gains over the welfare and specific needs of labourers. Notably, the analysis reveals that the single unit developed through municipal involvement exhibited superior integration with the existing urban fabric and a more human-centered design approach. This observation underscores the importance of encouraging greater municipal participation in the provision of housing for temporary labourers to ensure the creation of dignified and liveable homes.

Facilities and Amenities

Physical Fitness Facilities: Recognising the physically demanding nature of temporary labour, most housing complexes provide on-site facilities to support physical fitness. This provision acknowledges the direct correlation between labourers' physical well-being and their capacity to perform strenuous tasks effectively. When not on-site, it takes the shape of off-site sports grounds which are usually funded by the company owners to negotiate with the municipal corporations.

Designated Car Parking: The provision of designated car parking emerges as a common facility across all analysed sites. This observation can be attributed to the prevalence of short-stay migrants arriving directly in their vehicles, affording them a degree of autonomy should their work experience not meet expectations. Additionally, the provision of pick-up and drop-off services by some temporary agencies, while ensuring "last-mile connectivity," can contribute to a highly regimented schedule for labourers. Conversely, the availability of bicycles at some complexes empowers labourers with greater independence in accessing essential amenities such as grocery stores.

Proximity to Essentials: Access to essential services, particularly supermarkets and shops, is crucial for labourers' self-sufficiency. While nine out of ten housing complexes are situated within a 1km to 3.5km radius of a supermarket, this distance stands in stark contrast to the 1km radius typically enjoyed by regular urbanites in the Netherlands. This disparity highlights a potential spatial inequality. Notably, the housing unit in Panningen seamlessly integrated within the existing urban fabric benefits from a significantly reduced travel distance to essential amenities, underscoring the importance of locating such housing within closer proximity to urban centers to enhance labourers' well-being. While some reliance on mobile vendors, such as Polish vans, was observed, this provision is inherently limited in its scope. Most sites are far away from public transport options.

Community Facilities (Indoor/Outdoor): Fostering a sense of community among temporary labourers is essential particularly within a framework that respects their autonomy outside of working hours. Shared spaces and activities provide valuable opportunities for relaxation, social interaction and the exchange of experiences and information. While most sites offer some provision for communal use, the quality and variety of these facilities vary significantly. Indoor facilities such as television rooms, ping pong tables and common dining areas encourage social interaction, while outdoor spaces including designated smoking areas provide opportunities for informal gatherings. However, the analysis reveals a concerning absence of any dedicated leisure facilities on some sites, a factor that warrants attention to ensure the well-being of temporary labourers. Physical fitness is not a community facility.

Employment and Mobility

Proximity to Workplace: While on-site housing commonly observed in sectors like agriculture offers employers the convenience of an "on-call" workforce, this arrangement can be detrimental to labourers' well-being. The constant proximity to the workplace blurs the boundaries between work and personal time potentially leading to overwork and exploitation. Locating housing a few hundred meters away from the workplace while still ensuring convenient access would afford labourers a much-needed physical and psychological separation from their employment. This separation coupled with improved living conditions, could contribute to enhanced worker productivity and well-being. Further analysis will explore the relationships and interplay between work, living arrangements and leisure opportunities.

Occupational Sector: The analysis reveals a distinct variation in housing provision based on occupational sectors. While some complexes cater exclusively to the workforce of specific companies often located on-site, others accommodate a more diverse mix of temporary labourers. The specific requirements and challenges associated with different industries particularly concerning housing needs, warrant further investigation in the subsequent chapter.

Length of Stay: The duration of stay for temporary labourers is inherently linked to the nature and duration of their employment contracts. This variability underscores the need for flexible housing solutions that can accommodate both short-term and longer-term stays.

Physical Environment

Degree of Isolation: A concerning finding is 'high' to 'very high' degree of

isolation observed in half of the analysed sites. This spatial segregation not only perpetuates the social invisibility of temporary labourers but also hinders their integration into the wider community. Such isolation reinforces negative stereotypes and contributes to the stigmatisation of temporary labour as a distinct and separate group. It is imperative to challenge this spatial exclusion and promote greater social cohesion.

Integration with City Vibrancies: Addressing the issue of isolation requires a proactive approach that fosters interaction and exchange between temporary labourers and the existing urban fabric. Integrating housing complexes with the vibrancy of the city, including access to public amenities, cultural events, and opportunities for social interaction with local communities, is crucial. Increased visibility and interaction can help to normalise the presence of temporary labourers, breaking down social barriers and fostering a sense of belonging. This is particularly relevant in contexts like North Limburg which has a history of hosting migrant workers and where the current influx of labourers presents both challenges and opportunities for social integration.

Visual Barrier Measures: The prevalence of visual barriers such as dense tree lines, fences and earthen walls surrounding many housing complexes is a cause for concern. These physical barriers not only reinforce spatial segregation but also send a clear message of exclusion to both temporary labourers and the wider community. Such design practices should be critically re-evaluated in favour of approaches that promote integration and cohabitation.

Degree of Privacy: While the provision of privacy is essential for individual well-being particularly in housing contexts with shared amenities, it is crucial to strike a balance between privacy and integration. The challenge lies in developing design solutions that respect individual privacy needs while simultaneously fostering opportunities for social interaction and a sense of community. The trailer park model, with its emphasis on individual modular units, offers a potential starting point for exploring this balance. The privacy should be maintained on different scales.

Space Utilisation

Major Zoning Areas: The analysis reveals a concerning trend of housing complexes being relegated to industrial zones or company premises. While this practice might be permissible within existing regulations, it undermines the social integration and well-being of temporary labourers. Allocating dedicated zones for temporary housing within the broader urban fabric is crucial for acknowledging their presence and needs within society. This integration into the urban plan would signify a symbolic shift from treating temporary labourers as a transient workforce to valuing them as members of the community.

Space Efficiency: While adhering to minimum liveability standards is essential, the analysis highlights an imbalance in space allocation within some housing complexes. An overemphasis on parking provisions often comes at the expense of adequate living spaces and communal areas. A more balanced approach is needed, prioritising the creation of comfortable and spacious living quarters alongside well-designed communal spaces that foster social interaction and a sense of community. The SNF regulations ensure minimimum liveability but why? Incorporating elements of environmental comforts such as green spaces and recreational areas can significantly enhance the overall liveability of these complexes.

The findings from the multiple case study comparative analysis, illustrated in Fig. 83 & Fig. 84 underscore the need for a paradigm shift in how temporary labour housing is conceived and implemented. The current approach often characterised by spatial segregation, inadequate living conditions and a lack of social integration fails to meet the basic needs of temporary labourers and perpetuates their marginalisation.

To address these issues, this chapter concludes with:

Municipalities must move away from relegating temporary housing to the fringes of urban areas. Integrating these complexes into the broader urban fabric with access to public amenities, transportation and social spaces is crucial for fostering a sense of belonging and facilitating interaction with the wider community.

Minimum liveability standards should be viewed as a starting point rather than the ceiling for housing quality. Prioritising spacious living quarters, well-designed communal areas and the incorporation of green spaces can significantly improve the well-being and social sustainability of these communities.

Facilitating the formation and strengthening of labour unions specifically catering to the needs of temporary labourers is essential for amplifying their voices and advocating for their rights. Additionally, fostering connections with local communities and promoting intercultural exchange can help to break down stereotypes and build bridges of understanding.

By embracing these recommendations, the Netherlands can move towards a more equitable and sustainable approach to housing its temporary workforce. Providing decent and dignified housing is not merely a matter of fulfilling basic needs; it is an investment in social cohesion, economic productivity and the overall well-being of society.

Integrating temporary housing into the urban fabric can foster a sense of belonging among temporary workers potentially encouraging them to establish stronger roots and contribute more meaningfully to the local economy and community. Moreover, addressing the spatial and social needs of temporary labourers can help to mitigate potential tensions with existing residents transforming the narrative of "outsiders" into one of shared community and mutual respect.

Ultimately, the goal should be to create a system where temporary housing is not seen as a separate or lesser form of housing, but rather as an integral part of a diverse and inclusive housing market that caters to the needs of all residents. This will require ongoing collaboration between policymakers, municipalities, employers and temporary labourers themselves to ensure that housing policies and practices reflect the evolving needs of the workforce and contribute to a more just and equitable society.

The previous analysis first observed a site in detail to further reveal the spatial realities of temporary labour housing. The next chapter shifts focus to the individuals inhabiting these spaces. Who are these temporary workers? Which industries do they work in? What are their skillsets? Through employment statistics, personal stories and more fieldwork photos, the human experience in these housing complexes is uncovered to understand their lifestyle in the Netherlands.

Fig 85: Gated Sports Ground for Physical Fitness
Source: Author

Fig 86: Canteen for workers housing at a logistics center
Source: Author

Fig 87: Workers biking from the housing complex to the supermarket
Source: Author

Fig 88: Worker biking to the supermarket
Source: Author

Fig 90: Isolated in the hinterland
Source: Author

Fig 89: Maps to locate the hidden housing complexes
Source: Author

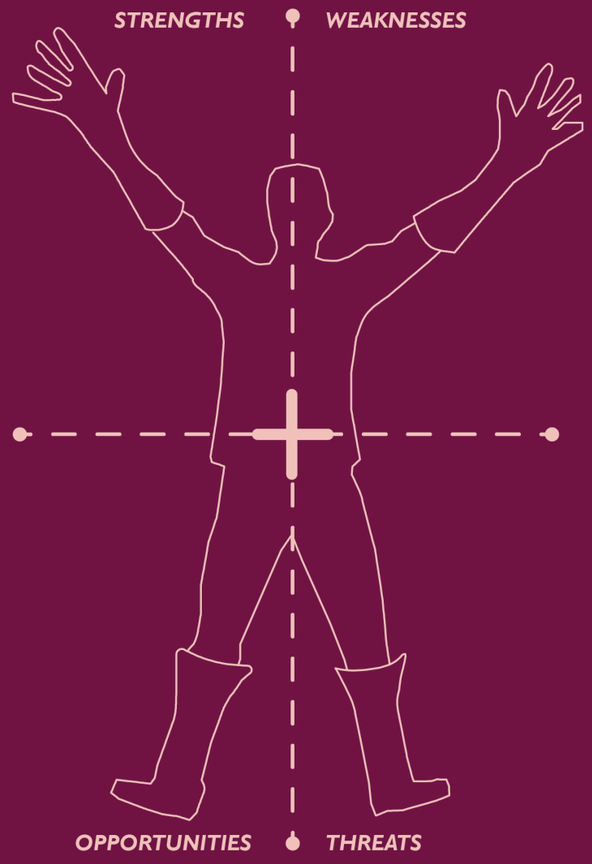


Fig 91: SWOT Analysis of the Migrant
Source: Author

WHO IS THE CONTEMPORARY TEMPORARY WORKER? WHAT IS THEIR LIFESTYLE AND LIVING ENVIRONMENTS?

EVALUATE

The contemporary temporary worker at the heart of this project is the Polish migrant drawn to the Netherlands for economically driven opportunities. This labour migration stems from the allure of higher wages compared to their home country making employment in NL financially beneficial (refer to Fig. 9). Furthermore, the lack of quality employment prospects and limited job opportunities within Poland contribute to their decision to seek work abroad. This desire for a better life often associated with the perceived higher living standards of the Western world, adds another layer to their motivation. The global economic crisis in 2008 exacerbated these factors leading to a surge in unemployment and further fuelling migration as individuals sought financial stability elsewhere (Fischer-Souan, 2019). Economic hardship often intertwined with social and political anxieties creates a potent mix that drives individuals to seek better prospects beyond their national borders. Food shortages and financial instability within their home country compound these pressures making migration a seemingly necessary solution.

While economic incentives are a primary motivator, the reality often differs from initial expectations. Workers may arrive with an idealised image of their future employment, only to face unforeseen hardships upon arrival. Fieldwork in the previous sections shed light on the difficulties observed in the housing conditions on the Egchel site. However, exploitation at work is also an issue. This disconnect between expectation and reality highlights the complexities of economic migration. Mance, 2022 categorises such individuals as "target earners," primarily focused on financial gain. Many mobile workers have temporary jobs and work below their actual educational

qualifications in European countries (Nowicka, 2012; Verwiebe et al., 2014; Voitchovsky, 2014; McCollum and Findlay, 2015). However, this pursuit of financial stability can become a double-edged sword. Some workers find themselves caught in a cycle of relentless work driven by a perceived need to constantly earn more, even at the expense of personal well-being and family life as observed during some interviews with workers. The interviewed artist adds that as soon as they make money, they invest it somewhere - one can see it in a particular street in Romania. As soon as they make money, they invest it gradually in building homes back in Romania over the years. The wealth accumulated in NL is used to provide a better quality of life to their families back home. Buses from their countries drop them directly to NL so they often come with barely any luggage. Some of them don't return, they live in the West for a long time and only return timely to meet their parents. This results in fractured relationships with family. Return trajectories are not predetermined but rather shaped by individual aspirations, family ties and evolving circumstances. King et al. note (2015: 2): "Where a stable home will be, however, is often not very clear in migrants' mind."

As mentioned in Table 1 and Table 2. Migrant workers are divided into short-stay, mid-stay and long-stay migrants. Since most of the housing provided is for short-stay and mid-stay migrants in the previous section, this section mainly

SECTOR

JOBS

MONTHS

JANUARY

FEBRUARY

MARCH

APRIL

MAY

JUNE

JULY

AUGUST

SEPTEMBER

OCTOBER

NOVEMBER

DECEMBER

SPECIAL SKILLS REQUIRED

LOGISTICS

HORTICULTURE AND AGRICULTURE

WAREHOUSE EMPLOYEES	WAREHOUSE OPERATORS	ORDER PICKERS	FORKLIFT DRIVERS	PRODUCTION EMPLOYEE	APPLES & PEARS	ASPARAGUS ON FIELD	BROCOLLI & CAULIFLOWER	HARVESTING VEGETABLES ON FIELD & IN GREENHOUSE	NURSERY IN GREENHOUSE	ORGANIC VEGETABLES FARM	TOMATOES IN GREENHOUSE	PAPRIKA & COURGETTE IN GREENHOUSE	TULIPS ON FIELD & IN GREENHOUSE	STRAWBERRY IN GREENHOUSE	FLEXIBLE AGRIWORKER ON FIELD
N.A.	18+	N.A.	18+	18+	21+ PRUNING 21+	18+ 18+	21+ 21+	LETTICE CELERY ENDIVE PAKCHOI CABBAGE 21+ 21+	N.A. N.A.	PUMPKIN LEEK ZUCCHINI ASPARAGUS 21+ 21+ 21+ 21+	18+ 18+	PREPARE FOR SEASON N.A. N.A.	PLANTING THE BULB N.A. N.A.	18+ 18+	21+ 21+
N.A.	18+	N.A.	18+	18+	21+ PICKING AND THINNING 21+	18+ 18+	21+ 21+	LETTICE CELERY ENDIVE PAKCHOI CABBAGE 21+ 21+	N.A. N.A.	PUMPKIN LEEK ZUCCHINI ASPARAGUS 21+ 21+ 21+ 21+	18+ 18+	PREPARE FOR SEASON N.A. N.A.	HARVESTING TULIPS IN GREENHOUSE N.A. N.A.	18+ 18+	21+ 21+
N.A.	18+	N.A.	18+	18+	21+ PICKING AND THINNING 21+	18+ 18+	21+ 21+	LETTICE CELERY ENDIVE PAKCHOI CABBAGE 21+ 21+	N.A. N.A.	PUMPKIN LEEK ZUCCHINI ASPARAGUS 21+ 21+ 21+ 21+	18+ 18+	PREPARE FOR SEASON N.A. N.A.	BULB PEELERS N.A. N.A.	18+ 18+	21+ 21+
N.A.	18+	N.A.	18+	18+	21+ PICKING AND THINNING 21+	18+ 18+	21+ 21+	LETTICE CELERY ENDIVE PAKCHOI CABBAGE 21+ 21+	N.A. N.A.	PUMPKIN LEEK ZUCCHINI ASPARAGUS 21+ 21+ 21+ 21+	18+ 18+	PREPARE FOR SEASON N.A. N.A.	TULIP BULB GROWING, AGRICULTURE, FLOWER GREENERY N.A. N.A.	18+ 18+	21+ 21+
N.A.	18+	N.A.	18+	18+	21+ PICKING AND THINNING 21+	18+ 18+	21+ 21+	LETTICE CELERY ENDIVE PAKCHOI CABBAGE 21+ 21+	N.A. N.A.	PUMPKIN LEEK ZUCCHINI ASPARAGUS 21+ 21+ 21+ 21+	18+ 18+	PREPARE FOR SEASON N.A. N.A.	N.A. N.A.	18+ 18+	21+ 21+

▪ Forklift/truck certificate ▪ Prior experience	N.A.	N.A.	▪ Forklift/truck certificate ▪ Physical fitness	▪ Stand during work ▪ Work in cold	▪ Work on 1.5m high platform ▪ Physical fitness ▪ Work outside	▪ Skills ▪ Physical fitness ▪ Work outside ▪ With machine	▪ Stand and walk extensively ▪ Physical fitness ▪ Work outside	▪ Lettuce & Pak Choi on knees ▪ Physical fitness ▪ Work outside	▪ Stand during work ▪ Gentle work	▪ Prior experience ▪ Physical fitness ▪ Work outside	▪ Expertise ▪ Physical fitness ▪ Work in warm environments	▪ Height under 1.65m - stool ▪ Physical fitness ▪ Stand all day	▪ Stand during work ▪ Physical fitness ▪ Common sense	▪ Height under 1.65m - stool ▪ Physical fitness ▪ Stand all day	▪ Prior experience ▪ Physical fitness ▪ Work outside

Legend

Intensity of Work: Low ↓ Extreme

Day or Night Shifts

Choose the shifts

Dutch + International Workforce

Only International Workforce

WORKING AGE — Dutch + International Female All-year round

WORKING AGE — Dutch + International Female Seasonal

WORKING AGE — Dutch + International Male Dominated All-year round

WORKING AGE — Dutch + International Male Seasonal

WORKING AGE — Dutch + International Male All-year round

Depending on weather

Can swap between jobs

Special Skills Required

Carried forward to another year

Preparing for next season

Fig 92: Seasonal Work Almanac
Source: Author

SEASONAL WORK ALMANAC (TEMPORARY WORKER'S CHART)

focuses on them but briefly mentions long-stay migrants employed mainly in the logistics sector.. They are employed on a flexible employment relationship basis including:

1. On-call and replacement employees
2. Workers hired through temporary employment agencies (temp workers)

As the names suggest, these workers do not hold a secure position in the job market and can be fired in times of market pressures, dry season months, unpredictable accidents or unfavourable seasons/high temperatures as in the case of greenhouses overheating. They see their lives as temporary, themselves. Due to this temporary nature, their position in society is vulnerable to exploitation. Even though in both countries national attempts have been made to counteract exploitation, local municipalities and residents in Westland and Haspengouw regard migrant workers as economically important but not necessarily as co-citizens occupying a structural place in the region (Eggers et al., 2024).

Fig. 92 takes a closer look into this system where many job positions in the three sectors of logistics, horticulture and agriculture are filled in by low-skilled labour that often goes unnoticed. It aims to understand this system through the lens of the job descriptions posted by the company owners on their website. Through website research, analysis and conversational interviews, the following are the filters used to categorise work throughout the various months (from January to December) - the intensity of work, different shift allowances, nationalities preferred, gender and age requirements (if applicable), whether the work is vulnerable to seasons, whether one can swap between jobs in the same company, special skills required and/or whether the work can be carried over to the next year (as in the case of mid-stay and long-stay migrants). These filters help in understanding the cross-network and calculations that temporary labour may use in case they lose their job in one sector; they can switch to a different one if they possess a similar set of skills. This chart offers fresh perspectives into the landscape of temporary jobs. It is an important calendar or almanac serving the workers, to keep them prepared for the next season. Although, the stereotypes associated with the nationality of the 'new' worker might limit their freedom of choice. Table 2 segregates the different industries and their requirements for the 'length of stay' of the worker. It is always the workers who must form these choices with little assurance from the employers or company owners. They have a profit-driven mindset to get their work done if the sun shines. This work, although categorised as 'low-skilled' requires a minor set of skills and requirements as put forth by the employer who hires and conveys their preferences to the temporary agencies. The 'special skills required' tabs include these criteria. They are often odd requirements that might not be known to a layperson. For moving specific machinery in the horticultural sector, in the greenhouses - the required height for workers must be above 1.65m. In the logistics sector, basic English-speaking skills are a must. Some companies loosen up these rules and train their employees in the initial days to prepare them for the work. But that

Fig 93: Soft feminine hands for berry picking in greenhouses
Source: https://www.berryworld.com/nl/over-ons/telers

Fig 94: Height Requirements for Platform Ladders to pluck fruits from trees in orchards
Source: 26 warehouse worker Jobs in Limburg, May 2024. (n.d.). Glassdoor. Retrieved May 8, 2024, from https://www.glassdoor.com/Job/limburg-warehouse-worker-jobs-SRCH_IL.0,7_IS5906_KO8,24.htm

Fig 95: Bending on knees to harvest cabbage in greenhouses
Source: 6 warehouse worker Jobs in Limburg, May 2024. (n.d.). Glassdoor. Retrieved May 8, 2024, from https://www.glassdoor.com/Job/limburg-warehouse-worker-jobs-SRCH_IL.0,7_IS5906_KO8,24.htm

is not always the case. For the Asparagus season, the farmers call for the same workers every year because it requires specific skills that are cultivated over the years. The way the asparagus is cut requires a special kind of skilled labour who have built social trust and value with the farmers, themselves. Thus, the temporary agencies are aware of these nuisances beforehand. For strawberries and berries, women are preferred because they have softer hands (refer to Fig. 93). Height requirements and requirements to have stronger knees for cabbage harvesting are illustrated in Fig. 94 & 95. Some workers, when they arrive in NL, on the first day, are invited to the office and are presented with what kind of work they must do and upon agreement if they fit in the requirements, they go ahead with the procedure (refer to Fig. 51).

It is important to understand the worker's perspective and the psycho-social benefits for the worker, on whom the project is focused. Workers live a highly regulated lifestyle. The regulations cater to their drive to earn their hourly wages. A typical workday, in a greenhouse, starts at around 5:00-6:00 hours in the morning when the greenhouse is ready for the sun's exposure. The site that was documented is situated in the village of Egchel, Limburg (as mentioned in the Fieldwork section). It has greenhouses that produce paprika and courgettes. It hires seasonal workers from April to August since that is the suitable season.

Greenhouses have extremely warm temperatures which the worker must be able to work through. The workers must be dressed in proper attire and wear disinfected gloves all the time. Greenhouse jobs are like working in scientific labs. The clippers used to trim the paprika must be disinfected every 20 minutes, mentions the artist interviewed for the project. The precision of cutting the vegetables perfectly to be further sold in supermarkets is extremely important to the employer. These tasks must not go wrong. Even though there are several workers in these greenhouses, at least 150 in this one, each worker is alone in their aisle with about 150 meters to themselves. Workers must make friends with the sight of paprikas or courgettes all around them. The workers can sometimes hear their shrill breaths in this silent dystopian place. The work in the greenhouse can differ from clipping, spraying, guiding the other workers and picking and placing the produce. These simple tasks form the entire assembly line from growing a vegetable to delivering it to the person who will deliver it to the person who consumes it. Every movement, gesture and link are that of precision, a work of art. Workers work in the greenhouse until 17:00-18:00 hours. This is around 11-12 hours per day. The peak hours are subject to change depending on the market and seasonal pressures as expressed in Fig. 92. Due to this labour of physically exhausting work which requires mental focus, workers come back to their living units tired. Days are full of 'work' and 'live' where they connect with their family members back home to ease the mental pressure from their workplace. Privacy is highly valued among workers. On days when the hours of work are less, they utilise the shared facilities that are provided to them in their accommodations - the clubhouse

with games like ping pong and board games, the common areas to chat with their colleagues and the sports field or gymnasiums where they train for physical fitness.

However, it is observed that these facilities are not enticing enough as mentioned in the previous section. When they are not working, the workers' main activities are to rest, exercise, do laundry and shop (Sgolachhia, 2018). It is a monotonous seasonal life with moments of some 'leisure'. Not all lifestyles of workers are the same throughout, it differs depending on the nature of the job and location but overall, it is a highly regulated and torturous one. Messages from the temporary agencies usually inform them of their schedules a day prior, to keep the worker informed of the next day's work. The temporary worker must always be available to the command of their employer. If the employer is dissatisfied with the worker, they might lose their job. Losing a job also means losing your home, which makes being fired the main cause of homelessness among migrant workers (ibid.). The effect of this should not be underestimated because a very large proportion of labour migrants work with temporary contracts, even when they stay in the Netherlands for a longer period of time, which makes the availability of housing very insecure (Strockmeijer et al., 2017). A large part of labour migrants in the Netherlands appear to be very dissatisfied with the way in which they are housed (Cremers & Van den Tillaart, 2021; Snel et al., 2010) and the way in which they are made to work.

This continuous cycle offers very little hope for worker empowerment. Worker representative groups and unions have dwindled over the years leaving workers with limited avenues to voice their concerns.

To better understand the lived experiences of these seasonal workers, extensive fieldwork was conducted at the Egchel site (as also mentioned in the previous sections). The images captured during this fieldwork provided a glimpse into the modular housing provided to workers showcasing both single and couple units. These units, while adhering to the minimum requirements stipulated by SNF regulations are often cramped, offering limited personal space. Ethical considerations regarding privacy and potential distress for readers necessitate the omission of photographs featuring the workers themselves. However, it is important to acknowledge that, during field visits, some workers expressed appreciation for the provision of kitchenettes within their units highlighting a small but significant aspect of their living conditions.

Following the visual documentation of the Egchel site, the final research stage involved stakeholder interviews. These interviews served a dual purpose: to gather insights into potential design opportunities and to identify existing threats within the current system. This information, combined with previous observations, forms the basis for recommendations presented to the municipality. This chapter underscores the vulnerability of seasonal workers within this system and the pressing need for increased representation and support.

Fig 96: Peeping into the courgette and paprika greenhouse
Source: Author

Fig 97: A worker returning to their accommodation after a hard day's toil
Source: Author

Fig 98: Couples' Unit Bedroom
Source: Author

Fig 99: Couples' Unit Living Room
Source: Author

Fig 100: Single Unit Bedroom + Living Room
Source: Author

Fig 101: Provision of kitchenette, appreciated by the workers
Source: Author

STAKEHOLDER INTERVIEWS

The echoes of exploitation were faint in the research documented so far but undeniable. The business ecosystem covers it in economic jargon in the disguise of "temporary work" and "flexible housing." But the unsettling truth whispers through the meticulously documented fieldwork, the stark statistics, literature reviews, website research and the images of cramped living spaces: this system, meticulously constructed and ruthlessly efficient bears an uncomfortable resemblance to exploitation. Eastern European labour in a Western European country is not treated well. They exist within a framework of control so pervasive, so absolute that it suffocates the very essence of individual freedom.

They aren't abstract concepts or mere data points on a spreadsheet but human beings stripped of agency and autonomy trapped in a cycle of relentless labour and inadequate living conditions. The living conditions look tidy and untouched when they shouldn't be that way. When human beings live in a house, they are appropriated in a certain way. It is at least a bit messy. They toil under the watchful eye of a system that prioritises profit over human dignity, their lives micromanaged down to the minute and their movements dictated by the whims of a globalised market. The absence of worker representation, the dwindling presence of unions and the lack of long-term solutions for housing and integration - these aren't oversights, they are hasty and quick decisions carefully designed to keep the wheels of this system turning.

As urban planners, we must not ignore these landscapes of exploitation. The evidence is overwhelming staring back at us with every cramped living unit like the 50 units witnessed firsthand in Egchel. Every exhausted worker deserves dignity and respect. The time for polite academic discourse is ending; the time for action for reforming this system, is now. To effectively design strategies for change, a deeper understanding of the complexities surrounding temporary labour housing is crucial. Therefore, a range of stakeholders (refer to Table 3) were interviewed providing diverse perspectives on this multifaceted issue. While some stakeholders favoured the system and praised the temporary housing fixes to the crisis in the Netherlands, others were critics and opposed it. By engaging with stakeholders across this spectrum, the research aims to move beyond a simplistic analysis and foster a more nuanced understanding of the social, economic and spatial dynamics at play, under the lens of design opportunities and threats. While the findings have been interwoven throughout previous sections, this chapter delves into the interviews themselves revealing the human stories behind the data. Some interviews were brief due to limited opportunity and time while others were conducted at length following ethical considerations stated later in the project. Some interviews were paired with on-site viewings of these housing units and facilities provided to temporary labour. Some fieldwork notes were taken during the meetings and others were recalled after coming back to a place where they could be written down. A recurring theme underpinned all interviews challenging the systemic marginalisation inherent within the current system: "What factors contribute to the segregation and concealment of this workforce within our urban fabric?"

STAKEHOLDER INTERVIEWS				
DATE OF INTERVIEW	TYPE OF INTERVIEW	LENGTH OF INTERVIEW	PROFESSION OF INTERVIEWEE	STAKEHOLDER GROUP
05.03.24	TELEPHONE CONVERSATION	BRIEF	REPRESENTATIVE	MUNICIPALITY
05.03.24	IN-PERSON CONVERSATION	BRIEF	OFFICE MANAGER	LOGISTICS COMPANY
05.03.24	IN-PERSON CONVERSATION	BRIEF	TEMPORARY WORKER	WORKER GROUPS
12.03.24	DIGITAL (ONLINE) INTERVIEW	IN DEPTH	ARTIST IN PRACTICE	EXPERTS
15.03.24	IN-PERSON INTERVIEW	IN DEPTH	SITE MANAGEMENT	REAL ESTATE DEVELOPER
15.03.24	IN-PERSON INTERVIEW	IN DEPTH	DIRECTOR - SITE MANAGEMENT	REAL ESTATE DEVELOPER
15.03.24	IN-PERSON INTERVIEW	IN DEPTH	COORDINATOR OF TEMP.WORKERS	TEMPORARY AGENCY
18.04.24	IN-PERSON INTERVIEW	IN DEPTH	SITE MANAGEMENT	TEMPORARY AGENCY
18.04.24	IN-PERSON CONVERSATION	BRIEF	TEMPORARY WORKER	WORKER GROUPS
19.04.24	IN-PERSON CONVERSATION	IN DEPTH	ACADEMIC RESEARCHER	EXPERTS

Table 3: List of Interviewees
Source: Author

EXPERTS

VISUAL ARTIST

A visual artist from Belgian Limbourg, shared insights from her extensive work with the 'community listeners' group. Their experiences highlight the challenges and opportunities in seasonal farming and the housing of migrant workers across Europe. This interview provides valuable design cues for developing housing solutions that cater to the unique needs of these workers.

DESIGN OPPORTUNITIES	*QUOTES FROM THE INTERVIEW*	*DESIGN OPPORTUNITIES*
Diverse Collective & Experiences	"Our collective comprises 16 members from diverse nationalities... Having worked extensively in agriculture, transport, and logistics, we've encountered the challenges and opportunities associated with flexible labour arrangements."	The importance of understanding diverse experiences and cultural backgrounds when designing housing solutions.
Corridor Migration & Housing Variability	"Our work spans from East to West Europe, highlighting the prevalence of corridor migration, where workers move between countries such as Ukraine, Poland and the Netherlands for employment opportunities."	Design must accommodate the transitory nature of migrant work, offering flexible and adaptable living spaces.
Innovative Housing Solutions	"Collaborating with a Romanian architect, we proposed designs that prioritise community spaces while allowing for personal privacy."	Emphasise the balance between communal areas and personal privacy to enhance well-being.
Challenges of Housing Conditions Across Europe	"Highly regulated policies in the Netherlands often create challenging living conditions for flex-workers... in regions like the South of Spain, we encountered unfavourable housing conditions."	Recognise that housing conditions and policies vary widely across countries, necessitating adaptable design strategies. In the case of the Netherlands, housing policies differ in across municipalities.
Desire for Privacy & Personal Space	"A recurring theme among flex-workers is the desire for privacy and personal space within their housing arrangements. This longing for solitude is often epitomised by the sanctuary of the bathroom."	Prioritise private spaces within housing units.
Communal Gathering Spaces	"Front yards serve as communal gathering spaces reminiscent of the lively street life found in Mediterranean climates."	Design front yards or communal outdoor spaces to facilitate social interaction and create a sense of community.
Cultural Barriers Influence of Nationality & Gender	"Integration into Dutch society presents a complex challenge fraught with cultural and institutional barriers."	Design housing that not only provides economic value but also helps bridge cultural gaps supporting social integration. Consider gender and nationality when designing housing to ensure it meets the diverse needs of all workers.
Involving Workers in Planning	"Our collective has emphasised the importance of involving workers in the planning and policy-making process."	Engage workers in the design process to ensure their needs and preferences are adequately addressed.

The artists' insights provide a comprehensive understanding of the complexities involved in housing seasonal workers. Key design strategies include balancing communal and private spaces, offering flexible and adaptable housing solutions, incorporating cultural and gender considerations and engaging workers in the planning process. These strategies aim to create housing environments that enhance well-being, foster community and support the diverse needs of seasonal migrant workers.

Table 4: Design Opportunities extracted from the interview with the artist
Source: Author

EXPERTS

VISUAL ARTIST

The interview reveals several potential threats and challenges that should be addressed when designing housing for seasonal workers. These threats highlight the complexities and nuances involved in creating effective, humane and sustainable living environments for migrant labourers.

DESIGN THREATS	*QUOTES FROM THE INTERVIEW*	*DESIGN THREATS*
Over-Regulated Housing Policies	"Our collective observations underscore a shared sentiment regarding the Netherlands where highly regulated policies often create challenging living conditions for flex-workers."	Over-regulation can lead to restrictive and inadequate living conditions that do not cater to the specific needs of workers, causing discomfort and dissatisfaction.
Inadequate Privacy & Personal Space	"A recurring theme among flex-workers is the desire for privacy and personal space within their housing arrangements."	Lack of private spaces can lead to stress, discomfort and mental health issues among workers.
Neglect of Cultural & Gender Sensitivities	"Nationality often plays a significant role in shaping living and working dynamics... gender also influences living conditions."	Ignoring cultural and gender differences can result in inappropriate housing arrangements leading to conflicts and discomfort.
Economic Exploitation & Transient Lifestyle	"The initial impetus for many flex workers is the pursuit of financial gain... Integration into Dutch society presents a complex challenge, fraught with cultural and institutional barriers."	The focus on financial gain can perpetuate a transient lifestyle, preventing social integration and long-term stability.
Social Isolation & Lack of Community Engagement	"Communal gathering spaces reminiscent of the lively street life found in Mediterranean climates."	Without adequate communal spaces, workers may experience social isolation, impacting their mental and emotional well-being.
Insufficient Advocacy & Representation	"Our collective has collaborated with such organisations to raise awareness about the challenges faced by seasonal workers."	Lack of strong advocacy can result in workers' needs being overlooked in policy and planning decisions.

The interview highlights several design threats that can undermine the effectiveness of housing solutions for seasonal workers. Addressing these threats through thoughtful, inclusive, and flexible design strategies is essential to create humane and sustainable living environments that cater to the diverse needs of migrant labourers. The next page shows how these threats can be turned into design opportunities.

Table 5: Design Threats extracted from the interview with the artist
Source: Author

EXPERT

ACADEMIC RESEARCHER

DESIGN OPPORTUNITIES	*QUOTES FROM THE INTERVIEW*	*DESIGN OPPORTUNITIES*
Integration with Urban Landscape	"There's a clear need for integration within the urban landscape rather than isolation."	Design housing that integrates migrant worker accommodations with the surrounding urban areas promoting inclusivity and avoiding isolated housing complexes.
Community Cohesion	"Community cohesion often stems from activities like sports clubs."	Incorporate communal spaces and activities such as sports clubs and recreational areas to foster community engagement and social interaction among residents.
Alignment with Historical Precedents	"Drawing parallels with historical instances of worker housing, such as those associated with Philips and Electrical–Agneta Park, offers valuable insights."	Utilise successful historical examples of worker housing to guide the design and planning of new accommodations ensuring they are effective and sustainable.
Addressing Language Barriers and Stigmas	"A noticeable reluctance exists among locals to cohabitate with these workers, often attributed to language barriers and associated stigmas."	Design communal spaces that encourage interaction between local residents and migrant workers to break down language barriers and reduce social stigmas.
Housing Policies Absent from Official Spatial Planning Policies	"Housing policies within trade landscapes, notably in Greenport areas, are conspicuously absent from official policy documents. "	The disconnect between trade and housing policies must be addressed with each municipality adopting dis-parate approaches to housing migrant workers.
DESIGN THREATS	*QUOTES FROM THE INTERVIEW*	*DESIGN THREATS*
Inadequate Housing Standards	"The cramped living conditions, reminiscent of greenhouse water storage units, fail to meet acceptable housing standards."	Ensure that housing units meet acceptable living standards providing sufficient space, ventilation, and privacy to avoid substandard living conditions.
Stringent Regulations Impending Liberties	"Housing within logistic parks tends to impose stringent regulations on residents, impeding individual liberties."	Design housing policies that respect residents' liberties and offer more flexible living arrangements avoiding overly stringent regulations.
Decline in Migrant Labour Influx	"Inadequate housing provisions could exacerbate this trend, accelerating the depletion of cheap labour sources."	Improve housing provisions to attract and retain migrant workers, ensuring they have adequate and appealing living conditions to prevent a decline in labour influx.
Impact of Automation on Labour Dynamics	"The advent of automation is poised to reshape labour dynamics, relegating manual tasks to machines while augmenting demand for skilled labour."	Plan for future housing needs considering the impact of automation ensuring that housing developments can adapt to changing labour dynamics and the evolving workforce.
Disconnection Between Trade & Housing Policies	"The disconnect between trade and housing policies is palpable, with each municipality adopting disparate approaches to housing migrant workers."	Promote a coordinated approach between trade and housing policies to ensure consistent and adequate housing provisions across different municipalities.

Table 6: Design Opportunities & Threats extracted from the interview with the academic researcher
Source: Author

TEMPORARY AGENCY

COORDINATOR OF WORKERS

DESIGN OPPORTUNITIES	*QUOTES FROM THE INTERVIEW*	*DESIGN OPPORTUNITIES*
Proximity to Workplaces	"Our group of ten shared accommodations in a typical Dutch building."	Emphasises the importance of housing located near agricultural and horticultural sites, especially in rural areas.
Accommodation Types	"Smaller agency that primarily serves local farmers and horticulturalists."	Highlights the need for diverse housing solutions, from small agency-provided units to larger independent living spaces.
Amenities & Leisure Spaces	"The site boasts nearby amenities such as fitness gyms and sports grounds."	Importance of integrating fitness gyms, sports grounds and natural surroundings (lake and forest) into spatial planning of housing complexes.
Skills-Based Housing Allocation	"Employers may have specific preferences, such as preferring women for delicate tasks like berry picking."	Housing arrangements may be influenced by the specific tasks workers perform, such as placing berry pickers (preferred to be women) in specific units.
Seasonal Flexibility	"Agencies adapt to fluctuations by maintaining a flexible workforce."	Housing must accommodate seasonal fluctuations in worker numbers, with scalable and adaptable living spaces.
Privacy & Maintenance	"Privacy when it comes to their housing arrangements... need for ongoing maintenance."	Ensuring privacy and regular maintenance to prevent deterioration of living conditions.
Health & Transportation Benefits	"Weekly health insurance coverage... transportation services (cars) are available."	Providing health insurance and transportation to support workers' well-being and mobility.
Equitable Living Conditions	"Income disparities may exist among residents."	Addressing income disparities by ensuring fair and adequate housing for all workers.
DESIGN THREATS	*QUOTES FROM THE INTERVIEW*	*DESIGN THREATS*
Overcrowding	"Larger agencies operate nationwide focusing on 24/7 web shops and logistics centers."	The focus on large-scale operations can lead to overcrowded living conditions, especially in housing provided near logistics centers.
Dependence on Proximity	"Proximity to housing is often preferred by employers."	The need for housing close to work sites can restrict worker mobility and limit their access to better living conditions elsewhere.
Variable Agency Standards	"Trust plays a significant role in agency selection."	Differences in agency reputation can lead to disparities in housing quality, with some workers experiencing subpar conditions.
Privacy Issues	"Privacy when it comes to their housing arrangements."	Lack of privacy in shared accommodations can lead to dissatisfaction and mental health issues among workers.
Wear & Tear	"Despite the initial appearance of newer accommodations, wear and tear become evident over time."	Ongoing maintenance is crucial to prevent rapid deterioration of housing conditions which can negatively affect worker morale.
Social Tensions	"Cultural differences and language barriers can contribute to social tensions."	Housing diverse groups together without considering cultural and language differences can lead to conflicts and reduced quality of life.
Technological Displacement	"Advancements in technology such as automation have altered job requirements."	Technological changes can lead to job displacement, affecting housing stability for workers who may struggle to find new employment.

Table 7: Design Opportunities & Threats extracted from the interview with the coordinator of workers
Source: Author

REAL ESTATE DEVELOPER

SITE MANAGEMENT

DESIGN OPPORTUNITIES	*QUOTES FROM THE INTERVIEW*	*DESIGN OPPORTUNITIES*
Modular Construction	“Within two weeks, 80 modules were assembled to form this establishment, utilising modular blocks manufactured in a factory.”	Rapid construction using modular blocks indicates a focus on efficiency and adaptability in housing design.
Smoking and Drinking Policies	"Smoke sensors are strategically positioned throughout the building, prohibiting smoking indoors. However, we have designated an outdoor area where residents can smoke."	Designated smoking areas and controlled alcohol consumption aim to balance residents' freedoms with maintaining order and safety within the housing units.
Communal Amenities	"Common facilities include a living room in single rooms and a living space in couple's rooms, along with a laundry room, lounge area and conference room."	Providing ample communal amenities supports social interaction and enhances the quality of life for residents.
Cleanliness and Surveillance	"Weekly inspections are conducted to ensure compliance with hygiene standards... CCTV surveillance is also employed to maintain security."	Regular cleanliness inspections and CCTV surveillance maintain a clean and secure living environment.
Durability and SNF Regulations	"The longevity of our housing units can vary... adherence to SNF regulations."	Designing housing units with durability in mind and adhering to regulatory standards ensures long-term usability and compliance.
Community Engagement	"Efforts are made to maintain positive relations with neighbours through community engagement initiatives and cleanliness maintenance."	Fostering good relations with local communities through engagement initiatives ensures a positive living environment and reduces conflicts.
DESIGN THREATS	*QUOTES FROM THE INTERVIEW*	*DESIGN THREATS*
Limited Personal Freedoms	"Employment agencies often facilitate these arrangements, perpetuating a self-contained business ecosystem."	Housing arrangements managed by employment agencies can limit residents' freedoms and integration into broader communities.
Maintenance Challenges	"The longevity of our housing units can vary depending on resident behaviour."	Durability of housing units is contingent on resident behaviour, which can be unpredictable, leading to potential maintenance issues.
Strict Substance Policies	"Hard liquor is discouraged due to its potential to escalate conflicts among residents."	Strict substance use policies might be challenging to enforce and could lead to tensions or non-compliance among residents.
Potential Over-Reliance on Technology	"Biometric systems and CCTV surveillance."	Heavy reliance on technology for security and monitoring could be problematic if systems fail or are misused. They could also be controlling the lives of the workers.

Table 8: Design Opportunities extracted from the interview with the site management
Source: Author

REAL ESTATE DEVELOPER

DIRECTOR SITE MANAGEMENT

DESIGN OPPORTUNITIES	*QUOTES FROM THE INTERVIEW*	*DESIGN OPPORTUNITIES*
Site Selection Criteria	"Availability of land is the primary criterion...We prioritise areas with ample work opportunities aligning with key logistic hotspots."	Strategic site selection based on land availability and proximity to employment opportunities ensures convenient access for migrant workers to their workplaces.
Addressing Housing Shortage	"We're addressing a significant shortage of beds for migrant workers... Over the next five years, we plan to add 4000-5000 more beds."	The company is actively working to alleviate the shortage of housing for migrant workers, demonstrating a commitment to meeting their accommodation needs.
Balanced Living Spaces	"Privacy is highly valued and our mobile homes offer a balance between communal living and personal space."	Providing living spaces that offer privacy while still fostering a sense of community contributes to the well-being and satisfaction of migrant workers.
Opportunities for Interaction	"Communal living presents opportunities for cultural exchange... Interactions with locals vary based on individual preferences and long-term goals."	Encouraging interactions between migrant workers and locals fosters integration and enriches the living experience for both groups.
DESIGN THREATS	*QUOTES FROM THE INTERVIEW*	*DESIGN THREATS*
Potential Conflicts	"Communal living can also lead to conflicts, particularly concerning lifestyle differences."	Differences in lifestyle and habits among residents may lead to conflicts within communal living environments, requiring proactive management to maintain harmony.
Limited Transparency on Density Calculation	"Housing density is determined based on demand and supply dynamics."	Lack of transparency on how housing density is calculated may raise questions about the adequacy of living space provided to migrant workers.
Dependence on Modular Construction	"We build modular buildings constructed in specialised factories... allowing us to produce several units within a short timeframe."	Dependence on modular construction techniques may limit flexibility in design and customisation, potentially affecting the suitability of housing for migrant workers' needs.

Table 9: Design Threats extracted from the interview with the site management director
Source: Author

WORKER GROUPS

Conversations and observations were done with on-site workers, including a Polish couple residing there for 1.5 years. They shared positive feedback about the amenities, especially the oven but had experienced disruptions from past tenants. They were generally satisfied with their living conditions except for minor complaints about bathroom size. Their contentment was influenced by the presence of the supervisor, although they expressed privacy concerns when he entered their chalet without permission. Their choice of residence was influenced by proximity to work and amenities. They mentioned casual smoking gatherings among residents and expressed a desire for higher wages to achieve financial stability quickly and efficiently.

TEMPORARY MIGRANT WORKERS

The Ukrainian worker mentioned working for a Siberian company that provides transportation for its employees. They struggled to understand the conversation and abruptly left with two colleagues on a bike.

LOGISTICS COMPANY

Discussion on temporary agency hiring, worker skills, language barriers, labour management, security concerns, housing trends and nationality stereotypes. Temporary agencies are contacted directly for labour, workers often lack basic skills like scanning tags which require training, language barriers are addressed through basic skill teachings, temporary agencies manage labour demand, workplace security with surveillance due to equipment theft, the trend of housing workers in temporary accommodations due to cheap land in certain regions, stereotypes associated with nationalities like perceived hard work of Polish workers and biases against Romanians and Bulgarians.

OFFICE MANAGER

MUNICIPALITY

The municipality representative mentioned that migrants have been integrating into the community since the 1960s with some second and third-generation migrants present. Migrant labour is important in industries like asparagus farming. The representative highlighted challenges with big nationwide temporary work agencies operating in the Netherlands. Migrants typically stay in the area for 3-6 months and primarily interact with the local community at supermarkets. The representative also mentioned a noticeable increase in housing construction in the area.

CIVIL SERVANT

EXPERTS

The visual artist and her group of 'community listeners' conduct interviews and interventions on seasonal farming issues drawing from their firsthand farm work experience. They address the challenges of flexible labour arrangements in agriculture across Europe. They discuss housing differences between Belgium and the Netherlands highlighting unique aspects of each country's housing market and criticising the highly regulated Dutch market. The group emphasises the workers' desire for privacy and personal space and the importance of communal living. The workers are driven by financial gain but also long for stability and belonging. Integration into Dutch society poses challenges and factors like gender and nationality influence living and working conditions. Organisations advocate for better housing conditions and policy-making should prioritize worker well-being and involve them in decision-making.

VISUAL ARTIST

The academic researcher discusses challenges in housing arrangements near workplaces in the Netherlands where planning strategies are key, alongside historical comparisons. Migrant workers from Eastern Europe are drawn to sectors like logistics and services but face difficulties in housing due to language barriers and stigmas. Housing policies in trade landscapes are often disconnected from spatial planning leading to inadequate housing conditions. The researcher suggests abolishing stringent housing regulations in logistic parks for Dutch-standard accommodations and community well-being. Future trends include a decline in migrant labour due to economic advancements, automation impacting labour dynamics and the need for equitable housing solutions. Potential renewal in trade landscapes involves vertical expansion, biodiversity initiatives and mix-use programs for sustainability and community engagement.

ACADEMIC RESEARCHER

DESIGN OPPORTUNITIES *DESIGN THREATS*

TEMPORARY AGENCY

MK oversees operations at a temporary agency managing various aspects like employee accommodations, safety gear distribution and loaning cars for employee use. The agency primarily serves Limburg's agricultural sector with a focus on horticulture in greenhouses. Workers appreciate this chalet-setting for its proximity to work, gymanisums and communal spaces. Residents come from diverse nationalities with occasional language barriers. Adherence to house rules is crucial with strict regulations against drug use. Work schedules vary throughout the year with peak seasons from April to November. Experience is valued to hire workers and returning workers are preferred.

SITE MANAGEMENT

Temporary work agencies emerged in the Netherlands around the 1980s and have since evolved to serve various industries. Different agencies have different specialisations with some focusing on local farms and horticulture while larger agencies cater to nationwide companies. Agencies have international connections such as between the Netherlands and Poland to facilitate worker recruitment. Ideal flex workers need to meet specific job requirements, possess relevant skills and adapt to fluctuating demands. Workers choose agencies based on payment rates, reputation and sector preferences. Companies engage with agencies based on trust, past experiences and recommendations. Demand for labour fluctuates seasonally with agencies adjusting their workforce accordingly. Housing conditions and benefits are crucial for workers who value privacy and access to amenities like gymnasiums to be in shape for strenuous work. Returning home frequency varies and living and working conditions may reflect gender and nationality differences. Worker experiences have evolved due to shifts in technology and market demands impacting job stability and worker preferences.

COORDINATOR OF TEMPORARY WORKERS

REAL ESTATE DEVELOPERS

An on-site employee of a real estate developer company mentioned that the primary objective is to provide housing solutions with a hospitality approach. They described the building's construction using modular blocks and highlighted security and surveillance measures in place. The housing allocation process is based on workers' preferences with rooms for couples and singles from various nationalities and genders. Workers choose their housing type based on proximity to work. Common amenities include a smoking shed, living spaces and laundry rooms all under CCTV surveillance. There is a diverse age range among residents and efforts are made to manage social tensions. The real estate company collaborates with external entities for fabricated design and owns the housing units. The residing workers' engagement with the local community is encouraged with minimal disturbances reported. Work schedules for migrants in the logistics sector vary with no distinct peak or dry seasons. The employee expressed satisfaction with their role of overlooking operations on the housing site.

SITE MANAGEMENT

The director is looking after projects addressing a shortage of beds for migrant workers and plans to add 4000-5000 more beds over the next five years. He is goal-oriented. Municipalities play a key role in site selection prioritising areas with work opportunities. Migrants appreciate shared accommodations with privacy like mobile homes. Communal living offers cultural exchange opportunities but can lead to conflicts and interactions with locals vary. Keeping the "neighbours" aka locals with gifts during neighbourhood gatherings is important to ensure fewer complaints. The housing density is based on demand-supply dynamics and modular buildings are tailored to specific dimensions. Finding available land is the most difficult in the Netherlands and sometimes a site may adjoin a trash depot deeming it to be unfavourable.

DIRECTOR - SITE MANAGEMENT

DESIGN OPPORTUNITIES *DESIGN THREATS*

Table 10: Key statements for Design Opportunities and Threats
Source: Author

DESIGN OPPORTUNITIES

Diverse Collective & Experience	Proximity to Workplaces	Integration with Urban Landscape	Modular Construction
Corridor Migration & Housing Variability	Accommodation Types	Community Cohesion	Smoking and Drinking Policies
Innovative Housing Solutions	Amenities & Leisure Spaces	Alignment with Historical Precedents	Site Selection Criteria
Challenges of Housing Conditions Across Europe	Housing Allocation based on Seasonal Flexibility	Addressing Language Barriers and Stigmas	Cleanliness and Surveillance
Desire for Privacy & Personal Space	Privacy & Maintenance	Economic Drivers & Cultural Barriers Influence of Gender & Nationality	Durability and SNF Regulations
Involving Workers in Planning	Health & Transportation Benefits	Equitable Living Conditions	Communal Gathering Spaces & Amenities

DESIGN THREATS

Over-Regulated Housing Policies	Overcrowding	Inadequate Housing Standards	Limited Personal Freedoms
Inadequate Privacy & Personal Space	Dependence on Proximity	Stringent Regulations Impending Liberties	Maintenance Challenges
Neglect of Cultural & Gender Sensitivities	Variable Agency Standards	Decline in Migrant Labour Influx	Strict Substance Policies
Economic Exploitation & Transient Lifestyle	Privacy Issues Wear & Tear	Impact of Automation on Labour Dynamics	Potential Over-Reliance on Technology
Social Isolation & Lack of Community Engagement	Social Tensions	Disconnection Between Trade & Housing Policies	Potential Conflicts
Insufficient Advocacy & Representation	Technological Displacement	Limited Transparency on Density Calculation	Dependence on Modular Construction

Table 11: Key points for Design Opportunities and Threats
Source: Author

CONCLUDING THE INTERVIEWS

Interviews with stakeholders reveal a complex picture of migrant worker experiences in the Netherlands. The academic researcher highlight the crucial role these workers play in sectors like logistics and horticulture, yet point to substandard housing conditions and social exclusion they often face. The lack of coherent housing policies and prevalent NIMBY attitudes further marginalise these essential workers, underscoring the urgent need for equitable housing solutions that promote both basic standards and social integration.

Site management staff offer a contrasting, ground-level perspective. Tasked with balancing hospitality and strict regulations they navigate the daily realities of maintaining order and security within worker housing complexes. This suggests that while site management employees may be committed to their roles within the existing system, the system itself requires critical examination and reform to prevent exploitation.

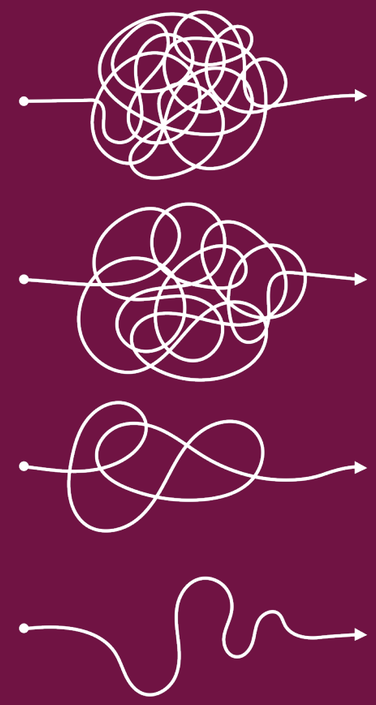
The property director focused on strategic and logistical aspects of housing development, highlights the critical shortage of beds for migrant workers. Their pragmatic approach prioritises expanding housing capacity to meet demand while maintaining community harmony. However, this top-down perspective can overlook the realities faced by workers on the ground. While the emphasis on privacy and modular housing aims to balance efficiency with resident needs, it may not fully address the complexities of their lived experiences.

The artist brings a crucial human-centered lens to the discussion highlighting the stark contrast between the essential economic roles migrant workers play and the harsh realities they face. They advocate for humane and aesthetically pleasing living environments that respect the dignity and individuality of residents. Through their work, the artist aims to raise awareness of the often-invisible struggles of this workforce, pushing for design solutions that are not merely functional but enriching and respectful of their humanity.

These contrasting viewpoints reveal a system grappling to reconcile economic imperatives with the human rights and welfare of migrant workers. While academic researchers and site management staff advocate for better integration and improved living conditions, the property director focuses on immediate housing shortages and logistical challenges, reflecting broader systemic constraints. The artist's call for a more human-centered approach underscores the need to consider the emotional and psychological well-being of these individuals.

This tension highlights the failure of individual actors within the system to collaborate effectively and provide adequate support for migrant workers. A multifaceted approach is crucial incorporating top-down policy changes and ground-level management practices. Policymakers, developers and creative thinkers must work together to create a more inclusive and supportive environment acknowledging the vital role migrant workers play in sustaining the Netherlands' export-led economy.

The design threats and opportunities revealed through these interviews offer valuable insights for developing housing solutions that prioritise well-being, dignity and a sense of belonging for migrant workers. By incorporating these design strategies, municipalities can create more sustainable and humane housing environments that respect and support the contributions of this essential workforce.



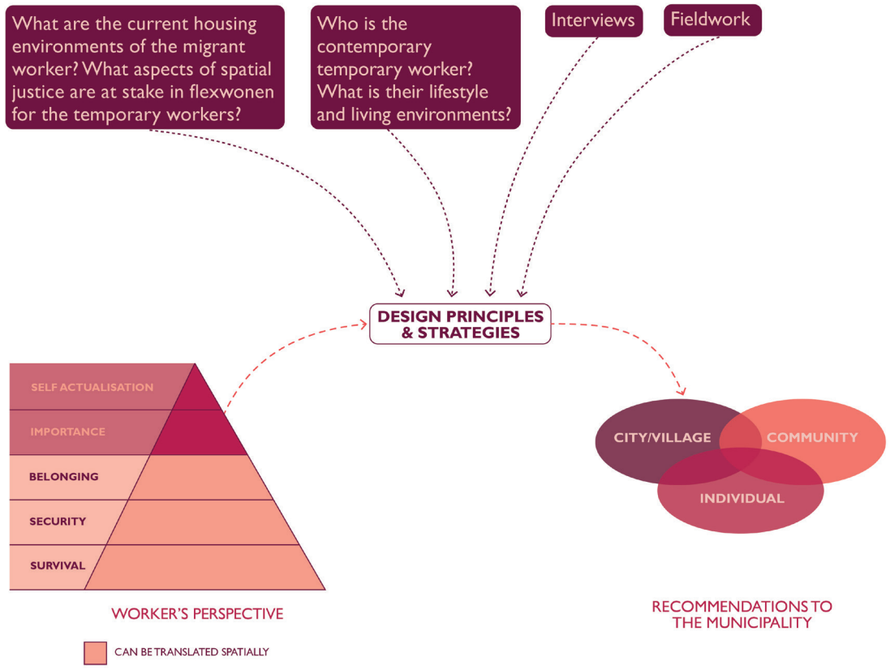


Fig 102: Design Framework
Source: Author

HOW CAN THE DESIGN AND IMPLEMENTATION OF FLEXIBLE HOUSING STRATEGIES CATER TO THE DEMANDS OF TEMPORARY MOBILITY WORKERS IN THE NETHERLANDS?

PROPOSE

These contrasting perspectives highlighting the complexities of balancing economic demands with the human rights and dignity of migrant workers underscore the urgent need for a nuanced and worker-centered approach to housing design. It's not enough to provide beds and mattresses; living environments that cater to the individual's holistic needs must be created. They must foster a sense of belonging, well-being and respect. This echoes Maslow's pyramid of the hierarchy of needs which posits that employees (in this case workers) require more than just basic physiological needs; they also need safety, belonging, esteem and self-actualisation. Survival, belonging and security are spatial aspects that can be incorporated in the physical design proposals whereas importance and self-actualisation can be attained by the worker once the bottom three are fully satisfied.

Design alone cannot dismantle the systemic issues that lead to the exploitation and marginalisation of migrant workers. However, it can be a powerful tool for social change when wielded thoughtfully and ethically. Especially in the case of NL, where constant effort on flex-housing policies (refer to next section) and "flexwonen" typologies is being tested, integrating housing considerations into spatial and zoning plans and crucially, by giving migrant workers a voice in the design and planning process, we can begin to dismantle the power imbalances that perpetuate these oppressive conditions.

Drawing upon the insights gleaned from the interviews - the property director's focus on efficiency, the site manager's awareness of daily struggles, the researcher's plea for integration and the artist's call for humanisation - a set of design principles can be formulated to guide the development of more equitable and sustainable housing solutions. These principles, detailed below, are organised across three scales - city/village, community (housing complex) and the individual - to illustrate how design can address the psychosocial needs of migrant workers fostering a sense of ownership, belonging and privacy. By considering these various scales, the municipality can create a more supportive and humane built environment for these essential members of society.

The design catalogue in the next section highlights ten design principles and key strategies highlighting the aspects observed until now (refer to Fig. 102).

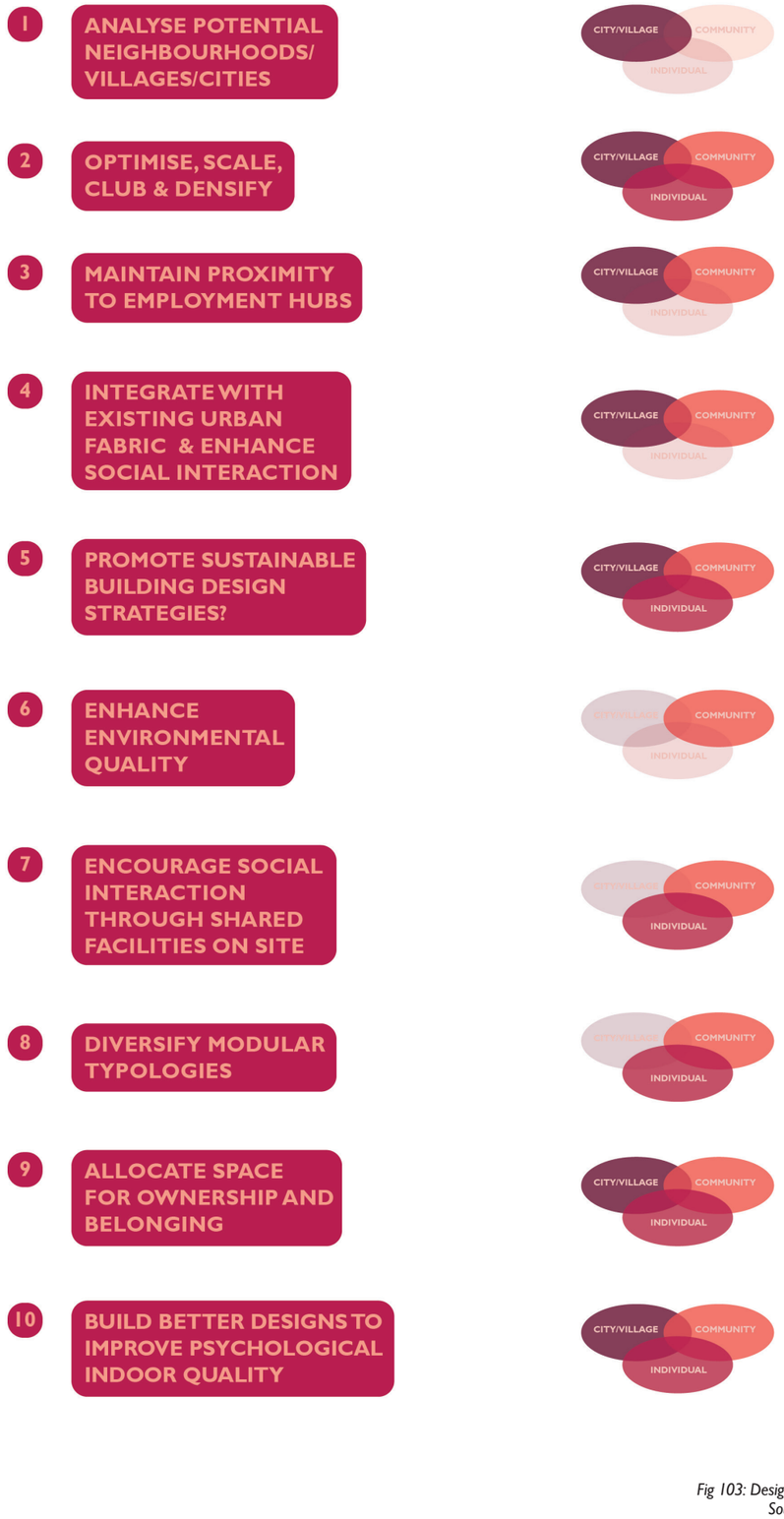


Fig 103: Design Catalogue
Source: Author

DESIGN PRINCIPLES

1. Analyse Potential Neighbourhoods/Villages/Cities
By carefully analysing potential locations for housing complexes, cities and villages can leverage these projects to strengthen communities and address challenges like urban shrinkage.

2. Optimise Scale, Club and Densify
Increase scale and density of living and leisure spaces within housing complexes to optimise land use efficiency and promote synergies between adjacent living environments. Align scheduling of agricultural activities with seasonal demands to optimise productivity and resource utilisation.

3. Maintain Proximity to Employment Hubs
Optimise the placement of housing complexes near employment centres to reduce commuting distances and enhance accessibility for temporary migrant workers. Implement urban design strategies to maintain distance to ensure zero physical workplace control.

4. Integrate with Existing Urban Fabric and Enhance Social Interaction
Ensure harmonious integration of housing complexes within the existing urban context by respecting and complementing the architecture and design of surrounding built environments. Integrate interactive zones strategically o encourage social interaction between residents and neighbouring communities.

5. Promote Sustainable Building Design Strategies
Prioritise adaptive reuse or transformation of existing building stock by looking for vacant buildings on site. Construct new buildings for future adaptability that could turn into long-term housing rather than short-term. Implement design strategies to improve liveability standards and challenge SNF regulations.

6. Enhance Environmental Quality
Improve the environmental quality of the housing complexes by incorporating sustainable landscape features for psychosocial and well-being of the workers.

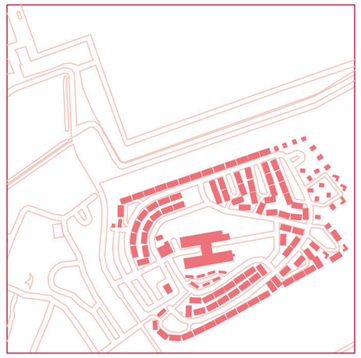
7. Encourage Social Interaction through Shared Facilities on Site
Prioritise communal spaces and shared amenities within housing complexes to promote social cohesion and interaction among residents.

8. Diversify Module Typologies
Introduce a diverse range of housing module typologies within the same complex to accommodate residents' varying needs and preferences promoting social diversity and inclusivity within the community.

9. Allocate Space for Ownership and Belonging
Assign designated parcels of land to workers in every housing unit providing opportunities for individual space appropriation and personalisation to foster a sense of ownership, belonging and intimacy within the community.

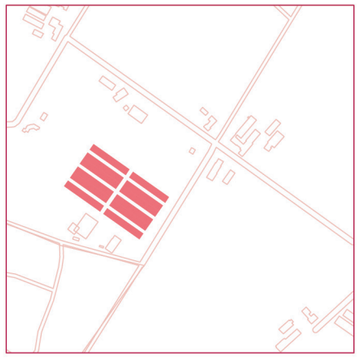
10. Build Better Designs to Improve Psychological Indoor Quality
Extending the focus on well-being beyond the outdoor environment, this principle emphasises the critical link between indoor spaces and psychological health.

MAASBREE

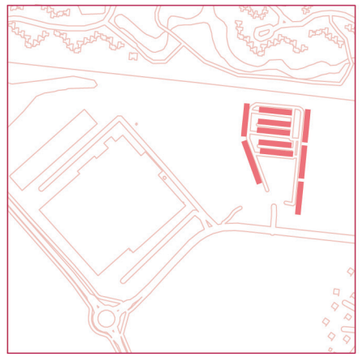


EGCHEL

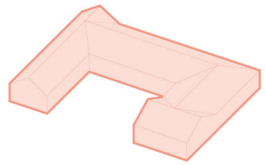
MEIJEL



AMERICA



HOUSING CHART ATTRIBUTES



Transformation - Housing Typology

Proximity to Essentials

Degree of Isolation

Integration with City Vibrancies

"Availability of land is the primary criterion. If you have a location in mind, please let me know."

"Municipalities play a pivotal role in our site selection process. Collaboration with them is key."

"Housing density is based on demand and supply dynamics."

"Cheap housing options often arise due to cheap land in regions like North Limburg and Brabant."

1. Analyse Potential Neighbourhoods/ Cities/Villages

By carefully analysing potential locations for housing complexes, cities and villages can leverage these projects to strengthen communities and address challenges like urban shrinkage. This principle prioritises integration over isolation recognising that well-considered placement can make all the difference in fostering social cohesion and maximising positive impact. Instead of relegating housing complexes to the outskirts, this approach seeks to weave them into the existing urban fabric, adding opportunities for adaptive reuse and enhanced connectivity. Sites must be selected based on these criteria.

Urban Shrinkage: The entire province of Limburg is seeing a decline in population growth. These measures can help mutually benefit the aging population of Limburg.

Adaptive Reuse: Prioritise the adaptive reuse of vacant or underutilised buildings within existing neighbourhoods breathing new life into these areas while minimising environmental impact.

Insert Programs: Adding certain programs such as community centers, brown bars, restaurants in certain municipalities can activate 'dormant' cities.

Connectivity & Accessibility: Ensure seamless connectivity between housing complexes and the surrounding urban fabric through pedestrian-friendly streetscapes, public transportation access and proximity to essential amenities.

By actively addressing urban shrinkage and promoting accessibility, this principle aims to create a win-win situation for migrant workers and the host communities.

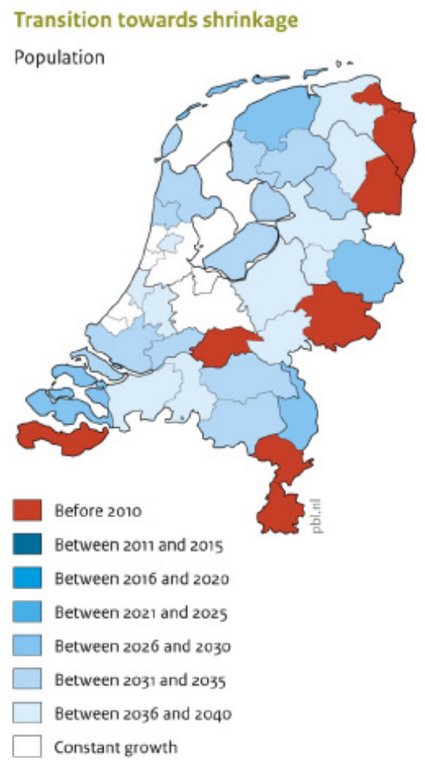
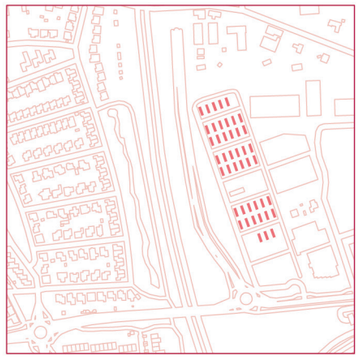


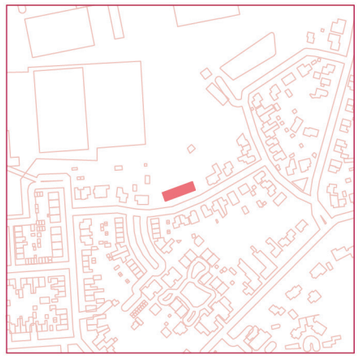
Fig 104: Design Principle 1
Source for maps: PBL_2012_From-combating-to-managing-demographic-decline-in-the-netherlands

VENRAY

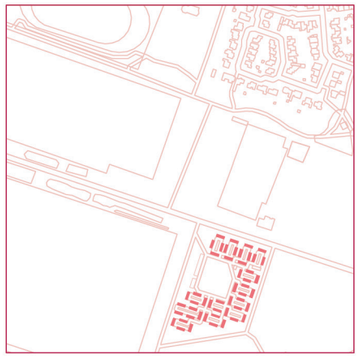
OOSTRUM



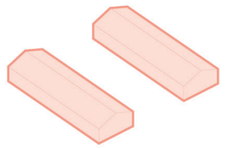
PANNINGEN



EGCHEL



HOUSING CHART ATTRIBUTES



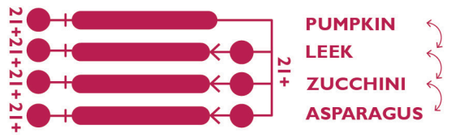
DUNBAR'S NUMBER - 150 NAMES

75 rooms with 150 beds

50 rooms for couples

25 rooms for singles

Dwelling Density



HORTICULTURE & AGRICULTURE

Clubbed Agricultural Activities

LOGISTICS

Shared Synergies

"In essence, the drive to earn quickly and return home is inexorably intertwined with the existential quest for belonging and stability manifesting in the delicate balance between economic imperatives and social integration."

"Certain tasks or acommodations tailored to specific gender norms or preferences."

"Historical instances of Workers' Housing."

"Equitable housing solutions aligned with urban standards. Low-income housing."

"A paradigm shift is required, advocating for the abolition of such housing models in favour of Dutch standard accommodations."

"Each municipality adopts disparate approaches to housing migrant workers."

2. Optimise Scale, Club and Density

Balancing the need for efficient land use with the creation of thriving and human-scaled communities is paramount in designing successful housing complexes. The principle addresses this challenge by strategically concentrating living and leisure spaces while fostering a strong sense of neighbourhood among residents which is currently absent.

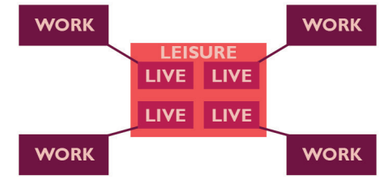
Density & Efficiency: Increase the scale and density of both living and leisure spaces within housing complexes. This approach optimises land use efficiency, reduces infrastructure costs and allows for the creation of more generous communal amenities.

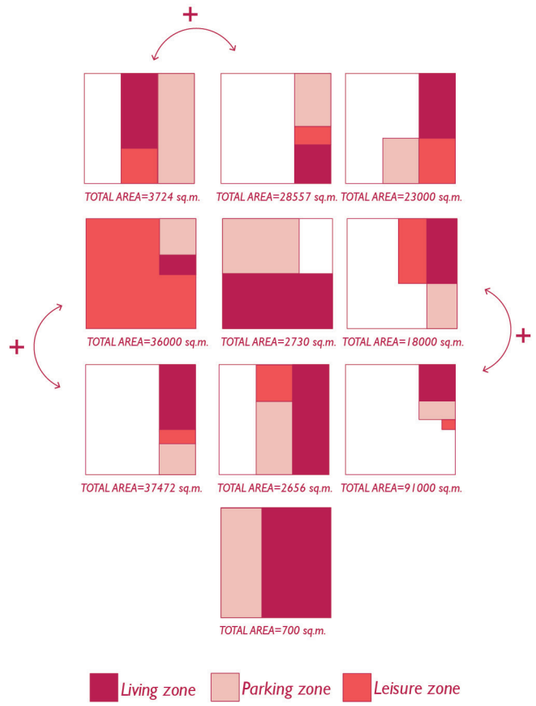
The Dunbar's Number Neighbourhood: Structure housing complexes around the concept of "neighbourhoods" comprising approximately 150 residents. This scale fosters a sense of belonging and facilitates social interaction mirroring the dynamics of adjacent small villages.

Shared Resources & Synergies: Encourage the sharing of resources within neighbourhoods such as laundry facilities, communal kitchens or recreational areas. The scale and capacity of these shared spaces should be carefully considered to the number of residents they serve ensuring both convenience and sustainability.

Clubbed Agricultural Activities: Align the scheduling of agricultural activities with seasonal demands concentrating workers with similar tasks within the same neighbourhoods. This "clubbing" approach optimises productivity, facilitates knowledge sharing among workers and strengthens social bonds.

Collective Bargaining Power: The proximity and shared experiences fostered by this principle can empower workers to advocate for their rights more effectively. Organising trade unions or worker cooperatives becomes more feasible within these close-knit communities potentially leading to improved working conditions and wages





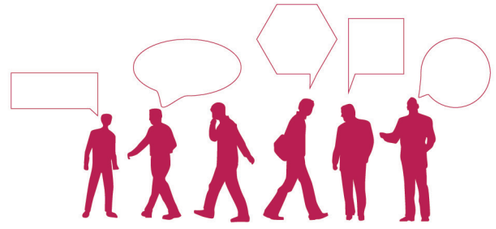


Fig 105: Design Principle 2
Source: Author

PANNINGEN

VENRAY

CLUB

CLUB

EGCHEL

OOSTRUM

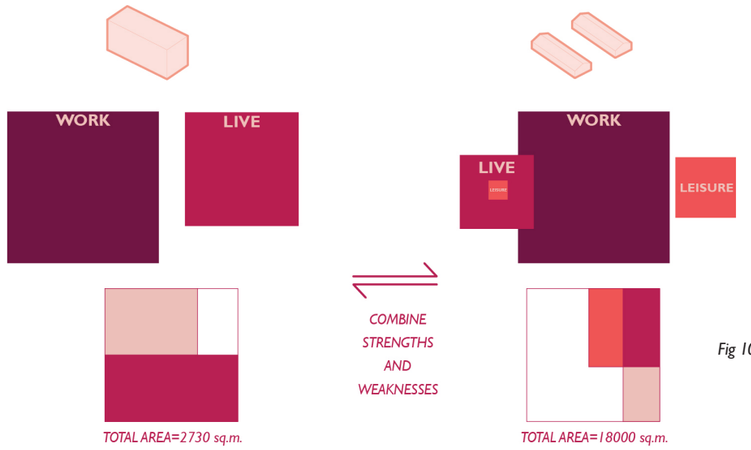


Fig 106: Design Principle 2 - Clubbing Sites
Source: Author

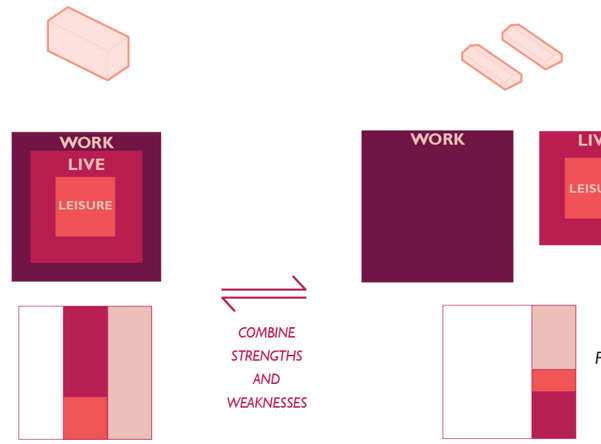
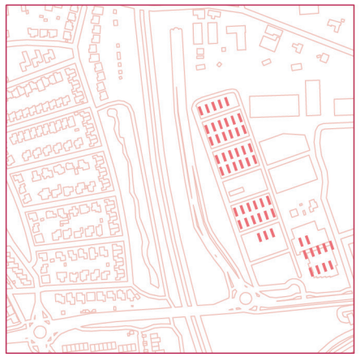


Fig 107: Design Principle 2 - Clubbing two sites in the same municipality
Source: Author

VENRAY

EGCHEL

OOSTRUM



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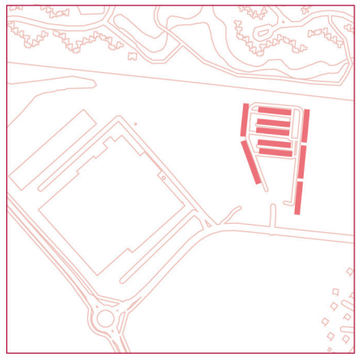
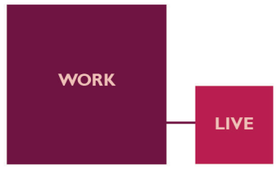


HOUSING CHART ATTRIBUTES

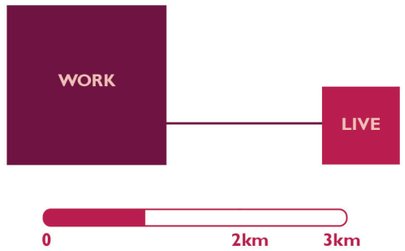
HORICULTURE AND AGRICULTURE SECTOR CAN LIVE CLOSE TO THE WORKPLACE.

SHORT STAY & MID STAY



LOGISTICS WORKERS CAN LIVE AWAY FROM WORKPLACES DUE TO FIXED AND FLEXIBLE SCHEDULES.

LONG STAY



Proximity to workplace

"The couple's choice of residence was influenced by proximity to their workplace and the amenities offered."

"Privacy concerns arose when he entered their chalet without prior consent, highlighting a breach of privacy."

"A designated haven—a cocoon of personal space"

"Additionally, transportation services (cars) are available to reduce the burden of travel for workers commuting to distant locations."

3. Maintain Proximity to Employment Hubs

Minimising commutes and maximising accessibility to essential services are crucial for the well-being of temporary migrant workers who often face time constraints and limited local knowledge. The principle advocates for locating housing complexes in close proximity to employment centers while ensuring worker autonomy and preventing exploitative practices.

Proximity to Employment: Prioritise the placement of housing complexes within a reasonable distance from major employment centers for seasonal work. This reduces commuting time and costs for workers allowing them to maximise their earnings and leisure time.

Zero Physical Workplace Control: While advocating for proximity, it's crucial to maintain a clear separation between living and working spaces. Avoid locating housing complexes within or immediately adjacent to workplaces to prevent potential exploitation from employers and ensure workers have control over their personal time and space.

Urban Design for Autonomy: Implement urban design strategies that foster a sense of autonomy and privacy for residents. This could include creating buffer zones between housing complexes and work areas ensuring clear visual separation between work and living environments.

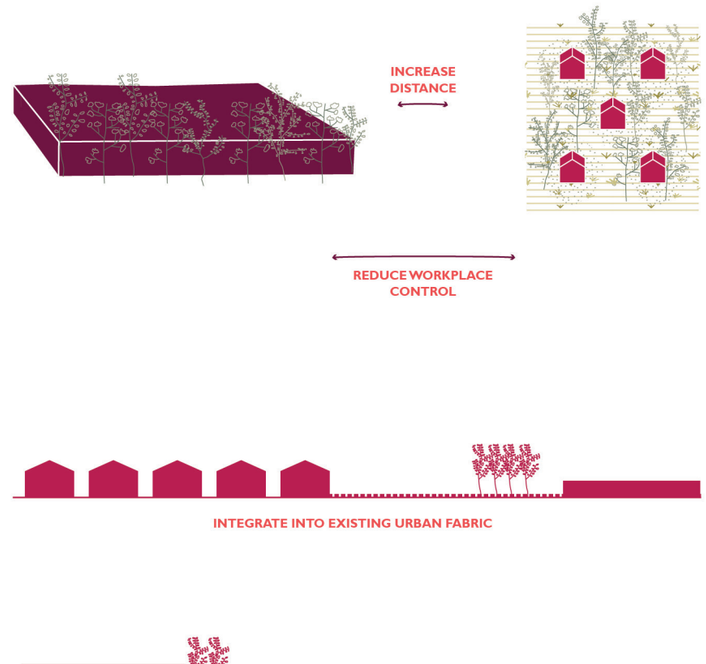


Fig 108: Design Principle 3
Source: Author

GOOD EXAMPLE

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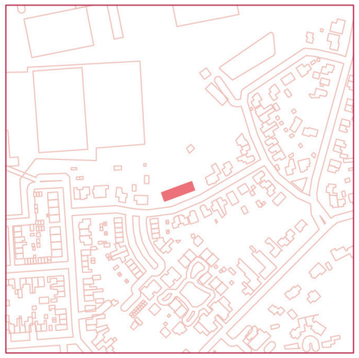


POOR EXAMPLE

VENRAY

POOR EXAMPLE

BAARLO

GOOD EXAMPLE

MEIJEL

HOUSING CHART ATTRIBUTES

ALL WORKER GROUPS
AND ALL HOUSING SITES

LOW HIGH VERY HIGH

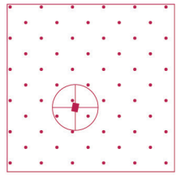
Visual Barrier Measures

LOW HIGH VERY HIGH

Integration with City Vibrancies

LOW HIGH VERY HIGH

Degree of Isolation



Existing urban fabric

"Worker well being is important."

"Workers can also enjoy scenic surroundings, including a forest and lake, during their free time. This is what makes the Egchel location favourable."

"Landscape must be integrated."

"Quality of living conditions is of paramount importance."

"Front yards can serve as communal gathering spaces."

4. Integrate with Existing Urban Fabric and Enhance Social Interaction

Weaving new housing complexes into the existing urban fabric is essential for fostering a sense of belonging and preserving local identity. The principle emphasises respectful design that complements the surrounding architecture while creating opportunities for meaningful interaction between residents and the broader community.

Contextual Design: Prioritise architectural designs that harmonise with the existing built environment. Consider the scale, materials, colours and styles prevalent in the surrounding area to create a sense of continuity and visual coherence.

Respecting Local Character: Conduct thorough site analysis to understand the unique character and history of the surrounding neighbourhood. Integrate elements that reflect local identity such as traditional building materials, landscaping choices or public art installations.

Interactive Zones: Strategically choose sites that have shared public spaces along common pedestrian routes. These interactive zones encourage spontaneous encounters and foster a sense of community between residents and those living or working nearby.

Permeable Boundaries: Avoid creating harsh physical barriers between housing complexes and the surrounding neighbourhood. Utilise permeable boundaries such as hedges, low walls or shared green spaces to encourage visual and social connections.

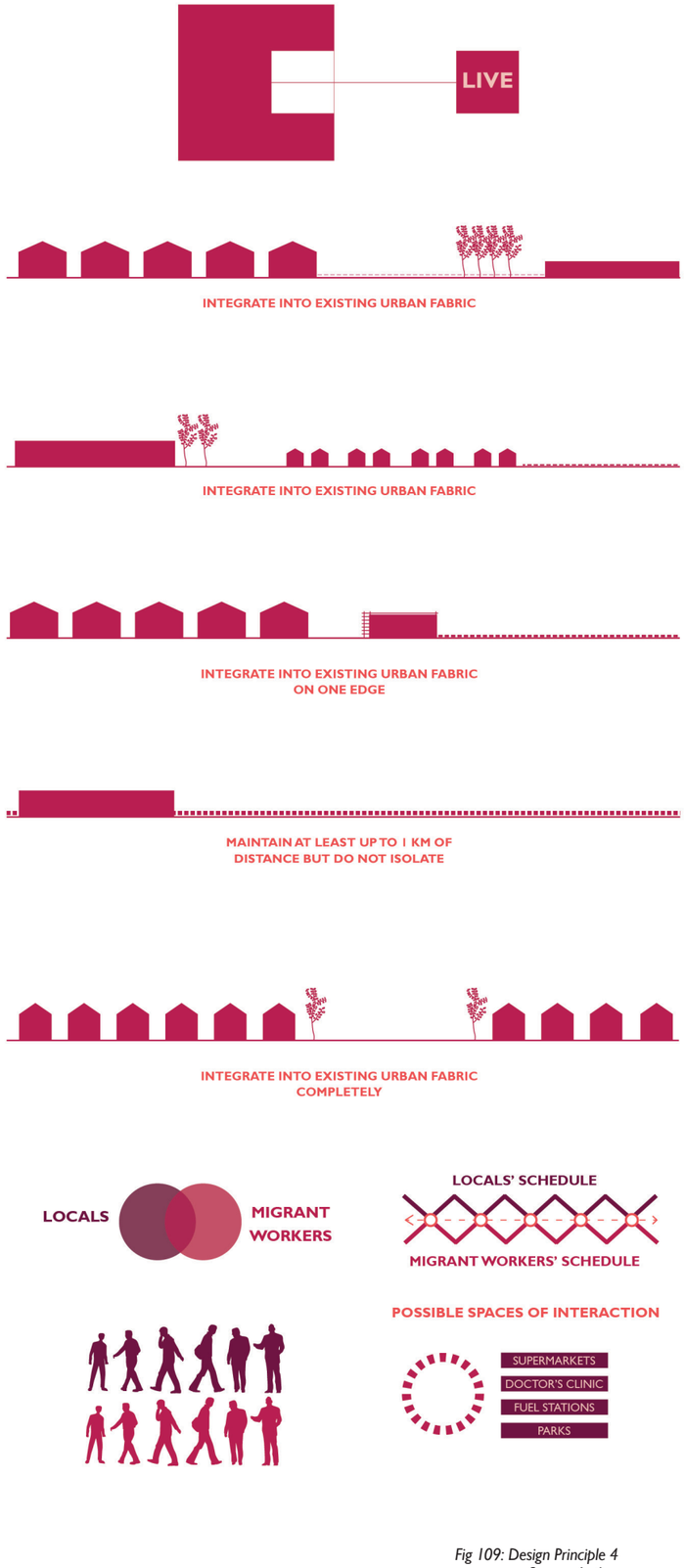


Fig 109: Design Principle 4
Source: Author

Panningen Centrum

Panningen

Radhuisstraat

Enhance Connection

Potential Site

Mosque as Cultural Incubator

Reiterpark

Helden

Enhance Connection

Major Interaction Zones

Natura 2000

Egchel

Scale - 1:10000

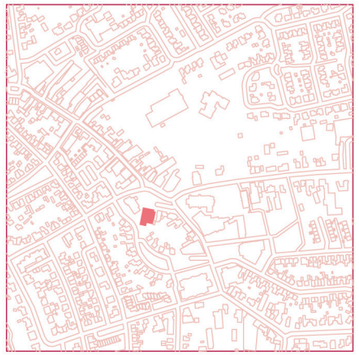
Legend

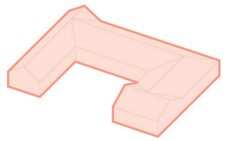
- Farmlands
- Urban Patterns
- Leisure Zones
- Work Zones
- Discontinuous Urban Fabric
- Logistic Estates
- Live Zones
- Religious Buildings
- Public Transport Roads
- Provincial Roads
- Secondary & Tertiary Roads
- Pathways
- Daily Routine of a Worker
- Interaction Belts

Fig 110: Design Principle 4 - Tracking connections & possibilities on the site analysis (Fig. 65) in Egchel
Source: Author

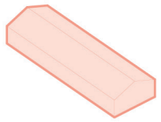
VENLO

MEIJEL

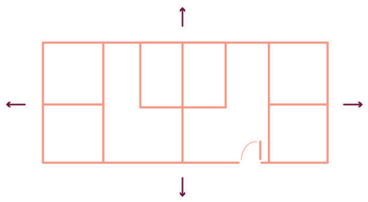




Locate vacant building stock



Build for long-term solutions to add to the housing stiock/social housing



Challenge SNF regulations, increase floor space requirements

"In the Flemish region, there exists a surplus of vacant bungalows and villas that are often rented out to flex workers."

"Integration within the urban landscape rather than isolation."

"Segregation results in these workers living far away from the urban core."

"Equitable housing solutions aligned with urban standards. Regular Dutch standards must apply."

5. Promote Sustainable Building Design Strategies

Embracing adaptive reuse and designing for adaptability are key to creating resilient and sustainable housing solutions for temporary migrant workers while contributing to the Netherlands' long-term housing needs. The principle prioritises the transformation of existing building stock while ensuring new constructions can adapt to evolving demands moving away from short-term solutions towards housing options that can be integrated into the country's permanent housing stock.

Prioritise Adaptive Reuse for Migrant Housing: Before constructing new buildings specifically for migrant workers, conduct a thorough inventory of existing building stock, identifying vacant or underutilised structures suitable for transformation into housing complexes. This approach minimises environmental impact while creating housing options adaptable to future needs.

Design for Adaptability and Future Integration: Implement flexible design strategies in both new constructions and renovations allowing spaces to be easily adapted for various uses and household sizes over time. Consider modular components, movable walls and adaptable infrastructure to accommodate the evolving needs of both migrant and long-term residents.

Long-Term Vision for Migrant Housing: While addressing the immediate need for temporary housing for migrant workers, prioritize designs that can transition into long-term housing solutions for the broader population. This may involve incorporating features typically associated with permanent housing such as private outdoor spaces, ample storage and communal areas that foster a sense of community.

Challenge Regulations for Improved Liveability: Critically assess existing regulations related to migrant housing such as SNF and AKF regulations, rather advocate for adjustments that improve liveability standards without compromising safety or accessibility. Focus on ensuring quality housing for migrant workers that can seamlessly transition into long-term housing options.

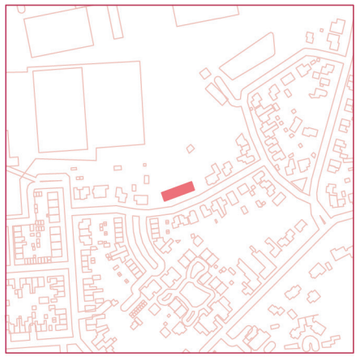
ADAPTIVE REUSE OF A MONASTERY INTO FLEXIBLE HOUSING FOR MIGRANT WORKERS

NEW CONTRUCTION FOR FLEXIBLE HOUSING FOR MIGRANT WORKERS

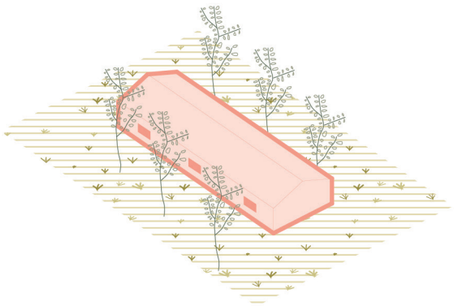
LONG-TERM VISION FOR HOUSING FOR MIGRANT WORKERS

Fig 111: Design Principle 5
Source: Flexhomes website and photographed by author

GOOD EXAMPLE
PANNINGEN



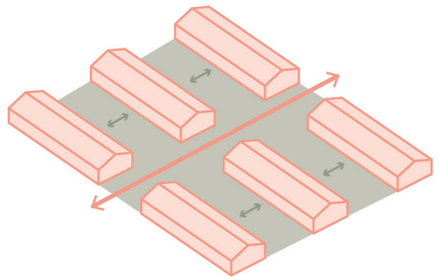
POOR EXAMPLE
EGCHEL



At the scale of the window

POOR EXAMPLE
BAARLO

POOR EXAMPLE
MEIJEL



At the scale of the unit

"Worker well being is important."

"Workers can also enjoy scenic surroundings, including a forest and lake, during their free time. This is what makes the Egchel location favourable."

"Landscape must be integrated."

"Quality of living conditions is of paramount importance."

"Front yards can serve as communal gathering spaces."

6. Enhance Environmental Quality

Recognising that a dwelling is more than just a shelter, the principle emphasises the creation of spaces that foster well-being and a sense of belonging even within the context of temporary housing. This is particularly crucial for migrant workers who often have limited housing choices and may face additional challenges in establishing a sense of home.

Green Spaces for Well-being: Integrate a variety of green spaces such as courtyards and frontyards within the housing complex. These spaces provide opportunities for relaxation, social interaction and connection with nature fostering a sense of community and improving mental well-being.

Sustainable Landscaping Practices: Implement green infrastructure solutions such as permeable paving and rainwater harvesting systems to manage stormwater runoff and reduce the environmental impact of the development.

Outdoor Amenities: Provide access to outdoor amenities that promote physical activity and social interaction such as walking paths, exercise areas and communal gardens. These spaces encourage a healthy lifestyle and foster a sense of belonging among residents.

Reduce Environmental Impact: Implement strategies to minimise the overall environmental footprint of the housing complex. This includes using renewable energy sources, reducing energy and water consumption and promoting sustainable waste management practices.

Bridging the Gap: By incorporating these elements, we can help bridge the gap between simply providing shelter and creating supportive, adaptable environments where migrant workers can feel more at home, even during their temporary stay. This is essential for their overall well-being and can contribute to a more positive and integrated experience (Druță & Fatemidokhtcharook, 2023).

ENSURE MAXIMUM LIVEABILITY

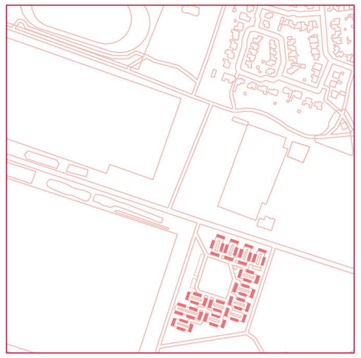
TANIMURA AND ANTLE AGRICULTURAL HOUSING COMPLEX, CA, USA

TANIMURA AND ANTLE AGRICULTURAL HOUSING COMPLEX, CA, USA

Fig 112: Design Principle 6
Source: https://www.ccof.org/news/take-a-tour-of-tanimura-antles-housing-for-farmworkers/

MAASBREE

EGCHEL



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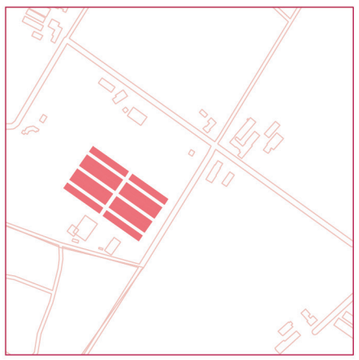
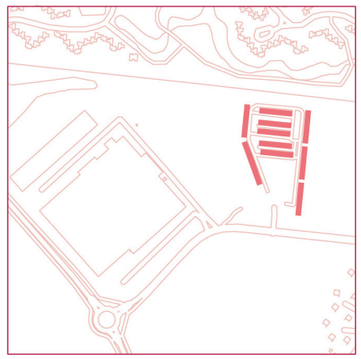


AMERICA



HOUSING CHART ATTRIBUTES

Community Facilities
- Indoor
- Outdoor

Facilities provided

Pavilions for community interaction

Degree of Privacy maintained

Casual smoking gatherings were observed on the staircases.

"Prioritise community spaces while allowing for personal privacy."

"Reluctance exists among themselves to cohabitate with others, often attributed to language barriers and associated stigmas."

"During warmer months, workers often gather in the courtyard between chalets for barbecues and community time."

"In the case of the Romanian community, the bathroom became an integral place for discussion"

"Gender and nationality can pose huge problems some times."

7. Encourage Social Interaction through Shared Facilities on Site

Recognising the importance of social connection for well-being, the principle prioritises the creation of vibrant, welcoming communal spaces within housing complexes. These spaces should be designed to encourage interaction, facilitate a sense of belonging and promote social cohesion among workers particularly those from diverse backgrounds and cultures. By fostering positive interactions, these spaces can help break down stereotypes and promote understanding across nationalities and genders.

Multifunctional Common Areas: The versatile common areas that are designed currently should be continued but made more spacious to accommodate a range of activities, from casual gatherings and social events to shared meals and recreational pursuits.

Outdoor Gathering Spaces: Create inviting outdoor areas such as courtyards, pavilions and gardens that provide opportunities for residents to connect with nature and socialise in a relaxed setting. Consider incorporating seating areas, barbecue pits or play structures to enhance these spaces and encourage interaction among diverse groups.

Shared Kitchen and Dining Facilities: Provide well-equipped communal kitchens and dining areas where residents can prepare meals together, share culinary traditions and foster diverse cuisines. This was a feature in older guestworker housing which should be encouraged.

Cultural Exchange Programs: Consider incorporating spaces that can host cultural events, language exchanges or workshops that celebrate the diversity of the resident community. These programs can help bridge cultural divides, promote understanding and challenge stereotypes. The introduction of learning Dutch can also add as a possibility if workers plan to integrate long-term in the society.

Breaking Down Barriers: By intentionally designing inclusive and welcoming shared spaces, housing complexes can become catalysts for positive social change fostering a sense of community that transcends cultural differences and promotes respectful, equitable relationships among all residents.

NOT A SUITABLE EXAMPLE

A GOOD EXAMPLE

A GOOD EXAMPLE

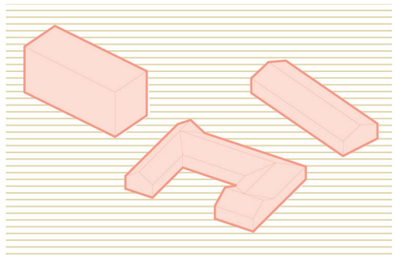
Fig 113: Design Principle 7
Source: https://kafrahousing.com/en/snf-standard/; https://faro.nl/projecten/flexwonen-oosterdreef; https://www.floridahealth.gov/environmental-health/migrant-farmworker-housing/index.html

GOOD EXAMPLE

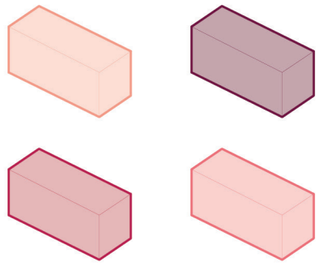
MAASBREE

EGCHEL

HOUSING CHART ATTRIBUTES

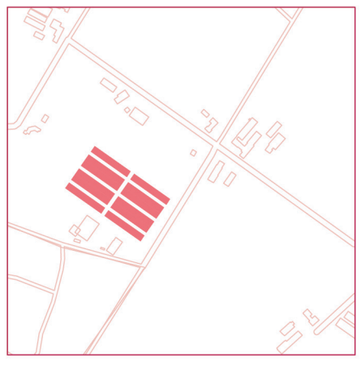


Create mixed housing typologies cater to different groups



Give each unit its own identity

MEIJEL



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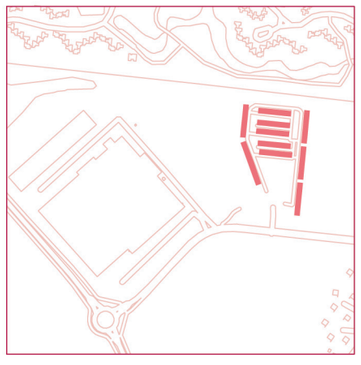


"Migrants transitioning from rural areas to urban settings often appreciate teh shift while others have different preferences."

"We collaborate with external entities for module design."

"Efforts are made to mitigate social tension, conflicts, language barriers and cultural differences."

Workers can choose their housing as per their lifestyles, room assignments should not be dictated.

"Various nationalities and genders can be housed together if the option is left upto them."

8. Diversify Module Typologies

Recognising that one size does not fit all, the principle advocates for a range of housing module designs within a single complex. This approach caters to the diverse needs and preferences of residents fostering a socially inclusive environment that welcomes individuals and families of varying sizes, ages, nationalities, gender and backgrounds.

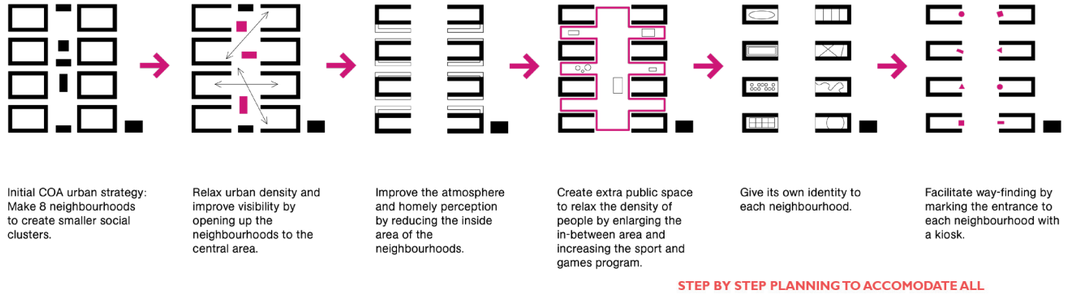
Variety in Size and Configuration: Offer modules in a range of sizes for couples and singles with an option to add additional spaces if required. Explore flexible layouts that can adapt to changing needs over time. Offer modules that can be connected to each other and become larger spaces through permutations and combinations.

Cluster Housing Units: Group smaller, private living units around a central courtyard or shared green space. Provide communal amenities like kitchens, laundry facilities and social areas that allow for both privacy and connection.

Cultural Sensitivity: Be mindful of the cultural backgrounds and practices of residents when designing housing and communal spaces.

By embracing a diversity of module typologies, housing complexes can move beyond homogeneity and create vibrant, inclusive communities that reflect the richness and complexity of human experience.

AROUND 100 ROOMS IN ZOETERMEER BY SVP ARCHITECTURE AND PLANNING, MIXED DESIGN OF MODULES WITH SHARED SPACES



Initial COA urban strategy: Make 8 neighbourhoods to create smaller social clusters.

Relax urban density and improve visibility by opening up the neighbourhoods to the central area.

Improve the atmosphere and homely perception by reducing the inside area of the neighbourhoods.

Create extra public space to relax the density of people by enlarging the in-between area and increasing the sport and games program.

Give its own identity to each neighbourhood.

Facilitate way-finding by marking the entrance to each neighbourhood with a kiosk.

STEP BY STEP PLANNING TO ACCOMODATE ALL DIVERSE NEEDS. IN TER APPEL BY DE ZWARTE HOND

Fig 114: Design Principle 8
Source: https://architectenweb.nl/nieuws/artikel.aspx?id=58094; https://dezwartehond.nl/projecten/coa-opvang-ter-apel/

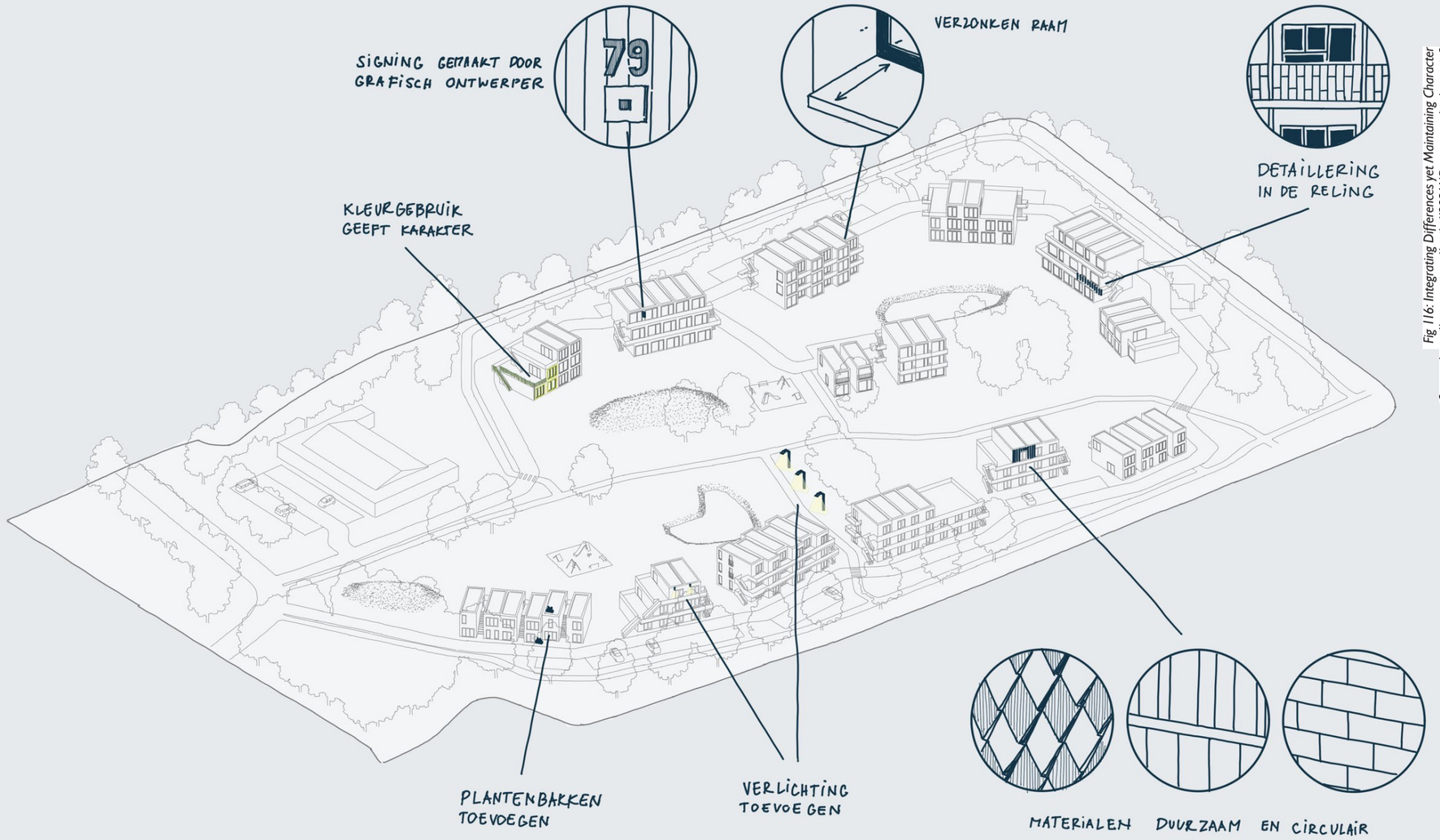
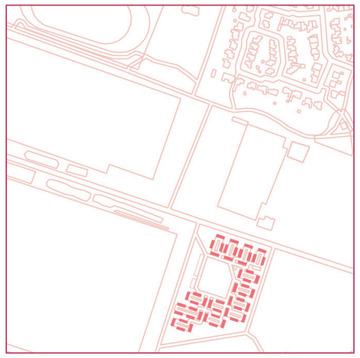


Fig 116: Integrating Differences yet Maintaining Character
Source: https://romagazine.nl/artikel/28311/flexwonen-als-alternatief-nieuwkoop-en-wijk-bij-duurstede-laten-zien-hoe-het-kan

Fig 115: Example for diverse modular typologies
Source: https://architectenweb.nl/nieuws/artikel.aspx?id=58094

MAASBREE

EGCHEL



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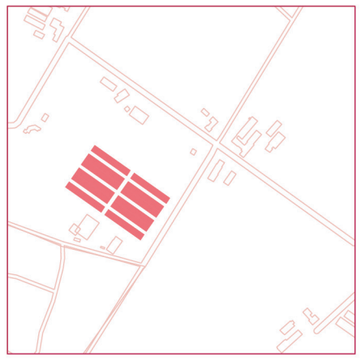

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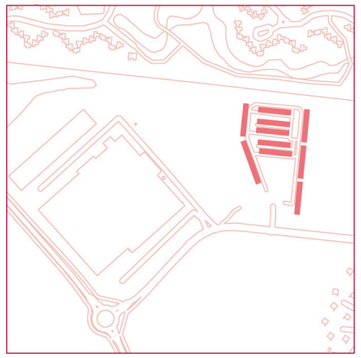
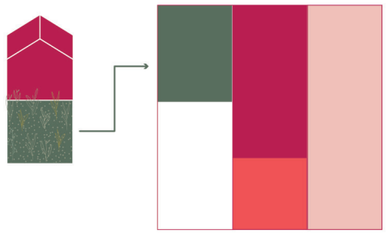


HOUSING CHART ATTRIBUTES



PARCEL OF LAND PER UNIT FOR PERSONAL APPROPRIATION
-grow your own crops, fence your own space, build a pavilion

Facilities provided

Degree of privacy

"The concept of scaled-down familial environment embodied by compact living spaces like containers, resonates strongly with these workers, fostering a sense of ownership and belonging."

"A desire for autonomy in shaping their living spaces and front yards for communal gatherings."

"Prioritise community spaces while allowing for personal privacy."

"Privacy is highly valued."

9. Allocate Space for Ownership and Belonging

Recognising that a sense of ownership and personal space contributes significantly to well-being, the principle advocates for providing each housing unit with a designated outdoor area. This space, whether a small garden plot or balcony, empowers residents to express their individuality, connect with nature and create a personalised haven within the larger community.

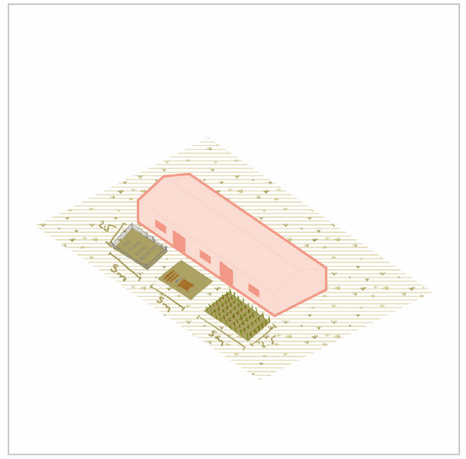
Individual Garden Plots: Where feasible, allocate individual garden plots to each housing unit. This allows residents to engage in gardening, grow their own food and connect with nature on a personal level.

Private Balconies: For multi-unit vertically high dwellings, ensure each unit has access to a private or semi-private outdoor space, running all around the building. These spaces provide a sense of personal retreat and inspire the neighbours.

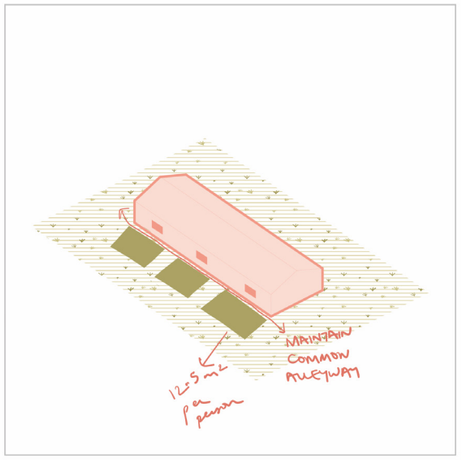
Design for Flexibility: Encourage personalisation by designing outdoor spaces that can be adapted to suit individual preferences and cultural practices. Provide basic infrastructure such as water access and fencing options that residents can build upon.

Promote Sharing and Exchange: While emphasising personal space, also encourage opportunities for sharing, exchange and dialogue among residents. This could involve creating communal composting areas, seed libraries or designated spaces for sharing gardening tools and knowledge.

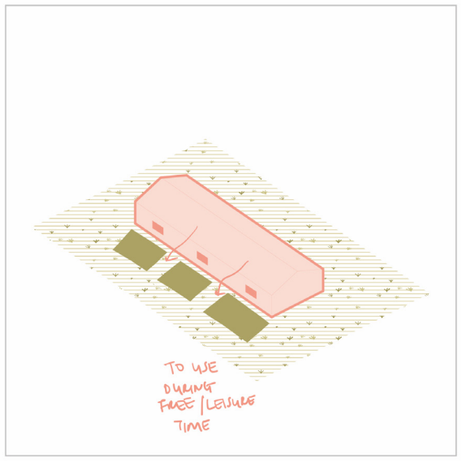
Fostering a Sense of Belonging: By providing residents with a tangible space they can shape and care for, we foster a deeper sense of ownership, belonging and connection to the community. These personalised spaces become extensions of their homes, even within a temporary housing context.



DIY PARCEL OUTSIDE UNITS



12.5 sq.m. PER ROOM



TO USE WHEN ONE IS 'OUT OF WORK' OR DURING FREE TIME

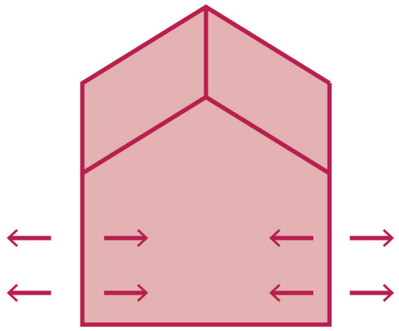
Fig 117: Design Principle 9
Source: Author

Fig 119: Multi-unit private balconies
Source: https://www.parool.nl/columns-opinie/opinie-gemeenten-geef-flexwoningen-de-ruimte--be324a08/?referrer=https://www.google.com/

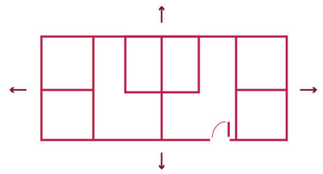
Fig 118: Workers growing products on their personal patches of land that also fosters community spirit
Source: https://jsellerow.shop/product_details/24568140.html

GOOD EXAMPLE
VENRAY

POOR EXAMPLE
EGCHEL



Indoor quality as important as outdoor quality



Accomodate more space for well-being which is excluded from SNF regulations

"Some workers lamented past disturbances from previous tenants."

"Diverse approaches to housing among flex-workers."

"There are instances where gender also influences living conditions with certain tasks or accommodations tailored to specific gender norms or preferences."

"Each municipality adopts disparate approaches to housing migrant workers."

"We have exceeded the SNF requirements and provided better quality floor spaces."

10. Build Better Designs to Improve Psychological Indoor Quality

Extending the focus on well-being beyond the outdoor environment, this principle emphasises the critical link between indoor spaces and psychological health. The design of our homes themselves plays a significant role in shaping our mood, stress levels and overall sense of well-being. By incorporating design elements that promote calm, comfort and a sense of control within living spaces, we can create supportive environments that nurture the mental and emotional health of residents.

Visual Connections to Nature: Maximise views of nature through large windows, strategically placed skylights or access to courtyards and green spaces.

Natural Materials and Textures: Incorporate natural materials like wood, stone and bamboo into interior finishes and furnishings.

Dynamic and Diffuse Lighting: Mimic natural light patterns with a combination of ambient, task and accent lighting. Use adjustable lighting controls to allow residents to personalise their lighting experience.

Social Spaces that Encourage Interaction: Create welcoming and inclusive communal areas that foster a sense of community and reduce social isolation.

Personalization and Control: Empower residents to personalise their living spaces and exert a sense of control over their environment.

By prioritising psychological well-being in the design of housing for migrant workers, we can create supportive and nurturing environments that contribute to their overall health, happiness and integration into the community.

VENRAY DOUBLE BEDROOM

VENRAY DINING ROOM + LIVING ROOM

VENRAY COMMON INDOOR AREAS

Fig 120: Design Principle 10
Source: Photographed by Author during fieldwork

The design principles provide a foundation for developing housing solutions that cater to the multifaceted needs of temporary labourers. However, translating these principles into tangible outcomes requires a set of clear and actionable design strategies. The following recommendations directed towards municipalities and their collaborative efforts with private firms outline a roadmap for creating more inclusive, sustainable and resilient housing complexes for temporary labour.

1. Fostering Belonging & Community:

Design for Diverse Collectives: Instead of generic housing blocks, create spaces that reflect the cultural backgrounds and family structures of residents. For example, incorporate communal cooking areas for cultures that value shared meals or design flexible units that can accommodate larger families.
Amplify Labour Voices in Planning: Establish resident councils or feedback mechanisms to ensure that the design and management of the housing respond to the actual needs of those living there.
Counter Negative Stereotypes: Avoid isolating temporary housing complexes in the hinterlands. Integrate them into existing neighbourhoods and design them to be visually appealing and welcoming, challenging the perception of temporary housing as undesirable.
Community Engagement: Organise events and activities that bring temporary and permanent residents together, fostering a sense of shared community and reducing social isolation.

2. Prioritising Well-being & Autonomy:

Create Homes, Not Just Housing: Design units with ample natural light, ventilation and personal space to promote mental well-being. Incorporate elements of nature, such as communal gardens or green spaces to provide a sense of tranquility and connection to the outdoors.
Physical & Psychological Wellbeing: Provide comfortable and well-maintained homes to ensure maximum comfort for those living there.
Minimise Restrictive Rules: Allow residents to personalise their living spaces, host guests and cook their own meals fostering a sense of independence and control over their environment.
Diverse Amenities: Offer a range of amenities that cater to different needs and interests such as fitness centers, communal kitchens, laundry facilities and spaces for socialising and recreation.

3. Ensuring Equity & Sustainability:

Consistent Quality Standards: Reject the notion of "minimum liveability" as imposed by SNF and AFK regulations. Ensure that all temporary housing meets the same quality standards as permanent housing in urban areas including adequate space, natural light, ventilation and access to essential amenities.
Direct Employment & Fair Wages: Advocate for policies that promote direct employment contracts and fair wages for temporary workers preventing exploitation and ensuring decent living conditions. Move away from temporary agencies.
Align Housing with Spatial Planning: Integrate temporary housing into existing communities with access to public transportation, employment opportunities and essential services rather than isolating them in hinterlands where only "verdozing" is visible.
Implement Zoning Restrictions: Prevent the overconcentration of temporary housing in specific areas (specifically industrial zones) by implementing zoning regulations that promote a more equitable distribution of housing options.

4. Addressing Practical Needs:

Diverse Housing Options: Offer a range of housing options from individual units to shared apartments to accommodate different cultural backgrounds and lengths of stay. Slowly transition towards providing homes for families, as well.
Seasonal Flexibility: Design housing solutions that can adapt to the fluctuating demands of seasonal industries. This could involve partnerships with local communities to utilise vacant housing during off-seasons.
Provisions for Unemployment: Recognise that temporary work can be precarious. Offer support mechanisms for residents facing unemployment such as short-term rental assistance or connections to job training programs.
Access to Essential Services: Ensure that temporary housing complexes are well-connected to public transportation, healthcare facilities, childcare centers and other essential services promoting social inclusion and well-being.
Innovative & High-Quality Construction: Explore cost-effective and sustainable construction methods, such as prefabrication or the use of locally sourced materials to expedite the development process while maintaining high quality and minimising environmental impact.

5. Fostering Collaboration & Innovation:

Knowledge Sharing: Facilitate platforms for knowledge sharing and best practice dissemination between municipalities, private firms, NGOs and research institutions. This could involve organizing conferences, workshops, or online platforms to exchange experiences, challenges and successful approaches to temporary housing. Municipalities must also connect with each other to find suitable solutions to this increasing problem.
Encourage & Fund Pilot Projects: Provide financial and logistical support for pilot projects that test innovative design solutions, financing models or management approaches for temporary housing. This will allow for real-world evaluation and refinement of new ideas.
Showcase Successes to the Dutch Ministry: Document and disseminate the successes of pilot projects and best practices to the Dutch Ministry responsible for housing and spatial planning. Advocate for policy changes and increased funding based on evidence of what works.
Highlight Social & Economic Benefits: Clearly articulate the social and economic benefits of investing in quality temporary housing. This includes reducing social costs associated with inadequate housing, attracting and retaining a vital workforce and fostering more inclusive and resilient communities.

While this study draws valuable insights from multiple case studies in Limburg, it acknowledges the importance of

contextual specificity when applying its findings to the broader Dutch context. Although the Netherlands shares overarching social and economic structures, regional variations in housing markets, cultural norms and industry demands necessitate tailored design solutions. Therefore, the design strategies presented here should be adapted to the unique circumstances of each location ensuring that housing interventions are both effective and culturally sensitive.

By implementing these comprehensive design strategies, municipalities and their partners can create housing solutions that not only meet the practical needs of temporary labourers but also foster a sense of belonging, well-being and long-term integration. Fig. 121 ranks the ten sites based on spatial justice offered to the labourers on the basis of most to least liveablity.

The accompanying brochure offers guidelines for evaluating future flexible housing sites designed for temporary labourers. Intended as a resource for both developers and workers, the brochure empowers individuals to advocate for their needs and promotes a shared understanding of pitfalls the workers might face. While the current version is in English, translations into other relevant languages will be provided to ensure accessibility for all.

The next section reflects on the first four questions by supporting it with flexible housing and spatial planning policies.

RANKING THE TEN SITES THROUGH LENSE OF SPATIAL JUSTICE

Fig 121: Ranking from Most Liveable to Least Liveable
Source: Author

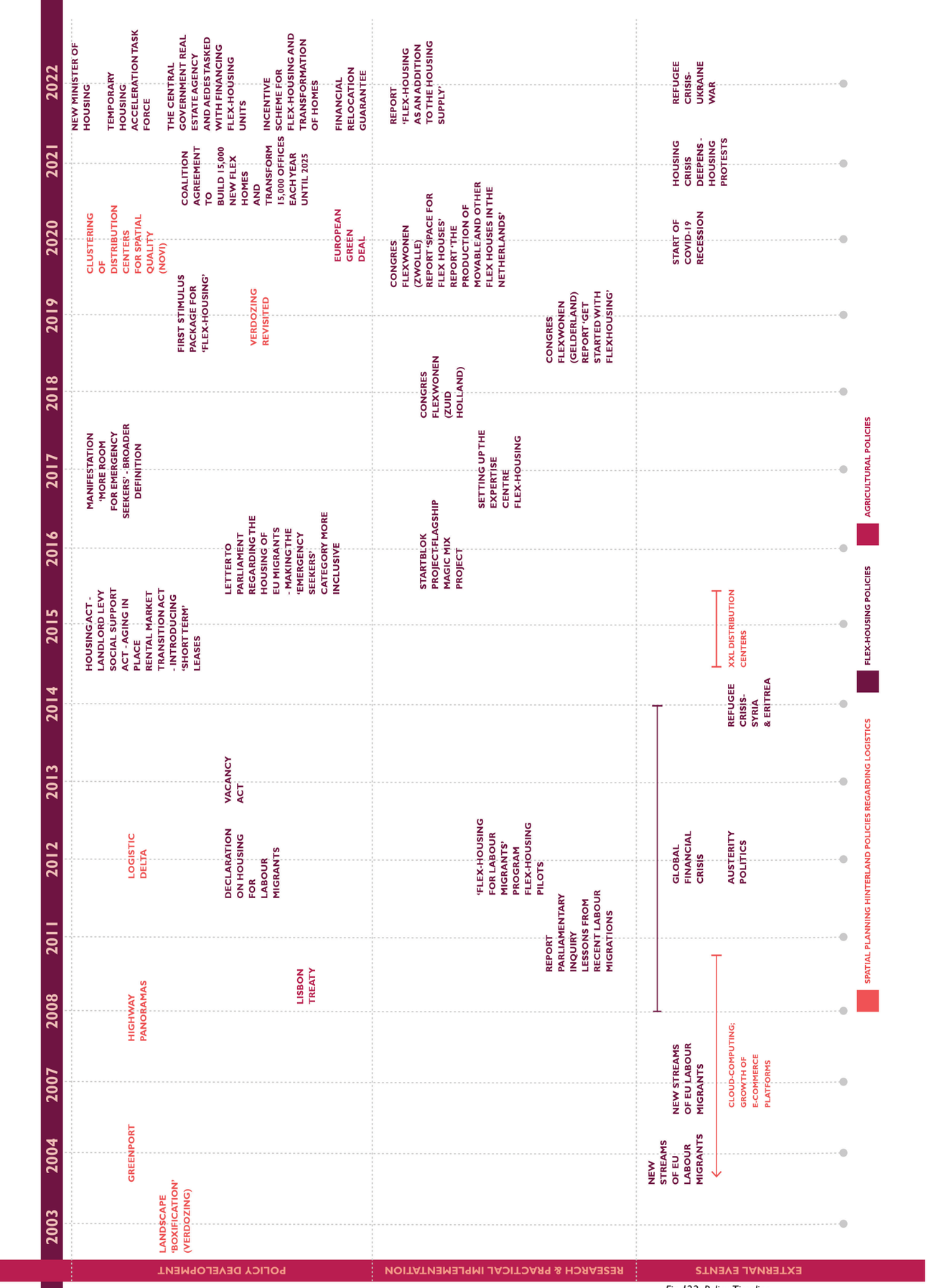


Fig 122: Policy Timeline

HOW WILL THE POLICY FOR FLEXIBLE HOUSING ACCOMMODATE THIS NEW WAY OF LIVING?

REFLECT

The Netherlands faces a complex housing challenge grappling with a shortage of affordable options while simultaneously experiencing an influx of temporary and seasonal workers. While flexible housing policies have emerged as a potential solution and spatial planning initiatives aim to create more inclusive urban environments, this project argues that their continued siloed operation particularly in the face of rapid *verdozing* or boxification (refer to Fig. 122) undermines their effectiveness. Numerous reports highlight the positive strides made in both flexible housing and spatial planning. The speed and scale at which flexible housing projects materialise are commendable, offering a rapid response to urgent housing needs. Similarly, spatial planning initiatives increasingly prioritise social inclusion and mixed-income housing. However, this project reveals a critical oversight: the lack of integration between these two policy domains exacerbates the negative consequences of *verdozing*.

This disconnect often results in haphazard housing solutions for temporary workers relegating them to isolated locations on the fringes of urban centers, often in close proximity to large-scale logistics centers, industrial sites and vast expanses of farmlands (Dutch production landscapes). Such an approach while perhaps unintentional, echoes exploitative practices and risks perpetuating a system akin to forced labour. While spatial planning initiatives strive to create vibrant, mixed-income communities, the lack of coordination with flexible housing policies often excludes temporary workers from these very spaces, pushing them further into the margins dominated by *verdozing*.

Despite these concerns, a glimmer of hope emerges. The increasing discussion surrounding temporary labour housing across various urbanism-related fields signals a growing awareness of this critical issue. This project contributes to this evolving discourse by advocating for a clear and enforceable policy framework that explicitly bridges the gap between spatial planning and flexible housing while actively mitigating the negative social impacts of *verdozing*.

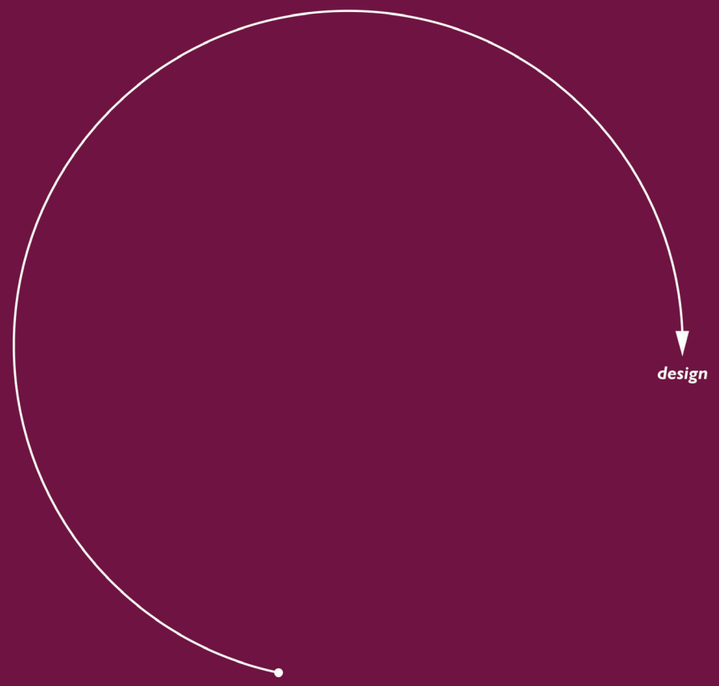
This integrated framework must:

Counter *Verdozing* with Inclusive Housing: Mandate that municipal spatial plans prioritise the development of temporary housing within existing communities, ensuring workers are not relegated to areas dominated by industrial development and lacking essential amenities.

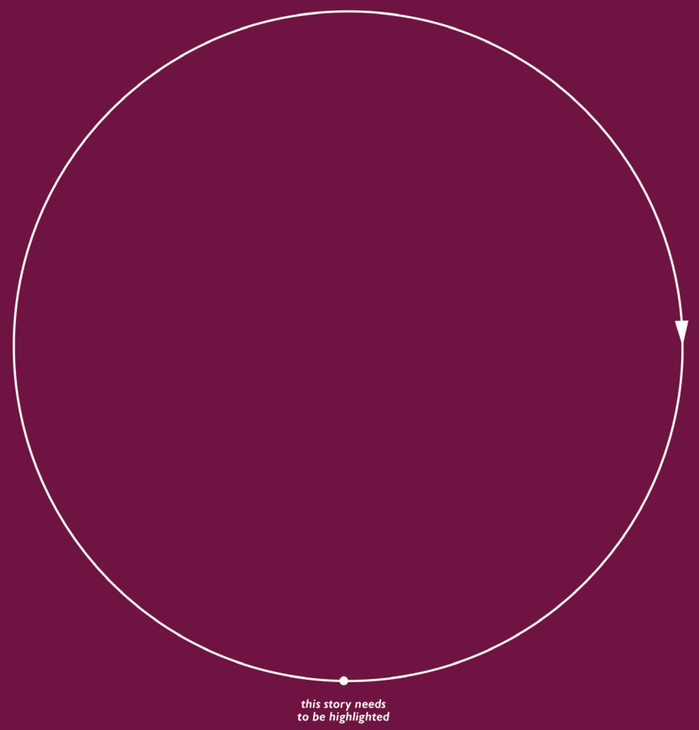
Leverage Public Transportation & Infrastructure: Prioritise the location of flexible housing projects along existing or planned public transportation corridors ensuring convenient and affordable access to employment centers and other essential destinations reducing reliance on private vehicles and mitigating the pressures of *verdozing*.

By enacting these recommendations, the Netherlands can move beyond simply reacting to the immediate housing needs of temporary workers and instead proactively shape a future where flexible housing policies, working in concert with spatial planning contribute to a more just, equitable and inclusive society for all, even amidst the pressures of *verdozing*.

Fig 123: Where does this lead to?
Source: Author



CONCLUSION



CONCLUSIONS

This project examines the role of research instruments in analysing the contemporary temporary worker from Eastern European countries who travels to the West under flex-work labour regimes. Focusing on the Netherlands, the research further explores how urban design can address the housing needs of these vulnerable temporary migrant workers. This project argues for design solutions that move beyond temporary fixes and prioritise long-term integration and well-being.

Rather than relegating these workers to isolated and inadequate accommodations, this project advocates for design interventions that thoughtfully weave flexible housing into the existing urban fabric. This requires a multi-faceted approach that optimises scale to create a sense of community, clusters and densifies structures to maximise efficiency and integrates housing with existing amenities and transportation networks to foster a sense of belonging. Crucially, design must go beyond the physical realm to allocate space for ownership and belonging empowering workers to personalise their living spaces and engage in meaningful social interaction.

However, this design imperative faces a challenge. While innovation in construction techniques and circular housing holds promise, the social purpose of such housing is being diluted. A recent report from the Association of Dutch Constructors (2023) promotes temporary housing as a lucrative market segment while some housing providers distance themselves from vulnerable residents creating a distinction between lower-quality "flex-housing" and higher-quality "temporary housing." The design guidelines aim to tackle exactly this issue.

By embracing the design principles outlined in this project, the Netherlands can counteract this trend and ensure that innovation in housing serves the needs of all residents and migrants, equally. This approach fosters a future where flexible housing is not only innovative but also socially inclusive and integrated into the fabric of Dutch cities. Ultimately, it is crucial to ensure that systemic practices within Europe do not exacerbate social inequalities but rather work towards a future where all residents feel a sense of belonging and believe in a more equitable society.

DISCUSSIONS

The project's findings have profound implications that reach far beyond the immediate context of temporary housing in the Netherlands. By examining diverse housing forms, typologies and user groups through multiple case studies, this research underscores a crucial takeaway: there is no one-size-fits-all solution to housing provision. This insight is particularly important within the diverse landscape of the EU where cultural sensitivity is paramount.

This work emphasises that addressing the housing needs of temporary migrant workers demands a nuanced approach that considers the unique characteristics of each user group and local context. I found that effective collaboration with municipalities is critical for successful implementation ensuring that housing projects are sensitive to local needs and regulations.

Furthermore, this project delves into the complexities of temporary housing solutions, acknowledging their inherent challenges and advocating for a shift towards more permanent and sustainable approaches. This perspective is particularly relevant considering the potential decline in migrant labour due to automation and other economic shifts. By highlighting the need for long-term solutions, this project challenges the prevailing trend of short-term fixes that often fail to address the root causes of housing insecurity.

The strength of this project lies in its forward-looking perspective. By advocating for the empowerment of workers and emphasising the importance of cultural sensitivity and collaboration, it aims to lay the groundwork for a more equitable and inclusive approach to housing provision. This research provides valuable insights that can inform policy decisions, design interventions and community engagement strategies, ultimately contributing to a future where housing is recognised as a fundamental right for all, regardless of their background or employment status.

LIMITATIONS

This research acknowledges several limitations that could be addressed in future studies:

While the interviews provided valuable insights, the pool of participants consisting of stakeholders who agreed to participate may not fully represent the diverse perspectives within the worker housing ecosystem. Future research could employ broader outreach strategies to capture a wider range of voices including detailed interviews of migrant workers themselves. Labour unions, too.

The lack of access to readily available information on historical guest worker housing in the Netherlands limited the scope for historical reflection. Further investigation into archival data and historical analyses could provide a richer understanding of the evolution of worker housing policies and practices.

This research primarily focuses on the context of the Netherlands. As noted by the interviewed visual artist, the dynamics of migrant labour and housing vary significantly across Europe. Comparative studies encompassing countries like Belgium and Spain would provide valuable insights into the diverse approaches and challenges within the EU.

The economic landscape of the Netherlands much like the housing experiments and strategies employed is constantly evolving. This dynamic nature presents a challenge in capturing a static snapshot of the situation. Longitudinal studies tracking changes over time would provide a more comprehensive understanding of the long-term impacts and trends.

Future research could investigate the ecological footprint of various housing models, considering factors like material use, energy efficiency and land consumption.

Due to time constraints, a pilot site test of the constructed design guidelines was not feasible. Implementing and evaluating these guidelines in one of the settings would strengthen their validity and provide valuable feedback for refinement. A multi-scalar approach incorporating both micro-level design elements and macro-level urban planning strategies could further enhance the guidelines' effectiveness.

Time limitations restricted a detailed analysis of specific government regulations such as the SNF and AFK. Future research could delve deeper into these aspects to provide a more nuanced understanding of the legal framework.

By acknowledging these limitations, this project encourages further investigation into the multifaceted aspects of temporary worker housing. Addressing these gaps in future studies will contribute to a more comprehensive understanding of this pressing issue and inform the development of more equitable housing solutions.

Fig 124: Gift from a seasonal worker
Source: Author

REFLECTIONS

This investigative journalism project delving into the housing conditions of temporary migrant workers in the Netherlands has been a sobering experience. What began as a broad exploration of migrant experiences quickly narrowed to a laser focus on ‘spoedzoekers’ (urgent seekers) exposing the stark reality of their precarious living situations against the backdrop of a wider housing crisis. This necessary shift in focus underscored the critical importance of adaptability and responsiveness in research particularly within a context as dynamic and complex as temporary migration.

Navigating the fieldwork itself proved challenging fraught with ethical dilemmas and logistical hurdles. Accessing and interviewing vulnerable groups within highly controlled and often dehumanising settings revealed the deeply ingrained power imbalances inherent in such research. The stifling regulations imposed by authorities ostensibly designed to maintain order, created environments that felt more like prisons than homes. This necessitated a constant reassessment of interview techniques, abandoning the rigidity of a semi-structured guide in favour of a more empathetic and situational approach. The very act of disguising myself, shedding the formal role of a researcher to adopt the guise of a friendly visitor, laid bare the ethical tightrope one walks when engaging with vulnerable populations. This worked, the interviewees felt more relaxed talking to somebody who probably understood what they were going through. They just wanted to be heard.

As a non-EU (Indian) student conducting fieldwork within a European context, I was acutely aware of the cultural and personal dynamics at play. Negotiating these cross-cultural complexities demanded a constant self-awareness, carefully calibrating my attire, dialogue and even modifying my accent to build trust and rapport. This experience served as a stark reminder that research is never conducted in a vacuum - our identities and perceptions inevitably shape both the process and the outcomes. The open-ended structure of the Complex Cities graduation studio while providing a degree of freedom, also exposed a need for more structured guidance, particularly when navigating ethically sensitive research. While regular site visits provided valuable contextual grounding, a greater emphasis on immersive observation and sensory engagement could have further enriched the understanding of these lived experiences. The project’s findings are a damning indictment of the current system. The relations between official regulations and the lived realities of migrant workers exposes the hollowness of policies that fail to prioritise basic human dignity. This research contributes to a growing body of work that challenges the often-romanticised notion of ‘hospitality’ in the context of migration revealing instead a system rife with control, exclusion and marginalisation.

Moving forward, research in this field must prioritise direct engagement with migrant workers, actively involving them in the research process. This necessitates building trust and rapport potentially through partnerships with local advocacy organisations and the use of translators. I used a translator to convert three sentences in Ukrainian

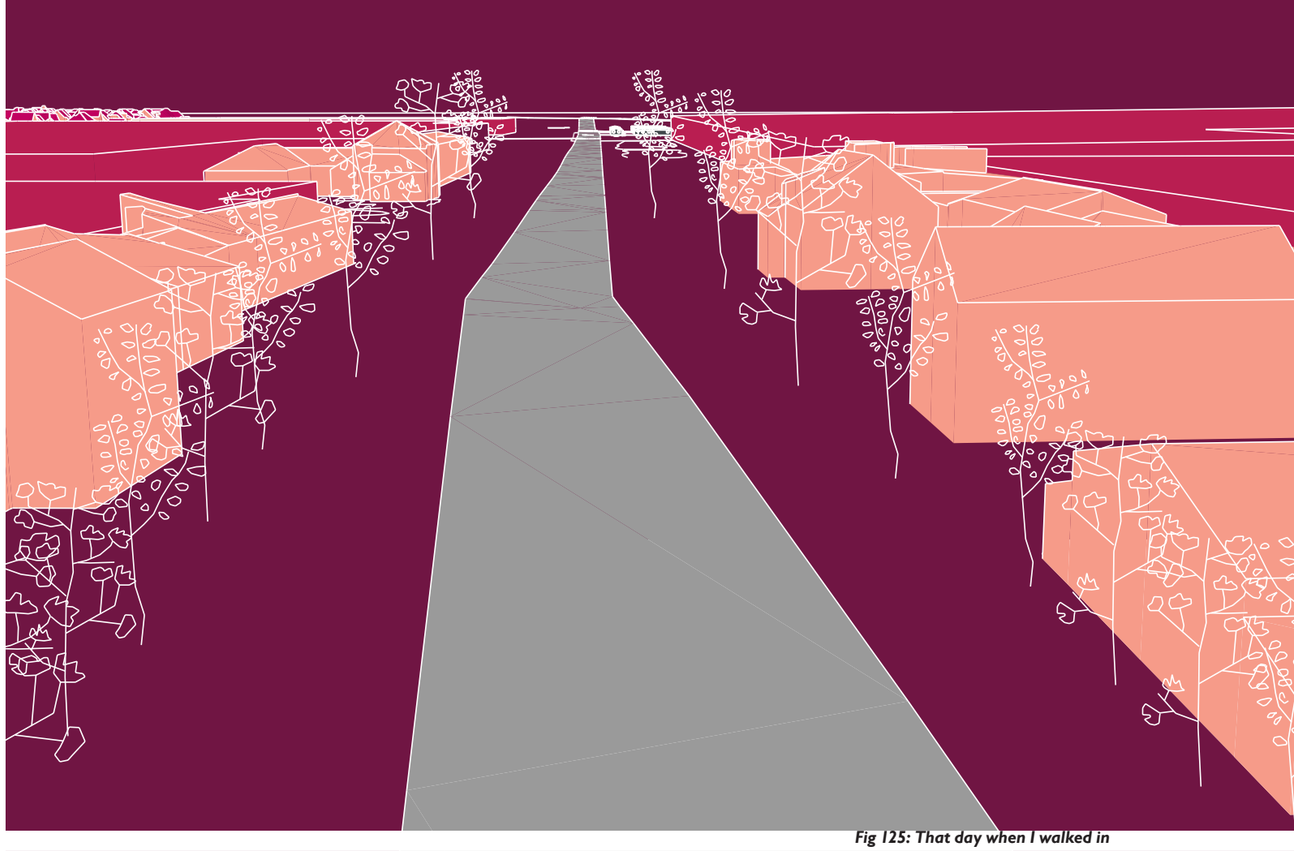


Fig 125: That day when I walked in

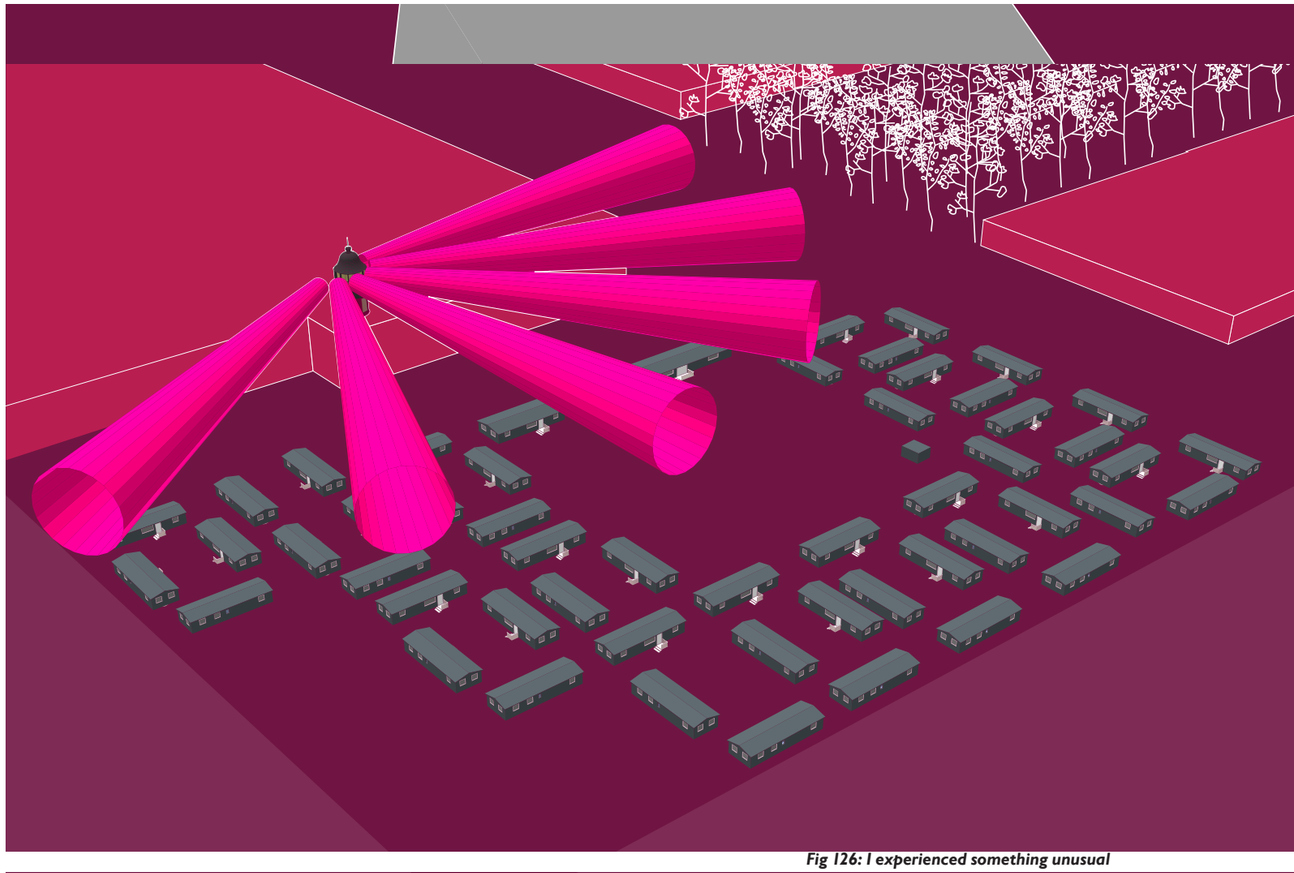


Fig 126: I experienced something unusual

Fig 127: I thought it would be like this

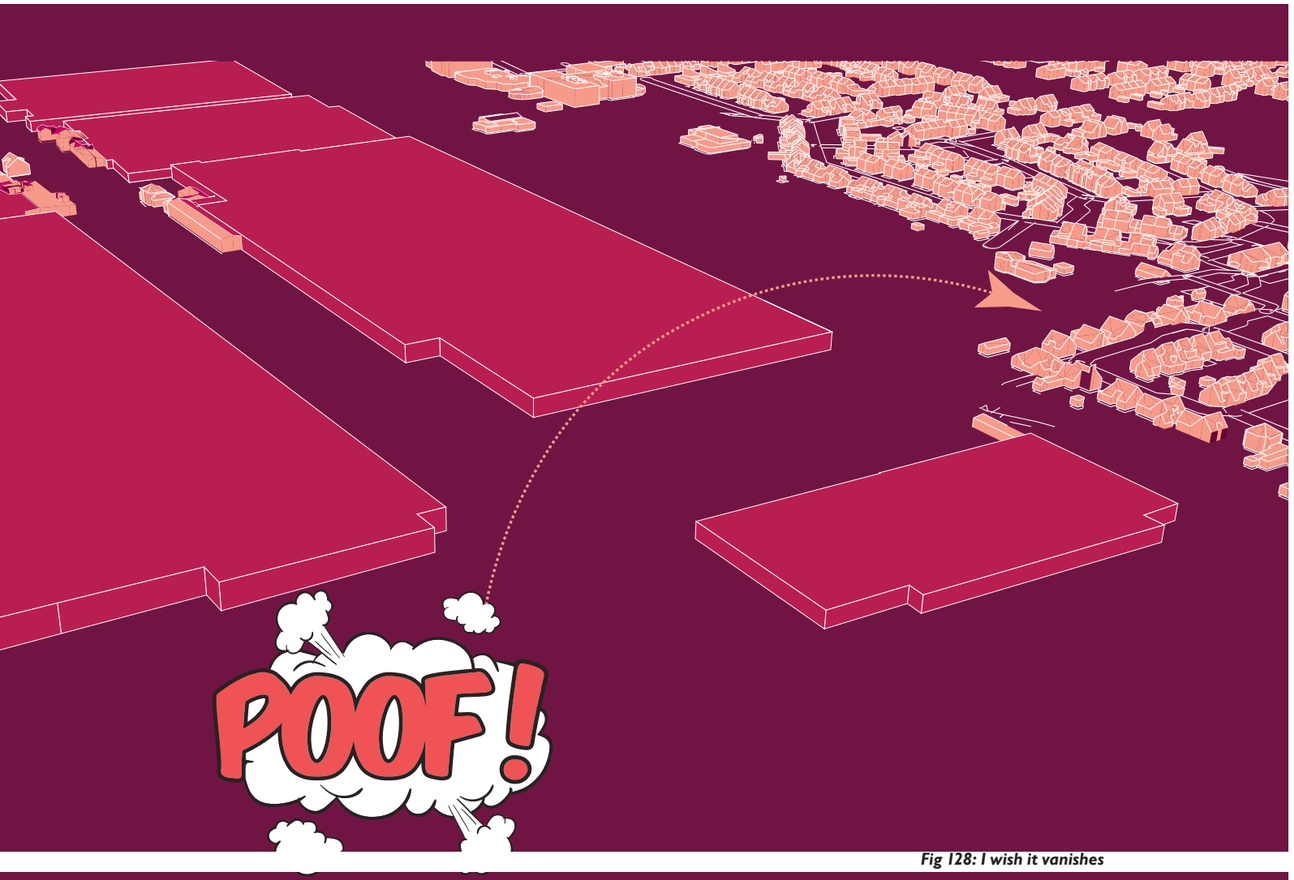


Fig 128: I wish it vanishes

to English. Probably, some meanings were lost in translation but I grasped the primary words from it. Longitudinal studies are crucial to understanding the long-term impacts of these precarious living conditions on individuals' well-being.

Despite the bleak realities uncovered, the act of proposing design and pilot strategies offered a glimmer of hope. This project reinforced the belief that urban design and spatial planning when approached with a critical and empathetic lens have the power to effect positive change. The constant influx of new research and publications throughout the project's duration only served to underscore the urgency of this issue, demanding that we remain vigilant, adaptable and above all, committed to finding solutions.

Relation between thesis topic and graduation track Urbanism:

This thesis is fundamentally intertwined with the master's program's critical urbanism approach emphasising nuanced understandings of local contexts, cultures and the intricate networks impacting marginalised communities. While the project's foundation lies in a sociological exploration of temporary migrant workers' housing precarity, it expands outward to engage with broader discourses within urban design and planning. This trajectory is particularly relevant given the Netherlands' ongoing housing crisis and the rise of "flexible housing" as a contentious solution. This thesis challenges the often-hasty and technocratic responses to such crises which frequently exacerbate existing inequalities. By foregrounding the experiences of marginalised groups - often disproportionately affected by both housing shortages and precarious labour conditions - the project advocates for a more just and equitable approach to urban development. Through the development of contextually grounded design strategies and principles, this thesis aims to contribute to a more socially responsible and inclusive Dutch urbanism, one that prioritises the needs and experiences of all its inhabitants, not just the privileged few.

Relation between thesis topic and MSc AUBS:

This thesis directly confronts the timely and multifaceted challenges at the forefront of the MSc AUBS curriculum positioning itself at the intersection of pressing social, political and spatial concerns. The Netherlands' evolving landscape marked by increasing migration flows and the rise of precarious, "temporary" work arrangements presents a critical spatial dilemma particularly within the context of limited buildable land. This research argues that these challenges are not merely logistical but demand a critical and ethical response from future architects, urban designers and planners. By examining the nascent yet rapidly proliferating field of "flexible housing," including recent projects by prominent Dutch firms, this thesis seeks to move beyond superficial solutions and engage with the complex realities faced by migrant workers. This exploration aims to contribute to a more nuanced and socially responsible approach to spatial design, one that acknowledges the urgent need for innovative housing solutions that prioritise

equity, dignity and the long-term well-being of all inhabitants.

Relation between thesis topic and graduation studio:

This thesis emerged from a critical inquiry within the graduation studio questioning the very nature of migration as a potential site of territorial conflict. Drawing upon observations of spatial disparities witnessed in previous TU Delft projects, the research narrowed its focus to the lived experiences of a particularly vulnerable group: seasonal labourers from Central and Eastern European countries, often rendered invisible within broader migration discourses. This shift in focus, prompted by the EU's eastward expansion and its subsequent impact on labour mobility, underscored the studio's emphasis on evidence-based research as a means of unpacking complex socio-spatial phenomena. By directly confronting the often-overlooked realities of seasonal workers whose presence in the Netherlands fluctuates dramatically, creating unique spatial and social challenges - the thesis aligns with the studio's broader exploration of migration's profound implications for Dutch society. This investigation moves beyond simplistic narratives of victimhood, recognising these individuals as both essential contributors to the Dutch economy and active agents shaping the urban fabric.

Societal Relevance:

The glossy facade of recruitment campaigns often masks the harsh realities awaiting temporary labourers in the Netherlands. Employment agencies, through their marketing materials, entice workers with promises of opportunity, only to subject them to highly controlled environments where they are often dehumanised and treated as mere tools in a machine. My research, through visual investigations, site visits and interviews, aims to expose this stark contrast between the advertised reality and the exploitative lived experiences of these labourers. Often, Dutch citizens themselves are unaware of this issue so it would be an eye-opener to a wider audience, outside of the academic field.
By shedding light on the precarious employment, substandard housing and inequitable wages faced by temporary workers, this project challenges the normalisation of these exploitative practices. The normalization serves to perpetuate a system that benefits from the vulnerable position of temporary labour within an increasingly globalised economy. Ultimately, this research seeks to raise awareness about these critical issues and advocate for more inclusive urban planning strategies that value the contributions and safeguard the well-being of all residents, regardless of their migration status.

Scientific Relevance:

This project employs design strategies and storytelling as methodological tools to unravel the complexities of flexible housing for temporary labour within a Dutch society that predominantly values permanence. Building on the work of Seasonal Matters Rural Relations by Seasonal Neighbours, Landscapes of Trade by Merten Nefs, Automated Landscapes by Merve Bedir, Ludo Groen, Marten Kuijpers, Víctor Muñoz Sanz and Marina Otero Verzier and Housing Migrant Workers: The Form of the Corporate City Along the Rotterdam-Venlo Logistics Corridor, this research addresses a critical knowledge gap by critically assessing the housing conditions provided to this often-invisible group and aligning their needs with potential areas for improvement. By visualising the spatial implications of temporary migration and giving voice to the lived experiences of these workers, this project offers a novel perspective on the rise of flexible work arrangements in the Netherlands. This research contributes to emerging scholarship on 21st-century mobility by examining how these trends, while presented as opportunities for some, often function as precarious necessities for others.

How did your research influence your design/recommendations and how did the design/recommendations influence your research?

My research and design process unfolded as a dynamic and iterative dialogue. The initial research into intra-European mobilities unearthed a distinct housing typology specifically designed for temporary workers, all throughout the Netherlands. This discovery, with its inherent regulations and spatial configurations became a crucial point of departure for the design interventions. The existing rules, spatial arrangements and potential shortcomings of these housing solutions served as both constraints and opportunities shaping the design recommendations for more equitable and humane living environments. Conversely, the design process itself prompted further research, raising new questions about alternative housing models and the broader business ecosystems shaping these built environments. This cyclical exchange between research and design fostered a deeper understanding of the complexities surrounding temporary worker housing, ultimately leading to more informed and impactful design outcomes.

How do you assess the value of transferability of your project results?

The value of this project's transferability lies in its methodological framework offering a replicable, step-by-step approach to unpacking and addressing complex housing challenges. By meticulously deconstructing the issue and acknowledging the specific contexts and situatedness of seasonal worker housing in the Netherlands, the project provides a valuable roadmap for other contexts grappling with similar issues.
While the Netherlands finds itself at the forefront of this flexible housing typology within Western Europe, the project's insights particularly its emphasis on systematic analysis and context-specific solutions hold significant relevance for other countries experiencing an influx of seasonal workers (for example – Spain). The project's findings, therefore, have the potential to act as a catalyst encouraging other European nations to move beyond ad hoc solutions and engage with the complexities of seasonal worker housing in a more thoughtful and equitable manner. By adapting the project's methodological framework, these countries can begin to develop contextually appropriate design interventions that address the unique spatial dynamics at play within their own borders.

ETHICAL CONSIDERATIONS

This research was conducted with a strong commitment to ethical research practices particularly given the involvement of various stakeholders and potentially sensitive groups. Sensitivity and effective, respectful communication were prioritised throughout all interactions. All gathered data was translated into academic language and the identities of all individuals were anonymised to ensure confidentiality. Mindful of potential language barriers, efforts were made to communicate clearly and respectfully ensuring participants understood the purpose and scope of the research. Individuals were informed of the research's purpose from the outset and their consent was sought before proceeding with interviews or data collection. To further ensure confidentiality, the names and titles of all interviewees were shared solely with the primary research mentor. These measures aimed to uphold the highest ethical standards throughout the research process ensuring the privacy and respecting the perspectives of all participants.

APPENDIX - INTERVIEW TRANSCRIPTS

Conversation with municipality representative (Telephone conversation)

DA: How do migrants integrate into the community?
MA: People do not mind; they learn how to integrate because the mine workers also came. It's been this way since the 1960s. He is a second-generation migrant as well. They have a third generation now.
DA: Have you noticed any changes in the demographics recently?
MA: I've been observing some Southeast Asians these days in the supermarket.
DA: What industries rely heavily on migrant labour?
MA: Asparagus is important… most of them will come now. There's also mention of automaat strawberry machines and asparagus.
DA: What are the challenges associated with big nationwide temporary agencies?
MA: They're problematic. They work all over The Netherlands.
DA: How long do migrants typically stay in the area and do they interact with the local community?
MA: Migrants come for 3-6 months. Mostly, they do not interact with the local communities unless it's at the supermarkets.
DA: Are there any noticeable trends in housing construction?
MA: Lots of houses are getting built. It's on the rise.

Conversation with office manager of logistics company (In-person conversation)

DA: How do temporary agencies typically hire workers?
RS: We never get to know how these temporary agencies hire people. We just contact them directly whenever we need labour.
DA: What basic skills do workers often lack?
RS: People don't know basic skills, like scanning tags. They need to be taught a few times. There's usually a leader who oversees this training process.
DA: How do language barriers affect workplace dynamics?
RS: Many workers do not speak English, so they're taught some basic skills to facilitate basic conversations.
DA: How do companies manage labour demand and supply?
RS: Demand and supply are typically managed by informing the temporary agency and they handle the recruitment process.
DA: Are there security concerns in the workplace?
RS: Sometimes, surveillance is necessary, not necessarily for the employees but in the warehouse, because people steal equipment and parts, leading to losses for the company.
DA: Can you elaborate on the trend of housing workers in temporary accommodations?
RS: Cheap housing options often arise due to cheap land in regions like North Brabant and Limburg. This trend is influenced by the need for more farmland and greenhouses, leading to the development of these temporary modular houses.

DA: Are there any stereotypes or biases associated with certain nationalities?
RS: There's a perception that Polish workers are hard workers but other nationalities like Romanians and Bulgarians may be stereotyped as 'gypsy' types.

Conversations with Ukrainian worker (In-person Interview)

(in Ukrainian using Google Translate) I work for the Siberian company. They do everything for us, they have machines (cars), that drop us off, and pick us up, I am from Ukraine, I'm going to the market, and I cannot understand what you are asking (scared, exits conversation midway with other two colleagues on the bike).

Conversations and observations were conducted with workers residing on site

A Polish couple residing there for 1.5 years graciously shared insights into their living conditions. They expressed satisfaction with the amenities provided particularly the oven which facilitated their daily tasks. However, they lamented past disturbances from previous tenants who engaged in drug use contrasting with their current improved living environment. Despite minor complaints about the size of the bathrooms, their overall contentment was apparent, albeit influenced by the presence of the supervisor. Privacy concerns arose when he entered their chalet without prior consent, highlighting a breach of privacy. The couple's choice of residence was influenced by proximity to their workplace and the amenities offered. While interacting with other residents, casual smoking gatherings were observed on staircases, prompting cautious navigation. The couple expressed a desire for increased wages, emphasising the importance of earning quickly and efficiently in their pursuit of financial stability.

Conversation with an artist who is a system critic for this situation (Online digital interview)

Ciel, a visual artist from the Belgian Limbourg with her group of 'community listeners' has conducted several interviews, conversations and interventions relating to seasonal farming methods and problems. The group's in-depth experience starts with everybody having worked on a farm as a seasonal farmer themselves (that was a requirement) to be a part of the group.

It was a Zoom conversation, Ciel entered the room an hour late.
DA: Hi, what is your professional background and experience with flex-working?
CG: Hello, it's a pleasure to discuss this topic with you. Our collective comprises of 16 members from diverse nationalities who bring together a wealth of experience in various farming regions across Europe. Having worked extensively in agriculture, transport and logistics, we've encountered the challenges and opportunities associated with flexible labour arrangements. I have firsthand experience working in the Belgian Limburg region and on my brother-in-law's industrial farm specialising in tomato cultivation. Our collective's work spans from East to West Europe, highlighting the prevalence of corridor migration, where workers move between countries such as Ukraine, Poland, and the Netherlands for employment opportunities. Additionally, my partner's involvement in organic farming has provided valuable insights into sustainable agricultural practices. Our project initially focused on housing, cultural exchanges, and participatory initiatives, culminating in the development of innovative housing solutions. Collaborating with a Romanian architect, we proposed designs that prioritise community spaces while allowing for personal privacy. While some members of our collective resided in provided housing, many of us organised our accommodations, reflecting the diverse approaches to housing among flex-workers in Europe.
DA: Since you are familiar with the Belgian context, is it any different than The Netherlands?
CG: Indeed, there are notable differences between the Belgian and Dutch contexts. In Belgium, individuals typically rent housing independently, contrasting with the situation in the Netherlands. Specifically, in the Flemish region, there exists a surplus of vacant bungalows and villas that are often rented out to flex workers. These properties characterised by detached layouts and spacious front yards and backyards provide a distinct housing option compared to the mobile homes prevalent in the Netherlands. Despite potential issues with upkeep and cleanliness, the availability of such housing offers an alternative to the Dutch model. Notably, the housing market in Belgium is less formalised compared to the Netherlands, allowing for greater flexibility and informality in arrangements. However, this informality can sometimes lead to challenges, such as confrontations between neighbours when properties are not maintained adequately. Unlike in the Netherlands, where flex-workers are recognised by official policies, in Belgium, their presence may be overlooked or unacknowledged with their employment often facilitated by influential figures such as legislators.
DA: Are there any differences between the other countries and housing?
CG: Indeed, there are notable disparities in housing experiences across various countries, each influenced by distinct policies and socio-economic factors. Our collective observations underscore a shared sentiment regarding the Netherlands where highly regulated policies often create challenging living conditions for flex-workers. Regrettably, this system may control labour mobilities reflecting its perceived exploitation within a capitalist framework. Surprisingly, even in regions like the South of Spain, we encountered unfavourable housing conditions. It's essential to recognise that each country's unique policies shape the housing landscape differently. Additionally, the diversity of individuals engaging in flex work adds further complexity, encompassing students, senior citizens, couples, singles and migrant workers, each bringing their own set of circumstances and housing needs to the forefront.
DA: Do you know of one of the group members who worked in an Eastern and Western farm?
CG: Yes, one of our team members worked in Flevoland and Poland so she had extreme experiences.
DA: From your interactions, what emerges as the primary aspirations of these workers in their housing conditions?
CG: Through our extensive interactions, a recurring theme among flex-workers is the desire for privacy and personal space within their housing arrangements. This longing for solitude is often epitomised by the sanctuary of the bathroom where individuals seek solace and respite from the bustling industrial environments they navigate daily. Moreover, the vast scale of industrial work settings such as farms and warehouses, underscores the importance of having a designated haven—a cocoon of personal space where one can exhale and recharge amidst the relentless pace of work. Interestingly, the concept of a scaled-down familial environment, embodied by compact living spaces like containers, resonates strongly with these workers. They value the intimacy and functionality of small kitchens, fostering a sense of community and belonging within their living quarters. Additionally, adherence to shared toilet etiquette reflects a collective effort to maintain order and respect within communal spaces. Despite the

constraints of their living arrangements, there is a desire for autonomy in shaping their living spaces, allowing for personalisation and appropriation of communal areas. For these workers, Poolse vans serve as lifelines, doubling as mobile supermarkets that provide essential provisions, bridging the gap between urban convenience and rural isolation. The social dynamics of housing extend beyond physical structures with front yards serving as communal gathering spaces reminiscent of the lively street life found in Mediterranean climates. However, traditional suburban dwellings often fall short of meeting their preferences for communal living, highlighting the need for innovative approaches to integrate these "slow shocks" into the urban fabric, fostering a sense of belonging and community among flex workers.

DA: How important is the drive to earn quickly and return home? Is there an interest among the workers to integrate with Dutch society?

CG: The initial impetus for many flex workers is the pursuit of financial gain, driven by the imperative to support their families and secure a better future. However, this pursuit often becomes ensnared within the cycle of perpetual money-making, perpetuated by the insatiable desire for greater wealth. The spectrum of economic hardship exacerbated by the legacy of communist regimes in their home countries compels these workers to seek opportunities abroad where remuneration is perceived as more lucrative. The cinematic portrayal in "Pride and Concrete" vividly captures the aspirations and struggles of Romanian emigrants, epitomising the dream of attaining a renovated home or a sanctuary for rest in old age. This yearning is quantified in terms of euros, symbolising the tangible markers of progress and success—a one-story house that stands taller than its neighbours, a testament to their toil and ambition.

Yet, amidst the relentless pursuit of financial security, flex-workers grapple with the intangible costs of their transient lifestyle—the fracturing of familial bonds, the erosion of cultural identity, and the toll on mental well-being. The poignant verses of the poem "How long is the journey?" encapsulate the profound longing for stability and belonging, echoing the universal quest for a place where gender, beliefs, and mental health are not impediments to acceptance:

How long is the journey? A finished bathroom, a renovated home, a space to rest in old age or host the children when they visit. How long is the journey? 1000 euros, 5000 euros, a one-storey house that stands a little taller than the neighbours'. How long is the journey? A place to rest, where your mental health, gender and beliefs are not a mishap. How long is the journey? Until the children start school, finish school, or no longer share the house they grew up in. How long is the journey?

However, the allure of economic opportunity often eclipses these existential yearnings, compelling workers to endure arduous labour schedules including weekend shifts in seasonal agriculture to maximize their earnings.

Integration into Dutch society presents a complex challenge, fraught with cultural and institutional barriers. While some flex-workers aspire to assimilate and forge connections with the local community, the transient nature of their tenure complicates this endeavour. The dichotomy between short-stay, long-stay and mid-stay arrangements further underscores the temporality of their existence, blurring the boundaries between integration and estrangement. This liminal existence is accentuated by the "refusal of the refused," as flex-workers navigate the labyrinthine bureaucracy of arrival infrastructures, grappling with the elusive promise of inclusion. In essence, the drive to earn quickly and return home is inexorably intertwined with the existential quest for belonging and stability manifesting in the delicate balance between economic imperatives and social integration.

DA: How do factors like gender and nationality influence living and working conditions?

CG: Nationality often plays a significant role in shaping living and working dynamics. Different nationalities may have varying preferences and behaviours leading to occasional conflicts or preferences in working styles. However, workers often find ways to communicate and collaborate despite language barriers, fostering a sense of equality and mutual respect. Our collective has documented instances where gender also influences living conditions with certain tasks or accommodations tailored to specific gender norms or preferences.

DA: Are there organisations advocating for better housing conditions for these workers?

CG: Yes, various organisations including language classes, churches and cooperatives work to support and represent the interests of these workers in society. They provide essential services and resources to help workers navigate their living and working conditions more effectively. Our collective has collaborated with such organisations to raise awareness about the challenges faced by seasonal workers and advocate for improved housing standards and policies.

DA: What factors should be considered in planning and policy-making for housing these workers?

CG: Quality of living conditions is of paramount importance. Housing policies should ensure adequate facilities and resources, such as sufficient bathrooms and communal spaces, to accommodate the needs of workers. Additionally, policies should prioritise the well-being and dignity of workers, promoting a sense of belonging and safety in their living environments. Our collective has emphasised the importance of involving workers in the planning and policy-making process to ensure that their voices and concerns are heard and addressed effectively. We have the agency to provide quality living to them. Is one shower for ten workers, enough?

Conversations with Academic Researcher who is a system critic (In-person Interview)

DA: [Displays an introductory presentation on the research]

MN: Yes, I'm familiar with the challenges posed by congested housing arrangements, particularly concerning workers residing near their workplaces. There's a clear need for integration within the urban landscape rather than isolation. Despite the Netherlands' modest size, such planning strategies persist. Local planning authorities largely dictate these arrangements. Drawing parallels with historical instances of worker housing, such as those associated with Philips and Electrical–Agneta Park, offers valuable insights. Community cohesion often stems from activities like sports clubs.

DA: In your exploration of trade landscapes, which sectors tend to attract migrant workers from Eastern European countries? What trends have you identified?

MN: Sectors such as logistics and service providers, encompassing import and export activities, draw significant migrant labour from Belarus, Ukraine, and the Baltic States. E-fulfillment centers, along with digital fruit auctions in Barendrecht and the Flower Hub in Aalsmeer, form integral parts of this business ecosystem. Notably, in regions like the Westland horticultural area, large-scale auctions take place within expansive warehouses like Royal Flora Holland. Historically, these areas were home to flower growers, with towns like Naaldwijk exemplifying this heritage. Today, the cultivation of flowers occurs within greenhouses, with migrant workers predominantly shouldering these responsibilities. However, a noticeable reluctance exists among locals to

cohabitate with these workers, often attributed to language barriers and associated stigmas.
DA: How do housing policies intersect with spatial planning policies within trade landscapes?
MN: Housing policies within trade landscapes, notably in Greenport areas, are conspicuously absent from official policy documents. Consequently, housing provision tends to be an afterthought, serving merely to accommodate basic labour needs. The disconnect between trade and housing policies is palpable, with each municipality adopting disparate approaches to housing migrant workers.
DA: What are the prevailing housing conditions for migrant workers within trade landscapes?
MN: The housing conditions mirror the problematic depiction in your presentation. Industrial estates often feature housing units that elicit complaints from neighbouring residents, indicative of the NIMBY (Not In My Backyard) phenomenon. This segregation extends to asylum seekers, who are frequently housed far from urban cores, reserved primarily for nationals. Such exclusionary practices perpetuate a sense of marginalisation among these groups. Moreover, the cramped living conditions, reminiscent of greenhouse water storage units, fail to meet acceptable housing standards. Addressing this disparity necessitates equitable housing solutions aligned with urban standards.
DA: What are your perspectives on housing provisions within logistic parks?
MN: Housing within logistic parks tends to impose stringent regulations on residents, impeding individual liberties. Employment agencies often facilitate these arrangements, perpetuating a self-contained business ecosystem. To rectify this, a paradigm shift is required, advocating for the abolition of such housing models in favour of Dutch-standard accommodatio¬¬ns. Additionally, integration of amenities, improved infrastructure, and communal spaces is imperative for fostering a sense of community and well-being.
DA: How do you foresee future trends and potential challenges within this system?
MN: Foremost, I anticipate a decline in the influx of migrant labour in the future. Economic advancements in countries like Ukraine and Poland may deter labour migration. However, inadequate housing provisions could exacerbate this trend, accelerating the depletion of cheap labour sources. Moreover, the advent of automation is poised to reshape labour dynamics, relegating manual tasks to machines while augmenting demand for skilled labour. Consequently, land use patterns will evolve in tandem with automation trends.
DA: Do you foresee any plans for renewal or upgrades within these landscapes?
MN: Exploring vertical expansion and diversifying the functions of XXL distribution centers offer promising avenues for renewal. Integrating biodiversity initiatives and roofing systems, as evidenced in suburban industrial locales like Zoetermeer, presents a viable blueprint. Strategic program mixing holds the potential for revitalising these landscapes while fostering sustainability and community engagement.

Conversation with former coordinator of temporary migrant workers for a temporary agency (In-person Interview)

DA: When did temporary work agencies first emerge in the Netherlands? I'm interested in understanding their evolution, the number of agencies, their distinctions, international connections, and overall structure.
KW: While I am unsure of the exact emergence of agencies, I worked with this agency from 2018 to 2023. Initially, I arrived in the Netherlands without agency assistance, coming directly from a village near Krakow to work at Van der Valk hotels. Our group of ten shared accommodations in a typical Dutch building, fulfilling assigned tasks under our employer's guidance. Currently, ours is a smaller agency, that primarily serves local farmers and horticulturalists in the southern Netherlands. Notably, larger agencies, operate nationwide focusing on 24/7 web shops and logistics centers. Their clientele includes both Dutch and foreign workers, reflecting varied customer preferences and trust levels. Cross-country connections, like those between agencies' offices in Poland and the Netherlands, facilitate worker recruitment and deployment, forming part of a closed system shaped by customer preferences and agency reputations.
DA: Did your agency supply workers for this site? What are your impressions of it?
KW: Yes, we did supply workers for this site and it's quite a favourable location compared to others. The demand for workers spans from February to September. Candidates are expected to possess English proficiency and a basic understanding of German. Additionally, they should be under 1.65m of height to operate certain machinery and hold a valid driving license for specific tasks. We meticulously review candidates' CVs, giving preference to those with prior relevant experience. Working conditions at the site are commendable, with workers enjoying weekends off. Standard work hours typically range from 06:00 to 17:00, although extended shifts may occur during favourable weather conditions and work might spill over the weekends. However, workdays can vary based on external factors like weather, especially in greenhouses where excessive heat can halt operations. Physical fitness is crucial as tasks often involve carrying heavy loads up to 10 kilos. Fortunately, the site boasts nearby amenities such as fitness gyms and sports grounds. Workers can also enjoy the scenic surroundings, including a lake and forest, during their free time. Additionally, site visits by the gemeente occur quarterly to monitor worker well-being, although regulatory oversight varies across sites.
DA: From your observations, what makes the ideal flex worker tick? I'm curious about the skills, attitudes and 'correct competency profile' employers look for. What's the selection process like? In your view, what skills do these workers bring to the table that employers value?
KW: The ideal flex worker is the one who can efficiently complete assigned tasks to meet customer demands. Employers often require specific skills and attributes tailored to their industry. For instance, in the logistics sector, proficiency in English is essential for effective communication. In agriculture, certain tasks like asparagus harvesting require specialised skills that cultivate trust and value with the customer. Employers may have specific preferences, such as preferring women for delicate tasks like berry picking due to their softer hands. The selection process involves thorough screening, starting with a presentation outlining job requirements on the worker's first day. Only candidates who agree to the terms and meet the necessary criteria proceed to housing arrangements. Employers value workers who not only possess the required skills but also demonstrate reliability and adaptability to meet evolving job demands. Additionally, proximity to housing is often preferred by employers, enabling

them to meet on-call requirements more effectively.
DA: How do workers go about selecting their agencies?
KW: Workers typically rely on their personal experiences, preferences and goals when choosing agencies. They often prioritise factors such as payment rates and agency reputation, which they gauge through online reviews and word-of-mouth recommendations. While some negative remarks may circulate, trust plays a significant role in agency selection, with workers valuing prior interactions and discussions. Additionally, certain workers are drawn to specific sectors, such as logistics or agriculture, based on their preferences and experiences.
DA: How do customers or companies decide on which agencies to engage with?
KW: Companies primarily base their choice of agencies on trust, past experiences and recommendations. Word of mouth is a key influencer in this decision-making process, with companies preferring agencies with proven track records of reliability and quality service. It's common for companies to request more workers than initially needed to accommodate potential fluctuations in availability, although not all workers who are requested may ultimately show up due to various factors.
DA: When do fluctuations in demand and supply typically occur and how do agencies manage these variations? Can you describe the typical work schedule for migrants throughout the year?
KW: Demand for labour varies depending on factors such as seasonal changes and industry-specific demands. For example, the peak season for greenhouses typically spans from February to September, driven by factors like weather conditions and for agriculture, crop harvesting cycles. Additionally, public holidays and special events can result in increased demand, especially in sectors like logistics. Agencies often adapt to these fluctuations by maintaining a flexible workforce and adjusting recruitment efforts accordingly. The work schedule for migrants follows these seasonal patterns, with certain months experiencing higher activity levels than others.
DA: How do workers perceive the housing conditions and associated benefits? I'm interested in understanding their frequency of return home and the communal spaces available to them.
KW: Workers highly value privacy when it comes to their housing arrangements. However, issues arise in communal settings, particularly in hotels, where instances of property damage and neglect have been observed. Despite the initial appearance of newer accommodations, wear and tear become evident over time, highlighting the need for ongoing maintenance. During the COVID-19 pandemic, accomdations faced operational challenges, with mandatory quarantine measures affecting the ability of workers to access communal spaces and amenities.
In terms of benefits, workers are provided with weekly health insurance coverage ensuring access to medical care in case of illness or injury. Additionally, transportation services (cars) are available to reduce the burden of travel for workers commuting to distant locations. Most accommodations feature nearby gymnasiums, facilitating physical activity and well-being.
The frequency of workers returning home varies depending on the nature of their employment. Short stays typically range from 6 weeks to 3 months, while longer stays extend to 6 months or more. This duration is influenced by factors such as work availability, personal preferences and goals. In instances of work termination, logistical challenges may arise, as illustrated by the situation where a worker faced additional costs due to a delayed departure. Despite such challenges, workers remain resilient, demonstrating loyalty and commitment to their jobs and employers.
DA: How do factors like gender and class influence the diversity of living conditions among migrant workers? Are there segregated housing arrangements based on gender, and do income disparities exist among residents?
KW: Gender and nationality can impact the distribution of work assignments and living arrangements among migrant workers. In some cases, certain nationalities may be preferred for specific tasks based on perceived skill sets or cultural norms. While housing arrangements may not always be segregated by gender, cultural differences and language barriers can contribute to social tensions within shared living spaces. Additionally, income disparities may exist among residents, with factors such as job type and experience influencing earning potential.
DA: Have you noticed any significant differences between your experiences as a worker and your current role?
KW: Over the past decade, there have been notable shifts in the labour market landscape, affecting both workers and employers. Advancements in technology such as automation, have altered job requirements and availability, leading to changes in worker behaviour and preferences. Additionally, fluctuations in demand and supply have become more pronounced, impacting the stability of employment opportunities for migrant workers. Despite these changes, certain challenges such as the desire for improved working conditions and fair treatment, remain consistent themes among workers. Back in the day, we were less resilient than the workers today, we were more hardworking and today, all they want is luxuries, at their doorstep.

Conversation with Site Management Employee for a temporary agency (In-person Interview)

DA: Hello, how long have you been working here? Who do you work for?
MK: Hi Divya, thank you for visiting. I've been with this temporary agency (same as Kamilla's) since 2020, having previously worked with several agencies. My role consists of overseeing operations here, ensuring everything runs smoothly and addressing any needs of our workers. Regular cleaning inspections of employee quarters are part of my responsibilities to maintain property integrity. Additionally, I provide the essentials to workers, from accommodation to safety gear for greenhouse work, bicycles for local transport and even cars for longer distances. (A woman enters with a zip-lock bag of paprika and cucumbers, reminding M that she returned the borrowed car keys.) Mondays are typically demanding and I do not work over the weekends. Currently, with peak season in swing, most days are bustling. This office serves as my workspace, bridging the gap between the agency and our workforce. Limburg's agricultural sector, particularly this greenhouse, our primary client, drives significant activity, with our agency leasing chalets from them.
DA: What aspects of this site do workers appreciate the most? What amenities do migrants value in their housing arrangements?
MK: Workers appreciate the proximity of their living quarters to their workplace and essential amenities. We provide housing including facilities like a gym and clubhouse equipped with recreational activities such as ping-pong, Xbox and foosball, as well as this coffee machine, here. Moreover, we offer laundry facilities and administrative support in the office. During warmer months, workers often gather in the courtyard between chalets for barbecues and community time. However, adherence to rules is paramount, ensuring enjoyment within permissible limits. Workers typically sign one-year contracts, completing their assignments before moving on. During winter, approximately half of the rooms remain vacant.
DA: What demographics are predominant among residents and do social tensions

arise among different nationalities or genders?
MK: While age isn't a defining factor, our residents hail from diverse nationalities including Polish, Romanian, Portuguese, Lithuanian and Bulgarian. Some refugees also join our workforce, albeit receiving social benefits that can lead to perceived disparities. Each harbors unique aspirations; some prioritise financial gain, while others seek broader experiences. Language barriers occasionally pose challenges, managed through strategic chalet assignments to prevent potential conflicts.
DA: What are the established house rules and how diligently are they followed?
MK: Adherence to house rules is pivotal for maintaining work quality. Non-compliance jeopardises accommodation privileges. We strictly prohibit drug use, a stance reinforced by past incidents. While smoking is permissible, substance abuse remains strictly prohibited. Unlike housing accommodations in Venray where designated marijuana smoking areas exist, such provisions are absent here. Instances of drug-related issues necessitate stringent enforcement of regulations. I am against it and I will not tolerate it.
DA: What comprises the typical work schedule for migrants, and how does the workload fluctuate throughout the year?
MK: Peak seasons span April to November, with workdays typically commencing at 5:00-6:00 for optimal sunlight exposure and concluding around 17:00-18:00. The schedule varies based on daily workload. While amenities like the gym and sports fields are available, workers utilise that. Polish people like to stay in shape. After a hard day's work, one usually wants to converse with family back home. Winter months witness reduced activity, with greenhouses undergoing maintenance to prepare for upcoming seasons. Unpredictable factors such as extreme temperatures and plant diseases can disrupt operations, influencing production output.
DA: Are specific skills prerequisites for these roles? Do returning workers comprise a significant portion of the workforce?
MK: Yes, experience is valued, prompting individuals with relevant skill sets to apply. Returning workers are preferred by customers, leveraging their familiarity with tasks and the work environment.
DA: How are accommodations allocated, and what are the interiors of the chalets like?
MK: Allow me to demonstrate, let's take a walk around. [Marcin shows the room layouts.]

Conversation with on-site employee of a real estate developer company (In-person interview)

DA: Good day. How are you? Thank you for arranging this tour. To commence our interview, what is the primary objective of this Housing company in offering this diverse range of accommodations?
KR: Greetings, Divya. I am well, thank you. Our principal aim is to furnish housing solutions through a lens of hospitality.
DA: Excellent. Let's proceed with the tour. (I observed that entry to the building required a key)
KR: Welcome, this was constructed in 2020. Within two weeks, 80 modules were assembled to form this establishment, utilising modular blocks manufactured in a factory. Here, we have the interface (indicating the Biometrics Attendance System on the wall) where residents are required to check in and check out upon entering the premises. Additionally, there is a physical log for manual entries which I review daily. My role here is multifaceted; I often liken it to that of a caretaker. I am stationed here (gesturing towards her cabin at the entrance). If you wish, you may store your belongings here. Rest assured, I will secure the area. I am on-site 24/7, although I am entitled to two days off per month. Despite the demands, I find fulfillment in my responsibilities. Smoke sensors are strategically positioned throughout the building, prohibiting smoking indoors. However, recognising the cultural context of the Netherlands, we have designated an outdoor area where residents can smoke tobacco or cannabis, a preference among many. While beer consumption in the rooms is permitted, hard liquor is discouraged due to its potential to escalate conflicts among residents. But as you can see, our staff wear green jackets as uniform, aiding in easy identification. With that context provided, let us proceed upstairs. (Opening the door for me)
DA: How does gender influence the diversity of living conditions among residents? Are accommodations segregated by gender, and is there a distinction between couples and singles? How is housing allocation managed?
KR: We offer a total of 30 rooms accommodating 92 beds—14 rooms for couples and 16 rooms for singles. In the single rooms, residents of various nationalities and genders are housed together. We do not dictate room assignments; instead, residents register directly with the temporary agency and beds are allocated based on their preferences during the job application process. Our residents hail from Poland, Romania, Bulgaria and Hungary, contributing to a diverse community within our facilities.
DA: Do residents have the option to choose their housing type? Is there a prevailing preference between on-site and off-site living arrangements?
KR: Housing preferences often align with proximity to the workplace. Therefore, residents' choices may be influenced by the location of their assigned warehouse or workplace.
DA: Are there gender-specific or nationality-specific arrangements? What communal amenities are provided, and is visitor access permitted?
KR: Each couple's room is equipped with one shower and bathroom, while single rooms feature one shower and two bathrooms. Residents are responsible for their meals and typically utilise the provided cutlery and basic amenities for cooking in their rooms. Common facilities include a living room in single rooms and a living space in couple's rooms, along with a laundry room, lounge area and conference room. Visitor access is permitted from 8:00 to 22:00 with no curfew imposed on residents' return times. They have their keys, they can return whenever. Additionally, cleanliness is paramount within our housing units. Weekly inspections are conducted to ensure compliance with hygiene standards with residents receiving warnings for infractions. CCTV surveillance is also employed to maintain security.
DA: Which age demographics are predominant among residents and are there any social tensions between different nationalities?
KR: Our residents span from 18 to 58 years old representing a diverse range of age groups. While efforts are made to mitigate social tensions using English as a common language, some cultural disparities are inevitable, and we try to address them as they arise. It might lead to physical conflicts and to preserve the house, we have to intervene.
DA: What is the anticipated lifespan of these housing units, and how are their sizes determined, including floor areas?
KR: The longevity of our housing units can vary depending on resident behaviour, although we strive for durability and longevity in their design. Floor areas are determined with consideration for functionality and adherence to SNF regulations.
DA: Who oversees the design and ownership of these housing units? Does the company

employ in-house designers or collaborate with external agencies? Are temporary agencies involved in property rental?
KR: We retain ownership of the housing unit designs, sometimes collaborating with external entities for module design. Our primary client has been this temporary agency with gradual expansion to other agencies. Over the past five years, we have established 15 locations across the Netherlands, adhering to consistent standards across all sites.
DA: Do residents engage with local communities within the housing complexes and do nearby residents generate noise disturbances?
KR: Interaction between residents and local communities varies with minimal disturbances reported. Efforts are made to maintain positive relations with neighbours through community engagement initiatives and cleanliness maintenance. Sometimes, we also offer some gifts to keep them happy.
DA: What are the typical work schedules for migrants and how is the workload distributed throughout the year? Are there peak and dry seasons and are properties leased during drier periods?
KR: Work schedules for migrants vary, with no distinct peak or dry seasons observed in the logistics sector. Workload fluctuations are typically influenced by seasonal demands with properties remaining occupied year-round.
DA: Thank you, for the insightful tour. Lastly, are you content with your role here?
KR: Having started as a resident myself, I am grateful for the opportunity to serve in this role. While the role entails considerable responsibility, the satisfaction derived from contributing to residents' well-being outweighs any challenges.

Conversation with on-site director of a real estate developer company (In-person interview)

DA: So, are you looking after these projects?
RK: Yes, that's correct. We're addressing a significant shortage of beds for migrant workers, which currently stands between 150,000-170,000. Over the next five years, we plan to add 4000-5000 more beds. If you have a location in mind, please let me know.
DA: How do you determine land for these 'temporary' housing developments? Does the municipality provide support in this regard?
RK: Indeed, municipalities play a pivotal role in our site selection process. Availability of land is the primary criterion. In regions where land is scarce, thorough assessments are conducted. We prioritise areas with ample work opportunities aligning with key logistic hotspots like Venlo-Venray, Waalwijk and Lelystad where demand for workers is high due to the presence of 24 * 7 web shops. Collaboration with municipalities is crucial as we strive to ensure the satisfaction of both residents and neighbouring communities.
DA: What are the key amenities that migrants enjoy and appreciate in their housing environments?
RK: Migrants transitioning from rural areas to urban settings often appreciate the shift to smaller shared accommodations. Privacy is highly valued and our mobile homes offer a balance between communal living and personal space. The ability to step out for a smoke, for instance (slides the door open of the modular home), enhances their living experience. However, factors like cultural diversity can lead to occasional clashes which we strive to address to maintain harmony.
DA: How does communal living contribute to their experience? Do they live in groups or individually? Do the workers interact with the locals in these housing complexes?
RK: Communal living presents opportunities for cultural exchange, although it can also lead to conflicts, particularly concerning lifestyle differences. Some residents thrive in such environments while others prefer more solitary living arrangements. Interactions with locals vary based on individual preferences and long-term goals.
DA: Are there any terraces?
RK: Solar panels adorn the rooftops although access to these areas is restricted.
DA: How is the density for these houses calculated? How is the total number of units calculated?
RK: Housing density is determined based on demand and supply dynamics.
DA: Where are the containers sourced from? What is the size of these containers?
RK: We build modular buildings constructed in specialised factories, they are not containers. These modules are tailored to specific dimensions and constructed using advanced techniques, allowing us to produce several units within a short timeframe.
DA: Thank you for answering my questions, Sir. Can I photograph this house?
RK: Certainly.

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