SOMEONE AT HOME?

an integrated housing system that utilises vacancy in London for temporary housing to ensure homes for low-income families

MSc Thesis Urbanism
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Figure 1: Protest for homes (Photo: by Jess Hurd, n.d.)

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Figure 2: View over the Thames (Photo: by author)

ACKNOWLEDGEMENT

This thesis is the final result of my graduation project and marks the completion of the Master programme ‘Architecture, Urbanism and Building Science’ in the Master track Urbanism at the Technical University of Delft. The graduation project explored temporary housing solutions for London that were based on informal practices and intended to utilise vacancies in the city. Furthermore, a variety of methods was used in the duration of the project in order to generate in-depth knowledge and open up new ways of approaching the development of solutions.

Throughout the graduation process I was fortunate to meet many inspiring and supportive people who took the time to share their knowledge and expertise with me. Without them, I would not be graduating with this thesis today. First of all, I would like to express a big thank you to my first mentor Verena Balz for her continuous support and guidance and her stimulating feedback. Her sharpening questions always came at the right point in time to give me the focus I needed and to keep me on track. I would also like to express my special thanks to my second mentor Ana Petrović for taking her time to always provide me with precise feedback and practical advice. Moreover, I would like to thank all members, students, and teachers, of my graduation studio ‘Planning Complex Cities’ for their valuable input, helpful lectures and workshops, as well as all the inspiring discussions.

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Lastly, I want to express my deepest love and gratitude to my family and friends for being there for me whenever I needed someone to listen and discuss my thoughts with or just for a cuddle at the end of a long day.

Figure 3: Vacant office building in Notting Hill (Photo: by author)

ABSTRACT

Due to the ongoing housing crisis in London, a significant number of low-income families at the risk of homelessness and displacement are currently placed in insufficient temporary accommodation while simultaneously autonomous developments like the 'financialisation of housing' and the 'sharing economy' result in an increasing number of vacancies. Thus, this graduation project aims to improve the availability and quality of temporary accommodation by developing an integrated housing system inspired by informal practices that utilises currently unavailable vacant buildings.

Therefore, different types of informal housing practices and their advantages and disadvantages were compared, and useful outcomes were transferred for the development of the integrated housing system. The system consists of a framework of policies and regulations which operate in different ways and on different levels. Additionally, the situation of low-income families being at the risk of homelessness and displacement was analysed with a mixed-method approach using both quantitative and qualitative data to gain an understanding of their needs and requirements regarding temporary housing solutions. Furthermore, an investigation based on literature as well as statistical and spatial data of vacancies, their indicators, and location in London, has revealed two main types. In order to determine the suitability of the different vacancy types a multi-scalar set of indicators was developed based on the three concepts of livability, meaning of home, and social safety. Based on the previous analysis a catalogue of spatial interventions that enhance the suitability according to the three concepts was created as a guide for both the public and private sector. Lastly, through an exemplary design in the case study area, the different spatial changes are visualised.

In summary this graduation project offers a combined solution for the presented problem by introducing the integrated housing system and providing a guide for related spatial changes.

KEYWORDS:
allocation systems, housing allocation, informal housing practices, temporary housing, low-income families, risk of homelessness, risk of displacement, vacancy

CONTENT

Figure 4: Aerial view over London (Photo: by Wirestock, n.d.)

INTRODUCTION

London is a city full of possibilities, excitement, and contrasts. It is home to a unique mixture of inhabitants with diverse cultures, visions and aims. The city draws in people from all over the world and is therefore under constant development and change. With these developments there also arise conflicts. Thus, London is not only a city of dreams and potential but also a city in crisis.

More specifically a crisis of housing its people. Processes of gentrification, privatisation, and technical developments as well as neo-liberal politics have led to a severe shortage of affordable housing in London (Atkinson, 2020). Existing housing stock gets privatised and more and more expensive while new developments are aimed at the luxury market. At the same time a growing number of properties in the city are empty (Action on Empty Homes, 2018). While London is desperately working on improving this situation by planning and building more social housing, for many households these efforts are taking too long. Consequently, these low-income households and especially families are allocated into temporary accommodation, where they oftentimes live under insufficient conditions (Rugg, 2016).

Thus, the overarching theme of this thesis is to explore alternative ways of allocating these families by utilising the vacancies in the city. Therefore, I will draw inspiration from informal housing practices to develop a systematic solution. The related spatial changes are translated in an exemplary design exploration. The end goal is to provide better housing solutions for low-income families for the short- and intermediate term as London continues to work on solving the housing crisis in the long-term.

Figure 5: View from Primrose Hill, London (Photo: by author)

MOTIVATION

The motivation for this project stems from my general belief that the experience and excitement of living in a big, diverse, and thriving city should be accessible to everyone. For me this belief is bound to my dream of having this experience first-hand in my dream city of choice: London. Having visited London several times over the last decade, I was always fascinated by its unique complexity and beauty. A colourful mixture of history, culture, and creativity inspired by its people.

During these visits I could also observe some changes. The UK and especially London have seen several significant developments and crisis in the passing years. Reaching from the 2012 Olympic Games to the Brexit and most recently the Covid-19 pandemic. Gentrification and privatisation are visible at every corner through the construction of new high-rises, more tourist attractions and commercialisation of local activities. They also have an impact on London's diverse group of inhabitants. Living in the city becomes more and more expensive, affordable homes are scarce and the housing conditions are declining. Low-income households are the biggest group affected by these developments. Among them, children, the societies' future, are suffering the most. Especially when they live in the uncertainty of temporary accommodation under insufficient conditions.

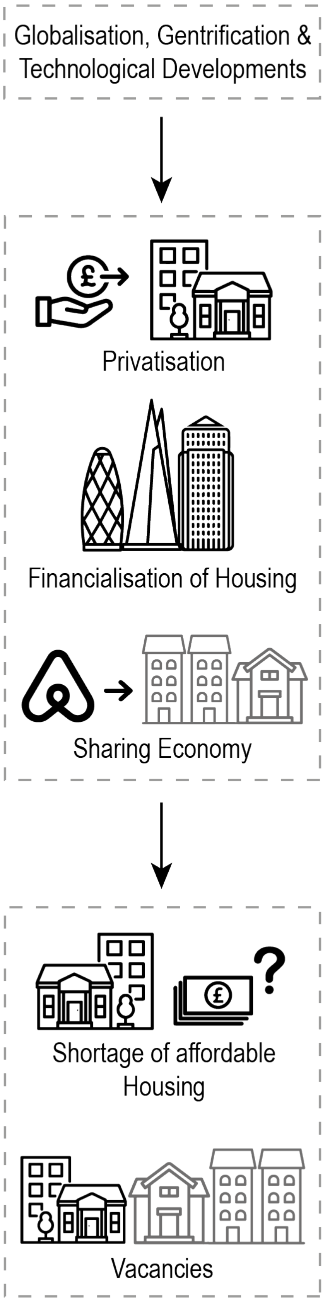
I am convinced that every human has the right to a place they can call home. This means decent and sufficient housing that fulfils their needs and requirements and ensures a safe start into a successful and independent life. Therefore, the conditions that are currently predominate in London when it comes to the housing of low-income families need to change. While the Greater London Authority has made action plans to provide more and better social housing in the future, the urgency of the situation is not addressed sufficiently. Therefore, I am motivated to contribute to the improvement of this situation by focusing my thesis on intermediate solutions. This is in the hopes that the London of the future will once again be a place where everyone is welcome and able to build a life.

HOUSING CRISIS IN LONDON

“The most important result perhaps lies in our losing sight of what cities are for - as places where people live and thrive, where the city‘s economy is set up to serve its residents‘ needs, rather than being a magical playground for the super-rich in the hope that a few others may be enriched as a result.”

Rowland Atkinson in *Alpha City: How London was captured by the Super-Rich*

Figure 6: Gentrification in the Alpha City (Photo: by Jonathan, 2014)



SHIFTING OWNERSHIP OF THE CITY

People are attracted to cities, to the opportunities, diversity, culture, and knowledge. This has led to the worldwide trend of urban growth. Cities are expanding faster than ever before. As this growth is embedded in several autonomous developments, it happens in a distinct way and with certain implications. The combined effect of technological developments and globalisation changes the way of urban regeneration and evokes questions regarding the ownership of urban space.

Ongoing processes of gentrification and the global interconnectivity of financial markets have led to what is known as the 'financialization of housing' (United Nations, 2017). Housing is no longer solemnly purchased to be lived in but as an investment. Consequently, during urban regeneration processes investors have built profitable luxury homes while the construction of social housing fell short.

Furthermore, as it became apparent that space in the cities is scarce and increasingly expensive, the idea of 'sharing' rooted in the concept of a 'sharing economy' became an attractive tool to utilise the limited urban assets to its full extend. But while the initial aim was to ensure a more sustainable and equal distribution of goods, services, and assets, in practice the participants of the 'sharing economy' are still profit-driven. This leads to the exploitation of the system and has significant consequences on various levels (Ferreri & Sanyal, 2018). An example that is notably impacting the urban environment are sharing platforms for short-term rentals, the most famous one being Airbnb.

These developments and the shifting ownership of the city have most certainly contributed what we nowadays call the 'housing crisis'. Existing homes no longer being accessible on the housing market is leading to increasing housing prices and putting people and especially vulnerable groups at the risk of homelessness or displacement (Action on Empty Homes, 2018). As Hamnett (2001) explains, London is a prime example where these developments and processes can be observed.

CONTRASTING VALUE OF URBAN SPACE

Taking a closer look at the housing crisis in the context of London's housing market reveals two distinct observations that showcase a contrasting understanding of how space and in particular living space in the city is valued. On the one hand, London is in desperate need of more housing, particularly affordable housing for low-income households who rely on local authority support. On the other hand, there are significant numbers of empty buildings and homes in all boroughs of the city.

As Rugg (2016) illustrates, there is a discrepancy between the current supply and demand for affordable and social housing. Hence, a growing number of households especially low-income families are not able to find an affordable home. The growing rent prices, job losses due to the pandemic and an insufficient welfare safety net are putting these households at an increased risk of becoming homeless (Kleynhans, 2021). When a household loses their home due to these or other circumstances, they are defined as being 'statutory homeless' (Wilson & Barton, 2022). Consequently, their local authority has then the responsibility to provide them with a housing solution. Thus, they are oftentimes placed in temporary accommodation due the shortage of social housing. Sometimes this continues for several years until they are provided with a long-term solution for their housing situation. According to Action on Empty Homes this currently concerns around 57.000 families including 80.000 children in Greater London (2018). In addition to that, Hall points out that every forth placement in temporary housing in London happens outside of the household's local area (2021).
As Figure 7 shows, the provided temporary accommodation in London

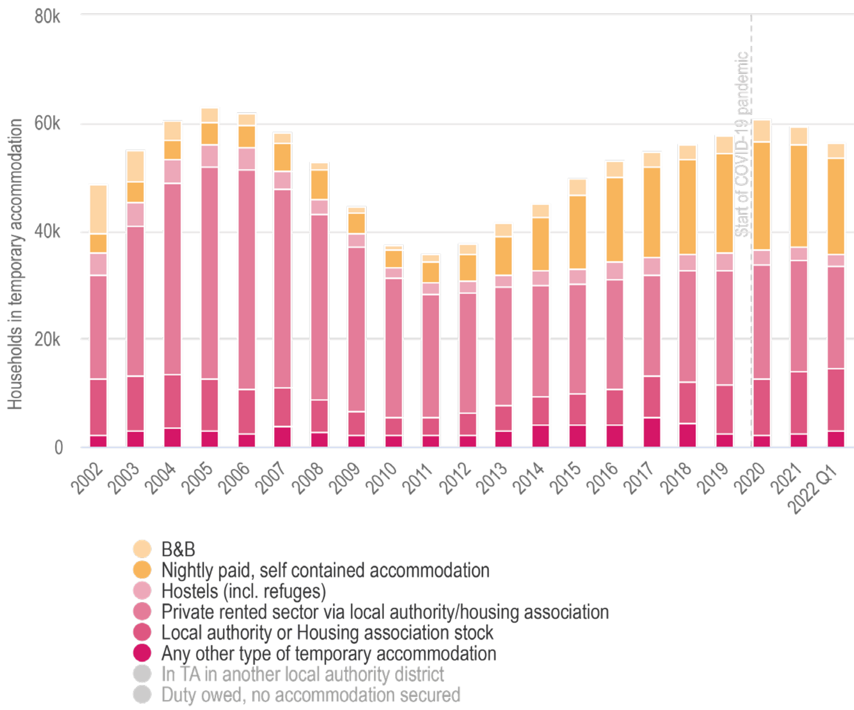


Figure 7: Temporary accommodation types in London (Image: redrawn from MHCLG, London`s Poverty Profile 2022)


Figure 8: Tower block in Waltham Forest, London used for temporary accommodation (Photo: by Firth A./ Human Rights Watch, 2022)


Figure 9: Temporary accommodation bed-sit in North London (Photo: by Wilson K./ Bedrooms of London, 2018)

includes various types of refuge, ranging from self-contained flats, over B&Bs and hostels to other self-contained units (Rugg, 2016). A significant number of these types can be found in the private rent sector due to a shortage of publicly owned alternatives. As a consequence, the current system for the allocation of temporary housing is very expensive. According to Donati, around £1.6bn were spend between 2021-2022 (2022).

The uncertainty that comes with living in temporary accommodation can have long-lasting impacts on the health, education, and future job opportunities of children growing up under these circumstances (Barton & Wilson, 2022). Furthermore, a report of Human Rights Watch and the Childhood Trust states that often the offered temporary accommodation in London does not fulfil minimum housing standards and provides unsafe environments for children to grow up in (Firth, 2022).
The housing units are often too small, with families consisting of three or more members sharing one-bedroom apartments (Firth, 2022). In addition,

a report by Ajisola reveals that many units are not properly insulated, which leads to cold, dampness and mold, which could lead to severe consequences for the physical health of the occupants (2022). As Firth explains, in the current allocation system it is difficult for the depended households to change their situation (2022). This is due to the shortage of system workers and more importantly due to the missing housing alternatives.

While the urgency in social and temporary housing supply is constantly growing, all over Greater London unoccupied and empty properties and units can be found. They are defined as long-term vacancies when they have been empty for at least 6 months (Dunning & Moore, 2020).

A government report states that more than 400 publicly owned vacancies or so-called ‘dead spaces’, including empty office units, schools, commercial and industrial units can currently be found throughout the city. Main reasons that are mentioned besides renovations and repairs, include the leaving of tenants and the closing of services (Berry, 2022). Similar to that, vacant offices and commercial properties can also be found in private ownership. This number has especially increased during the Covid-19 pandemic (De Bono, 2022).

Meanwhile, the organisation Action on Empty Homes (2018) estimates that there are currently around 125,000 empty homes in Greater London. This figure includes dwellings used as ‘assets’ with no permanent occupants, dwellings used as short-term rental properties and so-called ‘second homes’ with no main occupants (Action on Empty Homes, 2018).

Due to the fact that there are limited vacancy registers often the numbers of certain types of vacancies can only be estimated. Thus, the dark figure of vacant building spread throughout London could be even higher.

Figure 10: Vacant home in Harlesden(Photo: by author)

Figure 11: Vacant building in Croydon (Photo: by author)

EXCESS OF SPACE AND LACK OF SUPPLY

Within the context of London's housing crisis, two opposing developments can be observed. While gentrification and the 'financialisation of housing' facilitates a growing number of **vacancies of privately owned properties**, the shortage of social housing and the expensive alternatives in the private rent sector have led to an **increased risk of homelessness and displacement in the low-income groups**. Thus, a **placement in temporary accommodation through the local authority** is often the last resort. One group that is concerned by this situation particularly frequently, are **families with dependent children**. Often, the provided temporary accommodation **does not fulfil certain housing standards and provides unsafe environments for children**. Furthermore, the uncertain situation could **negatively impact the mental and physical health, education, and job opportunities of its inhabitants**.

As solving the housing crisis will be an ongoing and complex process over the coming decades an **intermediate solution** for the intolerable situation of these households stuck in insufficient temporary accommodation is needed. Thus, the **allocation of temporary housing** needs to be revised in order to develop a **systematic solution**.

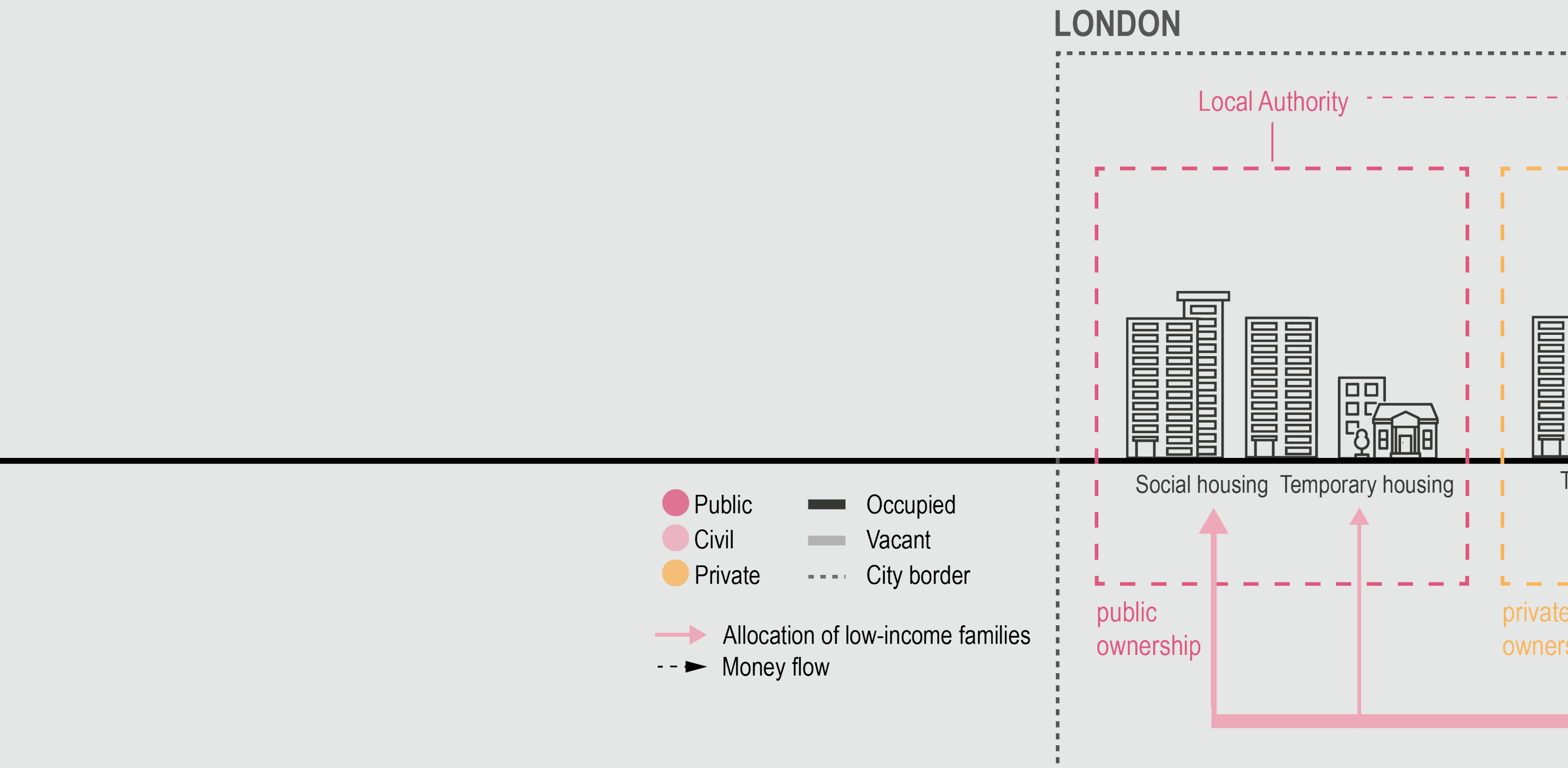
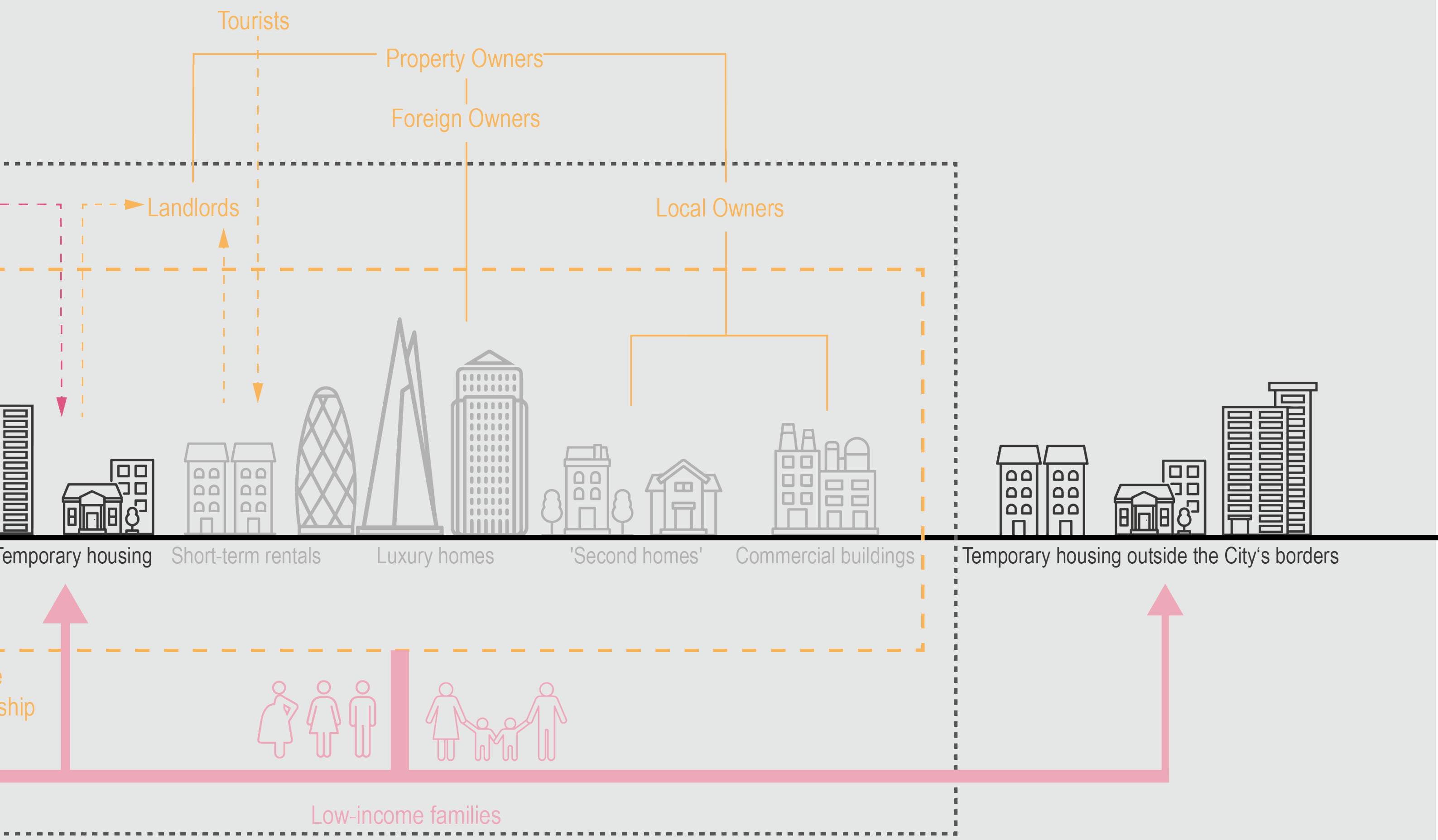


Figure 12: systemsatic section (Image: by author)



Tourists
Property Owners
Foreign Owners
Landlords
Local Owners
emporary housing
Short-term rentals
Luxury homes
'Second homes'
Commercial buildings
Temporary housing outside the City's borders
ship
Low-income families

Figure 13: Protest march “Britain Deserves Better“ in 2022 (Photo: by Nicholls, H./Reuters, 2022)

Figure 14: Families march to Downing Street to protest against overcrowding in temporary accommodation (Photo: by Eason, S., 2022)

URGENT NEED FOR INTERMEDIATE SOLUTIONS

SOCIETAL RELEVANCE

The living costs and scarcity of affordable housing in London are currently higher than ever. Thus, the threat of homelessness is particularly high in the English capital leading to a significant number of households being dependent on their local authority to provide them a housing solution.

In these cases, temporary housing is oftentimes the only available solution. At the same time several NGOs like Human Rights Watch (2022) report that the living conditions in these temporary solutions are currently very concerning as they are often below minimum standards. As Boobis and Albanese (2020) reveal, the Covid-19 pandemic has made this situation even worse due to the economic and societal consequences. The impacts are especially severe for children (Rosenthal et al., 2020). As Figure 13 and 14 show, the urgency of the situation has driven people to protest. There is a call for immediate action to improve these people's situation through intermediate solutions as it is foreseeable that solving the general housing crisis in London will be an ongoing process over the coming decades.

SCIENTIFIC RELEVANCE

As already stated, London is a prime example to observe mechanisms and consequences of the housing crisis as a wicked problem. Thus, there is already a wide variety of research set in various fields exploring the causes and effects as well as possible solutions.

It should be pointed out that the majority of this research it focused on long-term solutions. Therefore, the research in this thesis is filling the niche of addressing the urgency of the risk of homelessness by looking into an improved and more inclusive solution for the short and medium-term.

Furthermore, the focus is laid on alternative informal housing practices. As Shrestha et al. emphasise 'informality' is still a relatively unexplored field within the context of housing scholarship (2021). Additionally, Maalsen et al. point out that related to the increasing digitalisation, informal practices could provide potential changes but also threats (2022). Therefore, more research regarding their regulation is required (Griffin et al., 2022).

DEVELOPMENT OF A SYSTEMATIC SOLUTION

How can an integrated housing system support temporary housing to reduce the number of low-income families at the risk of homelessness and displacement while also reducing vacancy in the private sector?

UTILISING EXCESS AND MEETING DEMANDS

RESEARCH AIM
The aim of this graduation project is to develop a systematic solution for the allocation of temporary accommodation based on informal housing practices that improves the living conditions of low-income families while also utilising vacancies.

The intended outcomes of this thesis consist of two parts. One is focused on the planning and policy side; the other one explores possible spatial design interventions.

As described in the research aim, the first part includes regulations and policies that define an improved system for the allocation of temporary housing. The development of this system includes an exploratory case study of different initiatives and informal practices and the evaluation of best practices. This approach of exploring and evaluating the different practices ensures the best outcome for low-income families as the focus group. Their needs and requirements regarding livability, feeling at home and social safety need to be met. Therefore, a set of assessment criteria will be developed.
In addition, the aim mentions utilising vacancies. Thus, the second main outcome of the thesis is a design exploration of potential spatial changes in these vacancies. This will include a guide of recommended interventions, based on a multi-scalar spatial analysis. The design exploration will be showcased with a set of impressions and other visualisations in one exemplary location in London that was identified during the initial analysis.

Although the project refers to the housing crisis as an overarching problem, it is important to note that it is primarily concerned with urgent problems that may arise in the provision of temporary accommodation and therefore seeks short- and medium-term improvements. Additional solutions are needed to address the crisis in the long term.

How can an **integrated housing system** support **temporary housing** to reduce the number of **low-income families** at the **risk of homelessness and displacement** while also reducing **vacancy in the private sector**?

SQ1:
What are existing informal housing practices and what are their advantages and disadvantages?

SQ2:
What are the needs and requirements of low-income families and how can they benefit from temporary housing solutions?

SQ3:
What types of vacancies are there, and which types are suitable for temporary housing?

SQ4:
Which spatial change of the vacant buildings can support temporary housing?

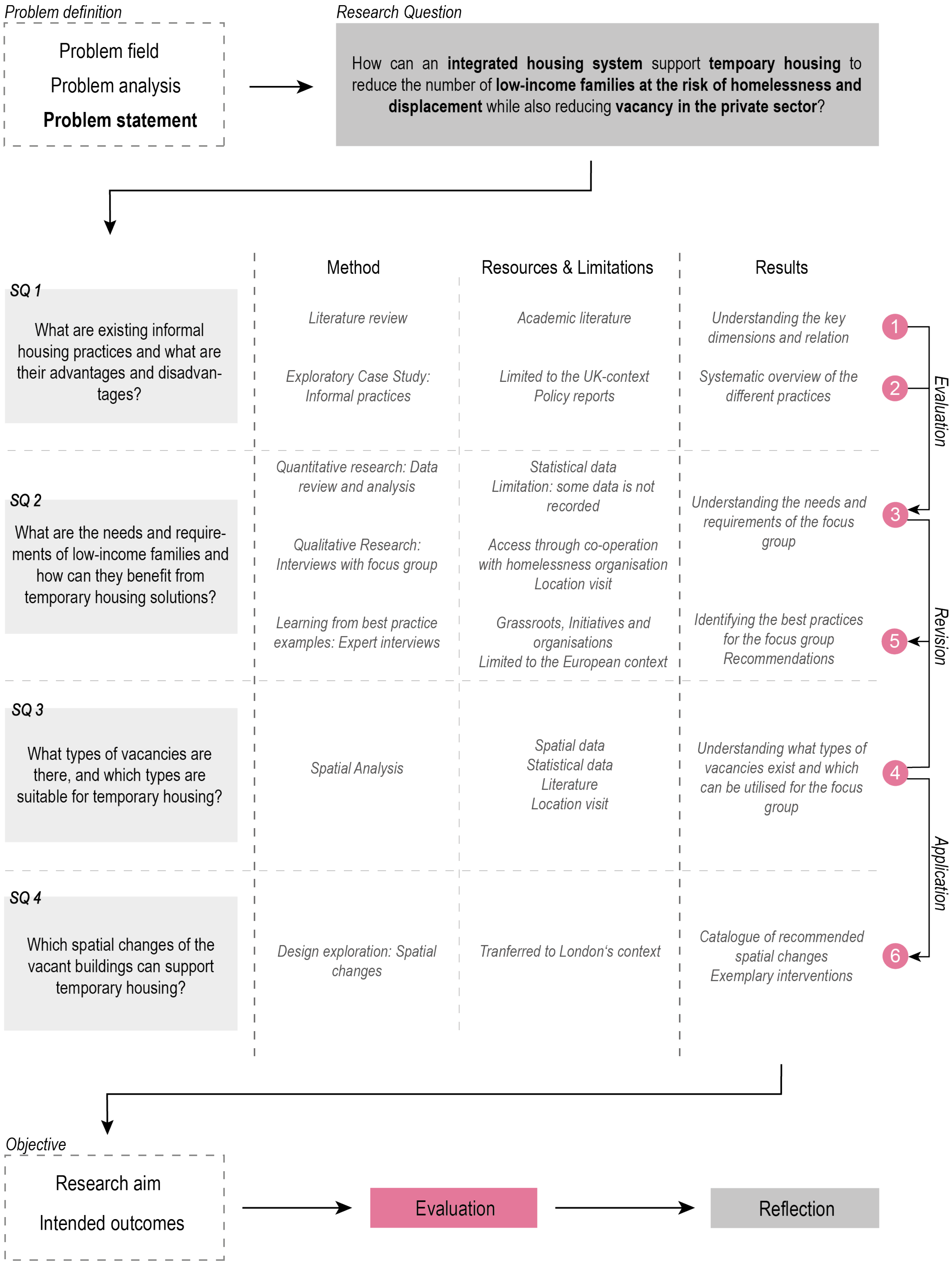


Figure 15: methodology framework (Image: by author)

MIXED-METHOD APPROACH

The structure of the methodology is separated into four parts that follow the main research question and four sub-questions (see Figure 14). A mixed-method approach is used to answer the sub-questions accordingly. The generated knowledge will be evaluated and revised before it is followed by the application in form of a spatial design exploration. This way, an iterative process is ensured.

1 LITERATURE REVIEW

The literature review is used to develop the conceptual framework and includes definitions of important terms and concepts. Therefore, it outlines how housing is allocated in the UK. The focus will be put on identifying alternative 'informal housing practices'. The goal is to understand their key dimensions and relations. Furthermore, the conceptual framework will establish a definition of 'livability', 'social safety', and the meaning of 'home' to get an understanding of the general needs and requirements of the focus group, meaning the low-income families. Academic literature will be the main resource to provide the knowledge.

2 EXPLORATORY CASE STUDY: INFORMAL PRACTICES

This method is used to get an overview of the different informal housing practices that can be found in London and the UK. Therefore, the various grassroots and initiatives will be analysed and categorised in a systematic comparison. This is based on the three dimensions and their operationalised elements, that were introduced in the conceptual framework. The three dimensions are: *reach*, *communication*, and *participants*. The main resource will be policy reports from governmental and non-governmental organisations.

3 QUANTIATIVE RESEARCH: DATA REVIEW AND ANALYSIS

The intended outcome of the quantitative analysis in to get an overview over how many low-income families are currently at the risk of homelessness and displacement and where and under what conditions they are housed. The first step consists of defining which types of statistical and spatial data sets are needed for the analysis and where they can be found. During this process it is important to be aware

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Evaluation
In the first evaluation round, it can be determined which grassroots and initiatives are interesting to investigate further. Additionally, based on the results the dimensions and their elements can be adjusted were necessary.

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of the validity of the data source and the correctness of the given information. This step is followed by processing and visualising the data through tools like QGis and Illustator. Possible resources for data sets are official public institutions like the London datastore and the Office for National Statistics as well as NGOs and independent organisations. One limitation of the analysis could be that there might not be reliable numbers of certain types of data but only estimations. In these cases, it needs to be decided to what degree these estimations can be used as a given fact and where they are too unreliable to be used.

3 QUALITATIVE RESEARCH: INTERVIEWS WITH FOCUS GROUP

The second part of the analysis is following a qualitative approach to get a more personal understand of what 'livability', 'social safety', and 'home' mean to low-income families especially while living in a temporary situation. Therefore, the chosen method is semi-structured interviews with members of the focus group. The first step is to find and contact possible interviewees. A good way of creating an initial contact would be through a collaboration with an NGO that is working with members of the focus group daily and has their trust. Therefore, a fitting organisation needs to be contacted and informed about the project. If they are willing to support the project, they can help to find appropriate interview candidates. While organising the questions and setting up the interviews it is important to be aware of the type of language that is used and that the project is explained in an understandable way. Preferable, the interviews will be held in person and in an environment where the interviewees feel comfortable and safe. As the topic is sensitive it is important that personal boundaries of each individual are considered and accepted.

4 SPATIAL ANALYSIS

The spatial analysis is used to locate vacancies that are suitable for temporary housing. Therefore, data regarding the typology, location, ownership, and the condition of the vacant buildings will be collected and categorised. The first step consists of setting up criteria to determine the suitability, validity and correctness of the data sets that

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4

Revision
In this intermediate revision, the criteria developed in the initial exploratory case study will be revised based on the knowledge gathered in the spatial analysis and in the analysis of the focus group. The revised criteria will be used to identify the best practice examples.

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6

Application
When the gained knowledge is evaluated and revised in an iterative process, the last step consists of applying within the actual context of London.

are going to be selected. In addition, it will be defined which types of data are needed for the analysis. The data sets could include spatial and statistical data obtained from public data stores and official institutions as well as policy reports conducted by NGOs. It is possible, that a certain type of data is not recorded in reliable numbers and only estimations can be found. In this case it needs to be decided whether the estimation is reliable enough to be used in the project. Once all the available data is collected it needs to be visualised by creating maps and diagrams. The results of the analysis give an indication regarding their suitability for being used as temporary housing.

5 LEARNING FROM BEST PRACTICE EXAMPLES: EXPERT INTERVIEWS

To get a better understanding of how the focus group could benefit from an alternative housing system, the method of exploring best case examples is used. The aim is to gather inside knowledge from real-life practice and hopefully some useful takeaways that can later be transferred to London's context. Therefore, housing researches, as well as housing experts from the private sector and civil society will be selected for semi-structured interviews. They can provide and insight into the various practices in London and explain advantages and disadvantages of the various systems.

6 DESIGN EXPLORATION: SPATIAL CHANGES

Based on the results of the spatial analysis and after obtaining in-depth knowledge about the needs and requirements of the low-income families, a design exploration of spatial changes will be made. To showcase how these changes can be implemented in the actual context of London, a location within the city will be selected to visualise an exemplary spatial intervention. Thus, the first step is to select one or more locations best fitted to show a variety of different interventions. The second step consists of developing a collection of spatial interventions and visualising them in various drawings and impressions.

METHOD: INTERVIEWS

The use of interviews plays an important role in this research project. Thus, the interviewees were selected to cover different fields of expertise and experience. They include a housing researcher, an employee of a non-governmental organisation which works in the homelessness sector, as well as a self-organised action group that consists of individuals who have had first-hand experience with housing issues.

The results of the interviews are integrated at several points in the report. Thus, they are analysed based on guiding questions that relate to the respective topic. Especially for understanding the functioning of the formal allocation system and the potential of informal practices, as well as for detecting needs and requirements of the focus group the interviews were important.

Interview partner	Role	Competence and knowledge
Alex Firth	Housing researcher for Human Rights Watch, who focuses on children's rights and did research about the temporary housing situation in London.	Extensive knowledge about the functioning and regulation of temporary accommodation in London as well as the experience of low-income families in temporary housing due to a research project.
Melanie Sirinathsingh	Communications and Impact Lead at the non-governmental organisation Kineara. Kineara supports households at the risk of homelessness. The organisation focuses tenancies in the private housing sector and how to sustain long-term tenancies for affordable homes.	Experience with working in co-operation with local authorities and with the private rent sector. Knowledge about practices and mechanisms of the formal allocation system and where it is lacking.
Haringey Housing Action Group	Members of low-income families that are living or used to live in temporary accommodation. Are active in a non-profit initiative that supports when it comes to interacting with the local councils and by drawing attention to issues and shortcomings in the current system.	First-hand experience with the formal allocation system and with living in temporary accommodation in London.

Figure 16: Interview partners (Image: by author)

METHOD: SPATIAL ANALYSIS

As vacancies are distributed all over the city, the spatial analysis will cover the whole city rather than a specific location. In addition, the aim of the analysis is to identify exemplary locations that are representative for different area types.

These example areas will be identified through the use of various indicators and characteristics which are based on statistical or spatial data, findings and observations defined in literature, as well as impressions from the field work. The different indicators and characteristics are analysed on various scales ranging from the city scale, over the borough and area scale towards the street and building scale. Thus, it can be determined which characteristics are relevant on which scale in order to identify suitable locations and types of vacancy for temporary housing solutions.

Figure 17: Analysis through the scales (Image: by author)

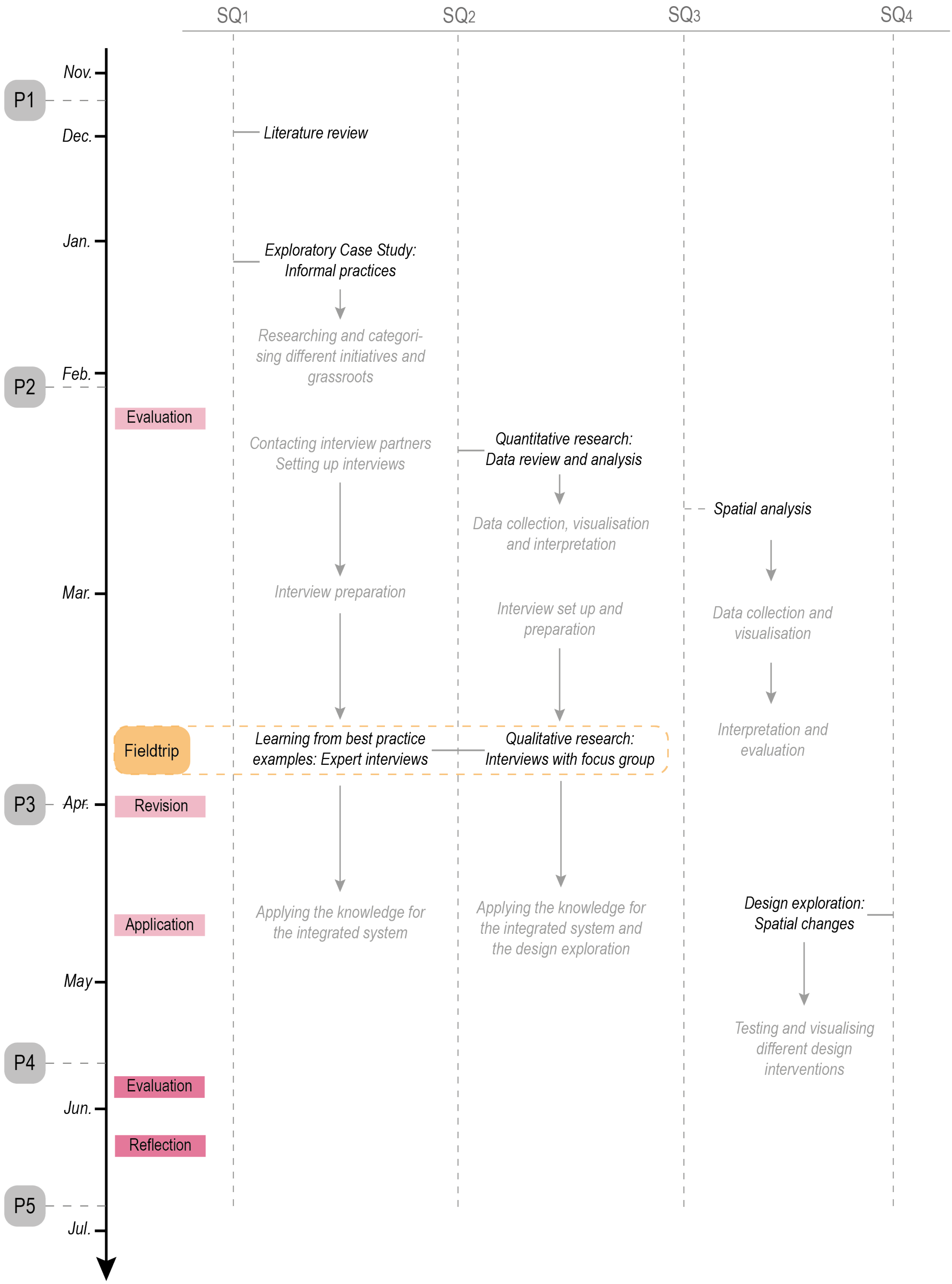


Figure 18: Time plan (Image: by author)

ETHICAL CONSIDERATIONS

NEUTRALITY AND POSITIONALITY
When I reflect on the aspects of neutrality and positionality, it is important to be aware of the fact that the project is based on an underlying critique of certain consequences of the mentioned autonomous developments, mainly the ‘financialisation of housing’ and the ‘sharing economy’. Furthermore, as a person that has never experienced the precarious situation of living in temporary accommodation and being at the risk of homelessness and displacement, it is important to listen to the affected groups and their opinion and experience when evaluating potential improvements.

LIMITATIONS
It is important to point out that the project solemnly focuses on improving conditions of temporary housing solutions to react to the urgency of the housing crisis in the short and medium term. This decision was made deliberately because I am aware that the issue as a total is very complex, and this project has a limited extent and a defined timeframe. Thus, I know that I will not be able to tackle everything and should rather try to focus on one aspect and address that aspect thoroughly. I recognize that there are additional actions that need to be taken to address the housing crisis and in particular the shortage of social and affordable housing to improve the situation in the long term.

INTERESTS OF INVOLVED GROUPS
As I am addressing informal practices in the thesis, I need to be aware of the interests of involved and affected groups. By researching and writing about these informal practices, I could draw unwanted attention to their users. To avoid negative consequences a high level of sensitivity and where necessary anonymity are required. While my main interest lays in improving the situation of low-income households I also need to take the perspective of the owners of vacant buildings and homes into consideration. To what extend do they even want to participate in a new housing system and what are their potential gains or losses.

INFORMALITY IN HOUSING PRACTICES

The core aim of the thesis is to develop a systematic solution for the allocation of temporary housing for low-income families by utilising and consequently reducing vacancies that can be found in Greater London. Thus, I will look at different systems and practices for the allocation and distribution of housing. There are both formal and informal practices, that address a variety of user groups and function under different circumstances and conditions. Generally, all practices determine the question of who gets what type of housing when and where, based on a set of criteria that applies to the situation and condition of the household that is to be allocated.

The formal way of allocating these households is through their local authorities. In the case of this thesis that means the 32 boroughs which make up Greater London (Office for National Statistics, n.d.). When a household is not able to find affordable housing on their own, gets evicted from their previous home, or has any other reason that could lead to homelessness they can apply for social housing at their local authority. If the household fulfils a set of criteria that is defined in a housing allocation scheme, the responsible local authority has the duty to provide a home. For households with a priority need the local authority always has a so-called homelessness duty, which means they have to provide housing regardless. Families with dependent children are included in the group of households with a priority need. As was already pointed out, due to the shortage of social housing stock especially in Greater London, allocations into temporary accommodation are often the case until a long-term solution can be found (Shelter, 2022). Thus, the formal system allocates social and temporary housing following the same process.

Next to the formal system for the allocation of temporary housing there are several alternative informal practices and systems "associated with producing or occupying residential space which fall beyond 'formal systems' of law or regulation" (Shrestha et al., 2021, p.159). According to Lombard these informal alternatives often develop as a response to the failure of state policies regarding housing provision and regulation as well as neoliberal economic structures (2019). They can also be seen as a "critique of the social, economic and environmental sustainability of formal housing practices" (Maalsen et al., 2022, p.8). The informal alternatives include practices like shared housing, social networks and platforms for renting, anti-squatting agencies and more. Shrestha et. al. point out that the term 'informality' does not equate that the practice is either illegal or illegitimate although often times a lower level of legal protection can be found (2021). Both 'elite' and low-income groups are participating in these informal practices, but while the former make use of legal grey zones for their financial benefit the low-income groups are often dependent on these alternatives due to the limited housing supply through the formal system (Shrestha et. al., 2021). Therefore, the use of informal practices should not be equated to a denial or "unwillingness to engage with and work alongside mainstream models" nor should the motivation for their use be tied invariably to "countercultural values" (Griffin et al., 2022, p.84).

As Maalsen et al. (2022) point out, these informal practices also hold a great potential, especially when it comes to addressing issues in the current allocation of housing. In order for them to work for the benefit of the low-income families however, they need to be framed and organised in a clear system. As mentioned in the introduction, the aim is to develop a systematic solution that draws inspiration from the various informal practices. This systematic solution will consist of a framework of regulations and policies that takes into consideration the specific needs and requirements of low-income families and ensures the utilisation of otherwise vacant buildings as housing options.

The informal housing practices work differently depending on their socio-spatial contexts. Based on the literature, three main dimensions to define their context became apparent. These dimensions are reach, communication, and participants. In order to systematically analyse the different informal practices, they will be broken down into the identified three dimensions and their components. This process of operationalisation allows that the different components become measurable and observable. Depending on their theme, they can then be analysed through qualitative or quantitative approaches.

The first dimension is defined as the reach. This includes both, 'reach' being understood as a physical as well as a theoretical parameter. In the context of different informal practices for distribution and provision of housing, the dimension of physical reach is concerned with distance between the user and operator. Meanwhile, the theoretical understand of reach is concerned with the scale and type of operation. The second dimension is concerned with the 'communication' within the different practices. This includes the different types of communication and interaction, as well as the degree of publicness. Accessibility and language play an important role in this dimension.

The last dimension is called 'participants' and focuses on the different groups of people operating and interacting with the various practices as providers and users. An observation of these groups indicates who is and who is not able to participate in a specific practice and with what type of interest they take part in the practice.

As the goal is to develop a systematic solution based on the different informal practices, a set of criteria needs to be introduced to determine their success.

The first criterion is 'inclusiveness'. This refers to the different types of participants that can take part in the practice as both providers and users.

Furthermore, 'inclusiveness' is strongly connected to the accessibility of housing (Elsinga et al., 2022). This means that the housing system should ensure access to appropriate temporary accommodation for all types of households and in the case of this thesis especially for low-income families. In addition, 'inclusiveness' can also be related to the functioning of the practice itself. This includes the type of communication and how easily accessible the service is. There should be no disadvantages in the application and selection process due to the household's status.

Lastly, the solution should also be efficient. Thus, 'efficiency' of the service provided, means that the processes should be optimised by delivering the best and fastest results while keeping the costs and expense to the minimum (Elsinga et al., 2022). This means that the processes and communication of the system should be as direct and easy as possible while also ensuring to provide the best outcome for all participants.

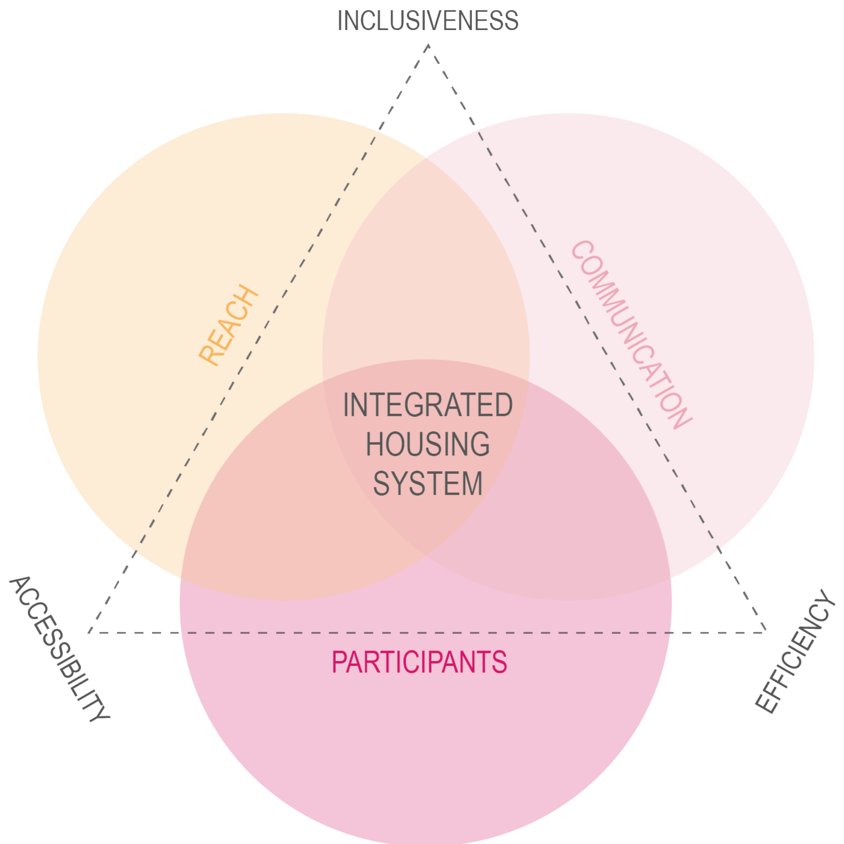


Figure 19: conceptual diagram (by author)

SUITABILITY OF HOUSING SOLUTIONS

Next to understanding and improving the way of how temporary housing is allocated, it is also important to be aware of the actual housing needs and requirements of the low-income families to improve their situation. Therefore, I will look at what the concepts of 'livability', feeling at 'home' and 'social safety' mean for families, especially against the background of the temporariness of the housing solutions.

Livability in general refers to a number of characteristics and requirements that are fundamentally important for the well-being of people in their living environment. According to Ruth & Franklin (2014), livability does have two main elements. The first one focuses on covering a set of basic needs, including the access to food, shelter, and security. Contrasting to that, the second element is concerned with the condition of the physical surroundings and environment, including infrastructure, ecosystems, and services. Additionally, they remark that the specifics of these elements can vary depending on the location and group of people (Ruth & Franklin, 2014). Thus, I will specifically focus on what contributes to the livability of low-income families. As Ajisola (2022) points out the current condition of temporary accommodation in the UK often has a negative impact on the occupant's health. While cold, dampness and mold influence the physical health, the lack of space and privacy can have negative consequences for the mental well-being (Croft et al., 2021). Especially the development and education of children is suffering under these circumstances. Therefore, the first priority should be that temporary housing fulfils the basic needs necessary for a liveable environment. In a second instance, following Ruth & Franklin's (2014) two elements, also the surroundings, including access to infrastructure and facilities, should be aligned with the families' needs. Meaning short distances to work and educational facilities, as well as safe environments for physical activity and social interaction in the neighbourhood.

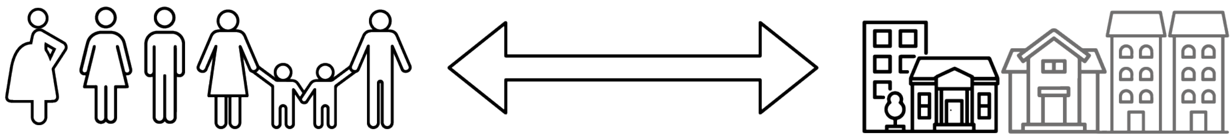
While the meaning of 'home' is bound to individual understandings and can vary from person to person, Overtoom et al. (2022) point out that there are certain factors that appear repeatedly

Low-income households
are **dependent on their local authority** to provide them a housing solution. Due to their **specific requirements and needs** it is particularly diffecult to find appropritate housing.

One major group consists of **low-income families with underage children**. It is particularly difficult to find appropriate housing for them due to their needs and requirements. These include **child-safe environments, proximity to certain facilities and bigger housing units**.

Temporary accommodation
is provided to households who would other-wise be **without refuge**. It is the alternative when there is a **shortage of long-term solutions** in the form of social housing.

Vacancy in the private housing sector
Assuming that the vacant state of a property is only temporary, they could be **utilised as temporary housing** during that period. This **could benefit both the owner and the local authorities and their dependent households**.



Integrated housing system
determines who gets housing when and where based on certain criteria

What is the **reach** of the system?
How does the **communication** work in the system?
Who **participants** in the system?

Figure 20: systematic diagram (Image: by author)

when analysing the term from an academic perspective. They name representation, privacy, sociability, future, appropriation, and rootedness as the six main factors, but depending on the context of the research, there can be more or different factors as well (Overtoom et al., 2022). These factors are often connected with certain activities. Thus, the ability of an accommodation to facilitate these activities can determine how at home a person feels. Furthermore, the term 'home' implies a meaningful and emotional connection to a place (Overtoom et al., 2018). Appropriation of the domestic space by personalising and adjusting the surroundings according to the own wishes can support this connection (Overtoom et al., 2022). Therefore, the building layout and flexibility of spaces do also play an important role (Overtoom et al., 2022).

In the instance of families living in temporary accommodation, aspects like safety, stability and routine play a significant role. Furthermore, spaces for activity and exploration but also for relaxation and solitude are important (Coley, Leventhal, Lynch & Kull, 2012).

Figure 21: A family sharing a one-bedroom unit (Photo: by Shelter, n.d.)

Figure 22: A child in a temporary housing unit (Photo: by Shelter, n.d.)

In contrast to the two other concepts, 'social safety' is mostly focused on the outside and public space. As Kiełek explains, it relates to the well-being of people while they are in public spaces like parks, sidewalks, and squares (2022). This perception can be influenced by several characteristics of the physical surroundings (Carro et al., 2010). Included are elements on both the big and small scale , like density, as well as the design and size of buildings, or the condition of sidewalks and the degree of urban vegetation (Carro et al., 2010; Gehl, 2011). Therefore, the area where temporary accommodation is located can impact the feeling of safety.

As mentioned previously, the aspect of temporariness plays an important role. When looking at the concepts of 'livability', 'social safety', and 'home' within the context of temporary housing, certain elements gain more or less importance. The term 'temporary accommodation' suggests that the stays are limited and can range from a few days to more than a couple of years (Rich, 2022). More often than not, in the UK and especially in London, the second outcome is the case. Relating this to the two elements of livability, this leaves the occupants of temporary housing with a high level of uncertainty and thus, reduces the safety, stability, and structure in their daily life (Stroud, 2022). In addition to that, the oftentimes poor quality of the offered temporary housing lessens the livability of the occupants even further (Stroud, 2022). And while the stays in temporary accommodation are often longer than anticipated, the spatial conditions and the surrounding environment do not contribute to feeling at home. As Brun and Fábos (2015) note, the provided accommodation often does not allow personalisation. Furthermore, the limited spaces and unsafe environments hinder physical activities and do not provide appropriate learning and relaxation environments, which can have a negative impact on children's development (Coley et al., 2012). Considering that temporary housing will continue to play an important role due to the current housing crisis in the UK, the condition of the offered accommodation needs to be improved.

A SYSTEMATIC COMPARISON OF INFORMAL PRACTICES

Informality - "within the global north it manifests as a response to unmet housing need which appears to be mostly hidden, produced individually and begins with access (or lack of access) to rental housing"

Shrestha et al. in Informal Housing Practices

DEFINING INFORMAL PRACTICES

As it was already established in the conceptual framework, 'informal housing practices' are defined as alternative practices and systems that exist next to the law and regulation that make up the formal system (Shrestha et al., 2021). While these practices might not follow the formal regulations, according to Shrestha et. al., that does not mean that they are either illegal or illegitimate (2021). However, it should be noted that often these informal practices have a lower degree of legal protection for their participants and thus, there is a greater chance for exploitation (Shrestha et. al., 2021).

In opposite to the formal system, the operators of informal practices can mostly be found in the private sector in the form of companies and agencies or in the civil society in the form of non-profit organisations.

The informal practices have users in both, low-income as well as high-income groups. As Shrestha et. al. points out, the 'elite' groups make use of legal loopholes and grey zones while using informal practices for their own benefit (2021). In contrast, the low-income groups however are often dependent on the alternatives provided by the informal housing practices due to the failure of the formal system (Shrestha et al., 2021).

Maalsen et al. emphasise how most of these informal practices developed as a reaction to failing state systems and policies as well as neoliberal economic structures (2022). In London's case a number of housing initiatives were formed as a response to the cost-of-living crisis and the increased risk of homelessness and displacement that come with it. The different types of initiatives include agencies for shared housing options, property guardian schemes and various forms of housing co-operatives.

Figure 23: A guarded property in Harlesden (Photo: by author)

Figure 24: A vacant office block in Croyden (Photo: by author)

SELECTING INITIATIVES

In order to get an overview over the different informal practices that currently exist in London, an exploratory case study and a systematic comparison was done. Included were only initiatives that are operating in the private housing sector.

The first step consisted of researching different initiatives and deciding which ones are suitable for the case study.
Therefore, certain criteria were used for the selection of the included initiatives. The selection criteria looked at the duration of stay, the building typology of the provided housing, as well as the focus group that was addressed by the initiative.
The focus was put on initiatives that provided limited or short-term stays as this coincided with the aspect of temporariness as a leading factor. The goal was to learn how properties can be used for housing purposes temporarily while also providing suitable accommodation.

Duration

short-term → *long-term*

Furthermore, initiatives that specialised in the provision of under-utilised spaces and vacant properties that can be found in the private rent sector, were particularly interesting for the selection. This is due to the main aim of the project being the utilisation of vacant buildings for temporary housing purposes.

Typology

non-vacant → *vacant*

Lastly, the initiative should preferably address the main focus group of the project, meaning low-income families that are currently at the risk of homelessness and displacement. However, there are not many initiatives with that focus group. So, in order to have a comparable number of initiatives this selection criterion was considered to be less important.

Focus Group

other → *low-income familiy*

Interesting examples for initiatives that were included in the systematic comparison are some letting agencies and shared housing agencies that aim at creating better connections between offer and demand, agencies that follow the property guardian scheme, and lastly housing co-operatives that are specifically focused on empty properties.

Once the different initiatives for the systematic comparison are selected, they will firstly be categorised and analysed according the three dimensions, reach, communication and participants, and their components. This analysis is followed by an evaluation based on the three criteria that were introduced in the conceptual framework. These criteria are inclusiveness, accessibility, and efficiency.

Homeshare

The housing organisation Homeshare aims to bring two types of people together in a shared living situation that they can both benefit from. The idea is, that an older person with living space to spare offers affordable accommodation to a younger person in exchange for social interaction and support in the household. The organisation operations on a national scale and works in co-operation with local NGOs. The allocation and selection process includes first an online application followed by a reference check and interviews with a personal coordinator. The coordinator communicates between the applicant the home provider to find a good match. While the provided support and interaction should happen on a voluntary basis, around 10 hours per week are expected (Homeshare, n.d.).

Capital Letters

The letting service Capital Letters is an NGO owned by the London boroughs, roughly two thirds are members. The service connects private landlords and housing agencies with suitable tenants with the goal of finding them a secure, affordable, and settled home. The service is focused on finding long-term homes for families in temporary accommodation or at the risk of homelessness.

A free landlord service provides support in the process of finding a suitable tenant, overseeing the letting process and interacting with the council. The process includes a suitability check for both the future landlord and the future tenant as well as the property. Furthermore, a personal meeting takes place before the signing of a tenancy agreement (Capital Letters, 2023).

Live-in Guardians

The private agency Live-in Guardians aims to connect owners of vacant properties with young professionals. They should function as property guardians while living in an affordable housing option in a central location. The agency advertises cost-effective living in exchange for guarding the properties. Thus, the idea is that both owner and tenant profit form the arrangement. For their services the agency collects fees paid by both the property owner and future tenant.

The agency has a set of criteria the potential tenants need to fulfil in order to use the service. Furthermore, living in the otherwise properties comes with a set of rules and regulations that need to be followed by the tenant. Additionally, tenancies can be ended with a relatively short notice (Live-in Guardians, 2023).

Figure 25: Two generations sharing a home (Photo: by Homeshare, n.d.)

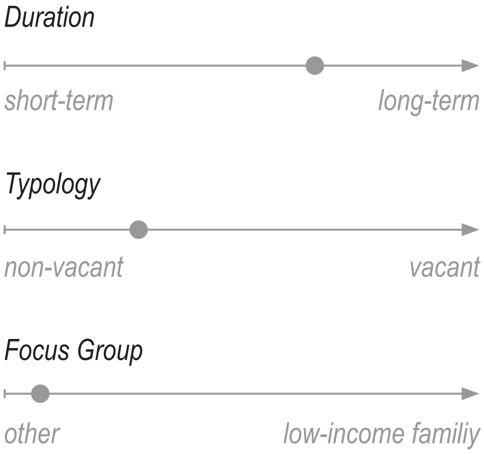


Figure 26: A family in the new home (Photo: by Capital Letters, n.d.)

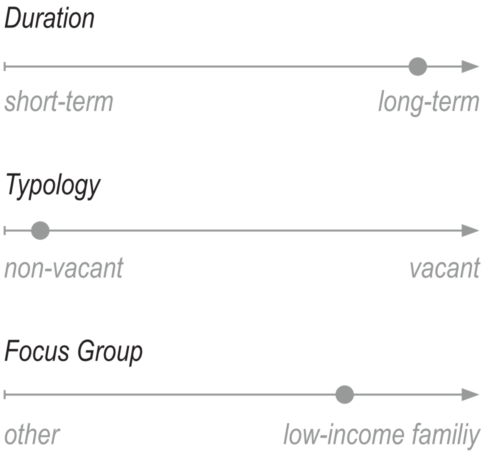
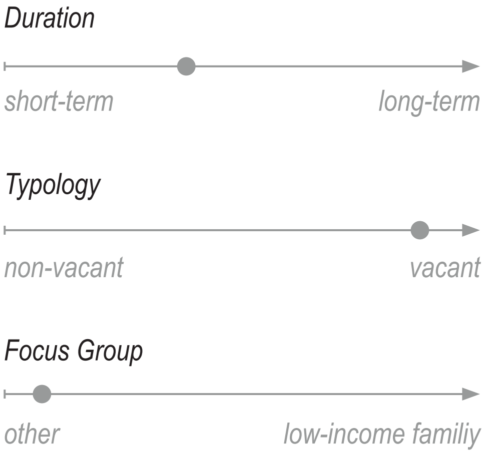


Figure 27: Property guardians in their occupied home (Photo: by Live-in Guardians, n.d.)



Property Guardians

The nation-wide operating agency Property Guardians aims to provide protection of empty properties by connecting the owners with young professionals that function as live-in-guardians. The occupants will get cost-effective living in exchange for guarding the otherwise empty properties.
The agency provides a service to assess the need of protection and to make the property inhabitable. Furthermore, they do suitability checks, that include interviews and credibility checks as well as employment and housing references, with potential guardians. The final choice for a guardian is also made by the agency.
During their time of occupation in the property, the guardians have to ensure upkeep and protection of the property (Property Guardians, 2023).

St Marks Housing Co-operative

The St Marks Housing Co-operative is a non-profit short life housing co-operative that is aiming to utilise vacancies for short-term stays. The co-operative works together with various housing associations and housing trusts in London.
They focus on vacant properties that are about to be refurbished or reassigned. They argue that placing occupants in otherwise empty properties improves the feeling of security in the neighbourhood and contributes to the community spirit. The co-operative also promotes that they leave a property with a short notice within a month. To become a member, people have to go through a formal application and interview process. Furthermore, each member actively takes part in the co-operation and helps to run it (St Marks Housing Co-operative, n.d.).

Westminster Housing Co-operative (WHC)

The Westminster Housing Co-operative (WHC) is a self-funded housing co-operative located in west London. Its goal is, to manage and repair otherwise empty properties while the co-op members are living in the properties for an affordable rent. The duration of occupation would be of a minimum of six months. In rare cases the limited occupation of a property can turn into an unlimited tenancy.
The co-operative works in partnership with several housing associations, other small co-operations, and the local councils. Furthermore, it is led and organised by its members. To get in contact with the co-operative and eventually become a member is through direct contact. Otherwise the co-operative offers their services for potential landlords online (Westminster Housing Co-operative (WHC),n.d.).

Figure 28: A occupied property with its guardian (Photo: by Property Guardians, n.d.)

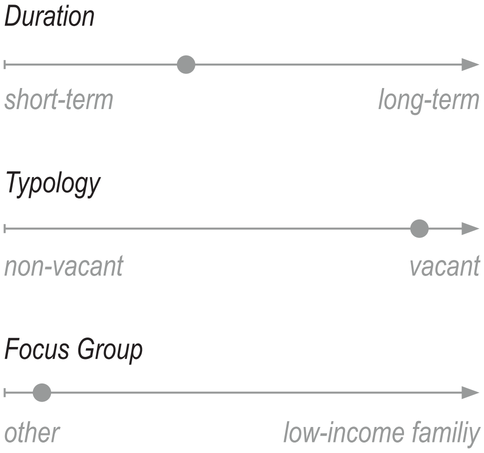


Figure 29: A property after occupation (Photo: by St Marks Housing Co-operative Ltd., n.d.)

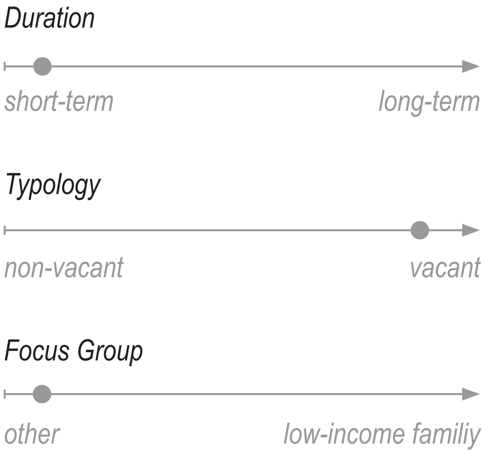
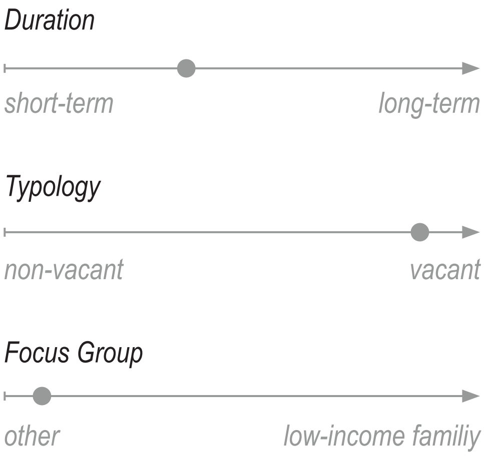


Figure 30: A property occupied by the co-operative (Photo: by Westminster Housing Co-operative, n.d.)



ANALYSING AND EVALUATING INITIATIVES

Following the selection of the different initiatives, in the next step the findings are analysed and evaluated. The analysis will follow the three dimensions that were introduced in the conceptual framework: reach, communication, and participants (see Figure 31).

The dimension 'reach' includes the scale of operation, meaning whether it is operating locally, regionally or on a national scale. Furthermore, the type of operation of the initiative will be analysed. This means whether it operates individually, in a network or is overseen by an umbrella organisation. Lastly, the dimension includes the distance between the user and operator of the initiative.
The second dimension 'communication' consists of the communication type, the type of interaction and the degree of publicness. The communication type means whether the communication is direct, indirect or both. On the other hand, the type of interaction looks at whether the interaction takes part digitally or personally. The degree of publicness indicates to what extent the initiative represents itself in public.

The last dimension 'participants' includes the type of operator and their type of interest, as well as the question of which type of user is addressed with the initiative. The different types of operators are either located in the private sector, the civil society, or the public sector. Secondly, the interest of the providers could either be profit-driven or have another reasoning. Finally, the initiative could either address a specific type of individual user or a family.

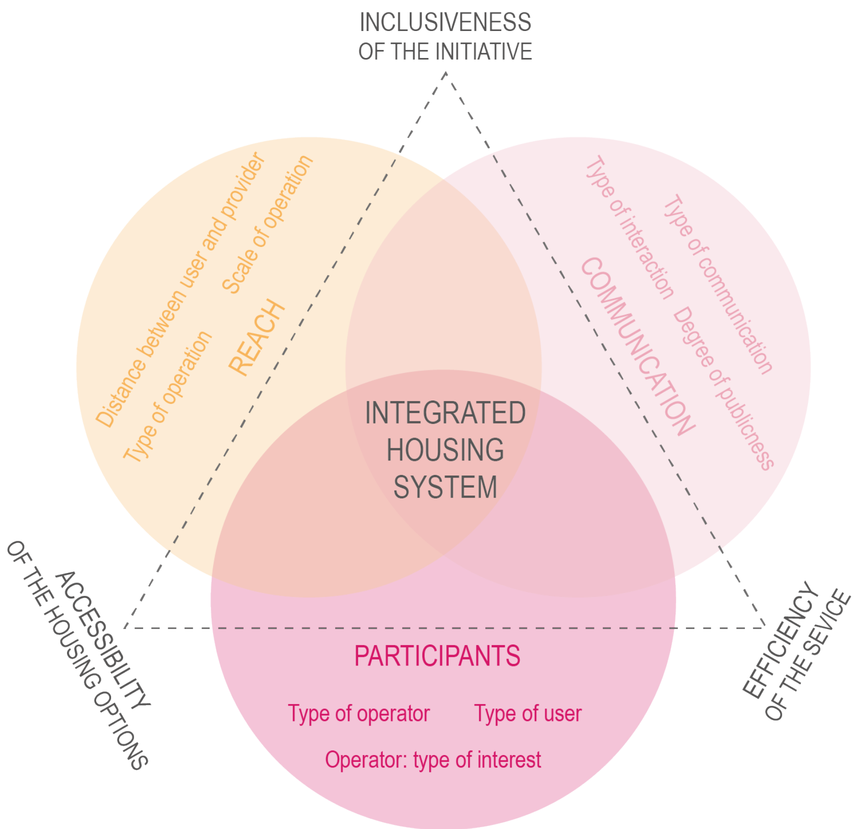
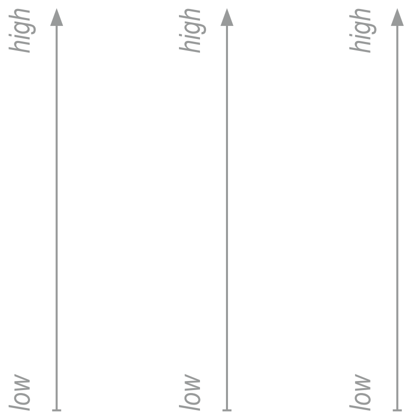
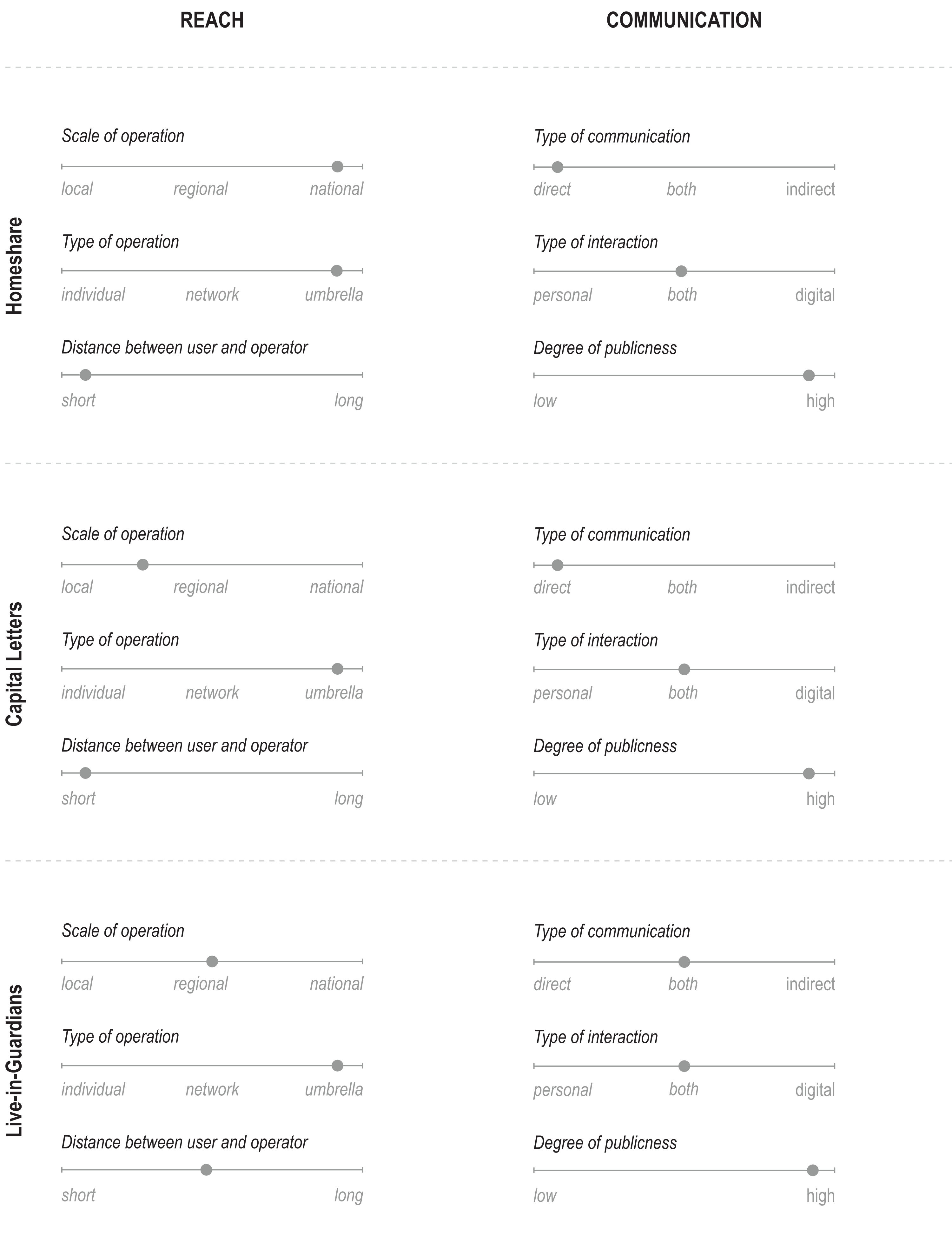


Figure 31: Conceptual diagram - three dimensions and evaluation criteria (by author)



Inclusiveness of the initiative   *Efficiency of the service*   *Accessibility of the housing options*

Based on the outcomes of the systematic comparison, the evaluation will take place. The evaluation of the initiatives follows three main criteria that were also established in the conceptual framework (see Figure 31).
The criteria include the degree of inclusiveness of the initiative, which means how many different types of user groups and providers can participate as well as how direct and personal the communication is.
Secondly, it includes the degree of efficiency of the initiative. This is determined by how efficient it is in terms of time and cost while delivering the best results.
Furthermore, the last criterion looks at the accessibility of the housing options. This means how accessibility the initiative is in terms of the scale and type of operation as well as which user group is able to access the offered housing options.


REACH
COMMUNICATION
Homeshare
Scale of operation
local regional national
Type of operation
individual network umbrella
Distance between user and operator
short long
Type of communication
direct both indirect
Type of interaction
personal both digital
Degree of publicness
low high
Capital Letters
Scale of operation
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Type of operation
individual network umbrella
Distance between user and operator
short long
Type of communication
direct both indirect
Type of interaction
personal both digital
Degree of publicness
low high
Live-in-Guardians
Scale of operation
local regional national
Type of operation
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Distance between user and operator
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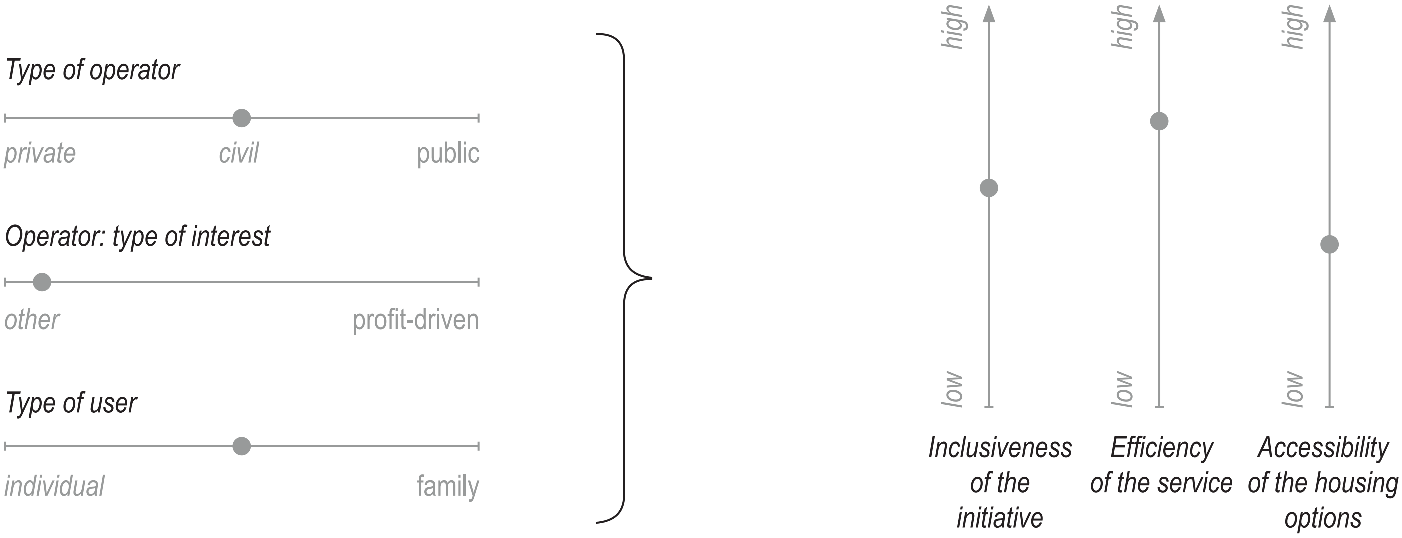
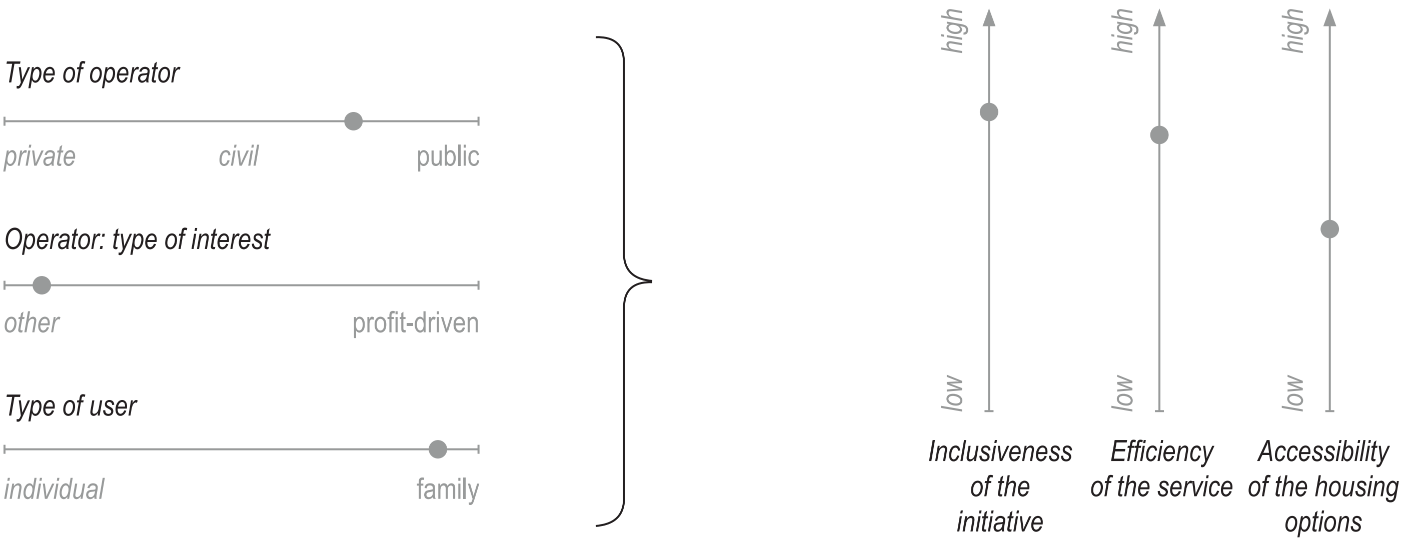
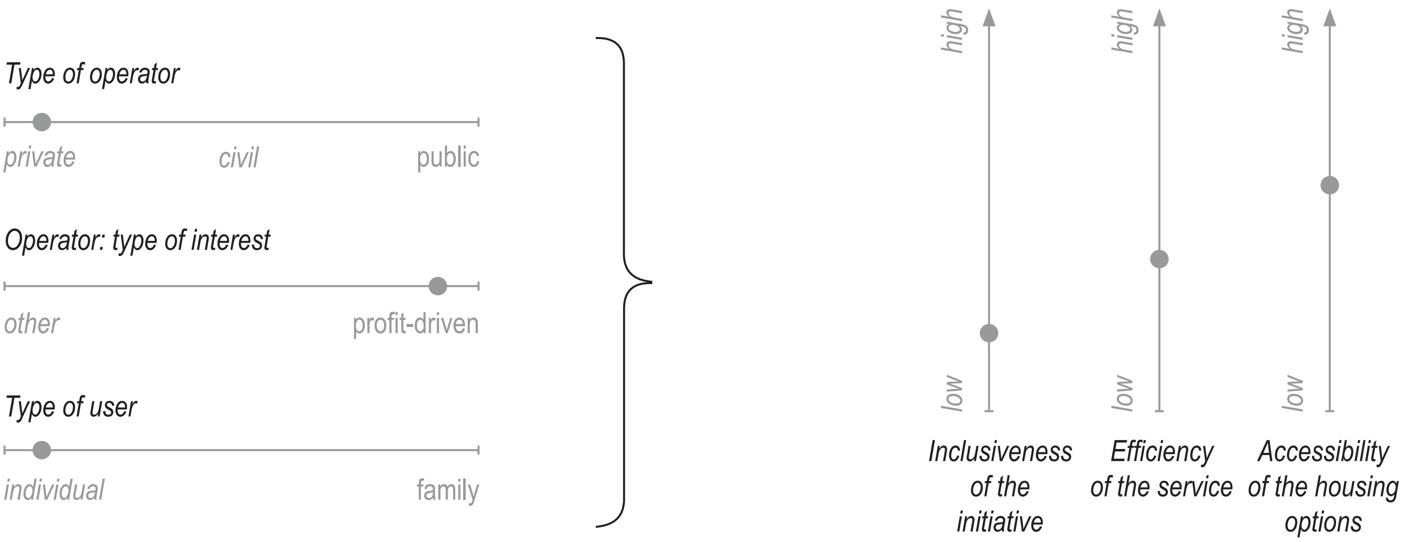
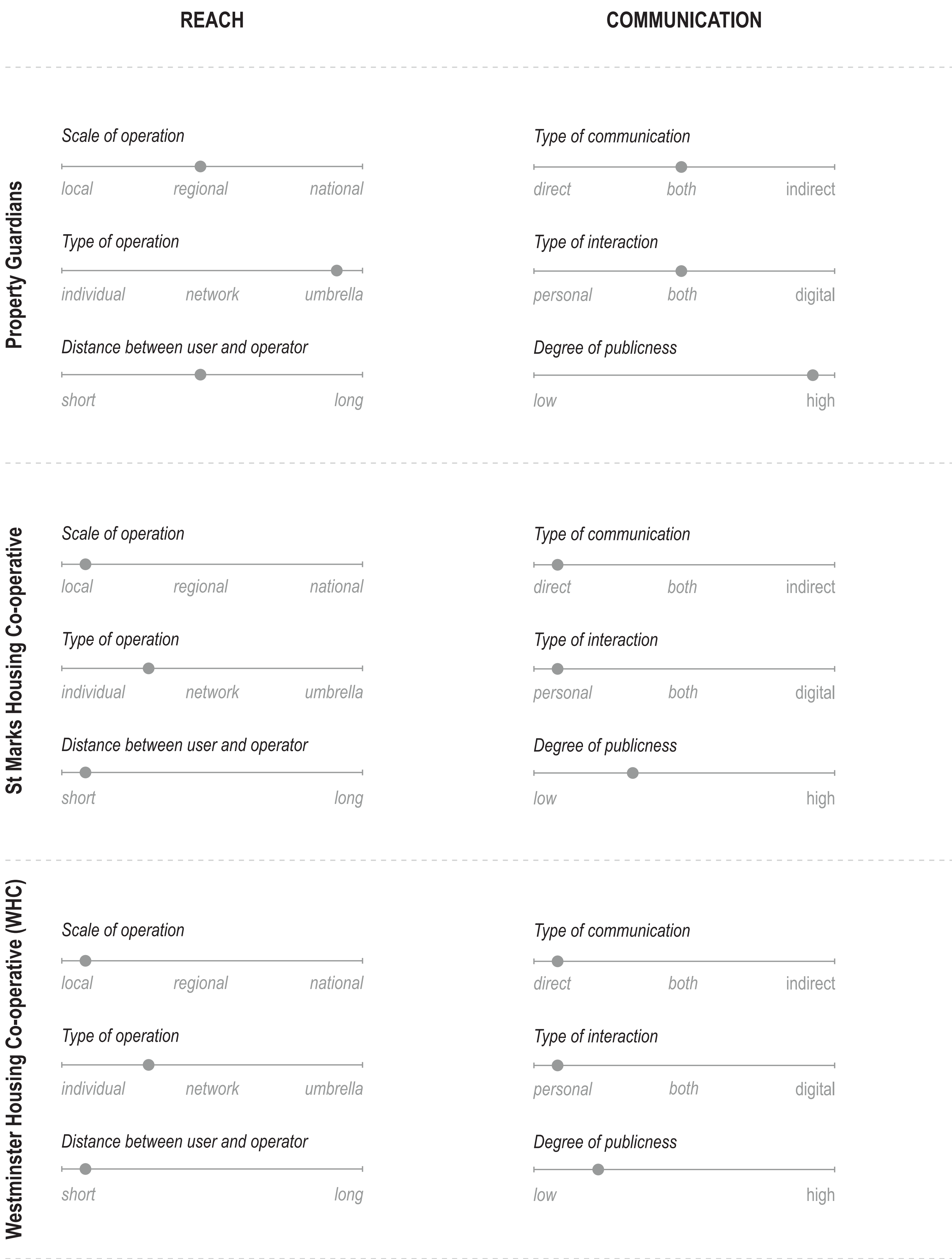
Type of communication
direct both indirect
Type of interaction
personal both digital
Degree of publicness
low high

PARTICIPANTS **EVALUATION**








REACH
COMMUNICATION
Property Guardians
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Type of operation
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Distance between user and operator
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St Marks Housing Co-operative
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Degree of publicness
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Westminster Housing Co-operative (WHC)
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Distance between user and operator
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both
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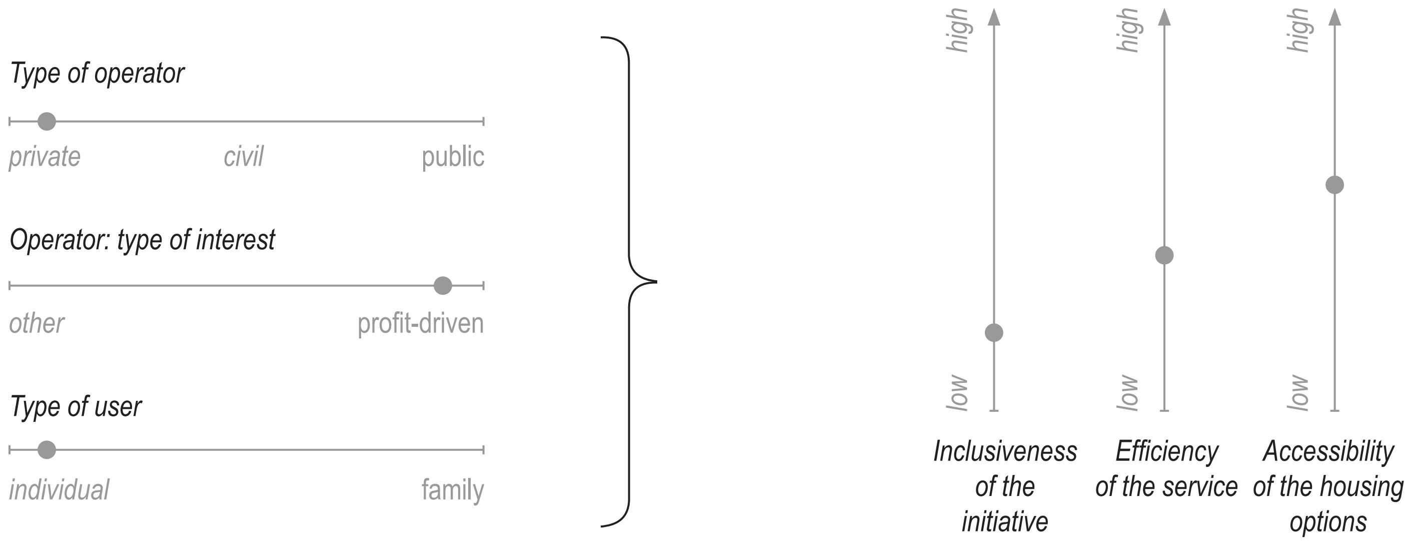
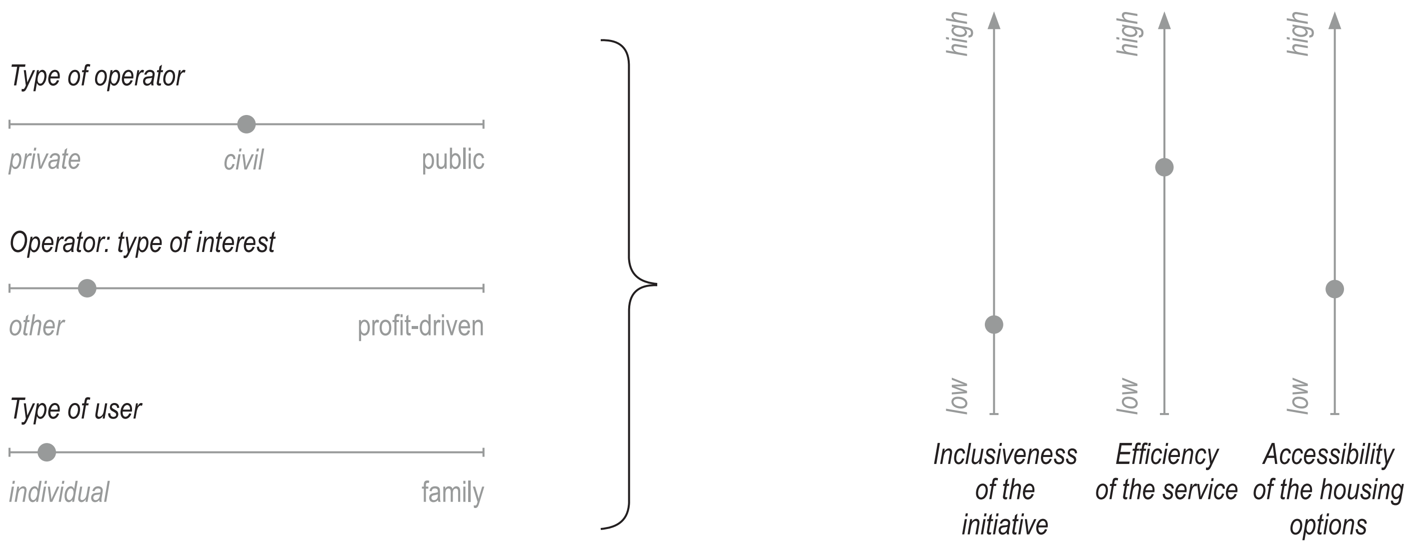
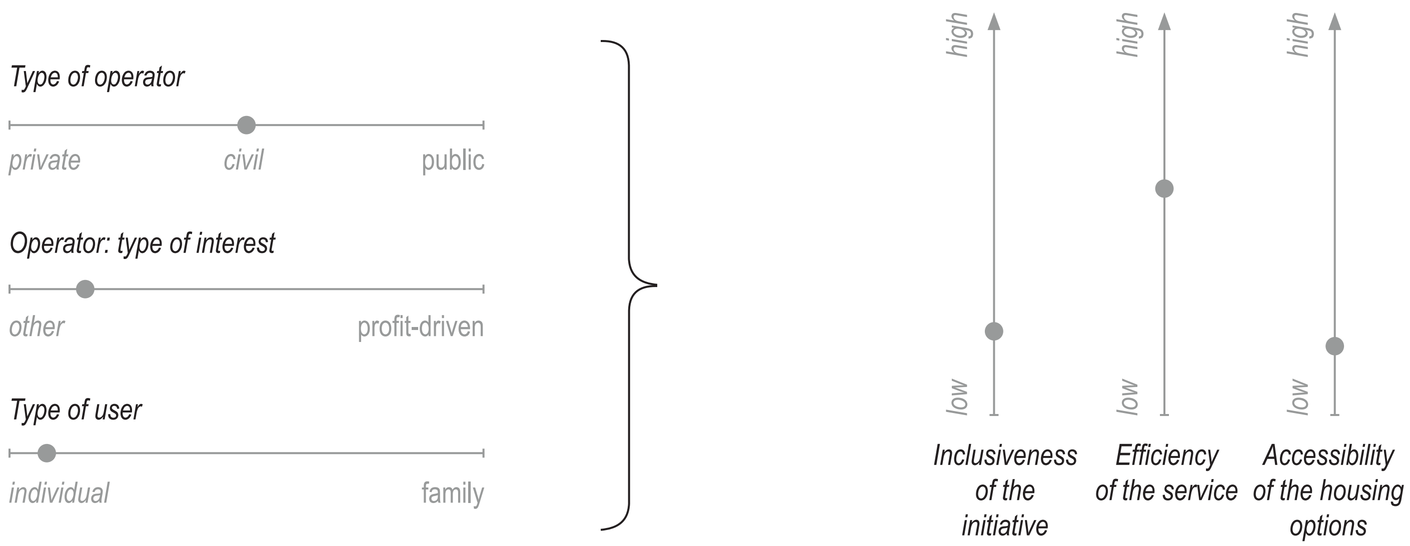
Degree of publicness
low
high

PARTICIPANTS **EVALUATION**







TWO TYPOLOGIES OF PRACTICES

The analysis of the different initiatives revealed that two dominant types of practices can be found.
The first type consists of small-scale initiatives that mostly operate on the local or regional level and in the form of networks. This type includes different housing co-operatives who work together with housing associations and local authorities as well as other small-scale initiatives. The communication and interaction mostly take place on a personal and direct level and their representation in public is relatively low. Although most initiatives have a representative website, face-to-face interaction and connecting through mutual contacts is the preferred practice. Furthermore, they often address a specific group of participants, and their practice is bound to a set of certain values. The advantage of this type of practice lays in their local knowledge and direct communication which makes them efficient in that way. On the other hand, their low visibility and specific group of participants makes them less accessible and less inclusive.

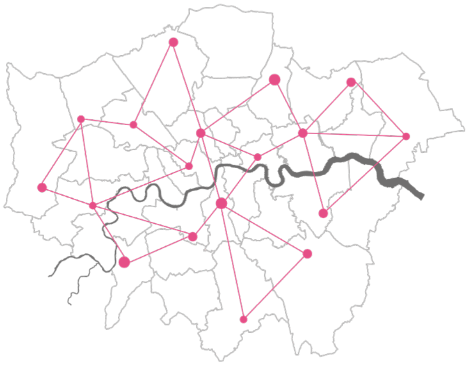
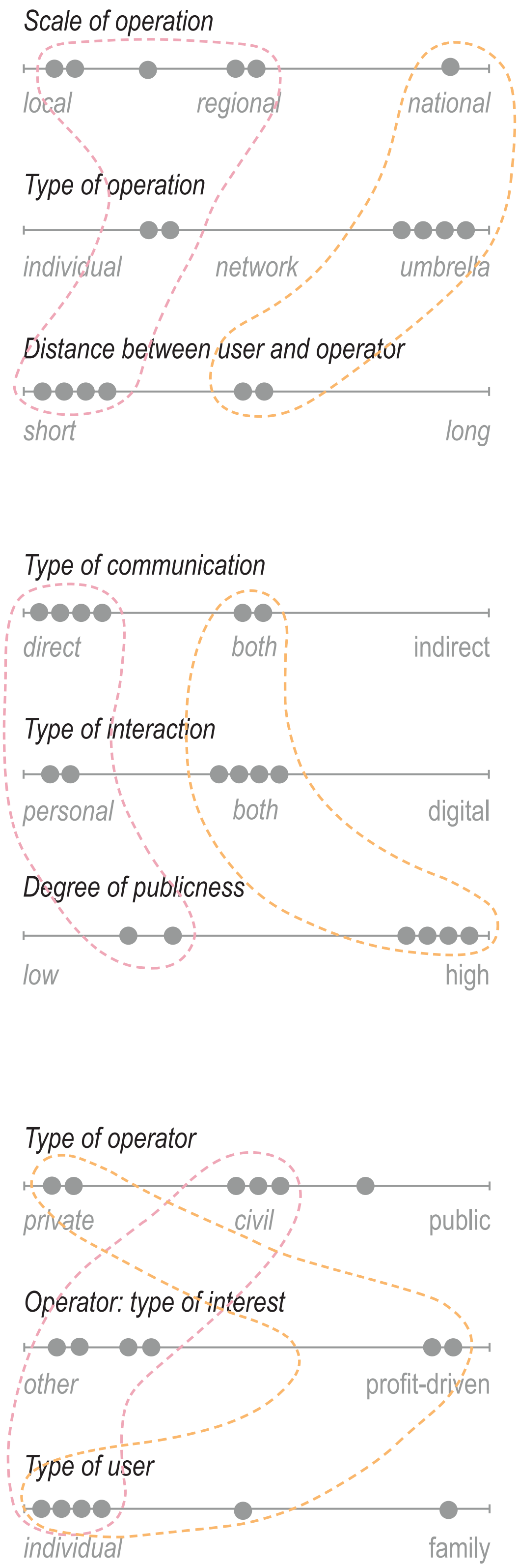


Figure 32: Network in Greater London (Image: by author)

In contrast, the second type of practice mostly operates on a regional of national scale and often consists of a umbrella or head organisation that oversees a group of local partners or provides their service in several scattered locations. The communication in the first instance is mostly digital and indirect. More direct interaction mostly happens at a later point in the process

Figure 33: Umbrella organisation in Greater London (Image: by author)

of housing distribution. A representative website and advertisement for their services guaranties these services a high degree of publicness. Depending on the specific service they provide, they might address a wider range of participants. For example, the property guardian scheme addresses a very specific user group in the form of young professionals, while the initiatives Homeshare and Capital Letters provide their service for a wider range of household types. Furthermore, there are both types of initiatives, the ones who are profit-driven and the ones that are motivated by other reasons. Depending on their reach and type of user group that is addressed, this type of practice might be more inclusive. While their degree of publicness is relatively high, the indirect and mostly digital could make them less accessible to certain groups. Finally, while the big scale of operation makes them efficient on the one hand, the profit-driven and centralised way of providing their services could be to the disadvantage of the user in terms of the efficiency.



STRENGTHS AND WEAKNESSES

In order to determine the strengths and weaknesses of both the formal allocation system and the informal practices, relevant literature and a number of conducted interviews will be analysed.
The literature consists of various research reports that investicate the formal allocation system and generally the topic of temporary housing. The interviewees include both, experts for temporary housing as well as members of the focus group who have first-hand experience with temporary housing and the allocation system.

The analysis is following a set of questions, that will help to selected the relevant information to determine the strengths and weaknesses of both the formal system and the informal practices.
The first question focuses on detecting the main strenghts and weaknesses of the formal allocation system for temporary housing.

What are the advantages and disadvantages of the formal allocation system?

In contrast, the second question is concerned with the informal practices and their advantages and disadvantages.

What are the advantages and disadvantages of the informal practices?

The last question focuses on understand how the formal allocation could learn and benefit from the informal practices.

How can weaknesses of the formal system be compensated by informal practices?

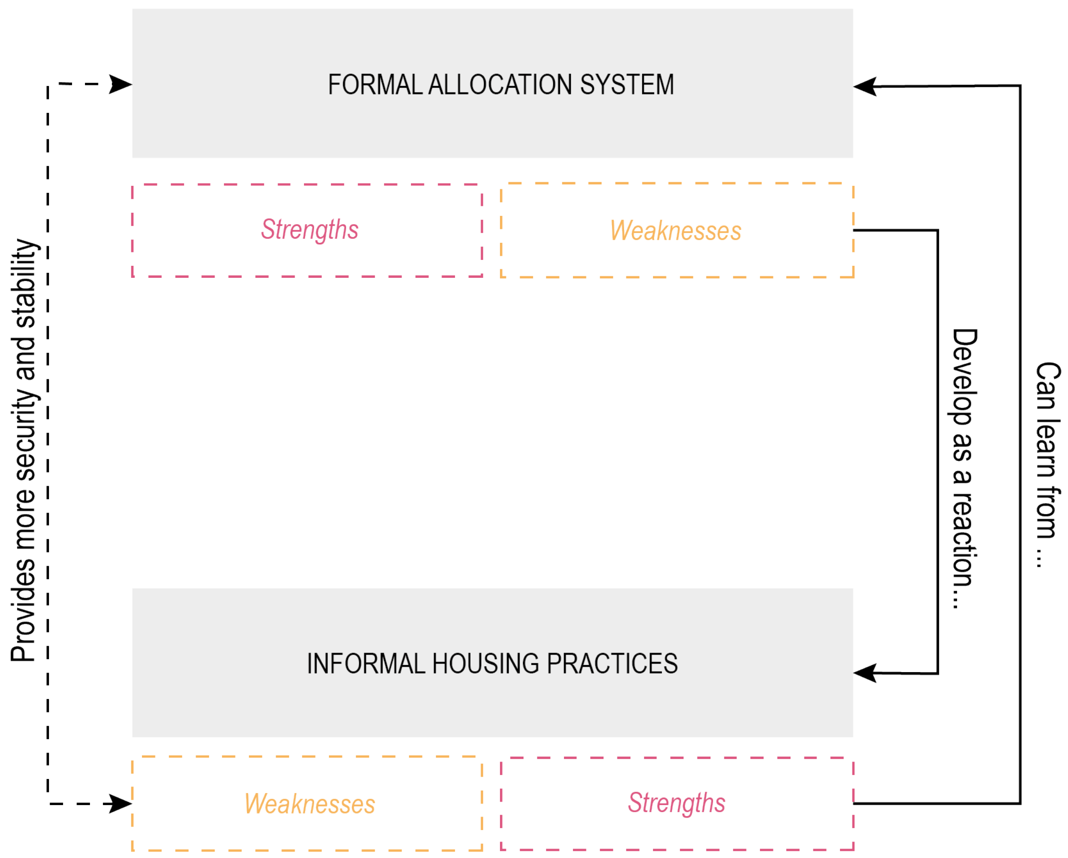


Figure 34: Relation between the strengths and weaknesses of the formal allocation system and the informal housing practices (Image: by author)

When evaluating strengths and weaknesses of the formal housing system, the biggest advantage that can be seen from the perspective of a low-income family is, that due to the fact that they have a priority need to be housed, the local authority cannot turn them away (A. Firth personal communication, March 22, 2023). Furthermore, once the household is in the system and in temporary housing, they have a place on the waiting list for a placement in social housing (M. Sirinathsingh personal communication, March 29, 2023). M. Sirinathsingh explains that if they were to move to the private rent sector, they could lose their waiting list place and thus have even more difficulty to move into long-term social housing (personal communication, March 29, 2023).

However, as Firth points out, the conditions in temporary housing are often quite bad due to the fact that there are either outdated standards or no standards at all for the unit and building conditions (2022). Moreover, due to a lack of funding and a shortage of housing officers, enforcing certain standards and quality of the housing units, handling complaints, and checking possible accommodation changes are processed slowly or not at all (M. Sirinathsingh personal communication, March 29, 2023; Bosetti et al., 2022). In addition, members of the Haringey Housing Action Group report from their first-hand experience, that they did not have a choice when it came to the location of their temporary accommodation and thus, displacement is often the consequence (personal communication, April 6, 2023). As M. Sirinathsingh and Bosetti et al. explain, due to the lack communication between the different local authorities, outbidding and cross-placements between boroughs occur on a regular basis (personal communication, March 29, 2023; 2022). According to Bosetti et al., this could be avoided by better communication and co-operation between boroughs (2022).

Strength	Weakness
Clear set of criteria for prioritising, selection and distribution (families with dependent children have a priority need)	*Outdated housing standards and unclear definitions of housing types and payment models*
Households in temporary housing are on waiting lists for social housing and have a right to be placed in social housing when it becomes available	*No choice between different options*
Legislation and regulation backdrop (Allocation scheme and process is set up by governemental bodies)	*Complaints and changing the accommodation is difficult due to shortage of housing officers*
	Competition between boroughs and crossed placements of households in the PRS
	Building conversions into temporary accommodation do not need planning permission - results in poor quality housing units

Figure 35: Analysis of the formal allocation system (Image: by author)

As previously mentioned, informal housing practices often make use of loopholes in regulations or develop due to failures of the formal system (Maalsen et al., 2022, p.8). Therefore, they can both, provide opportunities but also enable exploitation. Thus, one of their biggest disadvantages are unclear or missing regulations (Shrestha et. al., 2021). Furthermore, as M. Sirinathsingh explains, due to the general shortage of housing, landlords in the private sector have no incentives to provide decent tenancies and high-quality housing to low-income families that receive benefits (personal communication, March 29, 2023). As M. Sirinathsingh also mentions, for low-income families that want to move into social housing in the long run, staying in the formal system is the only option (personal communication, March 29, 2023). As soon as they move from temporary housing to a private tenancy, they could lose their claim to a placement in social housing if it becomes available (M. Sirinathsingh, personal communication, March 29, 2023)

In addition, A. Firth points out, that there is not really an alternative apart from the formal allocation system for low-income families as most of the informal practices address only specific groups which do not include families (personal communication, March 29, 2023). According to Bosetti et al., the only exception would be the initiative Capital Letters, as they aim to support low-income families to find long-term tenancies in the private rent sector (2022). Furthermore, the good practice of co-ordination and co-operation between boroughs done by Capital Letters could in the long run reduce displacement and minimise housing costs (Bosetti et al., 2022). Moreover, a co-ordinated communication and generalised standards could also ensure a higher quality of the provided housing (Bosetti et al., 2022).

Strength	Weakness
The private rent marked and initiatives operating on a local scale provide an alternative for finding local solutions	*Focus on specific user groups (oftentimes low-income families are excluded)*
Informal initiatives provide users with a choice between different housing options	*There is no housing duty from the operator's side (thus, reduced accessibility and exclusion of certain groups)*
Co-ordination like it is done in initiatives like Capital Letters and the different housing co-operatives reduces displacement and potetially housing costs	*When a household holds a private tenancy they do not have the right for a placement in social housing when it becomes available*
Co-ordination can ensure the upkeep of certain standards	*Landlords in the private rent sector do not have any incentives to provide affordable and high-quality housing to low-income groups due to the general housing shortage*
Financial incentive and the structure of the private market could ensure higher housing standards	*Limited or no regulations and policies can lead to exploitation of users*

Figure 36: Analysis of informal housing practices (Image: by author)

CONCLUSION

The analysis of informal practices and the systematic comparison of different initiatives shows that the informal practices have a great potential to provide alternative solutions for temporary housing. However, it also became apparent that most initiatives do not address low-income families and thus the formal allocation system still needs to be considered as an essential part in the provision of temporary housing solutions.

As emphasised in the problem definition, the formal allocation system is currently failing to provide sufficient temporary housing in London. The main weaknesses of the formal system are the lack of local solutions and consequently displacement, inconsistent communication and a lack of co-operation and co-ordination. Therefore, in relation to these aspects the formal system can learn something from informal practices. Especially, housing co-operations and associations that work on a non-profit base and in close interaction with local communities are interesting in that regard. The analysis revealed that the main advantages of these initiatives are their local knowledge and direct interaction with people and communities due to operating on the smaller scale. Moreover, they are oftentimes part of a bigger network of initiatives and operations that work in co-operation by co-ordinating their actions and exchanging their knowledge and resources.
However, as these initiatives are mostly working on a non-profit base or with volunteers, they are dependent on financial support in order to operate and have a visible impact that could also benefit the low-income families. Thus, London should implement a framework of policies and regulations that supports and encourages the work of these small-scale initiatives. Furthermore, provision of funding and resources are important for their success.

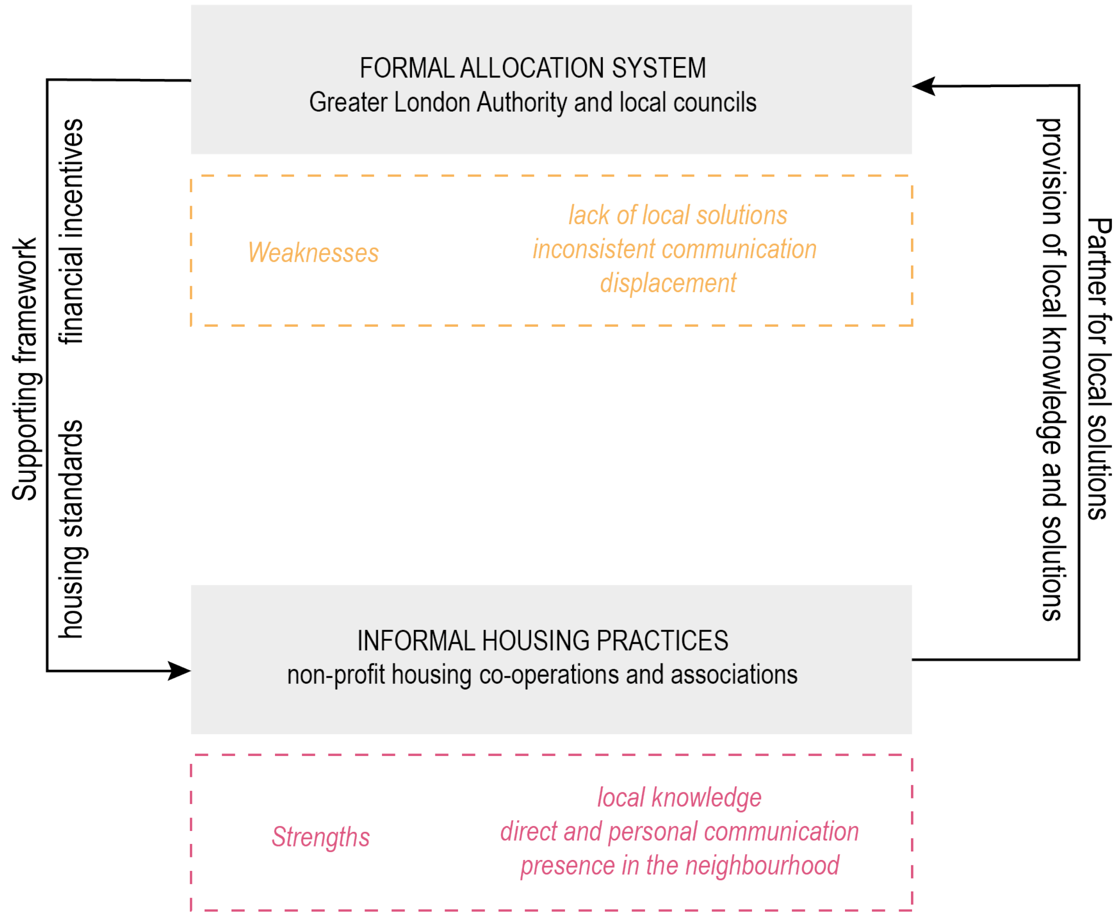


Figure 37: Learning, supporting and benefitting from informal practices (Image: by author)

LOW-INCOME FAMILIES

“It is often the case for families with children that they will end up in temporary commendation as a way of staying off the street basically.”

- Melanie Sirinathsingh

DEFINING LOW-INCOME FAMILIES

As introduced in the problem statement, the focus group of this thesis are low-income families. A low-income family is defined by several characteristics and therefore has special claims when it comes to the provision of housing.

As Figure 38 shows, the household's income needs to below a certain percentage of the median income to be considered low (Department for Work and Pensions, 2023).
Furthermore, a household is defined as a family or benefit unit when there are one or more dependent children living with at least one parent (Department for Work and Pensions, 2023).
As Sanders explains, children are considered to be dependent when they are below a certain age or in full-time education (2019). When a household fulfils all these requirements and is considered to be a low-income family, it has a priority need when it comes to housing provision when threatened with homelessness (Shelter, 2023).
Additionally, people with priority need also include pregnant women, people at the risk of domestic abuse, as well as victims of emergencies such as floods, fires or other catastrophes (Shelter, 2023).

In order to understand the needs and requirements of low-income families when it comes to temporary housing solutions, first their specific situation in London will be analysed. This is followed by researching their needs and requirements through an analysis of policy documents, research reports and papers as well as an interview conducted with members of the focus group. The aim is to have a set of requirements with different priorities for both the housing unit and the area as the main outcome.

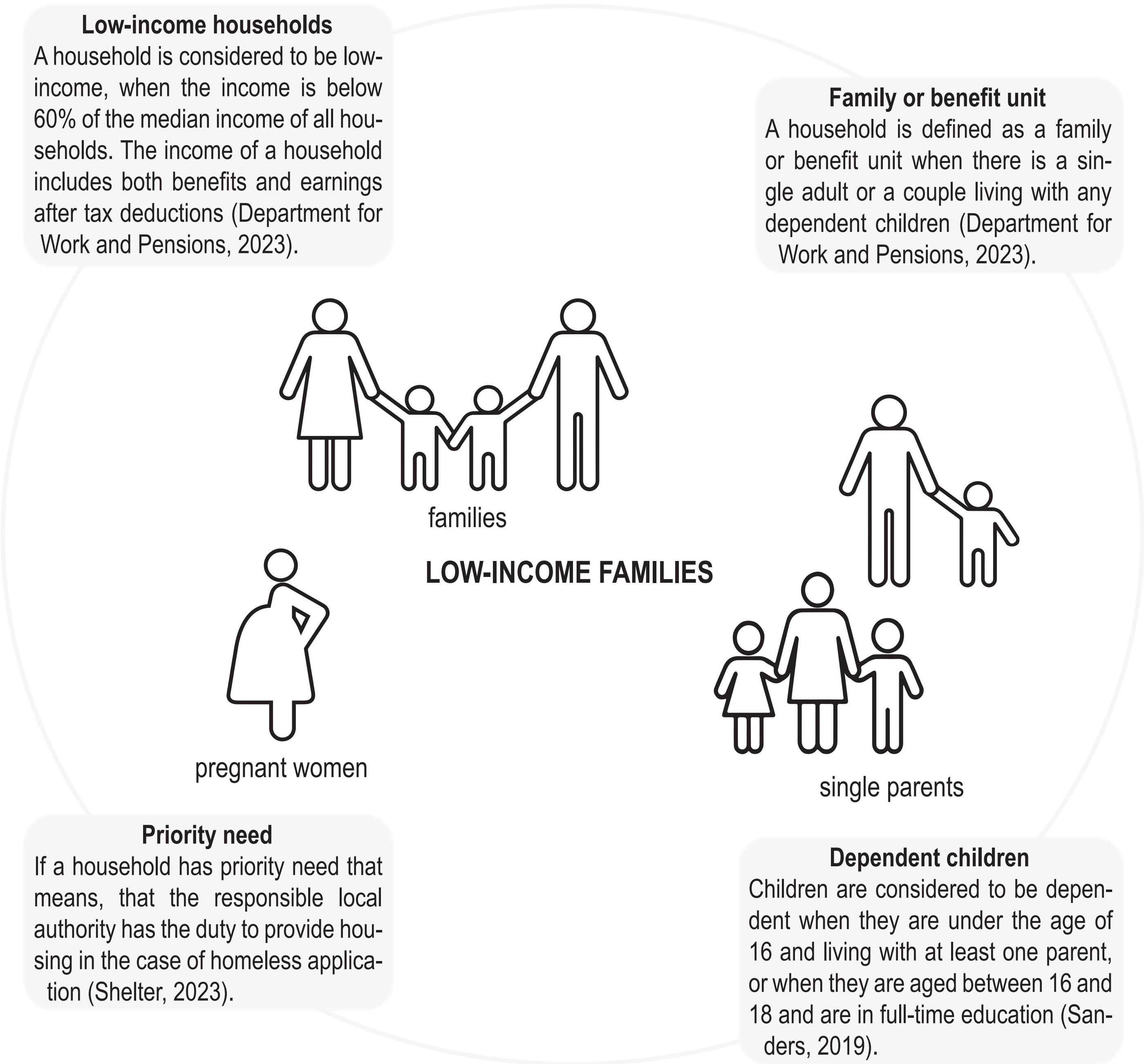


Figure 38: Definition of low-income families (Image: by author)

LOW-INCOME FAMILIES IN LONDON

A complex mix of several factors has led to what is nowadays known as the 'cost of living crisis'. While the crisis is a national phenomenon as A. Firth points out, it is most pronounced in the English capital (personal communication, March 22, 2023).

As Figure 39 shows, in general households in poverty pay a larger amount of their net income for housing costs. While in the rest of England this share makes up about 36% the number in London is significantly higher with 54%.
The UK has a financial support system installed that makes low-income households eligible to claim housing benefits to help pay their rent (Government Digital Service, 2014). However, the housing benefit was capped in 2013 and reduced in the following years (Bosetti et al., 2022). According to Bosetti et al. 53.000 households were receiving capped housing benefits in London in 2021 which makes up 36% of all households (2022). Combining this benefit cap with constantly increasing rent prices makes living in London more and more inconceivable. As Bosetti et al. illustrate in the current situation of the housing market, families that receive the housing benefit and are thus affected by the cap can only afford around 0.1 to 0.8 of the properties offered in the private rent sector in London.

A. Firth explains that in areas with high wealth and limited housing stock the problem and consequently the poverty rates are even more pronounced, and this is supposedly more often the case in the Inner London boroughs (personal communication, March 22, 2023).
This correlates with what is visualised on the adjacent map as it shows the poverty rate of households after the housing costs are deducted (see Figure 40). It can be seen that the poverty rate steadily increases towards the inner city. Furthermore, the numbers in the North-east are generally higher with the borough Tower Hamlets at the top of the list.

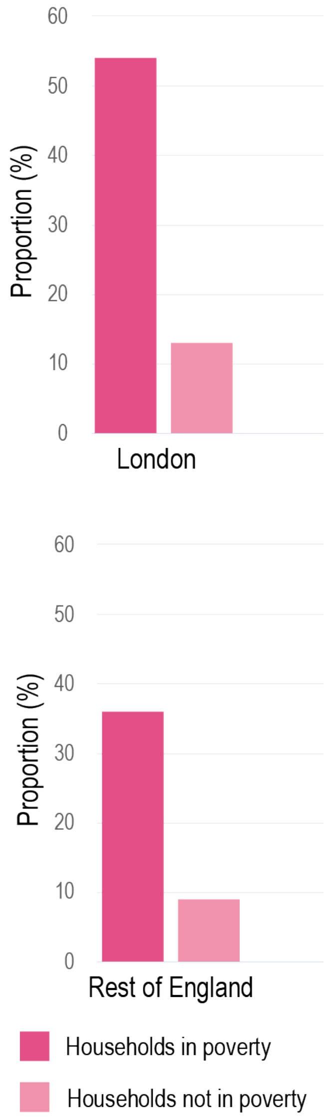


Figure 39: Housing costs as proportion of net income in 2019/20 (Image: redrawn from MHCLG, London's Poverty Profile 2022)

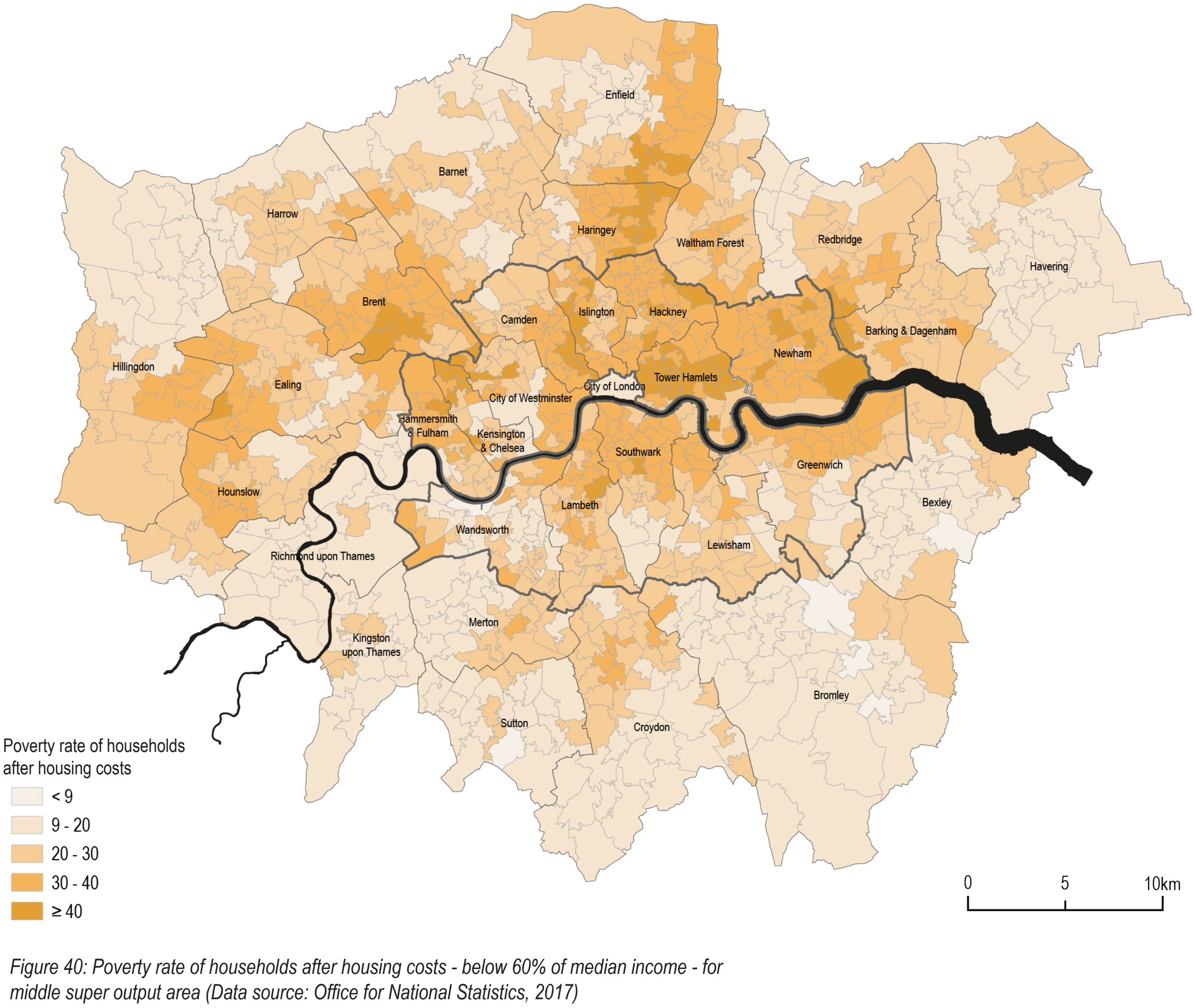


Figure 40: Poverty rate of households after housing costs - below 60% of median income - for middle super output area (Data source: Office for National Statistics, 2017)

While the cost of living crisis is impacting all household types, families with dependent children and especially single parents are overly affected.
This can be seen in the accompanying diagram which shows households in poverty in London versus the rest of England by family type. In London around 50 percent of families consisting of single parents with children are living in poverty while couples with children are affected around 28 percent of the time (see Figure 41).
As families with one or more children need more living space and good access to certain facilities like schools and work it is more difficult for them to find suitable homes in London's competitive housing market (Bosetti et al., 2022).

In a research report for the London Assembly, Leeser estimated that overall 29 percent of children in London are counted as living in persistent poverty (2022). The following map indicates in which areas these children are located. Included are all children between the age of 0 and 17, meaning dependent children, that are living in low-income families (see Figure 42). It can be noted that coinciding with the previously presented poverty rates, the percentages are the highest in the inner boroughs and especially the north-eastern boroughs. Once again, the borough Tower Hamlets counts the highest numbers.

Additionally, the Trust for London points out that children living in poverty are most common in the group of social renters with an estimated number of roughly 350.000 followed by private renters with around 295.000 (n.d.). With the rising rent prices and the shortage of social housing, consequently more families have to move into temporary accommodation.

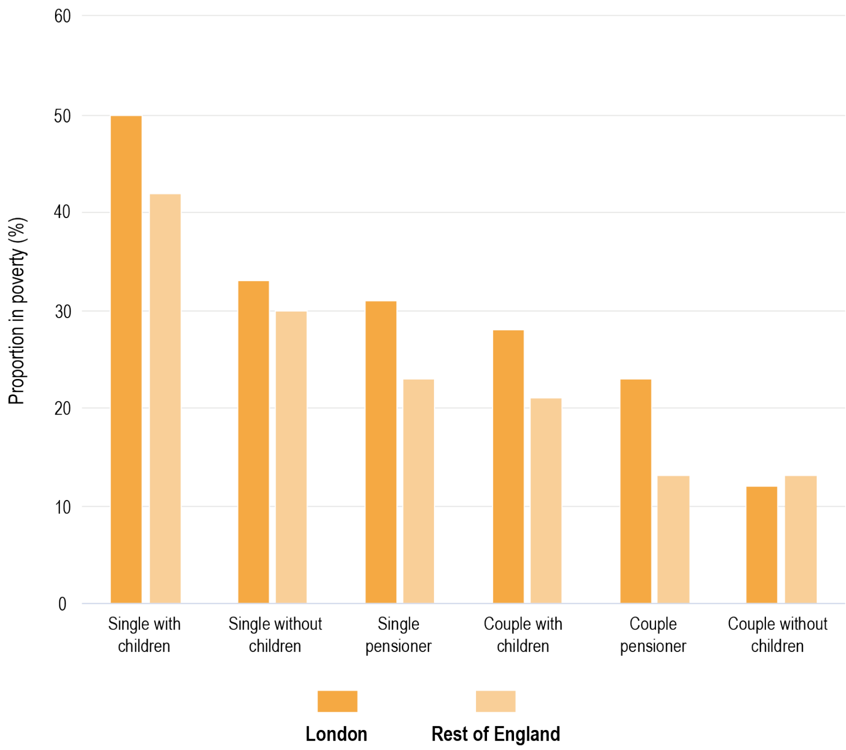


Figure 41: Proportion of households in poverty by family type, 2019 - 2020 (Image: redrawn MHCLG, London's Poverty Profile 2022)

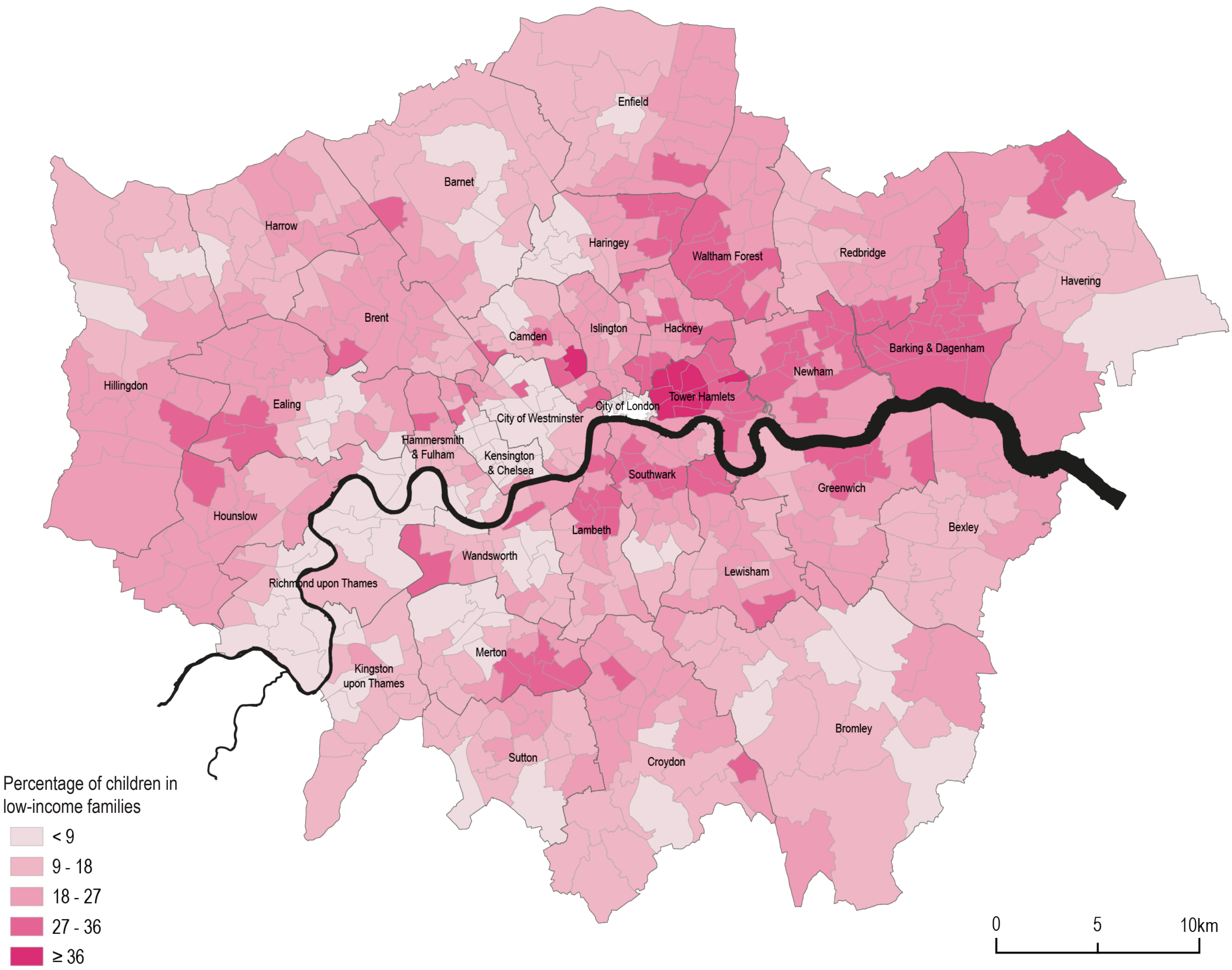


Figure 42: Percentage of all children aged 0 -17 living in low-income families (Data source: Greater London Authority, 2021)

HOMELESSNESS AND DISPLACEMENT

The established issues of high poverty rates and high rent prices have severe consequences for many families as it puts them at an increased risk of homelessness. When they are no longer able to sustain a tenancy on their own the become dependent on their local authority to provide them housing. M. Sirinathsingh remarks, in these cases the families should be moved into social housing (personal communication, March 29, 2023). Due to the shortage of social housing stock however, this is most often not possible.
Statistics show that there are currently around 300.000 households in Greater London on waiting lists for social housing (GLA, 2023). Consequently, most of these households are moving into temporary accommodation as an alternative solution.

Bosetti et al. point out that while the chance of becoming homeless is not significantly higher in London compared to other parts of England, the percentage of households living in temporary accommodation is much higher than in the rest of the country (2022). As Figure 43 shows, 62% of the national total of households living in temporary accommodation are located in London.
As M. Sirinathsingh describes families as a household type have a specific set of needs that make it even more difficult to find them suitable and affordable housing in the private rent sector (personal communication, March 29, 2023). However, as these families have dependent children as household members, they are defined as households of 'priority need' (Bosetti et al., 2022). Thus, the councils have a housing duty towards them which in most cases ends with a placement in temporary accommodation (A. Firth, personal communication, March 22, 2023).

The accompanying map shows the number of households including children that are currently living in tempo-

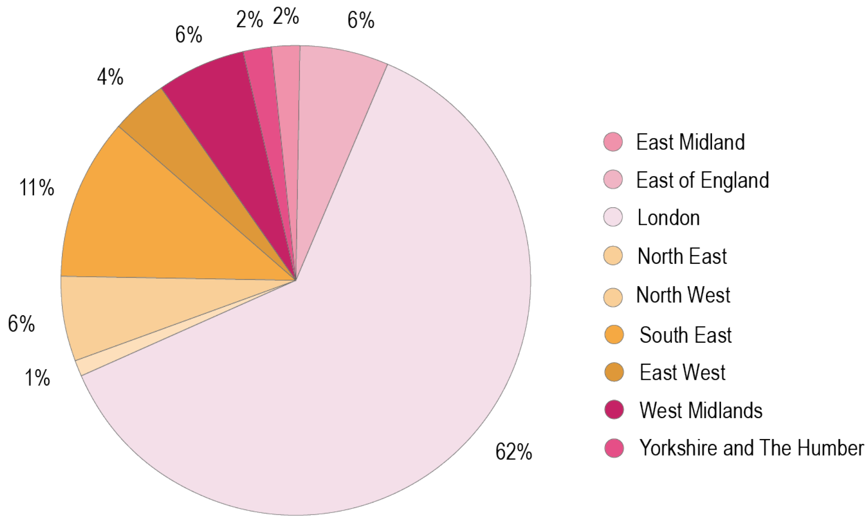


Figure 43: Households living in temporary accommodation, percentage of national total, by region - Q4 2021 (Image: redrawn from Bosetti, N. et al., 2022)

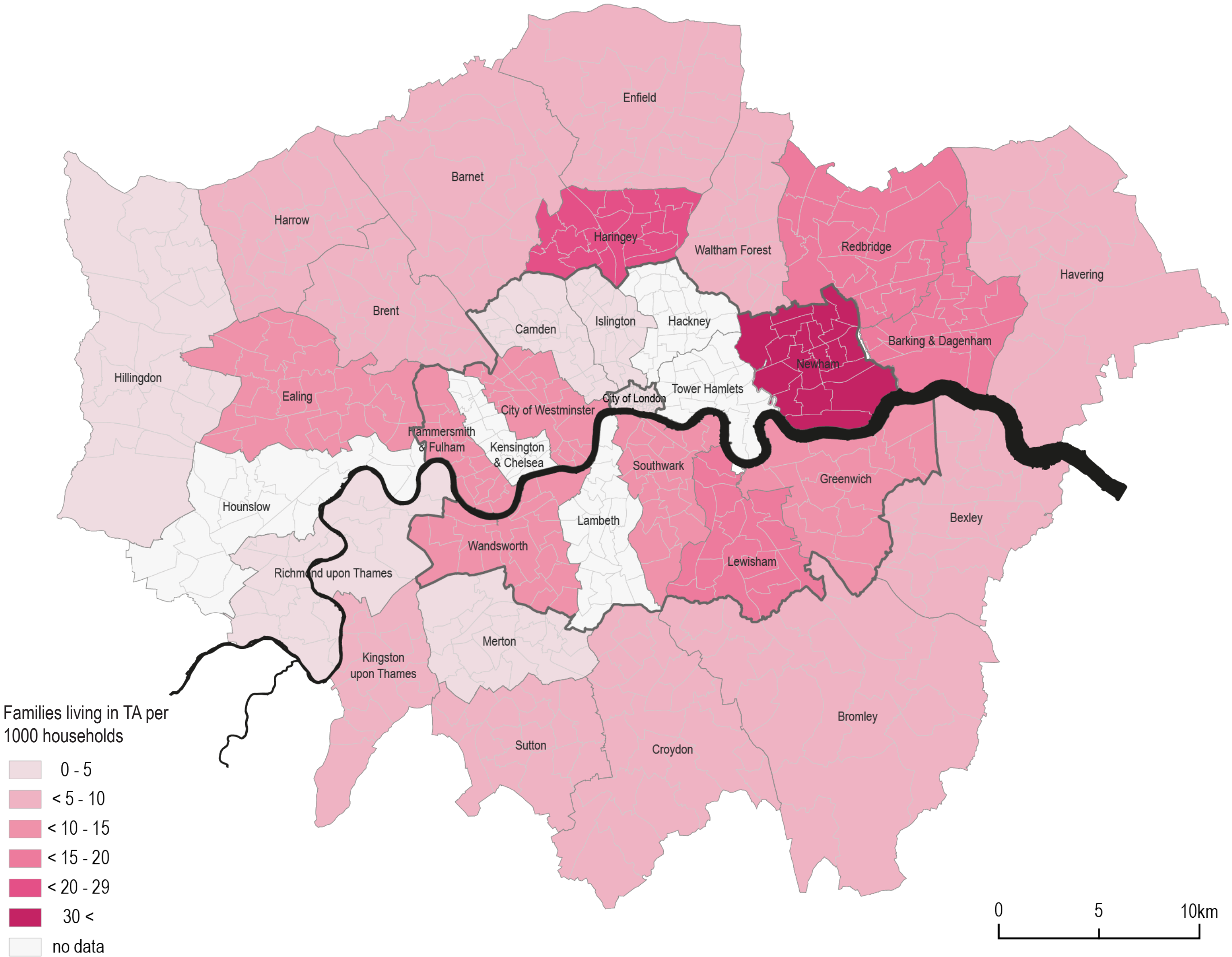


Figure 44: Households including children (families) living in TA per 1000 households (Data source: Trust for London, 2022)

rary accommodation per 1000 households (see Figure 44). Similar to the previous observations regarding the poverty rate and children in low-income households, the numbers are visibly higher in the inner-city boroughs. As the number show, the borough of Newham counts the highest figure of families in temporary accommodation with over 30 per 1000 households. They are followed by Haringey with the second highest rate and some boroughs in north-east London on the third position. In outer boroughs the average lays by 10 - 15 families per 1000 households.
Furthermore, it should be noted that for some boroughs there is no data available. Based on the previous analysis and a row of independent reports however, it can be assumed that Tower Hamlets, Hackney, and Lambeth will also record high numbers of families in temporary accommodation.

As Bosetti et al. noted, the lack of supply for both social housing and temporary housing also often result in out-of-borough placements (2022). M. Sirinathsingh explains how they could happen between boroughs because housing units in neighbouring boroughs might be more affordable (personal communication, March 29, 2023). Next to an out-of-borough placement, it can also occur that a household is placed outside of the Greater London area. The accompanying map shows where placements outside of London have been made between September 2020 and 2021 (see Figure 45). Most placements are made to adjacent local authorities, but some placements are also several hundreds of kilometres away. Bosetti et al. also note that the available data regarding out-of-borough and out-of-area placements is “complex and poor”, thus it is difficult to estimate how many households are actually affected (2022).
However, these placements or more displacements can have severe consequences for the people’s lives as they oftentimes get separated from their local community and services as well as family and friends and they have to adjust to a new environment while being in an uncertain situation.

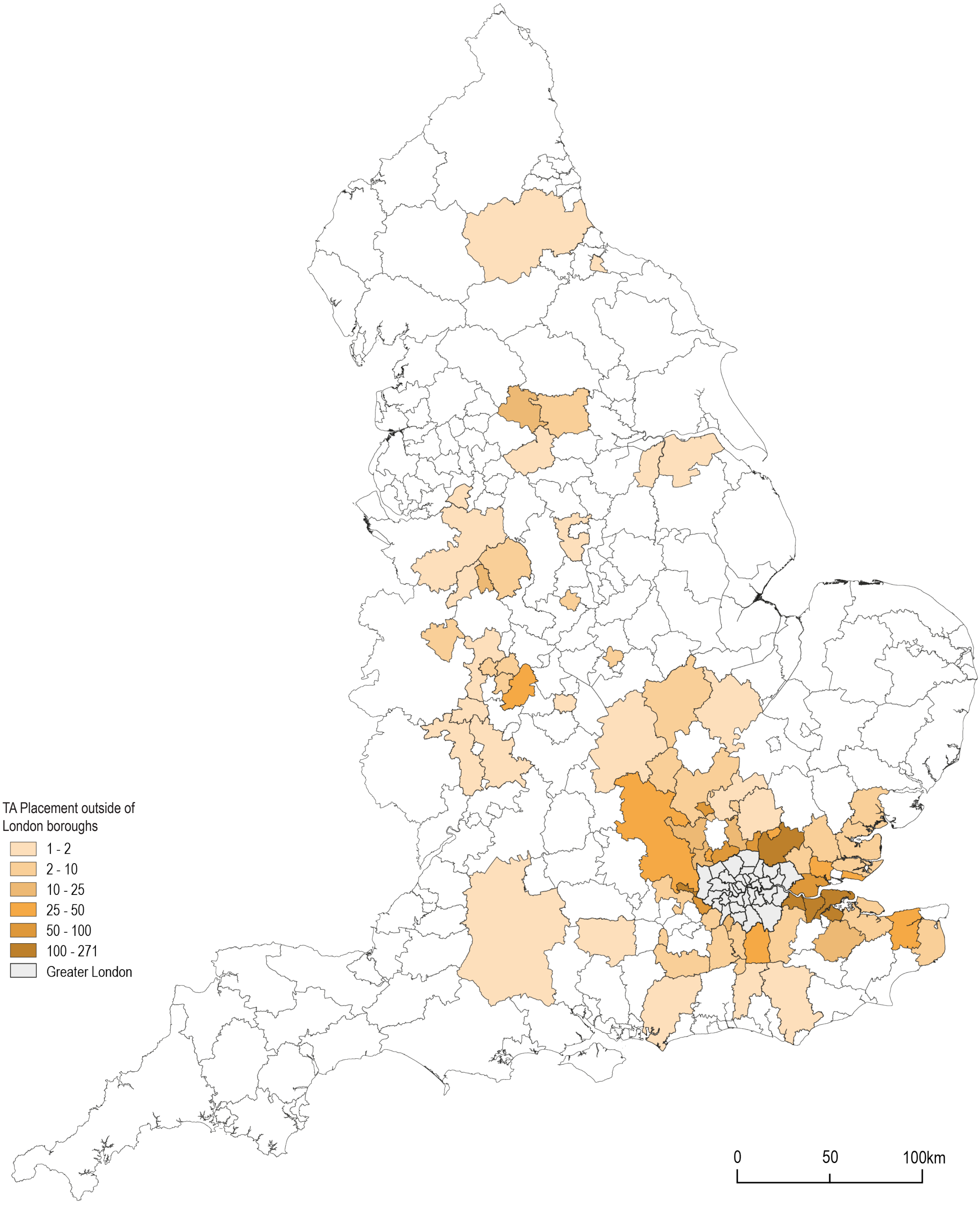


Figure 45: Placements outside of London boroughs made between September 2020 and 2021 (Image: redrawn from Bosetti, N. et al., 2022)

DETECTING NEEDS AND REQUIREMENTS

As the situation of low-income families in temporary accommodation in London is particularly severe, in order to improve their situation and understand how they can benefit from alternative temporary housing solutions, their needs and requirements regarding these solutions need to be defined.
Therefore, the first step will consist of a short recaption of the guiding concepts for defining the needs and requirements. These concepts are livability, the meaning of 'home', as well as social safety. This is followed by a literature review based on several research reports, as well as the evaluation of the three of interviews conducted with both, experts, and members of the focus group.

As previously mentioned, there are three guiding concepts for understanding the needs and requirements of low-income families when it comes to temporary housing solutions.
The first concept 'livability' focuses on covering both the basic needs like security, a safe shelter and access to food, as well as how the conditions of the surrounding environment influence the physical and mental well-being (Ruth & Franklin, 2014). Thus, livability refers to both a safe and appropriate housing unit as well as certain conditions of the surroundings including the physical environment, services, ecosystems, and infrastructure (Ruth & Franklin, 2014).
The second concept is concerned with the term 'home'. According to Overtoom et al. 'home' refers to a place with a meaningful and emotional connection (2018). This connection is built through appropriation and personalisation of the domestic space (Overtoom et al., 2018). Thus, the building layout and the flexibility of residential space and well as the possibility of appropriation of residential space are important for feeling at 'home' (Overtoom et al., 2022).
The third and last concept focuses on 'social safety'. This means the physical well-being and perceived safety that people experience in public space (Kiełek, 2022). As Carro et al. explain, this includes parts of the urban environment like parks, sidewalks, and public squares (2010). Furthermore, characteristics like the size and design of buildings, the degree of density and the general structure of the urban

space have an impact on the perception of safety on the bigger scale while characteristics like the layout of the street profile, the lighting of the street and the design of the ground floor facade have an impact on the small scale (Carro et al., 2010; Gehl, 2011).

In order to analyse both the related literature and the conducted interviews regarding the needs and requirements, a pair of questions are used as a guide.
The first question refers to the requirements housing units.

What are the requirements for housing units to make them liveable and feel like 'home' for a low-income family, considering their temporary use?

The second question focuses on the building requirements in relation to the building typology, the general structure, and the transition zone between the inside and outside.

What are the requirements for buildings to ensure that they can provide liveable and safe temporary housing for a low-income family?

The third and last question refers to the surrounding area of the temporary accommodation.

What are the requirements for an area to provide a safe and liveable environment for the temporary home of a low-income family?

In the literature review several scientific papers and research reports were analysed to detect the needs and requirements of low-income families for temporary housing solutions on different scales.

One of the most important aspects that was mentioned several times is the size of the housing unit. Firth explains how the units are often too small and overcrowded as families with three or more members share a one-room apartment in many cases (2022). The definition of 'overcrowding' differs between the UN and the UK, and Firth emphasises that the UK standards are outdated (2022). Apparently, the UN definition states that units, where more than two household members live in one room, are considered 'overcrowded' (Firth, 2022). It is also pointed out that children need a certain amount of physical space at home to have a sufficient study and play environment (Coley et al., 2012). An aspect that was particularly important during the Covid-19 pandemic (Firth, 2022). Therefore, sufficient unit sizes with enough rooms should be provided.

In addition, Bosetti et al. recommend that the provided housing units, especially when they are located in the private rent sector, should either come furnished or that the local authority should include a furniture pack (2022). This is due to the additional cost of furnishing a housing unit as well as the time aspect and urgency the comes with moving into temporary accommodation (Bosetti et al., 2022).
Coley et al. emphasise the importance of proper insulation, working heating facilities, and ventilation, as well as enough daylight to create liveable and healthy environments (2012). These aspects are also mentioned by Firth in relation to preventing dampness and mold in the housing units (2022).
Furthermore Bosetti et al. point out the importance of functioning private bathroom and kitchen facilities for families, as they ensure a safe and hygienic environment (2022). Thus, it is recommended that a family lives in a self-contained unit that includes a private bathroom and kitchen or kitchenette (Firth, 2022).

For the placement of the families, Bosetti et al. underline that it is prefera-

Figure 46: Title image of the report “I want us to live like humans again” (Photo: by Ratcliffe C./ Getty Images, n.d.)

Figure 47: Title image of the report “Temporary Accommodation: London’s hidden homelessness crisis” (Photo: Allan, B., n.d.)

ble to keep them as close as possible to their previous home (2022). Especially, children should, if possible, stay in their familiar environment including facilities like nurseries, schools, and GPs (Bosetti et al., 2022). In addition, the access to facilities for treating physical and mental health issues, like GPs, community networks and services, are emphasised (Croft et al., 2020). Furthermore, placements where the adult can keep their current job are preferable as this increases stability and the chance to leave the temporary housing situation earlier (Bosetti et al., 2022).

In the case that a placement is out-of-borough or out-of-area, Bosetti et al. explain that for the commute a foot or bus connection should be considered over an underground or train connection (2022). This is due to the fact that the price for a bus fare is lower than the underground or train (Bosetti et al., 2022).

In order to detect the needs and requirements of low-income families, the three interviews conducted with housing experts and members of the focus group will be analysed based on the three previously introduced guiding questions.

An aspect that was mentioned by all interviewees was the size of the housing units. While the members of the focus group explain how the small units impacted their comfort and stress levels, the housing expert points out that these units should be declared overcrowded. However, A. Firth explains that the definition of overcrowding that is used in England is dating back to 1935 and is not adjusted to the modern standards (personal communication, March 22, 2023). Thus, temporary housing placements in the small units are legal according to the English law.
Furthermore, one member of the HHAG reports that in their experience maisonette apartments do not provide a safe environment for small children or people with physical limitations (HHAG, personal communication, April 6, 2023). Thus, the layout of the units should be considered for the selection as temporary housing options for families. M. Sirinathsingh emphasises how housing units with private bathrooms and kitchens should be prioritsed for families as this ensures a safe environment for children (personal communication, March 29, 2023). Several members of the focus group have remarked that aspect as well (HHAG, personal communication, April 6, 2023).
In addition, members of the focus group emphasise the importance of decent windows for enough daylight and ventilation (HHAG, personal communication, April 6, 2023). In that context the housing expert explains the need for proper ventilation, as well as insulation and heating facilities in order to prevent cold, dampness and mold, as this is apparently a reoccurring issue in many temporary housing units that are currently provided in London (A. Firth, personal communication, March 22, 2023).
Moreover, another member of the HHAG explains that the provided accommodation would feel more comfortable and like a home if they were allowed to decorate and appropriate

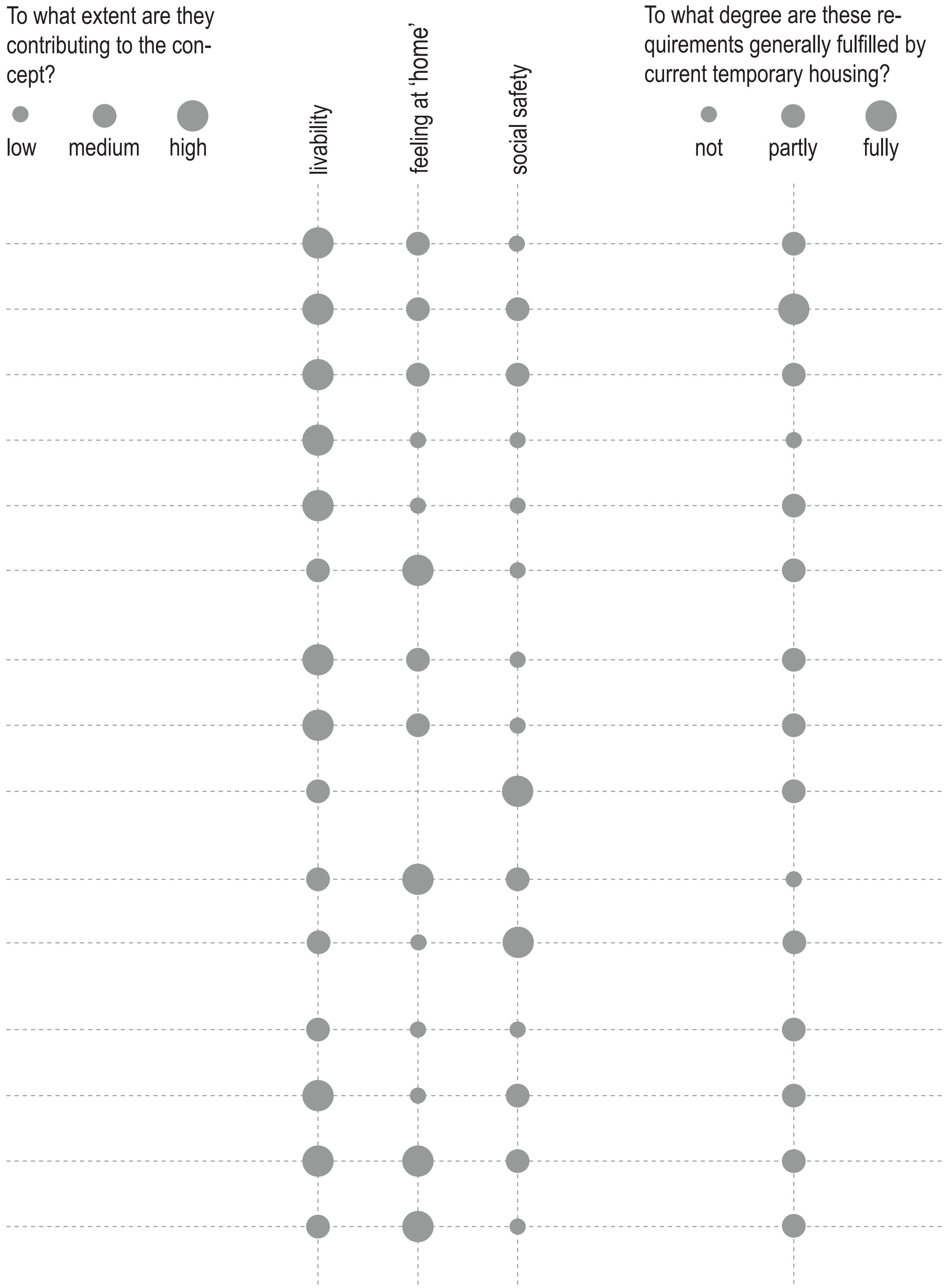
the space (personal communication, April 6, 2023). In addition, it was mentioned that a garden, balcony or accompanying outdoor space would be preferable, as it would provide space for growing vegetables to save money on groceries as well as provide a safe space for social interaction and physical activity of children outside (HHAG, personal communication, April 6, 2023).

Furthermore, both A. Firth M. and Sirinathsingh explain the importance of access to WIFI. Especially during the Covid-19 pandemic access to WIFI was important for children's education (A. Firth, personal communication, March 22, 2023)

When it comes to the building requirements, A. Firth explains that it is important that the buildings have a clear and visible entrance that can easily be found in a case of emergency (personal communication, March 22, 2023). Furthermore, temporary housing should be located in areas with a land-use that allows safe and healthy environments (A. Firth, personal communication, March 22, 2023). This would include safe sidewalks, a limited noise and air pollution, as well as important facilities and services like schools, GPs, and supermarkets in close distance (A. Firth, personal communication, March 22, 2023).

In terms of the area and placement, the HHAG members also emphasised that it would be preferable to stay in close distance to their previous home (personal communication, April 6, 2023). This way they would still be surrounded by their known support system, children could continue to attend their nurseries and schools, and adults are more likely to keep their work and would not have to add additional commuting time and cost (HHAG, personal communication, April 6, 2023).

Figure 48: Conclusion diagram: categorisation and evaluation of the needs and requirements (Image: by author)


To what extent are they contributing to the concept?
low
medium
high
livability
feeling at 'home'
social safety
To what degree are these requirements generally fulfilled by current temporary housing?
not
partly
fully

CONCLUSION

Reflecting on the results, it becomes apparent that the situation of low-income families in London is particularly severe and that they are in urgent need of temporary housing solutions.

The analysis of their needs and requirements revealed that especially in regards of the housing units and buildings the current temporary housing is lacking. The size of the units and the general condition were pointed out as particularly important. Moreover, the need for proper installations and facilities was emphasised.
On the street scale the aspect of safety was considered crucial especially when considering the inhabitants being families with children. In addition, nearby green spaces and gardens for recreation and gardening were mentioned as a preferable element.
In relation to the areas of temporary housing placements, accessibility was pointed out as a crucial aspect. This includes the accessibility to facilities and services, accessibility to public transport, as well as the connection to family and friends as the support system. Furthermore, the visibility and accessibility of the buildings in areas with different land-use types was pointed out. Moreover, the degrees of noise and air pollution were mentioned as parameters for healthy environments.

In order to assess the importance of the different requirements for creating suitable temporary housing solutions, the collected requirements where set in relation with the three previously defined concepts of livability, social safety and meaning at home.
Most of the requirements contribute significantly to the improvement of the livability and on the bigger scale also to social safety. Appropriation is the requirement that contributes the most to feeling at home. However, this is more difficult to realise due to the temporariness of the housing situation.

Lastly, it was evaluated to what degree the different requirements are already fulfilled in the current temporary housing that is provided. As there are no generalised standards in place, this aspect ranges substantially for each individual case.

Figure 49: Mother and daughter in a small temporary housing unit (Photo: by Firth A./ Human Rights Watch, 2022)

Figure 50: Temporary accommodation block in Wandsworth, London (Photo: by Firth A./ Human Rights Watch, 2022)

VACANCIES IN LONDON

London has considerable latent demand for affordable space, as well as plenty of empty and underused space currently, and will likely have more in the future.

Bosetti et al. in Meanwhile, in London: Making use of London's empty spaces

VACANCY IN LONDON

Previously, it was established that there is a high number and a variety of vacancies in London (see Figure 52 - 59). Reasons for that include increased privatisation, the financialisation of housing, as well as the consequences of the sharing economy (United Nations, 2017; Hamnett, 2001). Furthermore, as De Bono points out the Covid 19 pandemic has increased the vacancy of especially offices and commercial units additionally (2022).
While a certain number of vacancies is to be expected and normal in a city as big as London due to continuous changes, as Bosetti & Colthorpe mention, some properties remain empty for a longer period (2018). A property is defined as long-term vacant, when it has been empty for at least 6 months (Dunning & Moore, 2020).
The adjacent map shows the number of vacancies in London per borough. In general, it can be noted that the numbers are higher in the inner-city boroughs although boroughs like Brent, Croydon and Bromley form an exception from that observation (see Figure 51).

The thesis aims to utilise vacancies in the private sector for temporary housing. As data about privately owned empty vacant homes or second homes is rare and as it is difficult to identify specific areas with high numbers of empty homes, for the thesis the focus will be put on empty offices and commercial units.
As data of their specific locations in the city are often outdated or unavailable, the analysis of London's vacancies is following an approach that consists of a process of elimination and reasoned assumptions based on general indicators for vacancies defined in literature.

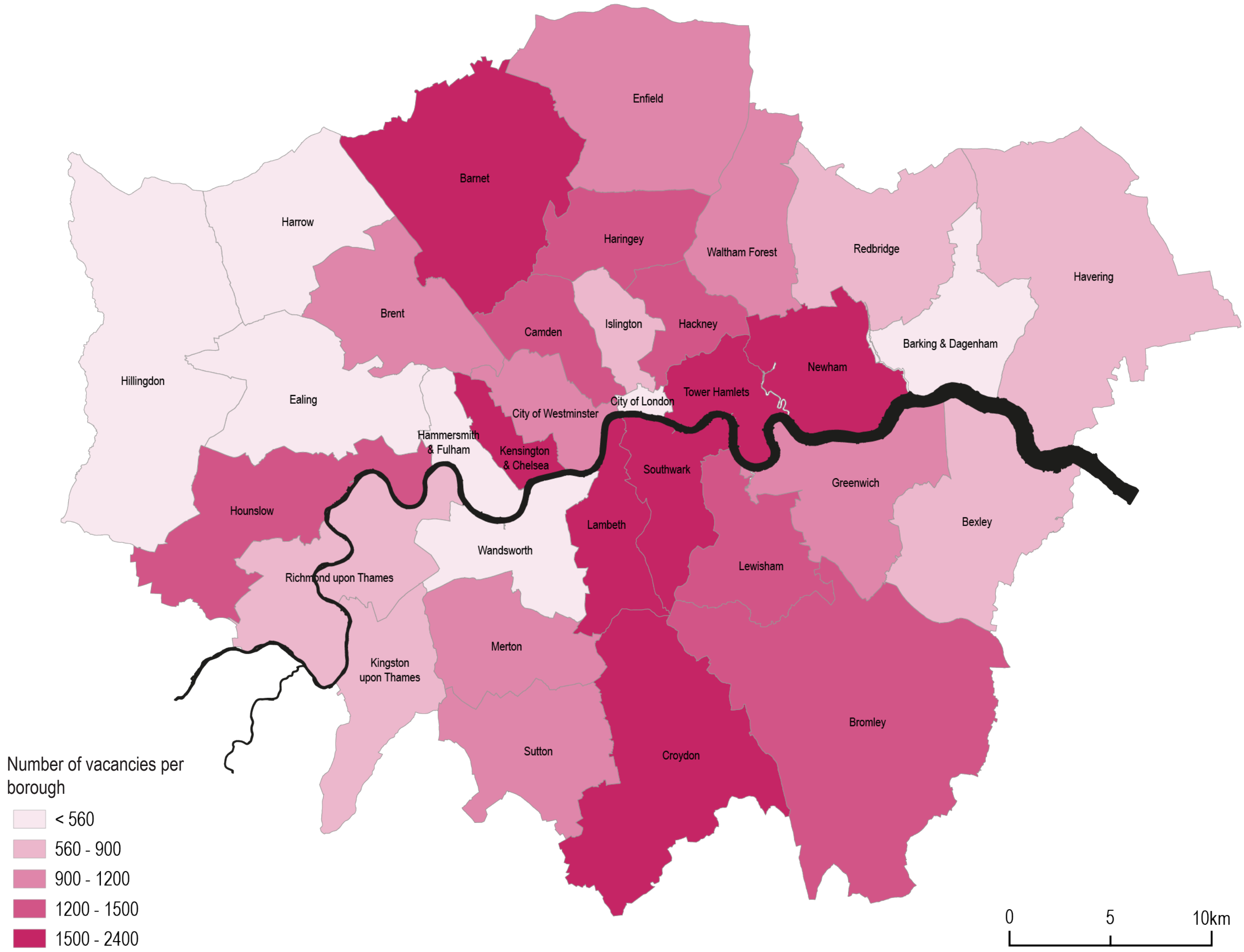


Figure 51: Number of vacancies per borough (Data source: Department for Levelling Up, Housing and Communities & Ministry of Housing, Communities & Local Government, 2023)

Figure 52 - 59: Vacant buildings in London - Impressions from the fieldtrip (Photos: by author)


HEART OF GAMING
PLAYNATION GAMES


FACTORY OUTLET
HOUSEHOLD GOODS . KITCHENWARE . BEDDING . ELECTRONICS


WELCOME TO LSBU CROYDON
LSBU

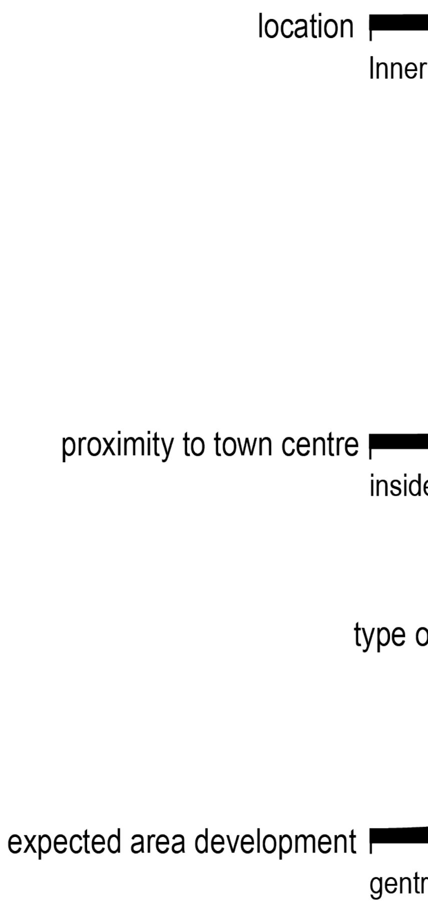
DETECTING VACANCY

As previously mentioned, in order to detect and locate vacancies in London, the analysis follows the approach of indentifying characteristics that indicate areas with high numbers of vacancies. Thus, the guiding question for identifying these vacancies in London is:

What are characteristics of areas with high numbers of vacancies?

Likely locations of vacant buildings and properties can be detected based on a number of factors defined in literature and research. Indicators like the land-use typology, the proximity to town centres, the building age, if an area is on the rise or decline, and whether an area is located in Inner or Outer London can give inside about how many vacancies are likely to be found in that area.

In Figure 60 the identified indicators are visualied in a condense way. Each indicator is presented as a range bar that shows the likeliness in relation to the scope of different characteristics that are defined under the indicator.



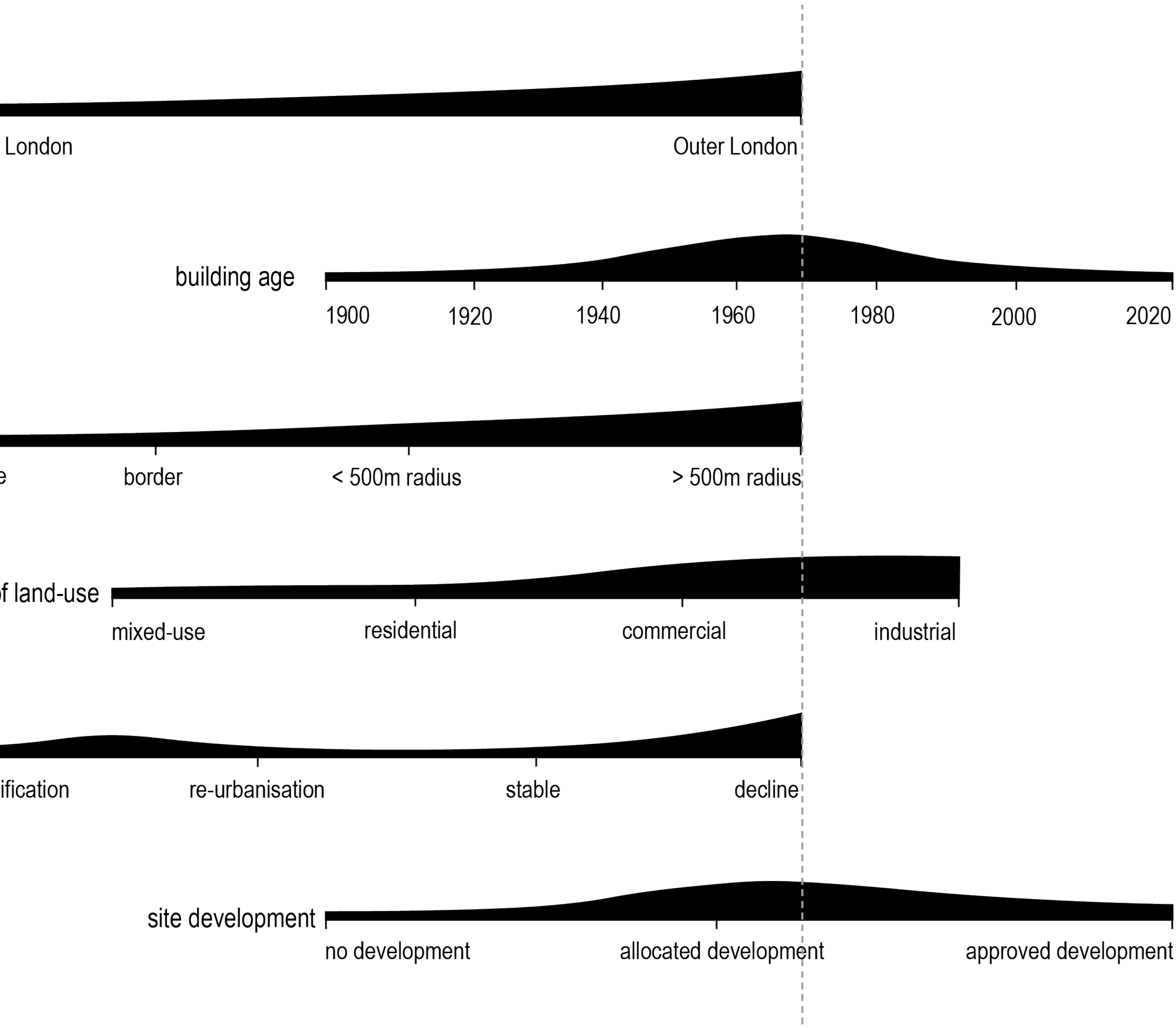


Figure 60: Indicators for the likeliness of vacancy (Image: by author)

LOCATING VACANCY

As Bosetti & Colthorpe explain, the most common vacancies include offices, retail and other commercial units (2018). These typologies are often located in areas with an industrial or commercial land-use as well as town centres with a mixed use. But as Bosetti & Cothorpe also point out, it is more likely to find empty units outside of the town centre areas (2018). According to their estimation 2/3 of empty offices or commercial units are located outside of a 500m radius of town centres (Bosetti & Colthorpe, 2018).
Furthermore, around 2.8 million sqm of commercial floorspace in Greater London has been empty for over two years (Bosetti & Colthorpe, 2018). They estimated, that this makes up almost 45% of all vacant commercial units (2018).

In Figure 62 it can be seen that the density and size of town centres is higher towards the inner city. Meanwhile bigger clusters of commercial and industrial areas are located in the outer boroughs and along the Thames.
Areas of interest are located on the edge between Inner and Outer London or Outer London. They are areas where bigger clusters of commericial and industrial land-use are in close proximity to town centres as high number of vacancies can be assumed there.

Furthermore, it can be assumed that offices or commercial units built in the second half of the previous century are nowadays oftentimes outdated and in need renovation (Jezard, A., 2017). Thus, they are more likely to be empty. Based on the adjacent map, it can be assumed that many of these outdated buildings can be found in the north-east of the city (see Figure 61).

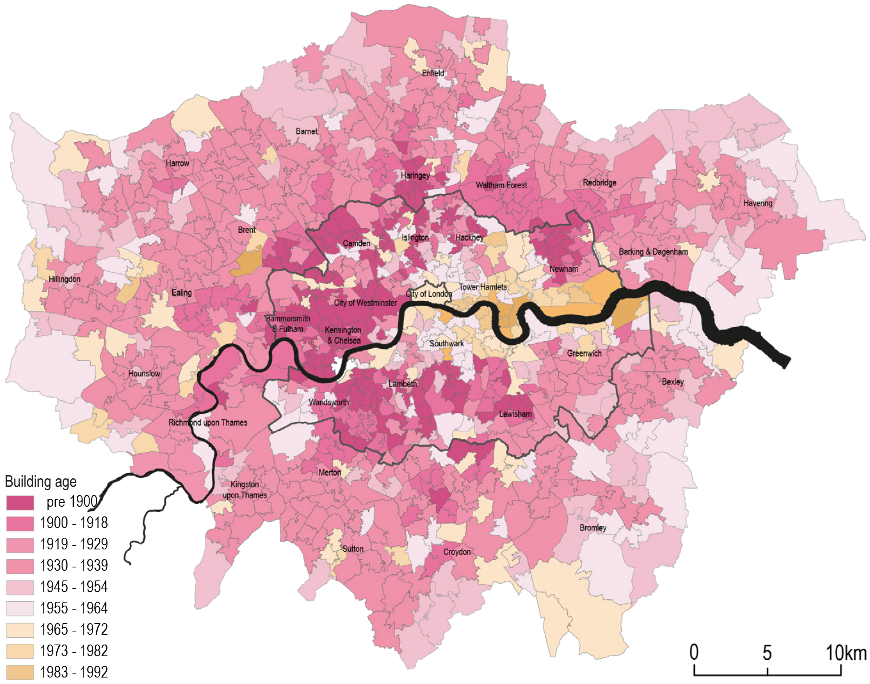


Figure 61: Period home built (median) per LSOA (Data source: Valuation Office Agency, 2015)

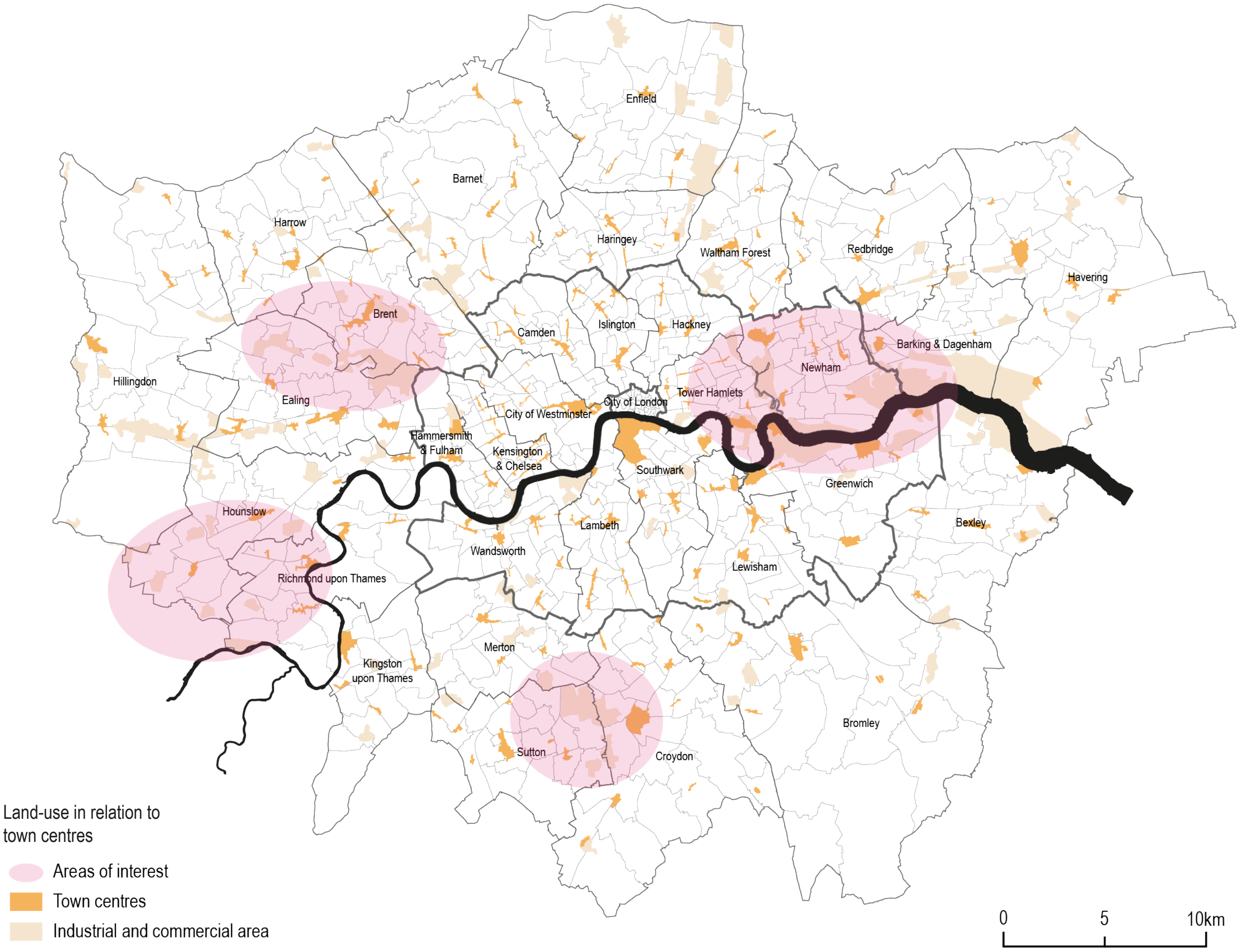


Figure 62: Commercial and industrial landuse in relation to town centres revealing areas of interest (Data source: Geofabrik, 2018 & Greater London Authority, 2016)

Next to the type of land-use, the building age, and the location of an area in relation to the inner city and town centres, the expected changes can also be an indicator for the number of vacancies to be found. Thus, the following maps are focused on area predictions in Greater London.

On the one hand, areas that are currently in the process of re-urbanisation and gentrification are expecting lots of site development. As Bosetti & Colthorpe explain, many of these properties in re-development are often sitting empty for several months or years as they wait for planning permission (2018).
Therefore, the adjacent map shows areas marked by the city as future development sites, including sites allocated for development and sites where development is already approved (see Figure 63). It can be noted, that most development is happening in the inner boroughs with some exceptions in Wembley, Stratford and Croydon. Furthermore, most of the approved development sites are in close proximity to town centres.

On the other hand, the prediction that an area is declining can be an indicator for a high number of vacancies (Bourne, 2019). Businesses are moving to other locations, maintenance and activity in public spaces is declining and town centres are becoming less attractive.
As the adjacent map shows, within London most declining areas can be found in the outer boroughs. While in the south, larger continuous areas of decline are predominant, in the north clusters of smaller scattered areas of decline are more common (see Figure 64).

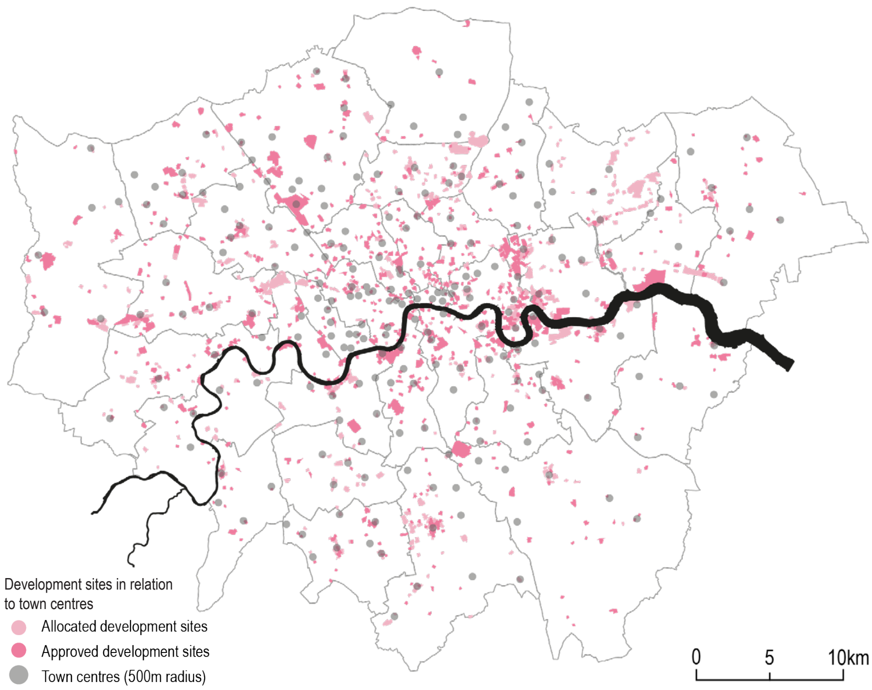


Figure 63: Future developement sites near town centres (Data source: Greater London Authority, 2017 & Greater London Authority, 2018)

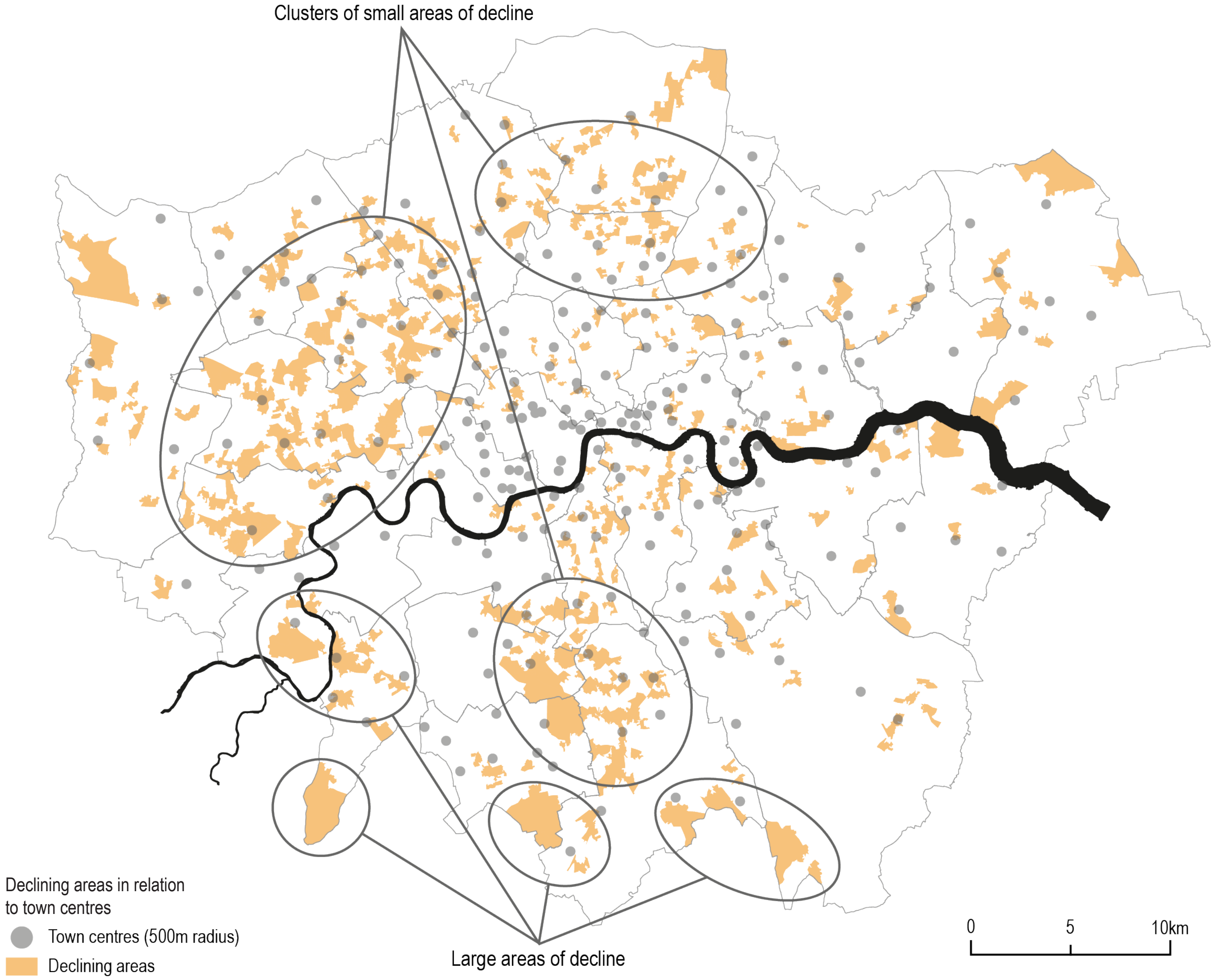
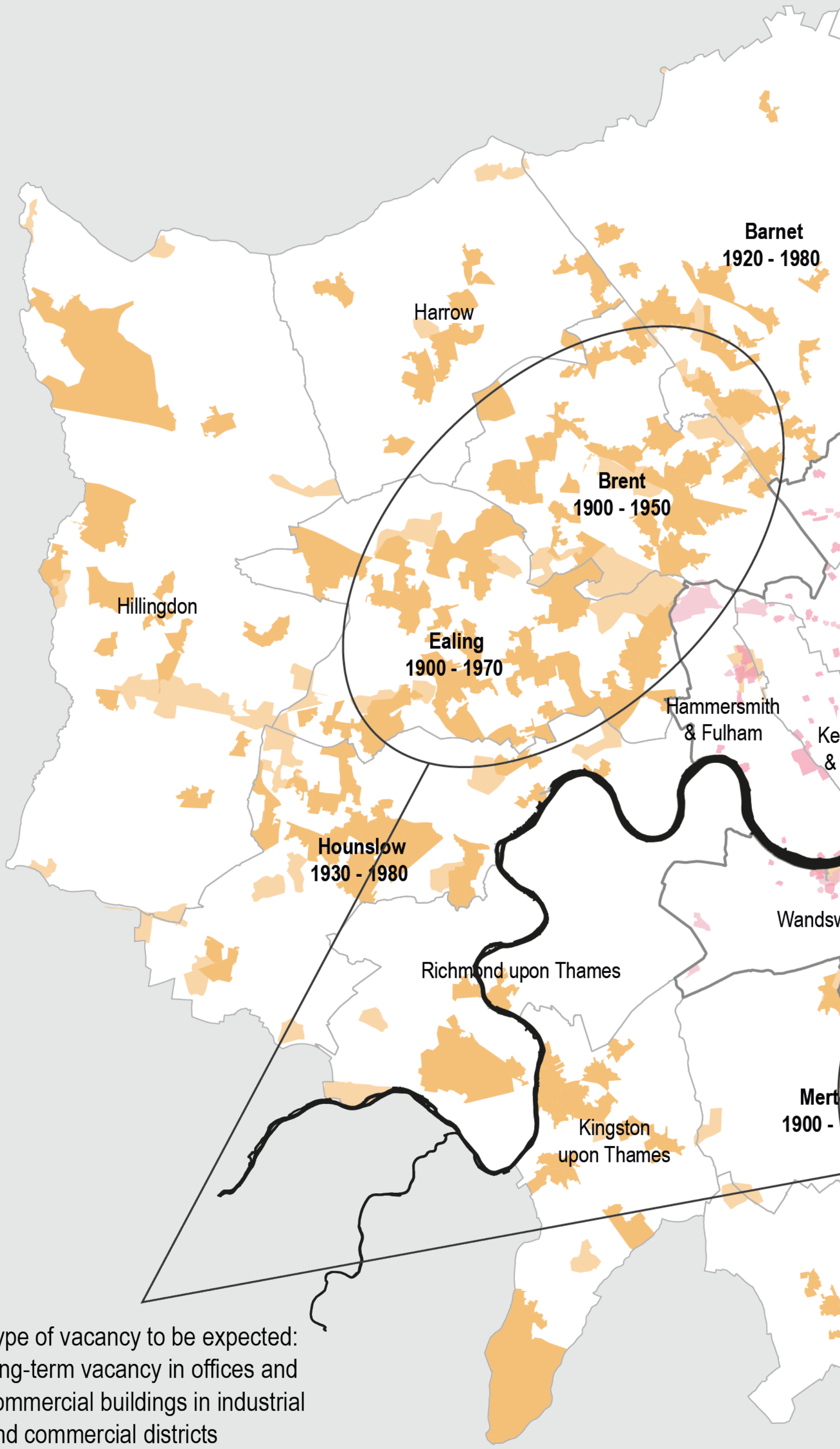


Figure 64: Types of declining areas in relation to town centres (Data source: Greater London Authority, 2016 & Urban Displacement Project, 2021)

TYPES OF VACANCY

When all the indicators for areas where vacancies are likely to be found are observed together, two types of areas become apparent (see Figure 65).
The first area type is characterised by dense and high-priced building typologies, mostly constructed in the late 90s and early 2000s. It is located in the inner-city boroughs and close or within town centres. The vacancy mostly consists of offices and commercial buildings that are empty due to continuous changes of occupants. Thus, the vacancy is often short-term. In addition, vacancy can be found in properties that are about to be redeveloped.
The second area type is characterised by the decline and type of land-use, which is mostly commercial or industrial. It is found in the Outer London boroughs and outside of town centre areas. The vacant buildings are probably intended for industrial or commercial use and date back to the 50s to 80s. They have most likely been empty for longer time periods due to the areas decline. A prime example for this type of vacancy in the borough of Croydon which will be analysed in more detail in the following process.

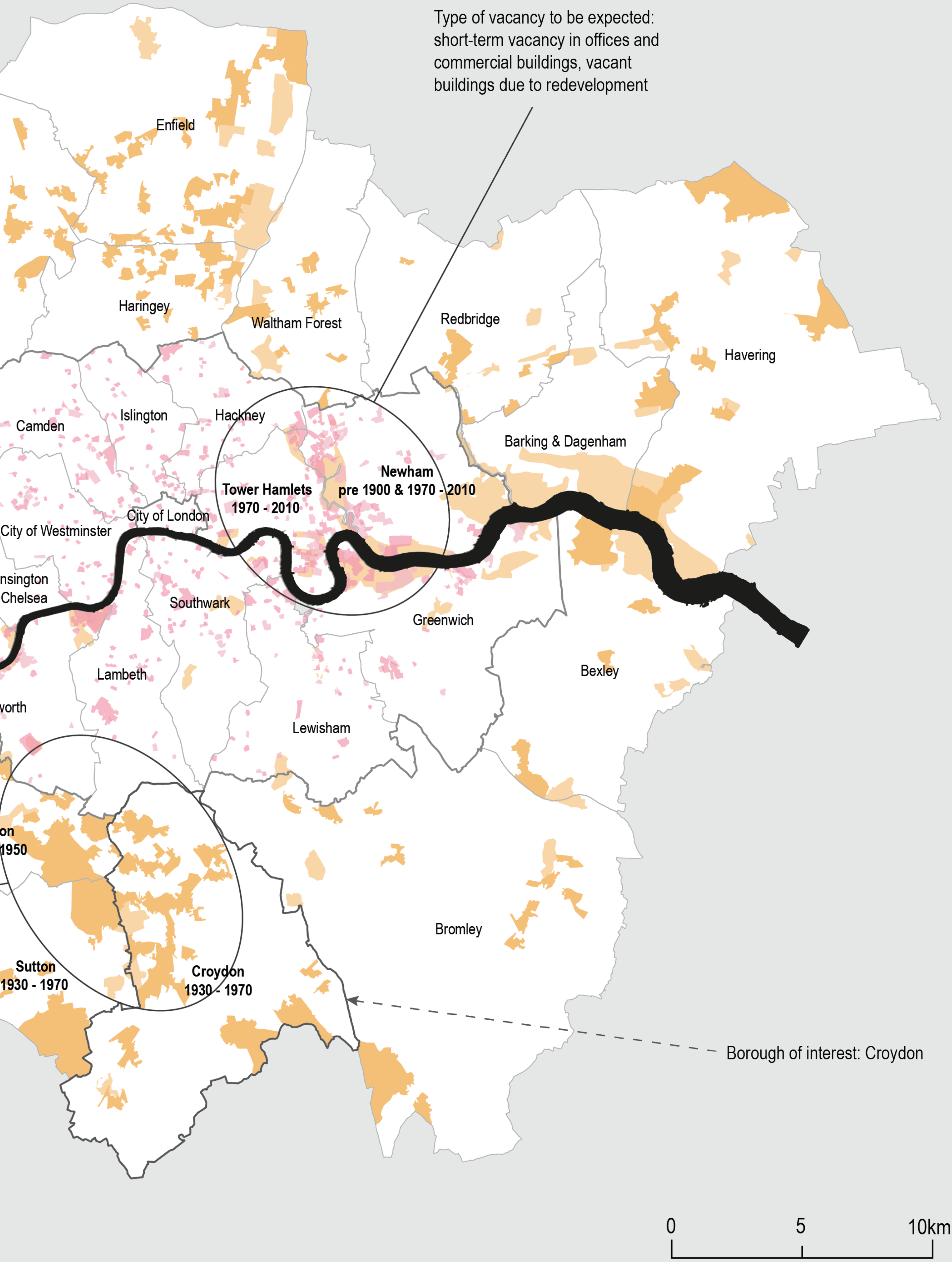


Type of vacancy to be expected:
long-term vacancy in offices and commercial buildings in industrial and commercial districts

Types of vacancy in London

- Allocated development sites in Inner London
- Approved development sites in Inner London
- Commercial and industrial land-use outside of town centres
- Declining areas outside of town centres in Outer London

Figure 65: Conclusion map - Types of vacancy (Data source: Geofabrik, 2018; Greater London Authority, 2016 & Urban Displacement Project, 2021)


Type of vacancy to be expected: short-term vacancy in offices and commercial buildings, vacant buildings due to redevelopment
Enfield
Haringey
Waltham Forest
Redbridge
Havering
Camden
Islington
Hackney
Barking & Dagenham
Newham
pre 1900 & 1970 - 2010
Tower Hamlets
1970 - 2010
City of London
City of Westminster
nsington
Chelsea
Southwark
Greenwich
Bexley
Lambeth
worth
Lewisham
on
1950
Bromley
Sutton
1930 - 1970
Croydon
1930 - 1970
Borough of interest: Croydon
0
5
10km

The previously established indicators for vacancies were applied to the borough of Croydon as an example to show how likely areas of vacancy are identified on the borough scale.
Croydon is situated in the south and is part of Outer London. The borough is home to around 390.000 inhabitants (Croydon Observatory, 2022). Croydon is bordering five neighbouring London boroughs in the north and forms part of the border of Greater London in the south. Croydon belongs to Outer London and has also several green spaces. It is partly covered by the green belt that surrounds the London. The built-up areas in Croydon are mostly used for residential purposes with a few exceptions of commercial and industrial land-use. The borough has a big town centre area in a central location near the western border of the borough. In addition, statistics revealed, that Croydon is one of the boroughs with the highest vacancy rate (Greater London Authority, 2023).

The accompanying map shows the different land-uses, town centre areas, declining areas as well as development sites (see Figure 66). Most areas with an industrial or commercial land-use are in the western part of the borough. This is also the part where a lot of decline can be found. Especially near the main town centre many areas can be identified. However, this is also where most of the development sites in the borough are located. In particular the industrial sites west of the main town centre are currently undergoing a lot of development. Moreover, the previous analysis shows that most of parts of the borough were built between the 1920s and 1970s.

Based on this analysis it can be assumed that there are a high number of vacancies in the western part of Croydon. Thus, especially declining areas around the town centre could be interesting in terms of temporary housing placements. As the potential vacancies are located in close proximity to the main town centre it is likely they could provide liveable and safe living environments for low-income families under the condition that the areas also fulfil the criteria for suitability on a smaller scale or can be improved through spatial interventions.

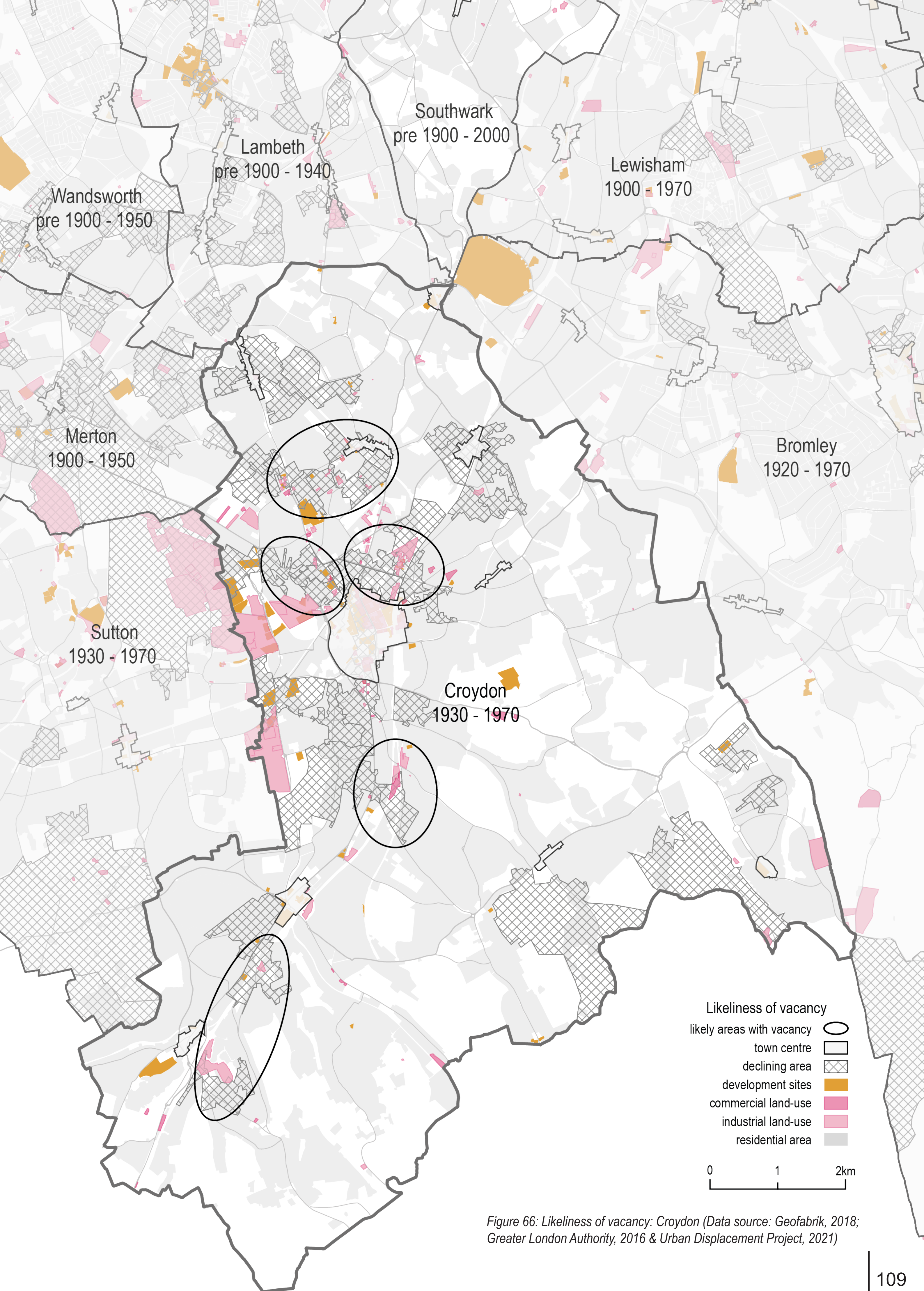


Figure 66: Likeliness of vacancy: Croydon (Data source: Geofabrik, 2018; Greater London Authority, 2016 & Urban Displacement Project, 2021)

CONCLUSION

As the thesis aims to utilise vacancies for temporary housing solutions, the first part of the spatial analysis was focused on identifying types of vacancies and their location in London. However, it became apparent that the available data on vacancy in the city is very limited and thus, the approach of the analysis consisted of detecting indicators and characteristics for locating areas with a high likeliness of vacancies. The indicators where defined based on research reports, academic literature, and statistics. They include the location in the city, the building age, the proximity to a town centre, the type of land-use, the expected area development, and the site development.

The analysis revealed that while vacant properties can be found all over the city there are certain areas where the likeliness is higher. Two distinct area types became apparent in the process.
The first type is characterised by short-term vacancies in commercial buildings and offices due to continuous changes and redevelopment. This type is mostly located in the inner city in areas which are in the process of redevelopment and gentrification. The building ages date back to the late 20th century and the early 21st century.
The second type consists of long-term vacancies, which are mostly found in Outer London. They are often located in areas of decline outside of town centres and their building age dates back to the second half of the 20th century. Based on these observations it can be concluded that the second type holds more potential to be utilised as temporary accommodation as there are probably no other uses planned and the rent costs will likely be lower.

Thus, for the second part of the analysis and the visualisation of spatial design interventions the borough of Croydon was chosen as an example as the second vacancy type can be found there.

Figure 67: A vacant building in the first area type (Photo: by author)

Figure 68: A vacant building in the second area type (Photo: by author)

SUITABILITY OF SPATIAL CONDITIONS

London has considerable latent demand for affordable space, as well as plenty of empty and underused space currently, and will likely have more in the future.

- Bosetti et al. in Meanwhile, in London: Making use of London’s empty spaces

DEFINING SUITABILITY

Vacancies can be found in the form of different building typologies and located in all kinds of different areas. As A. Firth has pointed out, not all these buildings and areas are suitable for placing a temporary accommodation there (personal communication, March 22, 2023).
In order to determine which vacancies are suitable, a set of characteristics is used as a guide. Depending on whether a location fulfils a certain degree of this characteristic it is seen as an indicator of its suitability. Furthermore, some of these vacancies have potential to fulfil the needed degree if a small spatial design intervention is introduced on the building or in the surroundings. The characteristics to determine the suitability are selected based on the three concepts: livability, social safety, and feeling at home.

Ruth & Franklin define livability as consisting of two main components (2014). They explain that on the one hand livability means that all basic needs are covered (Ruth & Franklin, 2014). These basic needs would include food, shelter, and security. Furthermore, livability is also influenced by the state of the physical surroundings and environment. As Ruth & Franklin describe, this would include the infrastructure, ecosystems, as well as services (2014). Furthermore, the factors that influence the livability of an area, also determine the mental and physical health of its inhabitants.
Thus, in order to assess the suitability of a vacant property and its surroundings in terms of its livability the above-mentioned characteristics will be considered. They include, condition and amenities of the building, the degree of noise and air pollution, the accessibility to services and public transport, as well as the accessibility to recreation spaces.

According to Kiełek, social safety mainly refers to the physical well-being of people in public space (2022). The public space includes open areas in the urban environment like sidewalks, public squares, and parks. Several physical factors on the small and big scale influence the perceived safety that people feel in an area (Carro et al., 2010). They include the density, size and design of the surrounding buildings, maintenance of public envi-

Figure 69: Area with a low degree of livability and social safety - high street in Harlesden (Photo: by author)

Figure 70: Area with a high degree of livability and social safety - pedestrian zone in Canary Wharf (Photo: by author)

ronment, as well as the general street layout on the big scale (Carro et al., 2010; Gehl, 2011). Furthermore, the level of vegetation, the state of the sidewalk, as well as the design of the adjacent facades influence the perceived safety of an area on the smaller scale (Carro et al., 2010; Gehl, 2011). Therefore, characteristics that will be considered in order to determine the social safety of an area include the density, the type of land-use, as well as the degree of activity. Furthermore, the sidewalk, adjacent facades, vegetation, and the general condition will be considered on the street scale.

The concept of feeling at home mainly refers to an emotional connection to space through appropriation and personalisation (Overtoom et al., 2022). Furthermore, the possibility to perform certain acitivities and a routine contributes to feeling at home (Overtoom et al., 2022). As the analysis is focused on identifying suitable areas instead of specific buildings this concept is less relevant. However, a general set of standards for the housing units that contribute to the concept is defined in the requirements.

A MULTI-SCALAR APPROACH

In the following analysis to determine the suitability of the detected areas with high numbers of vacancies, a multi-scalar approach is used. Thus, it is guided by the following question:

What are the characteristics on different scales that make a vacancy suitable for temporary housing?

As previously mentioned, the different indicators for the suitability are based on the three concepts of social safety, livability and feeling at home. In the analysis these indicators will be set in relation to four scales as their relevance increases and decreases depending on the scale. The four scales for the analysis include the area scale, the street scale, as well as the building and the unit scale.

As it was pointed out, the concept of feeling at home will only play a secondary role as the focus of the analysis is on the building and the surroundings rather than the housing unit. However, the aspect of accessibility will be considered in particular as is has a significant impact for temporary housing placements taking out-of-area placements and placements in commercial or industrial areas into account.

As Figure 71 visualises, on the area scale the indicators density and land-use are particularly important. The indicators noise and air pollution can be predicted on the area scale but differences between the individual streets are still possible due to their layout and use. Thus, these indicators are between the two scales. The same goes for the indicators of accessibility and activity as they can be predicted on the area scale but can still vary from street to street. Characteristics like the layout of the sidewalk, the surrounding buildings, and their facades, as well as the vegetation become relevant on the street scale as they impact the livability and perceived safety of each case individually. On the unit scale, the facade and building amenities become relevant as they have an influence on the livability and feeling of home of the housing units.

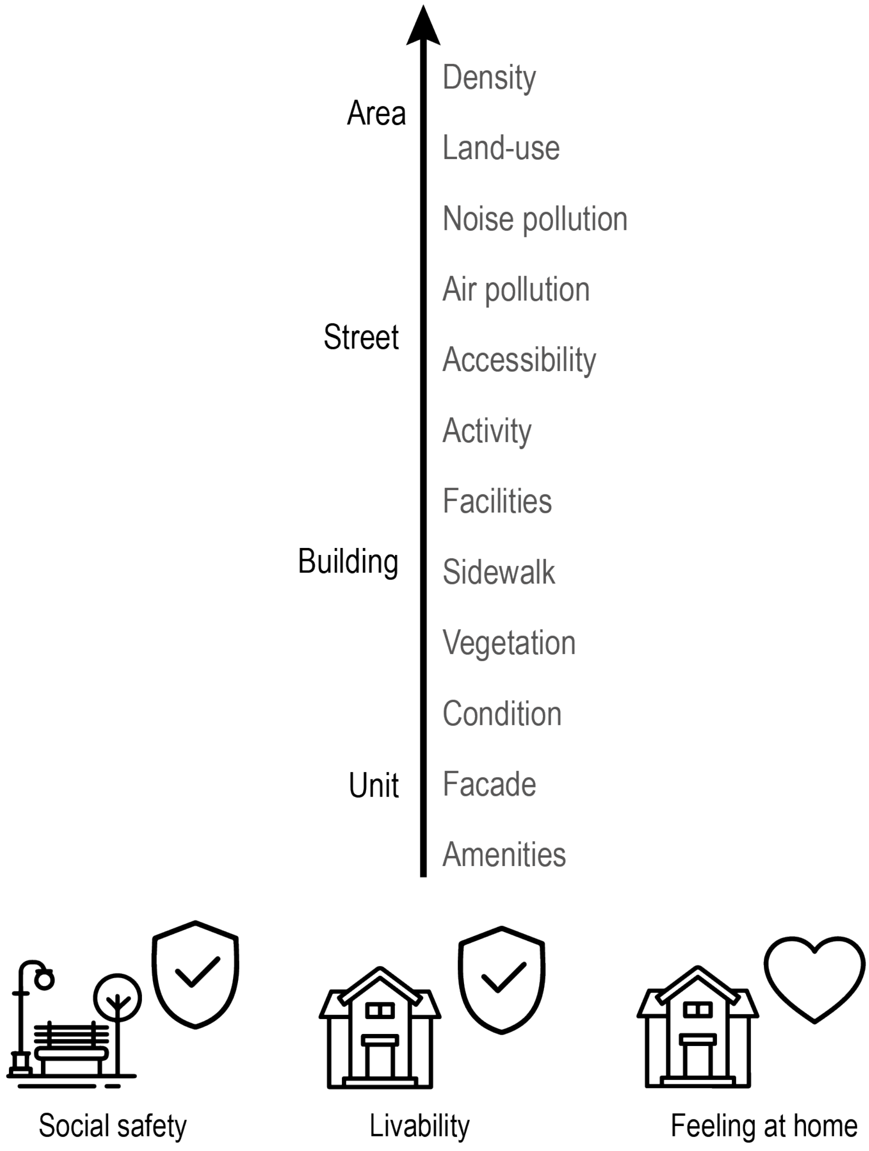


Figure 71: Diagram - Relation of indicators and scales (Image: by author)

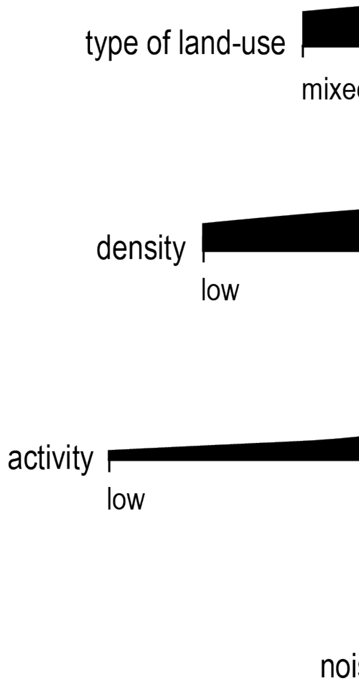
AREA CHARACTERISTICS

In the following diagram, the previously mentioned characteristics for the suitability of areas are presentend in a compact way (see Figure 72).

One important factor to consider is the type of land-use. As A. Firth points out, certain areas like an industrial district are not necessarily suited for temporary housing as they potentially provide unsafe environments and are less accessible (personal communication, March 22, 2023). In addition, Basu et al. explain that from a pedestrian perspective, residential areas are considered to be the most attractive and safe (2022). Thus, residential areas are preferable for temporary housing placements. While mixed-use and commercial areas are considered to be less safe in general, due to their varying uses and activities during night-time, the perceived safety from a pedestrian perspective is higher (Basu et al., 2022). Therefore, in order to evaluate the suitability of a commercial area, additional factors like the activity as well as characteristics on the smaller scale need to be considered, as the areas can vary significantly in terms of their building typologies and street layout.

This coincides with the second variable, meaning the density. As previously mentioned, urban density is related to building typologies, as areas with certain typologies like high-rises have a higher density than others. Furthermore, it could be assumed that a higher degree of density can potentially lead to a higher degree of activity as well, due to prediction that more people are coming together in these areas. Although, as Gehl points out, in order to predict the degree of activity in an area, density cannot be used as the only indicator (2011). Additional characteristics like the “placement of the buildings and the orientation of the entrances in relation to the pedestrian routes and areas for outdoor stays“ should be taken into account (Gehl, 2011, p.83).

The degree of activity in an area in the form of people and more specifically pedestrians using the street, is also an important factor when it comes to social safety. As Jacobs describes the constant activity of strangers on sidewalks and streets enforces unconsci-



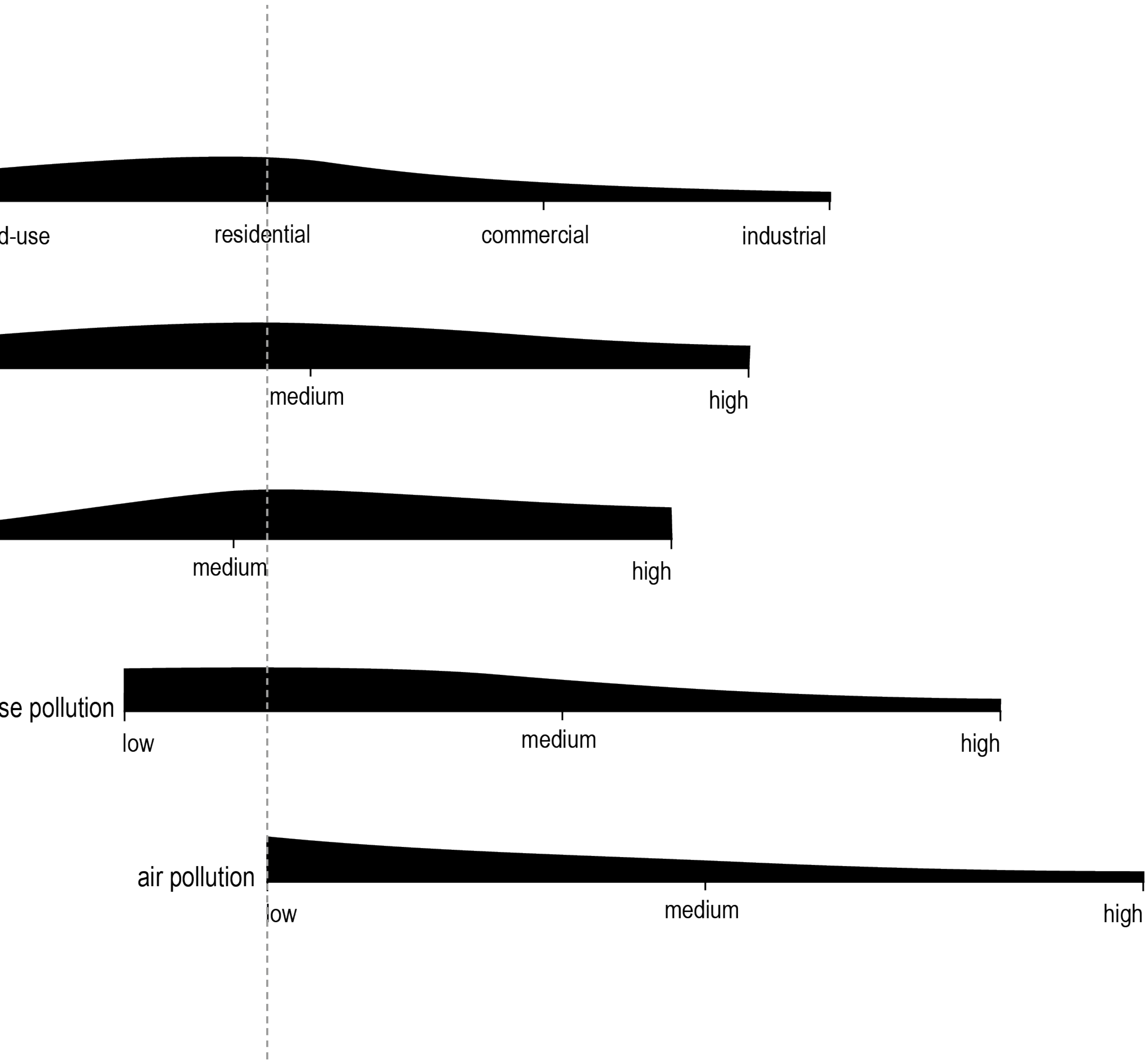


Figure 72: Diagram - Relation of indicators and scales (Image: by author)

ous control and observation (1961). In Jacobs' words: "A well-used city street is apt to be a safe street." (1961, p.34). Therefore, the degree of activity is an important indicator for social safety. In addition, this aspect also contributes to the livability of the area. As Ruth & Franklin point out, security is a integral part of the basic needs (2014).

Another important factor that indicates the livability of an area is the degree of pollution for both the air as well as noise. As the National Research Council states air pollution has an effect on the physical health and thus, negatively impacts livability (2002). In addition, the World Health Organisation states that noise pollution can cause short and long-term health issues as well (2010). Thus, as A. Firth explains, certain areas like industrial districts are most likely not suitable for housing purposes (personal communication, March 22, 2023). This is due to the air pollution produced by factories and transport traffic (A. Firth, personal communication, March 22, 2023).
In summary, the presented indicators give a good first impression regarding the suitability of an area when it comes to the placement of temporary housing. However, similar to what Gehl and Jacobs have stated, in order to determine the suitability of an area in relation to social safety and livability additional indicators on the smaller scale have to be taken into consideration as well (2011, 1961). Therefore, a closer analysis of street characteristics is consequently the next step.
This is especially important as the aim is to utilise vacant buildings. As they are, how the previous analysis shows, oftentimes located in declining areas with a commercial or industrial landuse. Furthermore, additional aspects of the surroundings like the accessibility to facilities and services, the infrastructure and access to public transport, as well as the natural environment and recreational spaces should be considered to evaluate the livability (Ruth & Franklin, 2014).

Figure 73: High degree of activity in a pedestrian zone in Croydon (Photo: by author)

Figure 74: Low degree of activity in an industrial area in Harlesden (Photo: by author)

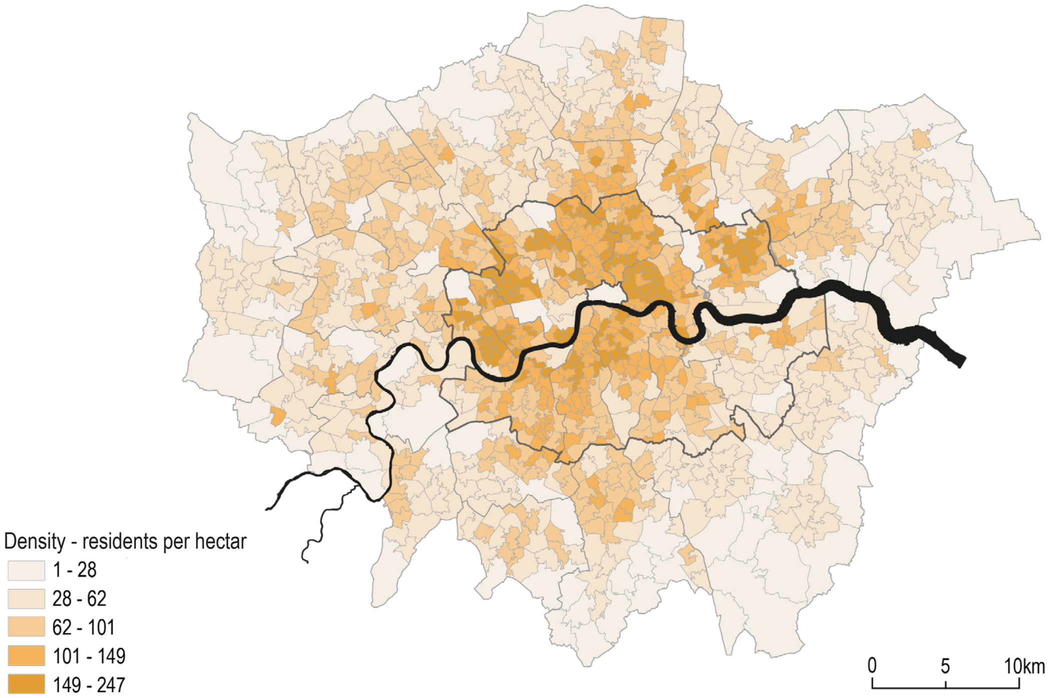


Figure 75: Density - residents per hectar in SMOA (Data source: Greater London Authority, 2018)

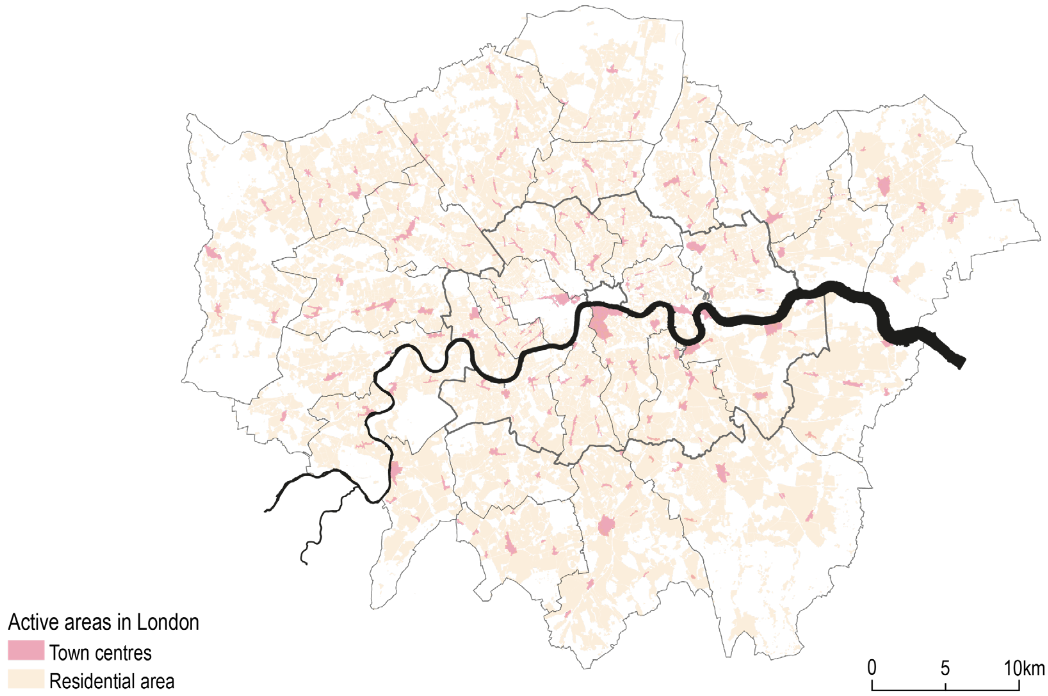


Figure 76: Activity in the city (Data source: Geofabrik, 2018 & Greater London Authority, 2016)

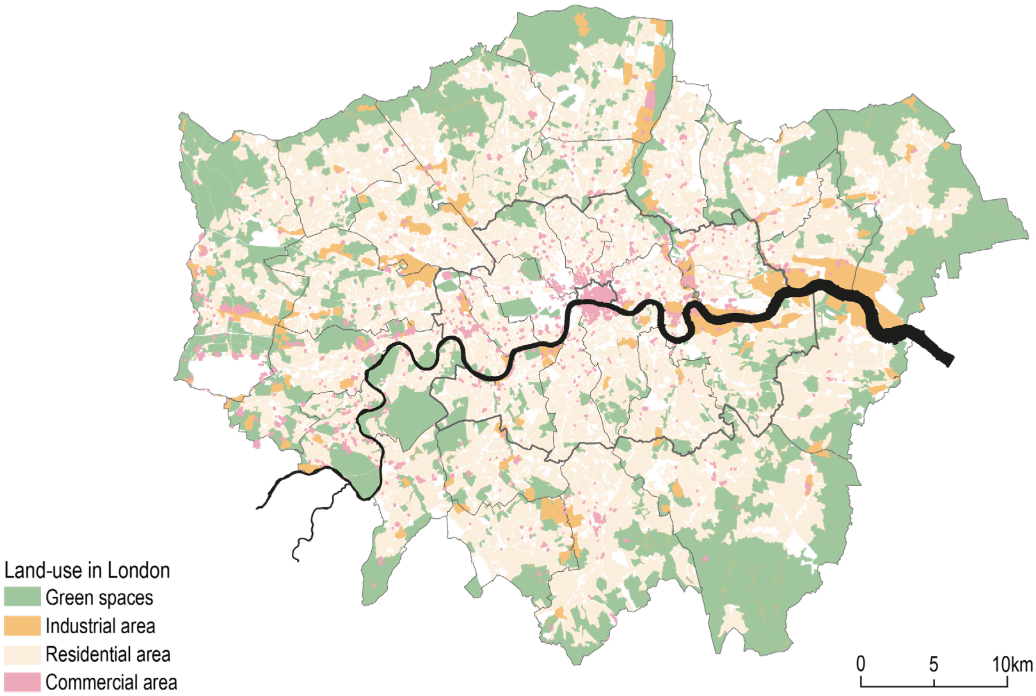


Figure 77: Types of land-use (Data source: Geofabrik, 2018 & Planning Constraints Map, 2019)

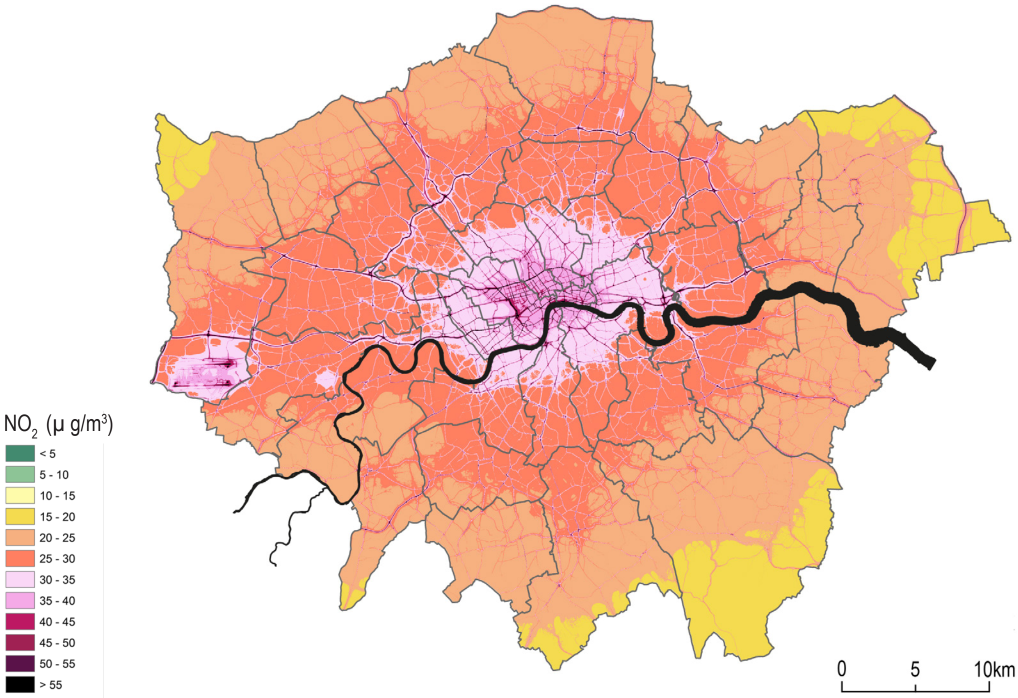


Figure 78: Air pollution in the city (Data source: Greater London Authority and TFL Air Quality, 2023)

In the following, the previously introduced area characteristics were applied to the borough of Croydon in order to determine which of the areas with a high likeliness of vacancy are suitable for temporary housing placements (see Figure 79).

After the application two main area types can be identified.
The first type is located in the north-east of the borough. It is characterised by medium or high density, and it is in close proximity to town centres and in particular the main town centre of the borough. In addition, a mix of different land-uses, mainly residential and commercial, can be found. However, areas with industrial land-uses are situated in close distance. Due to these conditions a high degree of activity can be assumed in this area type. As the identified locations are characterised by a dense road network and as some of them are neighbouring industrial areas, it can be assumed that the degree of noise and air pollution ranges between medium and high.
The second area type can be found in the south of the borough. In contrast to the first type, it is defined by low density and situated further away from town centres. It mostly consists of residential neighbourhoods with a few exceptions of industrial land-use. Thus, it can also be expected that the degree of activity is lower. However, due to the industrial land-use and the main roads passing through the area, in some locations the degree of pollution might still be between medium and high.

Based on this analysis it can be said that the first type would be more suitable for temporary housing placements as there is more activity and a closer distance to town centres. However, the second type also holds potential as there is already a high degree of residential land-use.

- Medium or high density
- Close distance to main town centre
- Mix of residential, commercial and industrial land-use
- High degree of activity
- Pollution due to road network and industrial land-use

- Low density
- Far distance to main town centre
- Mix of mostly residential and little industrial land-use
- Low degree of activity
- Pollution due to road network and industrial land-use

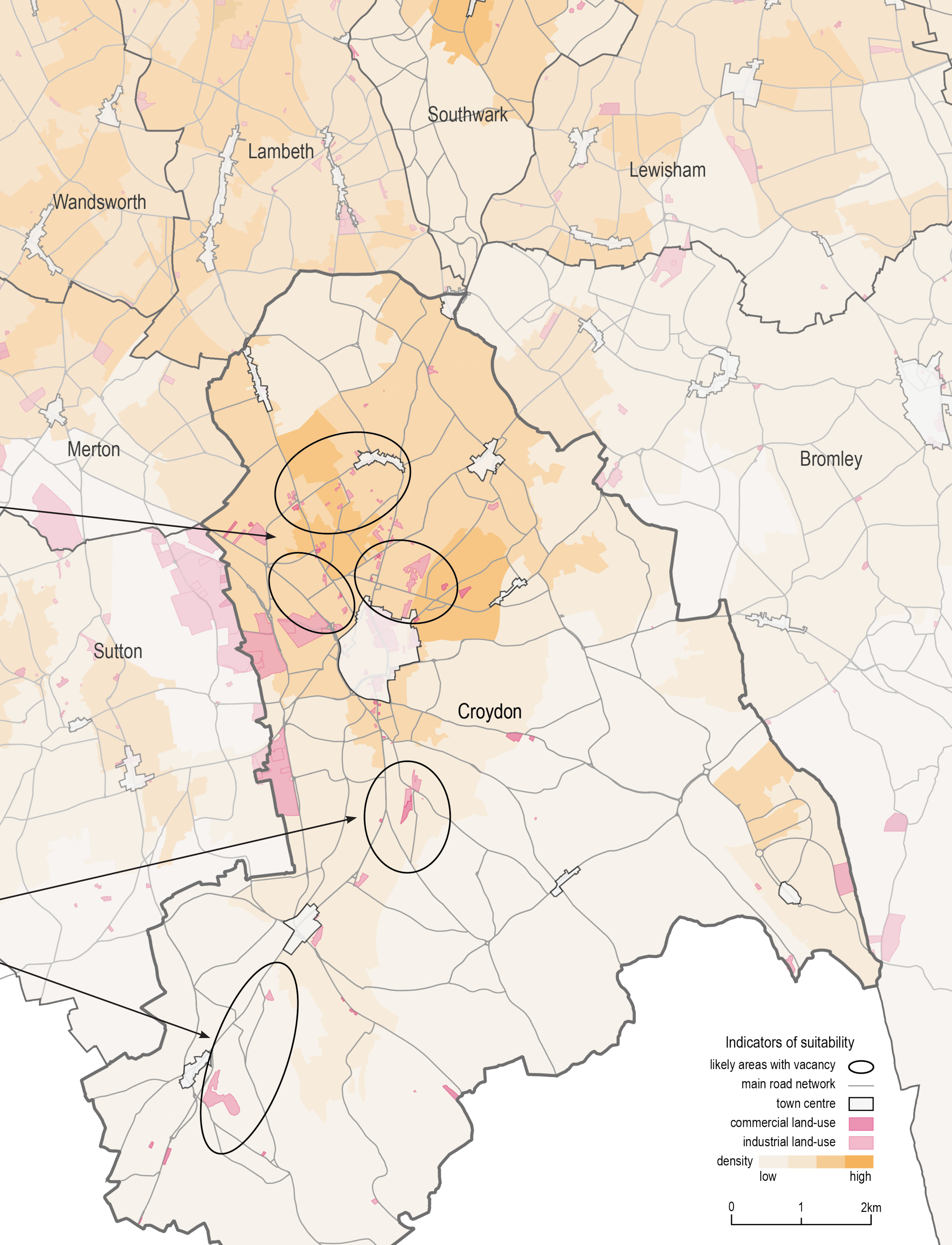


Figure 79: Suitbility of areas in Croydon (Data source: Geofabrik, 2018; Greater London Authority, 2018 & Greater London Authority, 2016)

ACCESSIBILITY

Next to the general area characteristics, accessibility plays an important role to determine how suitable a location is for the placement of temporary housing.

In short, accessibility can be defined as an indicator that is concerned with the question of how people reach different facilities and services in urban and rural settings (Pereira & Herszenhut, 2023). Neutens et al. point out that the physical distanceis not the only component when it comes to measuring accessibility (2012). They explain that the factor of time should be considered (Neutens et al., 2012). Thus, in short, accessibility describes a space-time variable that indicates with how much ease, in what way and in what time people can reach different services, facilities and places in a spatial setting. Against the background of livability, Ruth & Franklin also emphasise the importance of accessibility (2014). Especially the access to infrastructure and certain facilities that are important for people`s daily life can have an impact on the livability of an area. Therefore, in order to determine the suitability of an area the accessibility to services and facilities, to public transport and infrastructure, as well as the accessibility to recreational spaces will be considered.

As the focus of the thesis is put on temporary housing solutions for low-income families, the accessibility to services and facilities like schools, nurseries, medical facilities, and workplaces is particularly important.
M. Sirinathsingh explains, that for working adults in low-income families, the location of their temporary accommodation can impact whether or not they are capable of staying in their job and being able to take care of their children at the same time (personal communication, March 29, 2023). A member of the HHAG illustrates that, in the situation of uncertainty while living in temporary housing, close access to social support systems can have a positive effect on the metal health of the inhabitants (personal communication, April 6, 2023). In addition, A. Firth emphasises, that in areas with industrial landuses, families could feel disconnected as they do not have good access to facilities like schools and supermarkets (personal communication, March 22,

Figure 80: Bus stop in Tower Hamlets (Photo: by author)

Figure 81: A group of school children in Harlesden (Photo: by author)

2023). Thus, placements with good access to the previous neighbourhood and community are preferable.

This coincides with the next point, meaning infrastructure and public transport. As Pereira & Herszenhut explain, accessibility in relation to infrastructure includes “the spatial coverage and connectivity of the public transport and street networks”, thus transport modes like train, tram, and bus, as well as cycling and walking need to be considered (2023).
Due to the limited supply of suitable housing options, out-of-area and out-of-borough placements cannot always be avoided. Thus, it is especially important to ensure that the impact of displacement is kept as low as possible. As Bosetti et al. explain, when a local authority places a family out-of-area, they should try to keep the travel time as short as possible (2022). Furthermore, the travel time should be calculated based on transport modes like walking or bus instead of the underground or cars, as these modes are less expensive which is particularly important for households with low incomes (Bosetti at al., 2022).

A third and last aspect to be considered, is the accessibility to recreational and green spaces. As Lee emphasises, the access to recreational spaces and green environment can have a positive impact on a person's mental health (2020). Thus, the recreational spaces need to be freely accessible and have a certain quality (Lee, 2020). According to Han et al. recreational spaces like neighbourhood parks, sports grounds and more, encourage physical activity and a community feeling (2013). Consequently, these spaces are contributing to a higher degree of livability as they have a positive impact on mental and physical health and support community building.
Regarding the aspect of green spaces in relation to temporary housing solutions, one member of the HHAG explained that they would appreciate a safe outdoor space for the physical activity of children and gardening (personal communication, April 6, 2023). This could contribute to community building and social interaction. In addition, by growing their own produce, the low-income families could safe grocery costs (HHAG, personal communication, April 6, 2023).

When analysing the aspect of accessibility in the detected suitable areas with a high likeliness of vacancy in Croydon, it can be said that distinct differences become visible (see Figure 82). Two of the three areas offer good access to facilities and services due to their close proximity to town centres and educational institutions in a close radius. In addition. Meanwhile, a high number of bus stops and close-by public transport stops ensure high public transport accessibility. The only aspect where is the access to recreational green spaces. In contrast, the third area is not as suitable, as it is lacking good accessibility to services and facilities as well as recreational green spaces (see Figure 82). However, it is still well connected to the public transport network through several bus stops.

- Facilities and services in town centre
- Good public transport connection in area
- Green spaces in the area

- No facilities and services in the area
- Public transport connection through bus
- No green spaces in the area

- Facilities and services in near town centre
- Good public transport connection near area
- No green spaces in the area

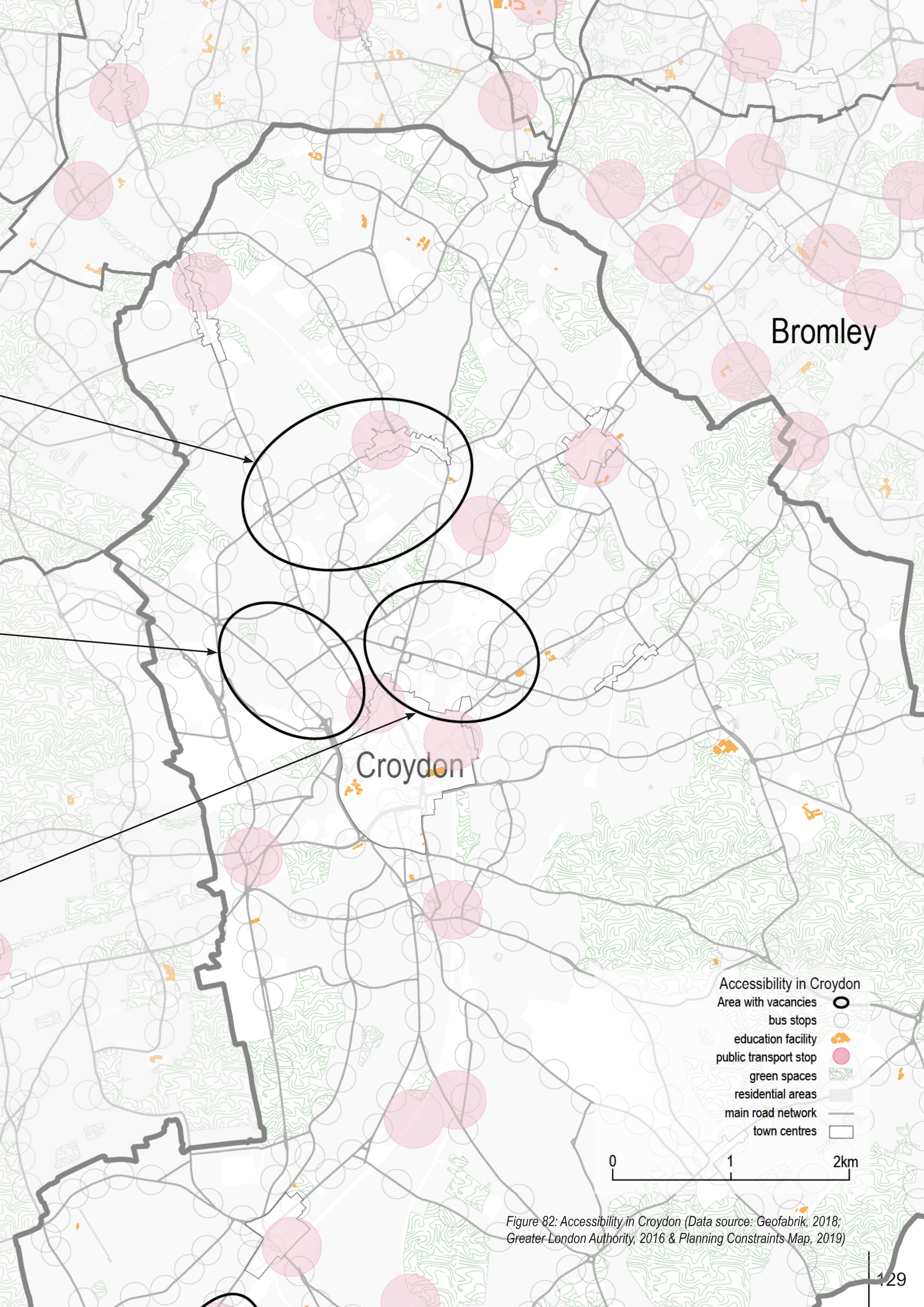


Figure 82: Accessibility in Croydon (Data source: Geofabrik, 2018; Greater London Authority, 2016 & Planning Constraints Map, 2019)

STREET CHARACTERISTICS

As it was established by Jacobs and Gehl in a previous chapter, in order to evaluate the social safety and livability of an area and in particular a street and number of small-scale spatial elements need to be taken into consideration (2011, 1961). Therefore, this last step focuses on the street level perspective. The different characteristics that will be considered are the sidewalks, the vegetation, the facades of the adjacent buildings, and finally the general condition and upkeep of the surroundings.

The first characteristic, sidewalk, is concerned with the layout of the street and sidewalk, as well as the pedestrian and traffic flow. Jacobs argues that a clear separation between what is public and private space in a city street has a positive impact on safety (1961). According to them, a public space or street with clear and visible limitations of what is public and what is private, is easier to be observed and thus kept safe (Jacobs, 1961).
Furthermore, Bosselmann explains, how well-managed traffic and clear indicators for different transport modes increase the safety of pedestrians and consequently make the street more walkable (2008). According to them, walkability, and the safe use of the street, has a positive influence on the livability of the street (Bosselmann, 2008).

Secondly, the degree and type of vegetation is considered as a characteristic to determine the livability and safety of a street. As Lee has explained, green environments have a positive impact of mental health and thus, contribute to livability (2020). Furthermore, as Moudon illustrates, certain types of trees and vegetation can improve the air quality on a street level and thus contribute to creating healthier and more liveable environments (1987).
In addition, Harvey et al. explain, how tree lines in synergy with buildings can improve the perceived safety as they contribute to creating more enclosed street spaces (2015).

The third characteristic is concerned with the facade of the adjacent buildings that are facing the street.
As previously mentioned, depending on their design and openness, they can contribute to what Jacob calls

“eyes upon the street” (1961, p. 35).
Furthermore, Gehl et al. emphasise how having the entrances and the front of buildings facing the street scape has a positive impact on the experience of pedestrians when they walk along the street (2006). They explain how a more variable and irregular design of the facades evokes more activity in the street and thus increases the perceived public safety (Gehl et al., 2006). Especially important is the design of the ground floor facade as it is on eye level of the pedestrians (Gehl et al., 2006).
Moreover, varying activities like shops and restaurants can have an additional positive impact on the livability and perceived public safety (Basu et al., 2022).

Lastly, the general condition and upkeep of a street or an area can impact the perceived safety and livability.
As Carro et al. illustrate, aspects like vandalism in the form of graffiti or littering, as well as deterioration of street furniture and surrounding buildings can have a negative impact of the perceived safety that users feel in an area (2008).
Jacobs makes a similar observation. However, they also detect, how having ground floor activities like restaurants and shops can have the opposite effect as storekeepers keep the streets and areas in good condition to attract customers (Jacobs, 1961). Thus, an active plinth has a positive impact on social safety and the upkeep of a street or area.

Summing up, it can be said that the suitability for temporary housing can vary significantly from street to street. However, due to the small scale of the mentioned characteristics, it is also possible to improve the livability and safety and consequently the suitability of a street significantly by implementing minor spatial design interventions.

SIDEWALK **VEGETATION**

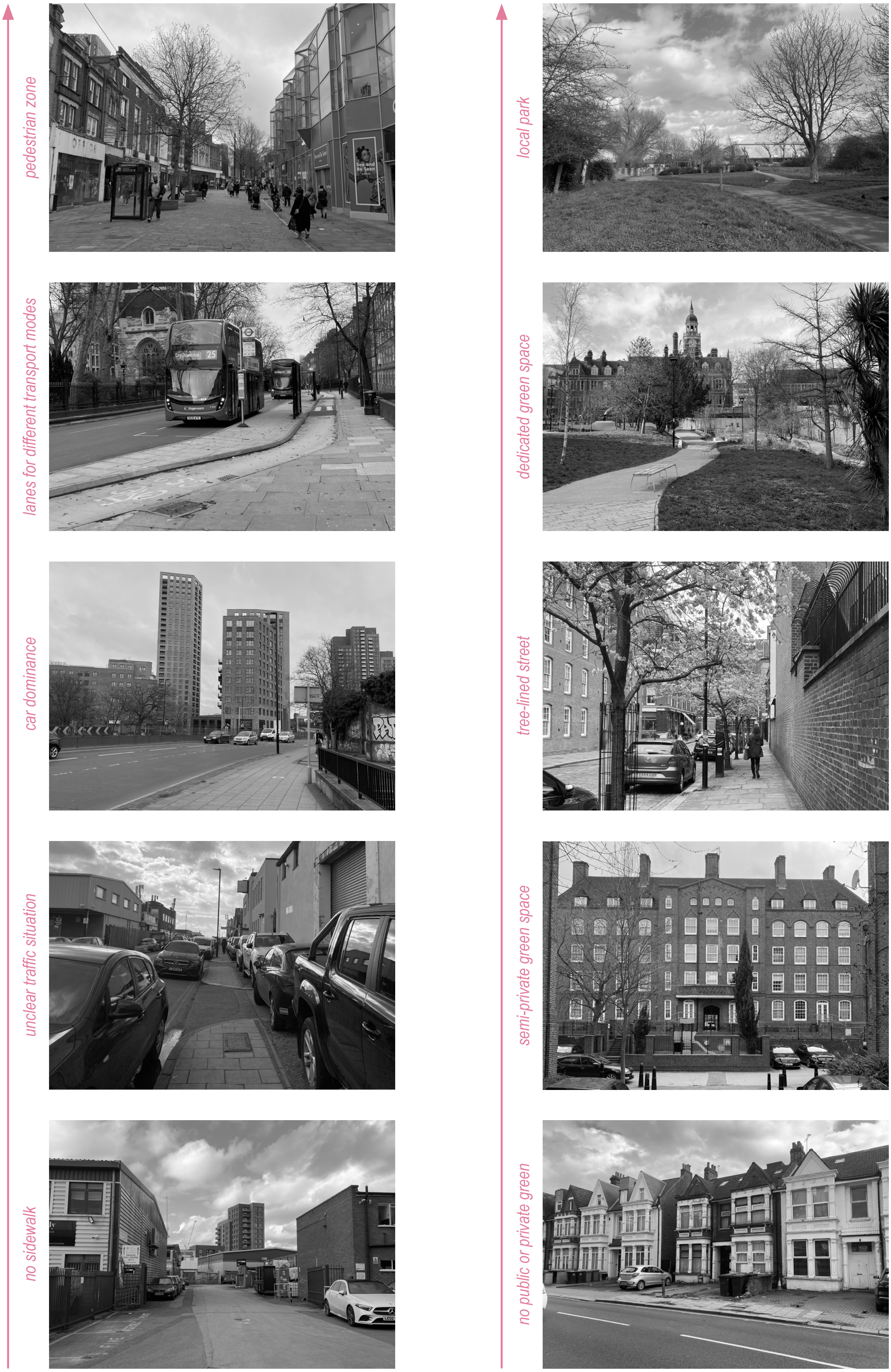


Figure 83 - 102: Street characteristics - impressions from the fieldtrip (Photos: by author)

FACADE

active plinth and varying facade

varying and open facade

large-sclae facade

closed-off plinth and uniform facade

closed-off facade

CONDITION

well-maintained public space

welcoming apartment units

street corner in a declining area

unwelcoming and derelict entrance

derelict and borken fences

CONCLUSION

After identifying areas with a high likeliness of vacancies, in the second step it was determined which of these areas are suitable for the temporary accommodation placement. The suitability is defined based on the three concepts, livability, social safety and feeling at home. As the focus is laid on evaluating the suitability of areas, the first two indicators are more relevant for the analysis.

For the analysis a multi-scalar approach was used. That means that a set of various indicators for the suitability were assigned to four different scales. The scales are ranging from area scale over street scale to building and unit scale.
While indicators like density and land-use are important on the bigger scale, indicators like noise and air pollution, activity and accessibility become more relevant when zooming in. On the street scale the immediate surroundings including adjacent facades, vegetation, the street layout and sidewalk, and the general condition become important indicators. For the buildings and housing units, construction and amenities are relevant in order to determine their suitability. While some of these indicators can be analysed through a data review of spatial and statistical data, especially on the smaller scale a site visit is necessary.

The application of this analysis approach in areas with a high likeliness of vacancy in Croydon helped to specify which areas were most suitable. In the following exemplary design, it can now be determined how their suitability can still be increased through different types of spatial interventions that enhance the livability and social safety.

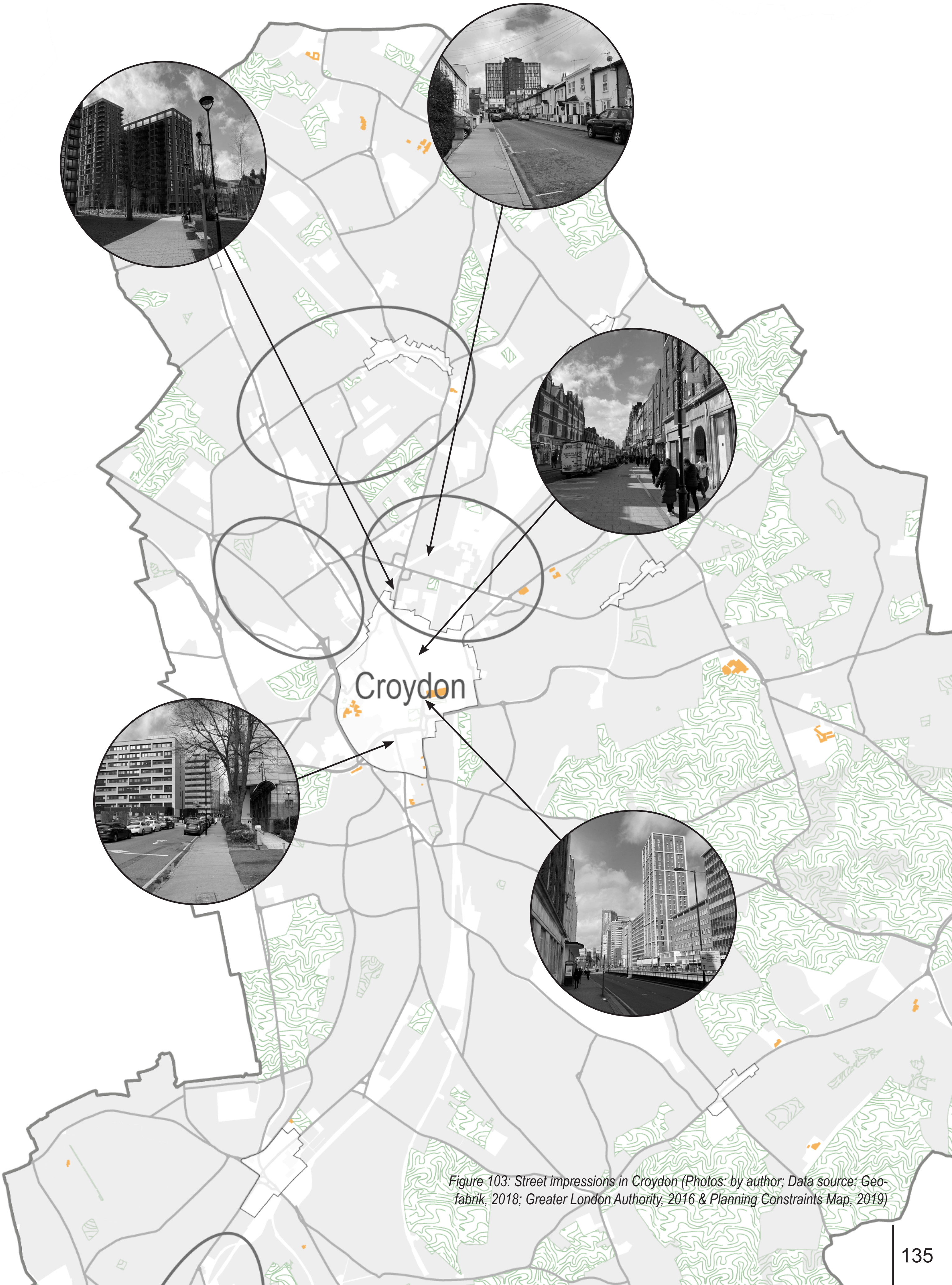


Figure 103: Street impressions in Croydon (Photos: by author; Data source: Geofabrik, 2018; Greater London Authority, 2016 & Planning Constraints Map, 2019)

THE INTEGRATED HOUSING SYSTEM

There is a strong case for policies that attempt to improve people's experience of being in temporary accommodation, even if this does not reduce the total amount of time they are there. These interventions could include improving the type, standard and location of the accommodation offered, or the information and communication that households receive throughout the process.

- Bosetti et al. in Temporary Accommodation: London's hidden homelessness crisis

DEVELOPING THE SYSTEM

One main intended outcome of the thesis is the development of the integrated housing system.
The system consists of different regulations and policies that enable and support the utilisation of vacancies for temporary accommodation, especially with the intent to provide better housing solutions for low-income families. Moreover, the integrated housing system should encourage the work of homelessness and housing initiatives in providing local housing solutions and in being local contact point for information, support, and assistance.

Therefore, the relevant stakeholders in the public and private sector, as well as the civil society are identified and the role, they play in the integrated housing system are defined. In the next step different regulations and policies which are partly inspired by informal housing practices are developed based on the previous analysis and interview outcomes.
The outcomes of both the stakeholder analysis and the development of regulations and policies will be combined to form the framework of the integrated housing system. Moreover, it will be defined how the different components of the system operate in the spatial context.

Figure 104: Collage - towards an integrated housing system (Image: by author)

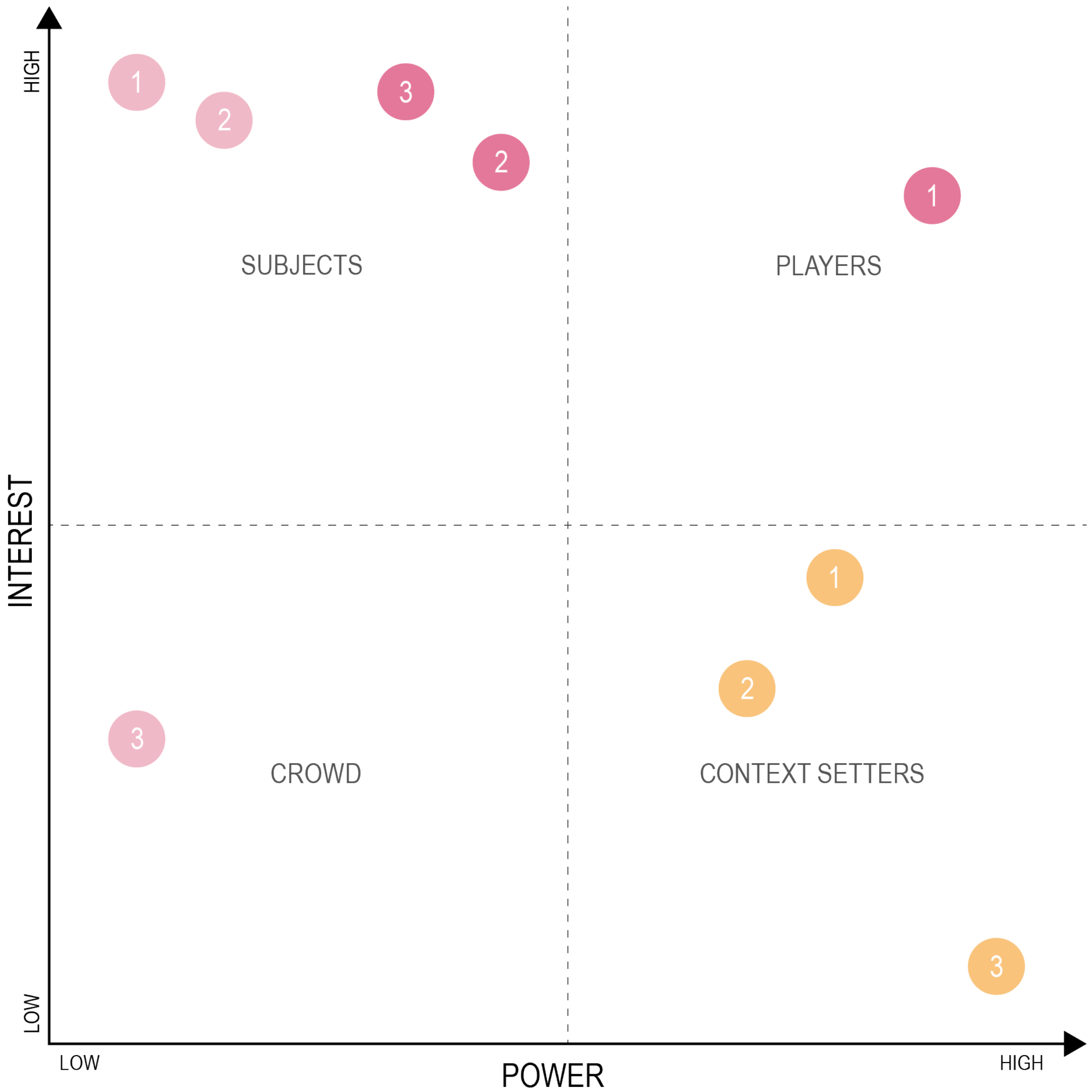
ON STAKEHOLDERS

The involved stakeholders are located in the three sectors, meaning the public sector, the private sector, and the civil society (see Figure 105).

Relevant stakeholders in the public sector include the different levels of government. On the national level the Parliament and the Department for Levelling Up, Housing and Communities are concerned with the housing topic and the related regulations. On the regional level, the Greater London Authority has the power to implement regulations and policies. Furthermore, it distributes funds and provides incentives for various courses. The local authorities in form of the London Boroughs are responsible for providing housing options for otherwise homeless households due to their housing duty. Thus, they are directly responsible for the provision of temporary accommodation.

The most important stakeholders in the private sector are private landlords and property owners as they are essential for the housing provision in the private rent sector. On the one hand, there are the private landlords that already provide temporary housing and who will likely be affected by changes in regulations and the establishment of housing standards. On the other hand, there are the local and foreign owners of properties, which are vacant due to wealth investment or development.

The last group consists of the civil society. This is the group, where the focus group of low-income families in need of housing are situated. Furthermore, different initiatives, non-profit organisations and foundations concerned with housing topics and homelessness are part of the civil society. They hold a great potential as they have local knowledge and relate to the community. Thus, with the right support they could be a great asset for improving the housing provision in London Lastly, the local communities are part of the civil society as they are affected by spatial changes made in their neighbourhoods.



PUBLIC

1. National government (Parliament; Department for Levelling Up, Housing and Communities)
2. Greater London Authority & Mayor of London
3. Local authority: London Boroughs

PRIVATE

1. Private landlords providing temporary accommodation
2. Owners of vacant commercial buildings
3. Foreign investors (homes as assets)

CIVIL

1. Low-income families (depend on their local authority to assign housing)
2. Initiatives, organisations, foundations concerned with homelessness and housing concerns
3. Local communities

Figure 105: Power-interest matrix (Source: by author)

ON REGULATIONS AND POLICIES

To improve the current temporary housing system and move towards a more integrated system, several new regulations and policies are necessary. They built the base for a change towards a positive future of the temporary housing system and contribute to improving the immediate situation of households currently in temporary accommodation. Furthermore, the new regulations and policies are forming the part of organisational interventions in the systematic solution.

REGULATIONS

Firstly, the new regulations will be introduced. In general, regulations are a tool that is mostly used by the public sector and consist of rules, restrictions, permits and taxes.

1. Housing standards for temporary accommodation

Amid the severity of the housing conditions in temporary accommodation in London, the Greater London Authority or preferably the national government establishes housing standards for temporary housing units. The standards ensure a safe and liveable environment for both adults and children. Included are standards for the unit size, number of windows and quality of insulation, as well as standards for the heating facilities and appliances. Moreover, access to WIFI is ensured.

As A. Firth mentions, Scotland has already taken the step of setting up standards (personal communication, March 22, 2023). Thus, their model could serve as a good practice example. Furthermore, several London boroughs have already started an initiative called “Setting the Standard” which focuses on establishing temporary housing standards (Sewell, n.d.).
As the standards are set up by one central institution, the Greater London Authority, and are applicable in the Greater London region, they are following the operation type umbrella.

2. Housing standards for building conversions

To ensure the upkeep of minimum housing standards, the national government establishes that building conversions that do not need planning permission must follow the same housing standards, which are also applicable for new building developments.

As A. Firth explains, this way mutual space standards can be ensured while high prices for insufficient housing units as well as overcrowding can be reduced (personal communication, March 22, 2023). As the standards are established nationwide by the central government, the type of operation is also following the umbrella system.

3. Revision of housing benefits
The national government revises the Housing Benefit and the Local Housing Allowance to adjust to the current situation of the housing market. This way, more suitable homes in the private rent sector become available for low-income households and thus the risk of becoming homeless is reduced.

As M. Sirinathsingh explains this is especially important in the current situation of London's housing market as due to the shortage of social housing, stable and long-term tenancies in the private rent sector provide the best alternative (personal communication, March 29, 2023). Furthermore, as the revision is done by the national government, it is also assigned to the operation type umbrella.

POLICIES
In contrast to regulations, policies can be introduced through different sectors and operate on various scales. They can have an encouraging, shaping, or organising function, and include methods like incentives, plans, co-operations, and assessments.

1. Rating system for temporary accommodation
The Greater London Authority establishes a rating system for temporary accommodation to ensure the quality and upkeep of the housing units. A centrally located independent institution will work in co-operation with local authorities to review and assess whether the provided temporary accommodation fulfils the necessary housing standards.

The idea of a rating system was brought forward by A. Firth (personal communication, March 22, 2023). It is inspired by the Ofsted rating system for schools in the UK (A. Firth, personal communication, March 22, 2023). Moreover, A. Firth explains that the MP Siobhain McDonagh is advocating this scheme in Parliament (personal communication, March 22, 2023). The rating system would also operate following the umbrella model.

2. Central institution for handling complaints and problems

The Greater London Authority establishes an independent central institution for handling complaints and issues with provided temporary accommodation. The institution works in close co-operation with local authorities and their housing officers. The practice ensures that the household's complaints are heard, and action is taken. Furthermore, overworked housing officers will experience a relief of that responsibility and thus, have more capacity for their other tasks.

As A. Firth and M. Sirinathsingh emphasise, this would have a positive impact on the experience of households with the temporary housing system as currently complaints are often ignored or processed with long delays. (personal communication, March 22, 2023; March 29, 2023). As the practice is performed by a central institution, the assigned operation type would be umbrella.

3. Network co-operation for out-of-area placements

The 32 London boroughs form a network for co-operating when it comes to out-of-borough placements. Neighbouring boroughs establish a common knowledge base regarding the availability of temporary housing options, provide mutual support when it comes to relocating a household, and define a clear responsibility for the relocated household.

As the interviews revealed, being placed outside of your area can have a significant impact on the mental health of the households as it causes additional stress and uncertainty. Moreover, M. Sirinathsingh points out, that the displacements are followed by further issues like changing schools and GPs, having longer and more costly commutes to work, as well as being separated from friends and family (personal communication, April 6, 2023). As the title already suggests, this policy in following the operation type network.

4. Vacancy register

The local authorities set up a vacancy register in co-operation with the Greater London Authority. The data will be made publicly accessible through the London data store. This way, it is easier to identify opportunity areas for both the public and private sector.

As the data is collected locally in the individual boroughs and later shared on the London data store, the type of operation is a mix of both network and umbrella. While the collection of the data follows the network type, the way the knowledge is shared resembles the umbrella type.

5. Funding and incentives and for vacant building utilisation as temporary housing

The Greater London Authority introduces an incentive to increase the use of otherwise vacant buildings for temporary housing. While private landlords will be encouraged through incentives and provided with useful information to prepare their property for temporary housing use, non-profit housing initiatives will receive funding to support their work. The execution will be undertaken by the local authorities.

Thus, the policy operates as a mix of the network and umbrella type. While the incentive is established by a central institution, the communication and execution will be done on a local level through the local authorities.

6. Co-operation with NGOs for local solutions

The local authorities build co-operations with small-scale housing initiatives on the local level to have direct interaction with communities and access to local knowledge. While the local authorities benefit from the local knowledge regarding possible areas and local landlords and can learn from alternative practices, the initiatives receive financial support.

As this interaction takes place on the local level in form of a co-operation but the knowledge is shared on a wider scale, the type of operation is defined as network.

ON THE SYSTEM

The system diagram explains how the different stakeholder groups are related and contribute to a set of tools that form that provide the base for the integrated housing system (see Figure 106). The public sector is the initiator and main force behind the system as it establishes standards and revises important regulations, promotes the collection and provision of relevant knowledge, as well as introduces policies.

Based on the knowledge gathered regarding the negative experiences of households in temporary accommodation as well as their needs and requirements when it comes to temporary housing solutions, the public sector introduces quality standards for temporary accommodation. Furthermore, it revises related regulations like the benefit system and regulations about building conversions. In addition, the public sector establishes a clear and reliable system for quality control. Through subsidies and funding the public sector encourages the private sector to improve and consequently provide more sufficient temporary accommodation and supports small-scale housing initiatives in the civil society, which work towards local solution in close interaction with the focus group. Both, regulations, and policies are informed by the knowledge collected by the public sector from both the civil society and the private sector.

This scheme results in the integrated housing system for temporary housing which consists of a digital platform and a central institution for temporary housing concerns.
The digital platform is used for the sharing and exchange of knowledge regarding housing capacities and spatial interventions. It provides the base for co-operation between boroughs when it comes to out-of-area placements and informs both the local authorities and private landlords about housing standards and fundings. Moreover, it is used for communicating with the small-scale initiatives. The central institution works from a central location. It provides a direct contact for households with complaints or issues regarding their temporary accommodation. Moreover, the institution controls the upkeep of housing standards through regular controls and the rating system.

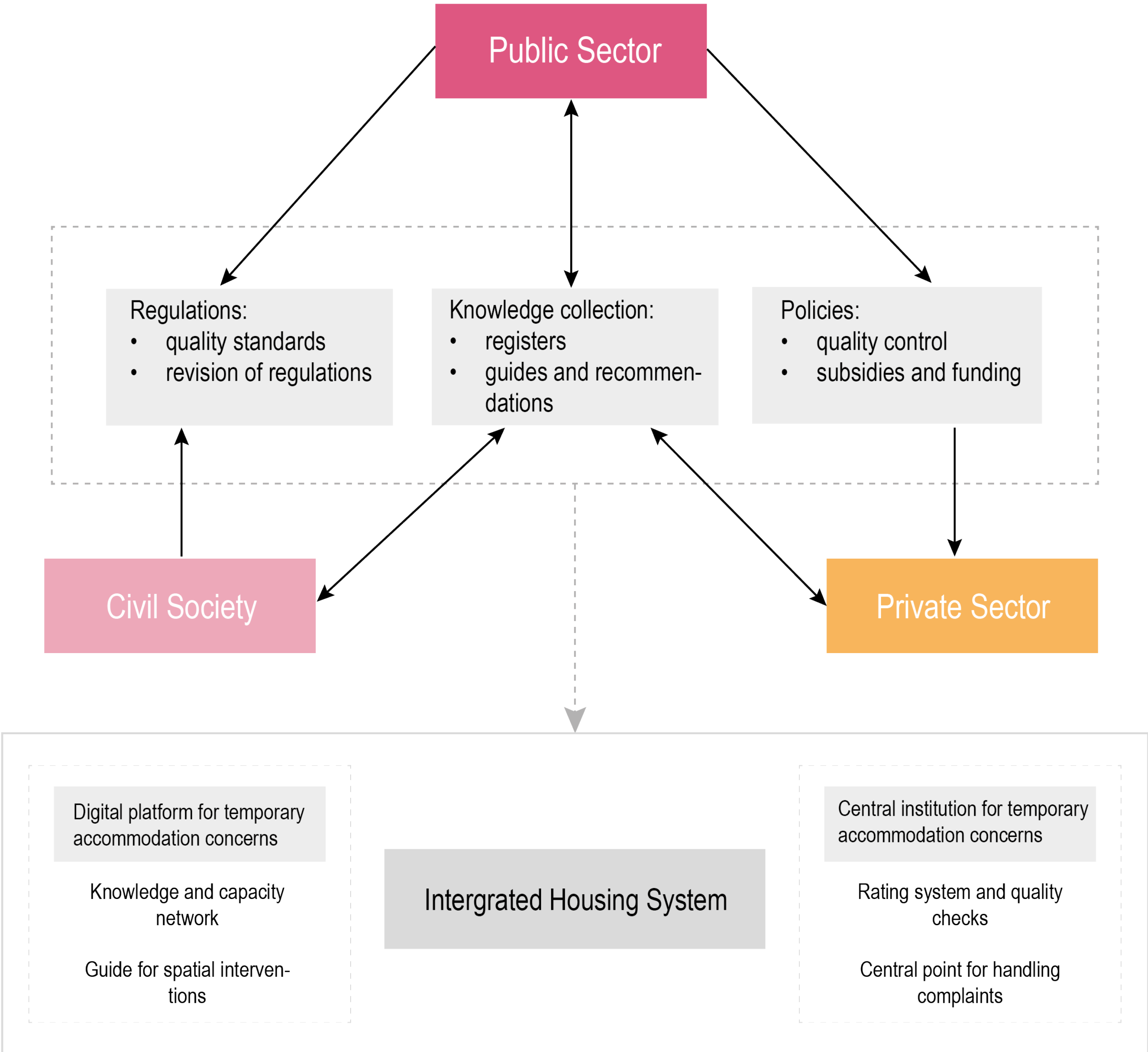


Figure 106: System diagram (Image: by author)

ON IMPLEMENTING THE SYSTEM

The accompanying map illustrates how the new regulations and policies work as an integrated system on the Greater London scale (see Figure 107).
The newly established temporary housing standards are effective in the Greater London area and their compliance is controlled by a central institution. This institution for temporary accommodation concerns is operating the newly introduced rating system and is also responsible for processing housing complaints. Therefore, the institution works in close co-operation with the different local authorities as they are holding the housing duty and provide the temporary accommodation.
Thus, the institution could be described as an umbrella organisation. It operates from a central point, establishes generalised and equal standards on the Greater London scale, and impacts the neighbourhood scale through close interaction with the local authorities.

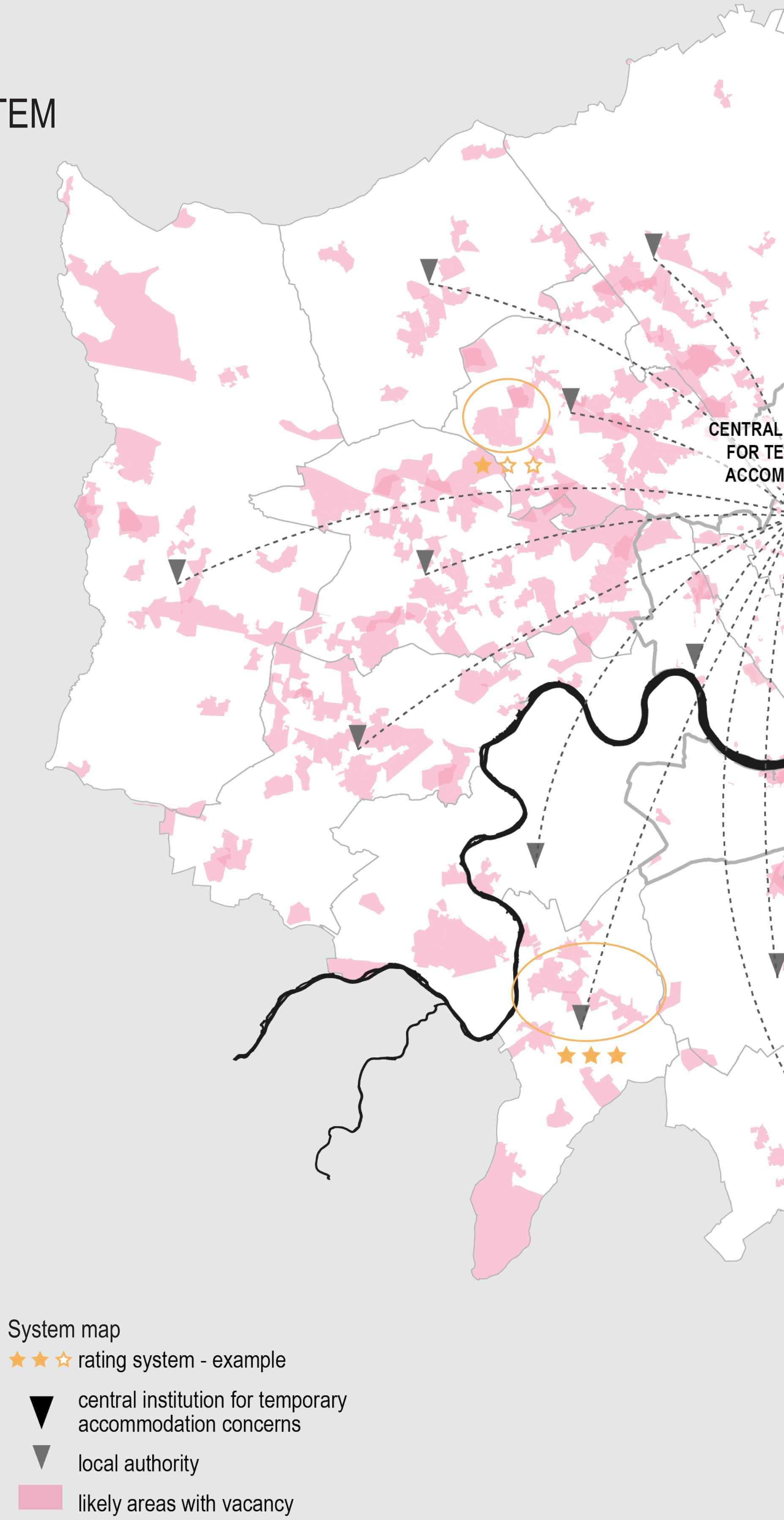
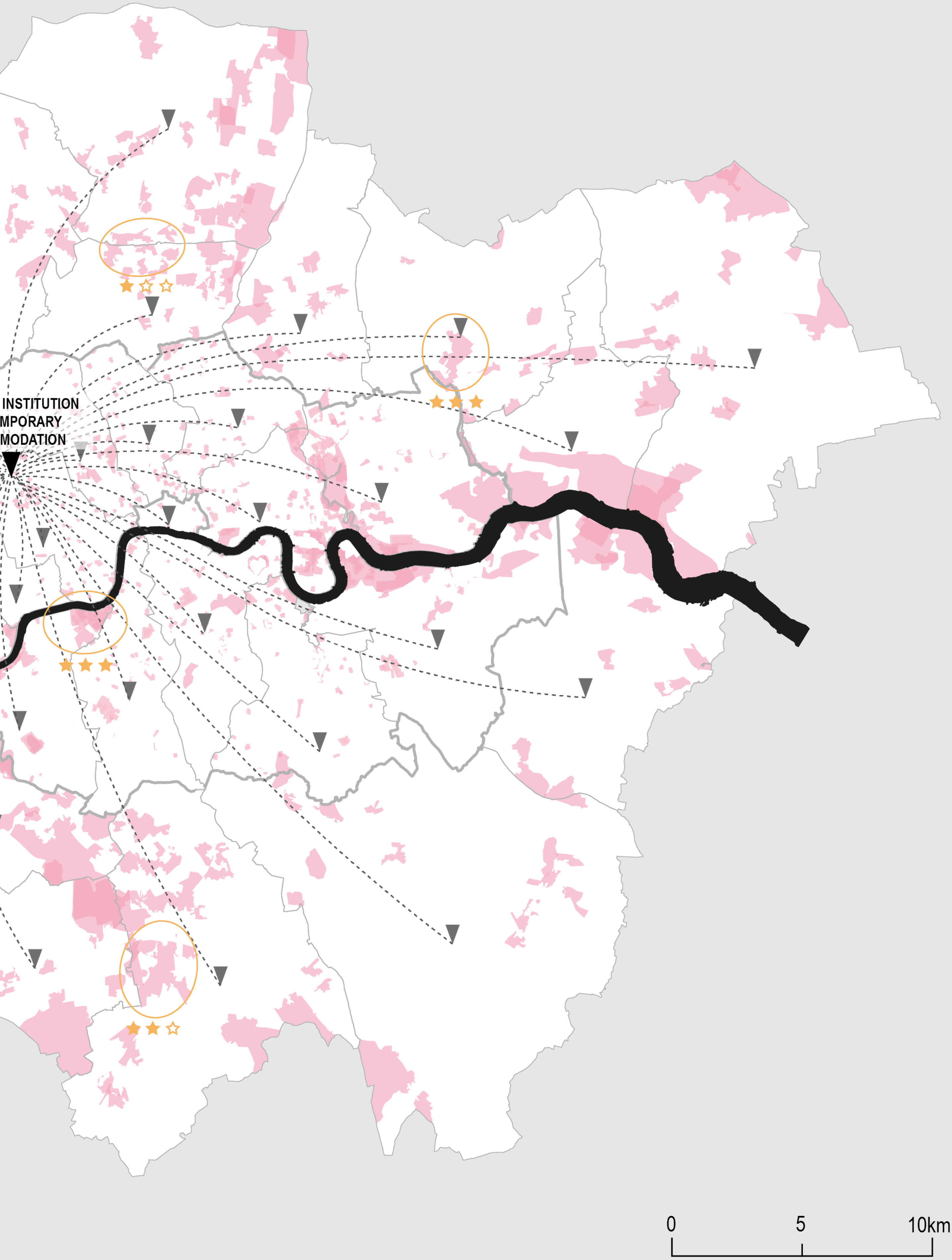
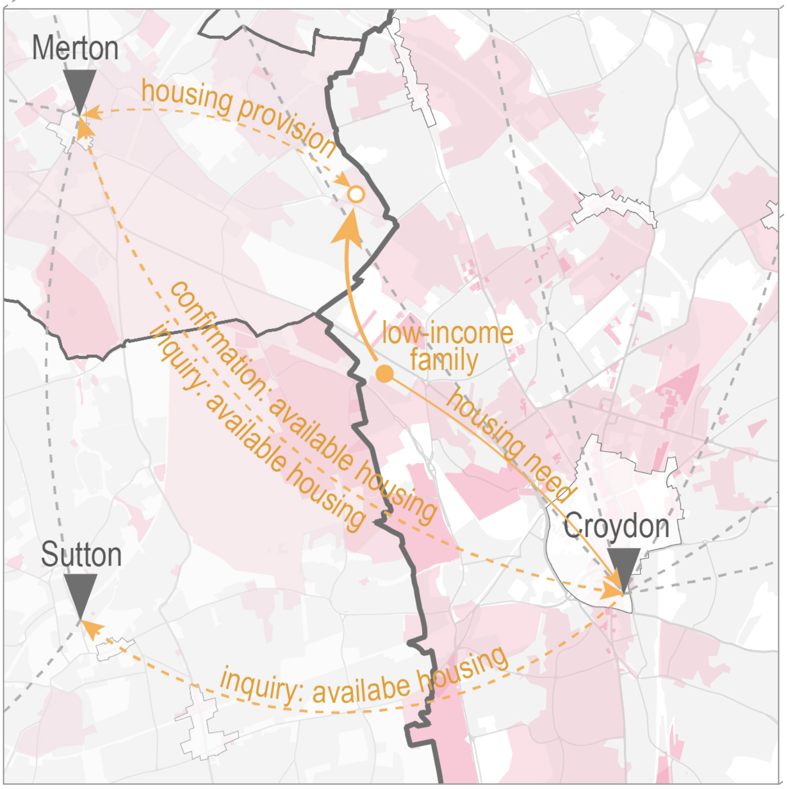


Figure 107: System map - Greater London area (Data source: Geofabrik, 2018 & Greater London Authority, 2016, Urban Displacement Project, 2021)


INSTITUTION
MPORARY
MODATION
0
5
10km

The adjacent map illustrates how the integrated system, and the associated regulations and policies are implemented on the local authority scale (see Figure 108).
Based on the city-wide housing standards, the different temporary housing options in the borough are rated by the central institution for temporary accommodation concerns.
Figure 108 also shows the digital network for co-operation between boroughs when it comes to out-of-area placements. Each borough works in direct co-operation with its neighbouring boroughs. Furthermore, the individual boroughs form a network with the local small scale housing initiatives to provide support and exchange knowledge.

As the example shows, when a low-income family in Croydon is at the risk of homeless, they apply for temporary housing at their local authority which in that case is the Croydon Council. The council will now check if they have a suitable temporary housing unit in the family's area available. If that is the case, the family will move into that housing unit. If there is no unit available and the next available unit would result in out-of-area placement, the local council gets in contact with the neighbouring boroughs through the digital platform. Through an inquiry it can be determined, if there is a unit that prevents displacement available in one of the neighbouring boroughs. In the example, the borough of Merton confirms an available unit and thus, provides the housing option to the family in need. However, the housing duty still lays with the Croydon Council and once an alternative option for temporary or social housing in their own borough becomes available, the family has the right to move there.



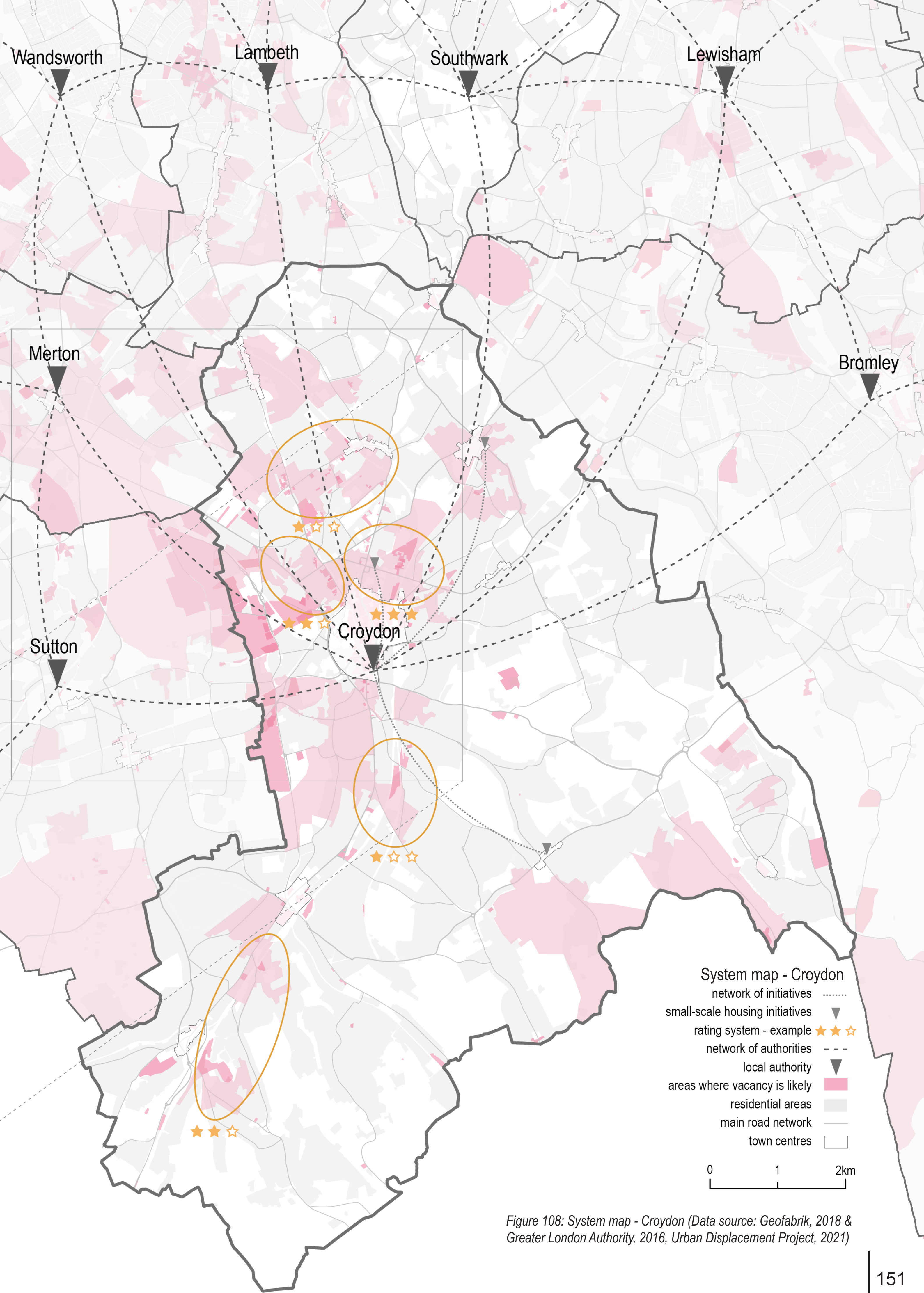


Figure 108: System map - Croydon (Data source: Geofabrik, 2018 & Greater London Authority, 2016, Urban Displacement Project, 2021)

CONCLUSION

When reflecting on the development of the integrated housing system, it becomes apparent that while the public sector needs to be the main initiator for change, the private sector and especially also the civil society have the potential to make a positive contribution if the circumstances are right.

Most regulations and policies are established by the Greater London authority. The most important ones include generalised housing standards for temporary accommodation and building conversions, control mechanisms like the rating system and a central institution for complains, funding and financial incentives, as well as co-operations, both, between the different boroughs and with small-scale initiatives on the local level.
Thus, especially on the local scale the private sector and the civil society have an impact as they are directly involved in the provision of housing solutions, as landlords and housing co-operations or associations.

The two main novelties that are introduced in line with the integrated housing system are the centralised institution for temporary housing concerns on the one hand and the digital platform on the other. While the institution follows the umbrella type when operating in space, the platform is characterised by facilitating the formation of networks and sharing knowledge.

Figure 109: House of parliament (Photo: by van der Merve, 2012)

Figure 110: London City Hall (Photo: by Rabon, 2016)

GUIDE OF SPATIAL INTERVENTIONS

There is a strong case for policies that attempt to improve people's experience of being in temporary accommodation, even if this does not reduce the total amount of time they are there. These interventions could include improving the type, standard and location of the accommodation offered, or the information and communication that households receive throughout the process.

- Bosetti et al. in Temporary Accommodation: London's hidden homelessness crisis

DEVELOPING INTERVENTIONS

An important part of the integrated housing system for London is the guide of spatial interventions to utilising vacancies and increase the suitability.

Therefore, different sets of interventions are developed and assessed. They are developed based on the previous analysis of the needs and requirements of low-income families and based on the three concepts of feeling at home, livability, and social safety. They include interventions on the four scales, unit, building, street, and area, and it is defined whether they are implemented by the local authority or private landlords or others. The assessment includes their contribution to accessibility, their contribution to the three main concepts, as well as their degree of temporariness. Moreover, the different sets of interventions are categorised based on the three concepts.

In order to show their implementation in space, two locations with high numbers of vacancies and the potential for a temporary accommodation placement in the focus area Croydon were selected to showcase, how the different interventions contribute to transforming the space and creating more liveable and safe environments for low-income families in London.

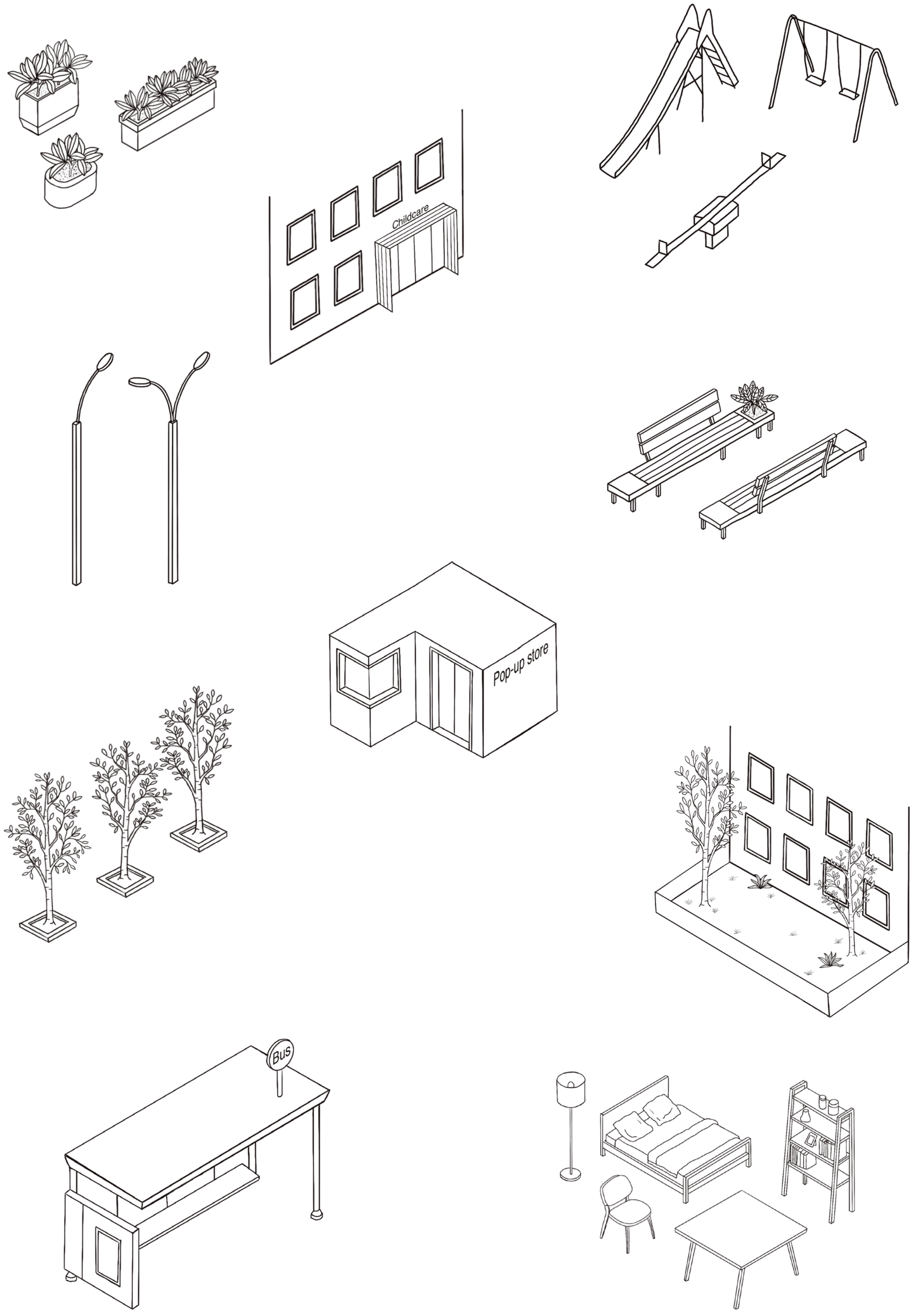
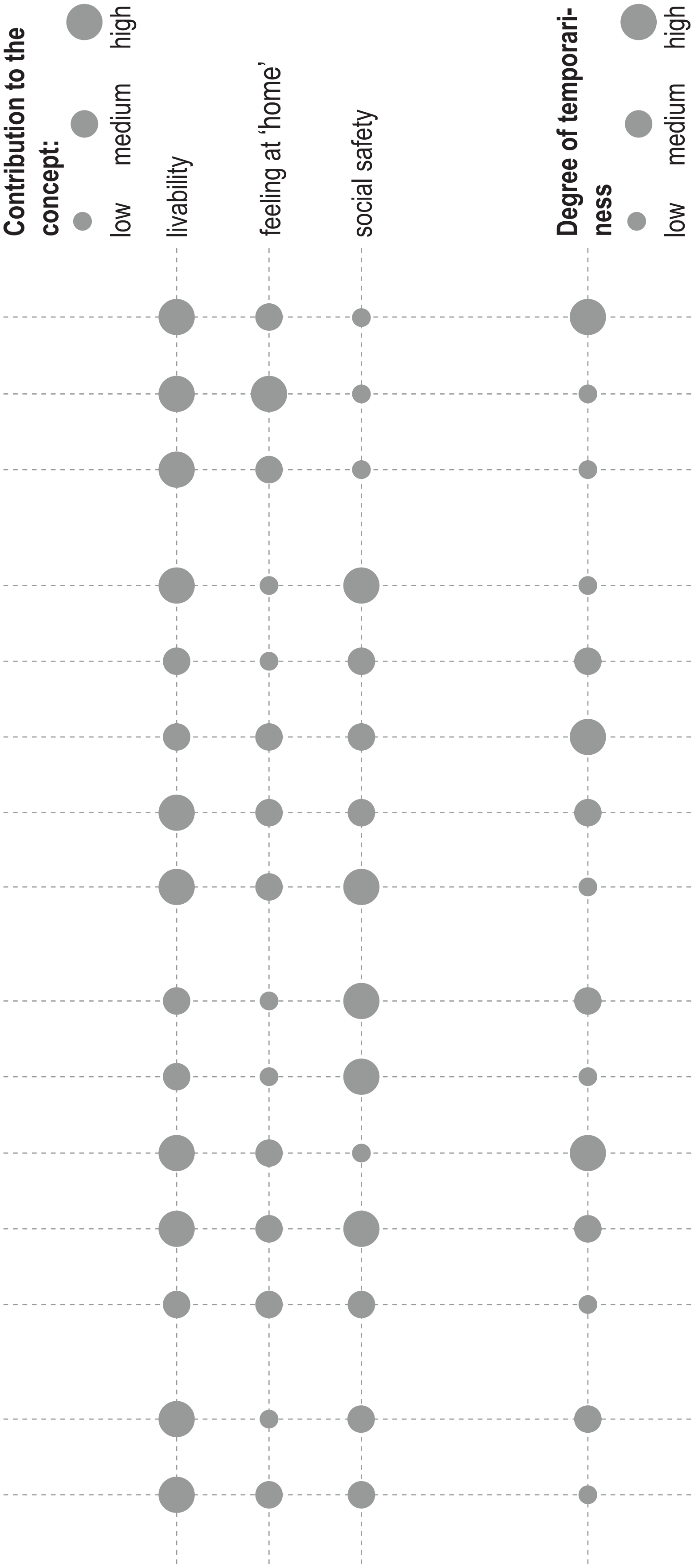


Figure 111: Collection of small interventions (Image: by author)

	Implementation by:		Accessibility to:		
	local authority	property owner or other	services and facilities	infrastructure and public transport	recreational or green space
unit					
furniture pack	●				
kitchen or kitchenette and bathroom		●			
heating facility		●			
building					
additional windows		●			
entrance marked with canopy or colour		●			
flower and plant boxes		●			
frontyards or outdoor space		●			●
childcare on the ground floor	●		●		
street					
road markings and pedestrian crossing	●			●	
additional street amps	●			●	
street furniture	●				●
pop-up stores		●	●		
tree rows	●				●
area					
additional bus stops and adjustment of the line	●			●	
turning car parks into green space or playground	●				●

Figure 112: Systematic diagram - on spatial interventions (Image: by author)



includes basic furniture like beds, tables, chairs, sheets & curtains

GLA supports installation through funds

GLA supports installation through funds

installation preferably coincides with future use of the building

GLA supports installation through funds

can be maintained by tenants

can be used by tenants for gardening and recreation

implemented where number of temporary housing units is high

general area improvement

general area improvement

supports appropriation of the public space

supports covering the basic needs of low-income households

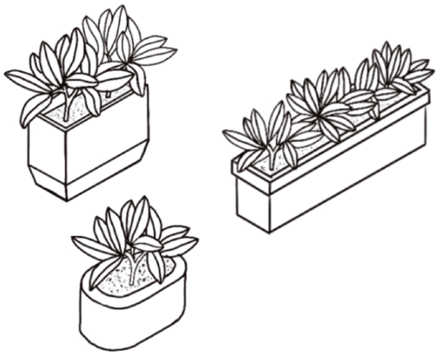
general area improvement

implemented where number of temporary housing units is high

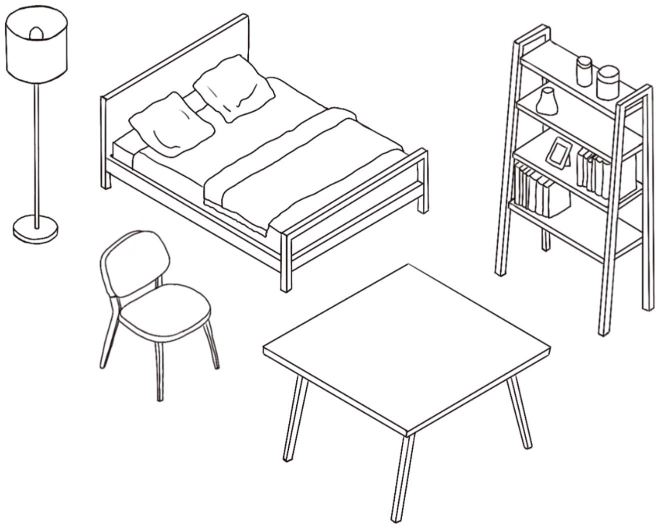
supports appropriation and improvement of the public space

CATALOGUE OF INTERVENTIONS

The first set of interventions included in the catalogue consists of elements that increase the feeling of home in temporary accommodation. Therefore, the interventions are focused on the unit and building scale.
On the one hand, they include elements that increase the practical use, like the insurance of having a private bathroom and kitchen in housing units that are intended for families. On the other hand, the interventions are intended to enhance the level of comfort and atmosphere by including a furniture pack to ease the move and reduce costs, as well as by introducing flower and plant pots around the building to improve the physical surroundings and make them more friendly. Moreover, for buildings with many housing units it is recommended to utilise ground floor as a childcare as this contributes to establishing simple and accessible daily routines for parents.

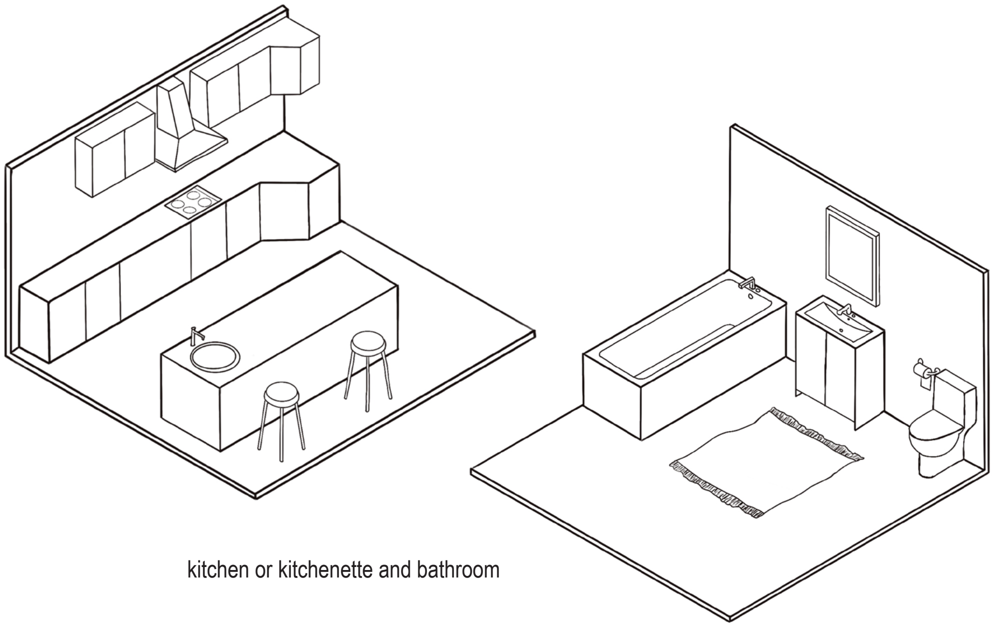


flower and plant boxes

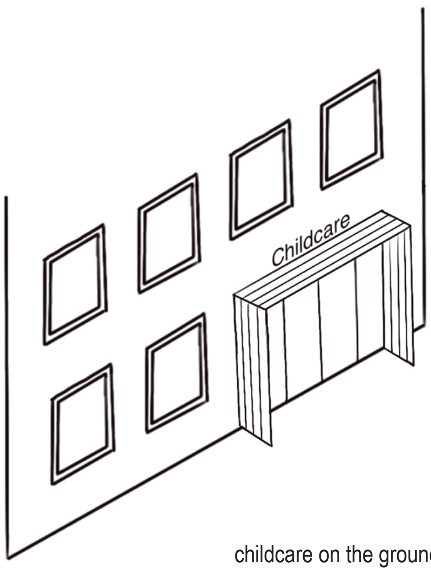


furniture pack

Figure 113: Feeling at home - set of spatial interventions (Images: by author)



kitchen or kitchenette and bathroom



childcare on the ground floor

The second set of interventions included in the catalogue focuses on elements that contribute to improving the livability of the housing units, buildings, streets, and areas.
For the housing units, the catalogue recommends proper heating facilities to ensure a comfortable environment. To enhance the immediate surroundings of the buildings, the entrances should be marked by an element like a canopy or colour to make them visible and easy to find. In addition, spare areas and small brownfields should be transformed into front yards or outdoor spaces that can be used for recreation, playing and gardening. For the street and surrounding public spaces the catalogue recommends the placement of street furniture and to transform empty parking lots into small playgrounds for the children. Moreover, in order to improve the accessibility of some locations, additional bus stops and accordingly an adjustment of the bus line are recommended.

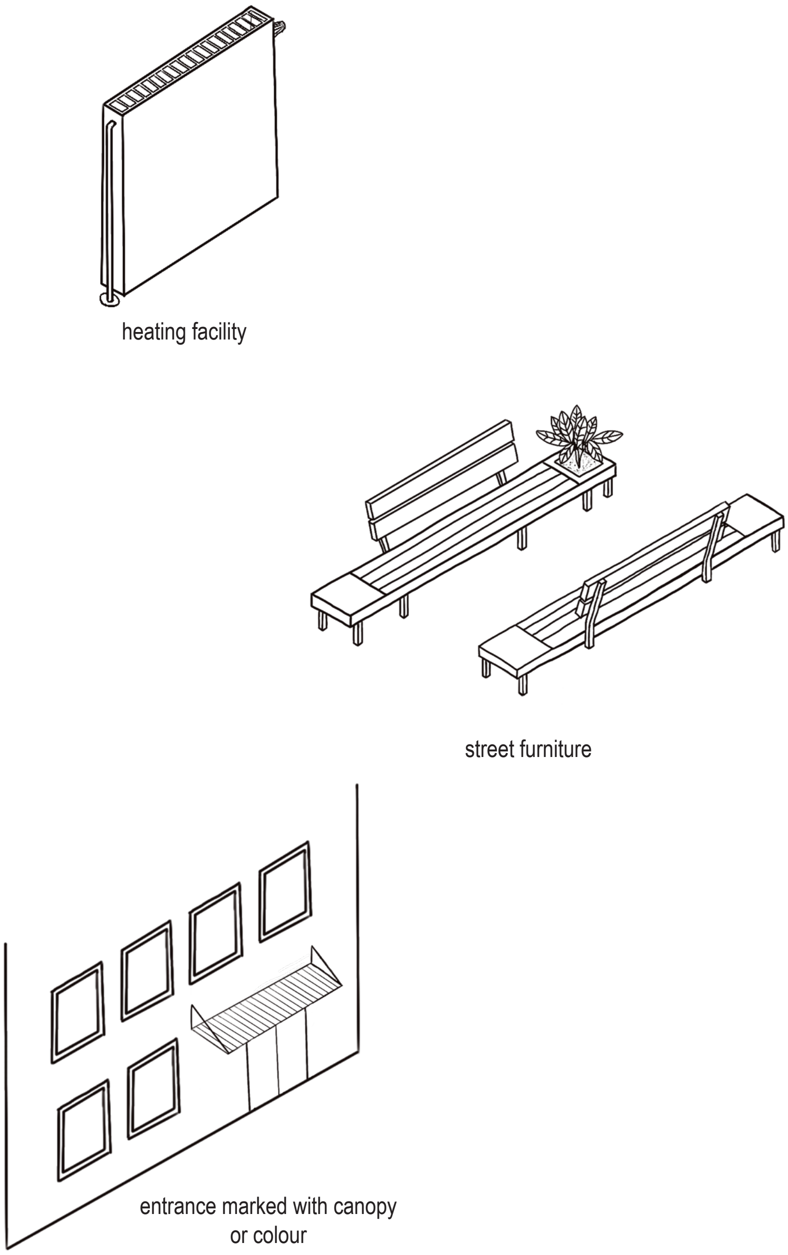
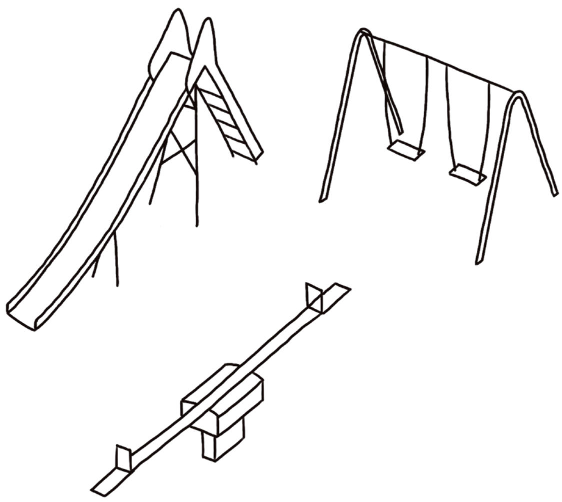
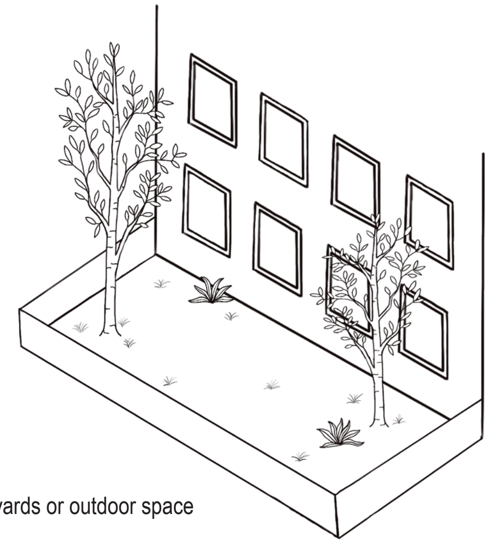


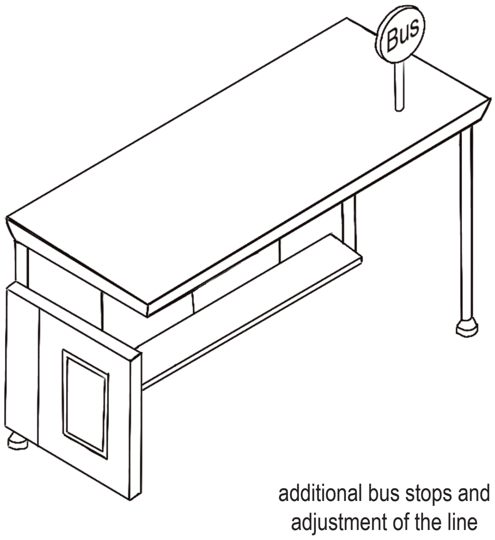
Figure 114: Livability - set of spatial interventions (Images: by author)



turning car parks into green space or playground

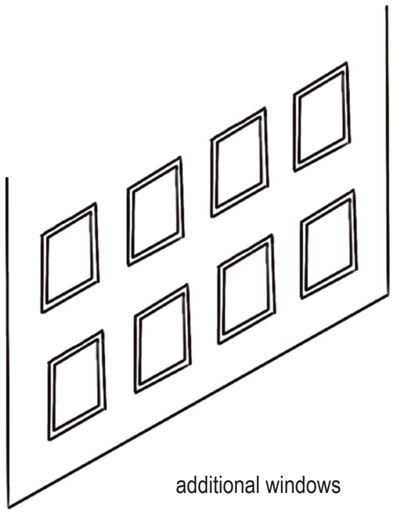


front yards or outdoor space

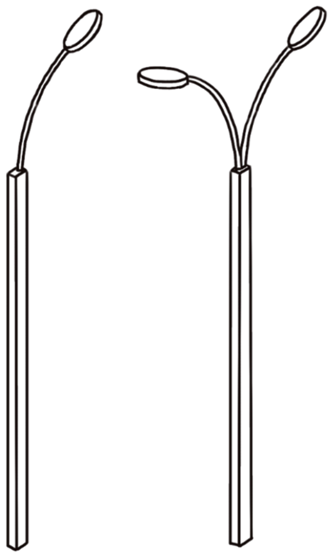


additional bus stops and adjustment of the line

The third and last set of interventions in the catalogue addresses the concept of social safety. The interventions aim at creating public spaces that are perceived as safer by its users through increasing the activity and visibility, as well as creating spaces adjusted to human proportions.
Therefore, additional windows on the ground floor and additional streetlamps are recommended to enhance the visibility on the streets. New road markings like speed limits, pedestrian crossings, bike lanes and play streets should slow down traffic and increase the safety of pedestrians and children playing in the street. Introducing rows of trees has a positive impact on the atmosphere and can help to change the perceived proportions so they feel more adjusted to the human scale. Moreover, pop-up stores in the plinth of buildings or in public space increase activity in the area and enhance the accessibility for inhabitants of temporary accommodation.

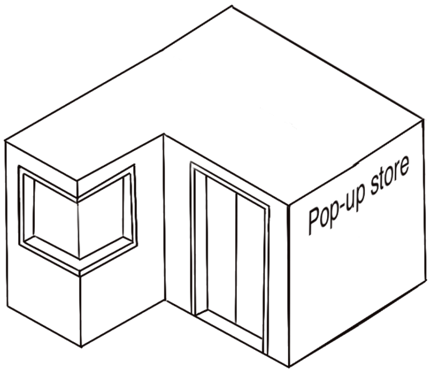


additional windows

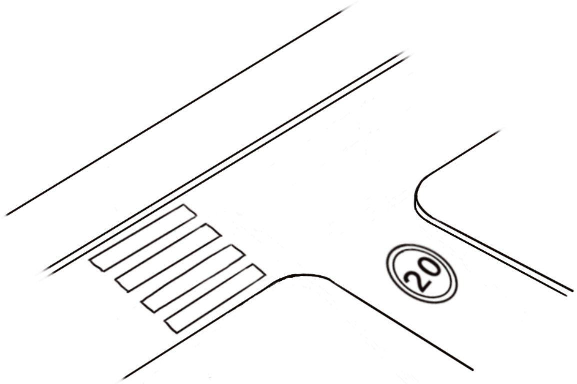


additional streetlamps

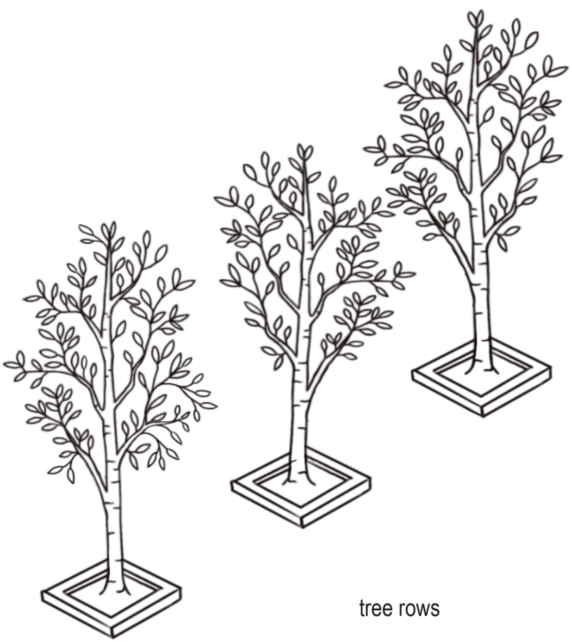
Figure 115: Social safety - set of spatial interventions (Images: by author)



pop-up store



road markings and pedestrian crossing



tree rows

EXEMPLARY IMPLEMENTATION

Figure 116 illustrates how the different interventions are implemented in the urban environment and how they can transform areas of different land-uses. The yellow buildings indicate vacant properties that can be utilised for temporary housing purposes after the implementation of different spatial interventions in their surrounding environment. For example, additional bus stops are added, and the bus line is adjusted so that previously inaccessible locations can be reached. In addition, services that are important for the daily life should preferably be in walkable distance and reachable in a maximum 15 minutes.
Moreover, the ground floor area and facade of some buildings is adjusted to accommodate different functions like a childcare facility or pop-up stores. These small interventions in the plinth should bring more life and activity in the area. Lastly, green, and recreational spaces and street furniture are added to make the public space livelier and provide opportunities for the inhabitants to socialise and be active.

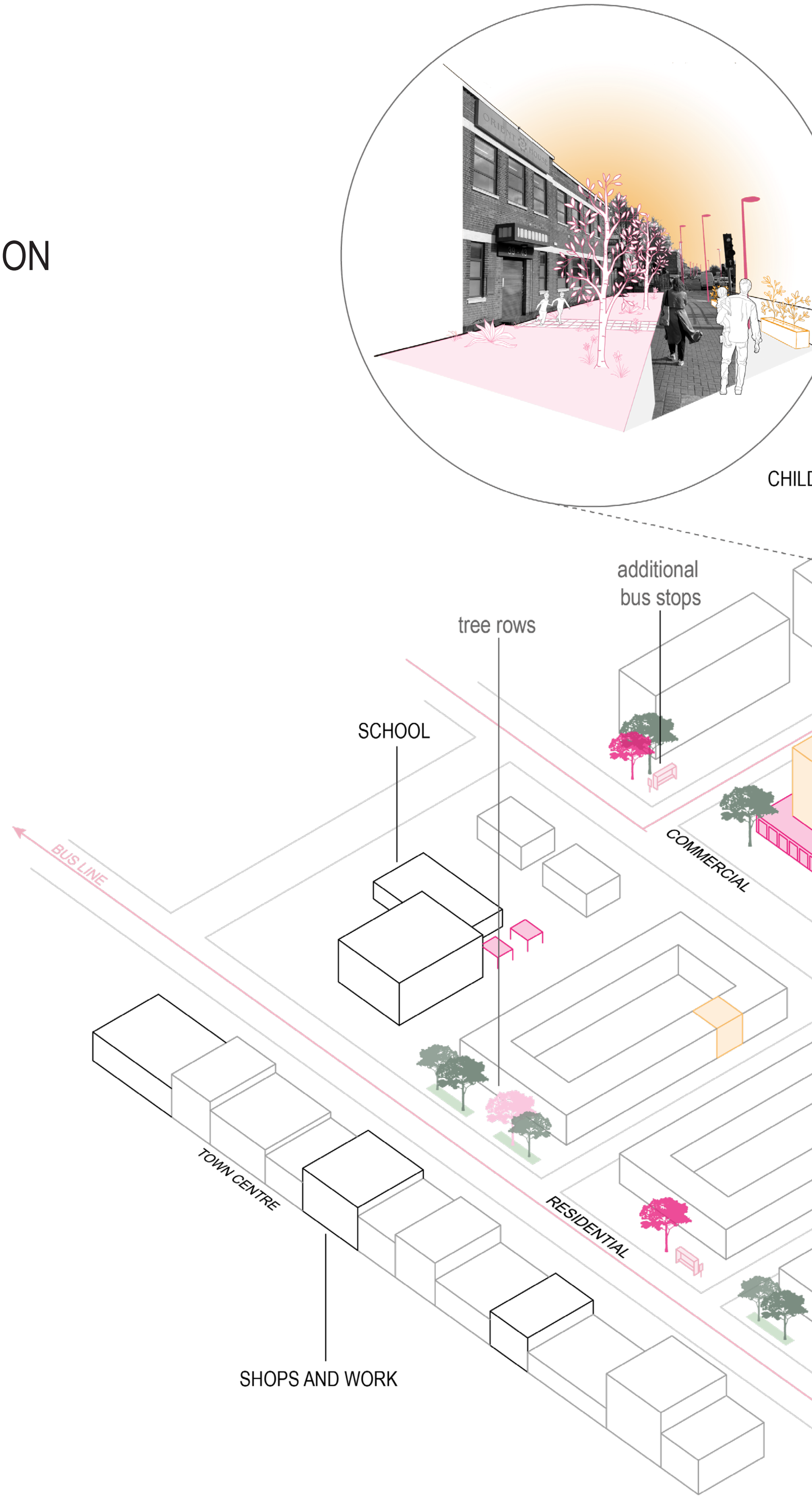
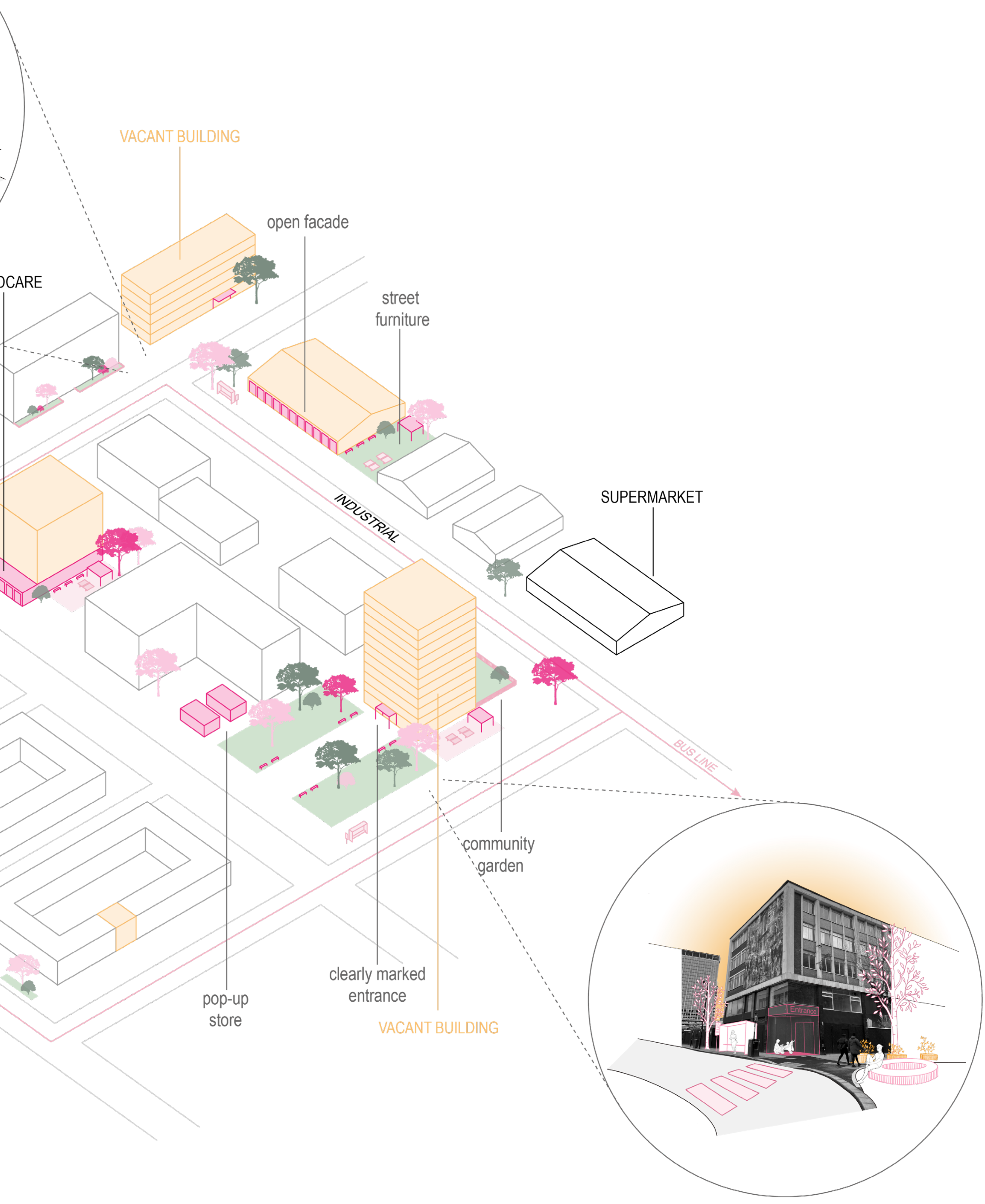
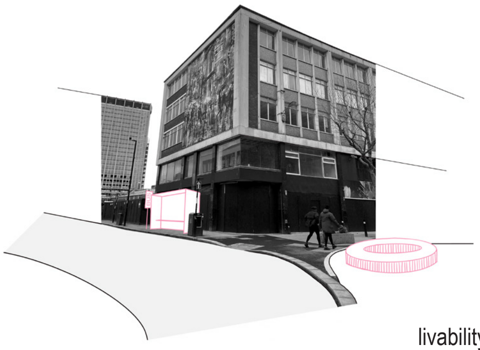


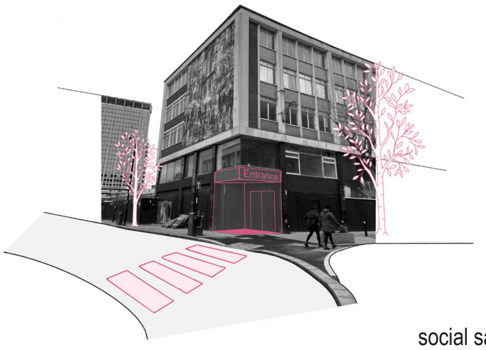
Figure 116: Area types and spatial interventions (Image: by author)



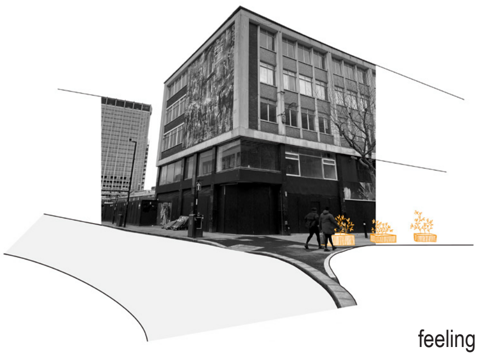
VACANT BUILDING
open facade
street
furniture
INDUSTRIAL
SUPERMARKET
BUS LINE
community
garden
Entrance
pop-up
store
clearly marked
entrance
VACANT BUILDING



livability

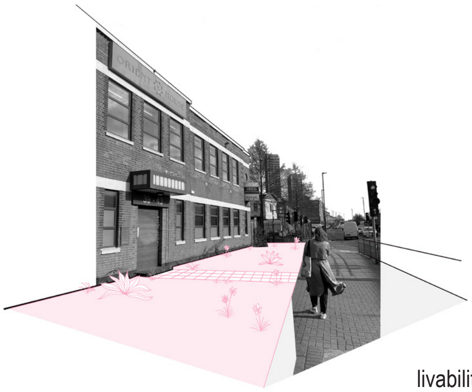


social safety



feeling at home

Figure 117: Street impression (Image: by author)



livability

social safety

feeling at home

Figure 118: Street impression (Image: by author)

CONCLUSION

The guide of spatial interventions in intended as a guide to showcase how different interventions on varying scales can enhance vacancies and their surroundings to make them suitable to temporary housing placements.

Depending on which elements are mainly missing in an area, the catalogue holds various interventions based on the three concepts. The information will be provided through the digital platform for temporary accommodation concerns and should be understood as the starting point of a growing collection of knowledge and experiences regarding the transformation of vacancies to temporary accommodation use. As of now, the focus of the interventions is laid on families. However, in the future and with the growth of the knowledge collection, interventions that are addressing other user groups could be included as well.
The use of the catalogue is intended for the different stakeholders who are involved in the provision of temporary housing solutions, including local authorities, private landlords, as well as housing associations and co-operations.

In summary, the guide of spatial interventions presents a compact and practical collection of useful and easily accessible knowledge which is a great asset for the utilisation of vacant properties for temporary accommodation for all groups involved in the temporary housing provision.

Figure 119: A couple walking in Willesden (Photo: by author)

CONCLUSION

Against the background on the housing crisis in London, low-income households and especially families with children are affected by high living costs and the shortage of affordable and social housing which puts them at an increased risk of becoming homeless. Consequently, around 300.000 households are currently placed in temporary housing (Bosetti et al., 2022). As the provided temporary housing options are often insufficient or lead to displacement, there is an urgent need for immediate solutions for these households in the short and medium-term as resolving the general housing shortage will be a continuous process for the next decades. At the same time ongoing processes of privatisation and financialisation have caused a shift in the ownership of the city and established an understanding of housing and other building types as investments. These developments have resulted in high numbers of vacancies in the private sector.
Following the observation of these two contrasting developments, the aim of the project was to develop a systematic solution for the allocation of temporary accommodation for low-income families that utilises vacancies in London and improves the living conditions at the same time. Furthermore, the idea was to draw inspiration and knowledge from informal housing practices in order to develop an integrated housing system. Thus, the main research question asks:

How can an integrated housing system support temporary housing to reduce the number of low-income families at the risk of homelessness and displacement while also reducing vacancy in the private sector?

Arriving at the end of the project, in the following conclusion, the achieved outcomes will be set in relation to the main research question and research aim to determine to what degree the outcomes have answered the question and fulfilled the aim and where further research might still be necessary. It will be analysed whether the outcomes of the different methods that were used, are answering the four sub-questions as this will indicate to what degree the research aim is reached and the main question answered.

SQ1:
What are existing informal housing practices and what are their advantages and disadvantages?

The first sub-question was focused on the different informal housing practices and the advantages and disadvantages. To answer this question, the first step consisted of defining 'informal practices' in relation to housing in a Western or European context. During the literature research, it became apparent that housing informality in the global North is still a relatively new topic as most previous research was focused on the global South. However, the research in this field is growing as informal practices are becoming more present and relevant in Western settings as well. As Lombard explains, the growing interest and importance of informal practices is often related to the failure of state policies and neoliberal structures (2019). An observation that can also be made in London with the housing crisis as a consequence of privatisation and the provision of insufficient temporary housing as a sign of the failure of the formal allocation system.
In the next step, existing uses of informal housing practices in the form of different initiatives in London where detected and categorised based on the previously introduced dimensions reach, communication, and participants, as well as evaluated based on the three criteria accessibility, inclusiveness, and efficiency. As it turned out during the research process, most of the initiatives do not address the focus group of low-income families which was initially a selection criterion for initiatives to be considered in the systematic comparison. Consequently, the two other selection criteria of duration and building typology were given more priority. Furthermore, several interviewees emphasised that the formal allocation is oftentimes the most reliable solution for low-income families due to the housing duty of the local authorities. However, the outcomes also show that supporting and drawing inspiration from informal practices can provide more local solutions as the informal practices are often characterised by co-operation, knowledge exchange and co-ordination on the smaller scale. Especially, non-profit organisations like local housing co-operations and housing associations could be a great asset for providing better and more local housing solutions if they are supported by finical resources and a corresponding regulation and policy framework.
Therefore, the systematic solution as the main thesis aim should be understood as a framework that improves the formal allocation system and enables the use of informal practices as a complementary addition rather than understanding it as a completely new and separate element.
In summary, the outcomes answer the first sub-question, as they showcase the advantages and

disadvantages of both the formal system and the informal practices how this knowledge can be transferred to support the development of the integrated housing system.

SQ2:
What are the needs and requirements of low-income families and how can they benefit from temporary housing solutions?

The second question is focused on low-income families and their needs and requirements, as well as on how they can benefit from temporary housing solutions. In order to answer this question, the first step consisted of defining what exactly is understood as a low-income family. This step was followed by a general analysis of the situation of low-income families in London based on quantitative data. As a result, a set of different maps indicated where low-income families are located in the city. They showed that while low-income families can be found all over the city, the numbers increase towards the inner-city boroughs and in the North-east. To determine the needs and requirements of these families regarding temporary housing solutions, further literature research was done and three interviews with both housing experts and members of the focus group were conducted. Based on this extensive collection of knowledge and input, a concluding diagram was created which shows the different requirements on the unit scale, the building and street scale, as well as the area scale, as well as in relation to the three concepts that were introduced in the conceptual framework.
These outcomes provide the base for a set of housing standards for temporary accommodation which are established within the integrated housing system. Furthermore, they were taken into consideration during the development of the catalogue of spatial design interventions to ensure that they support the creation of safe and liveable environments that can to a certain degree feel like home.

SQ3:
What types of vacancies are there, and which types are suitable for temporary housing?

The third question was focused on locating different types of vacancies in London and determining which ones are suitable for housing. It became apparent during the spatial analysis that available data on vacancies, their specific location, and different types in relatively limited in London. Thus, the analysis is following an approach of predicting potential types and areas of vacancy based on a list of characteristics defined by literature. Most of these indicators focus on empty commercial buildings and offices. Therefore, these building types were mainly considered in the further analysis and design. The outcomes showed that while vacancies can be found in various forms all over the city, there were two types that stood out in particular. The first type consists of short-term vacancies in areas of ongoing re-development and gentrification mostly located in the inner-city boroughs. In contrast, the second type consists of long-term vacancies that mostly can be found in areas of decline with a commercial or industrial land-use located in Outer London.
The second step of answering the question, centred around establishing indicators for evaluating the suitability of vacancies for the use as temporary housing. The previously introduced three concepts formed the basis to define suitability in the context of temporary housing solutions for low-income families. The outcome consists of a multi-scalar set of indicators that evaluate the suitability. The different scales include the area, street, building and unit. As the three concepts become more or less important depending on the scale, through this approach their indicators can be applied on the scale where they are the most relevant.

SQ4:
Which spatial change of the vacant buildings can support temporary housing?

The last sub-question is concerned with spatial design changes of the vacancies. This question is answered as part of the systematic solution based on the results of the previous analysis regarding the needs and requirements of low-income families as well as the types of vacancies and their suitability. The main outcome is a catalogue of design interventions which address the concepts of livability, social safety and feeling at ‘home’. The different packages of spatial interventions focus on improvements for the four scales ranging from unit and building, over street to area. The spatial interventions include some general recommendations and standards for building and the housing units. However, the majority of design interventions addresses the street and area scale rather than the individual buildings and housing units as their type, proportion and size can vary significantly. Furthermore, temporariness of the design interventions is considered as an important aspect for the practicability as the project is focused on short and medium-term uses of vacancies for temporary housing. Thus, the design interventions should be easily implementable and cost-effective.

Main research question:
How can an integrated housing system support temporary housing to reduce the number of low-income families at the risk of homelessness and displacement while also reducing vacancy in the private sector?

When looking at the outcomes in relation to the research aim and main research question, it can be said they address the urgency of the insufficient living situation of low-income families in temporary accommodation satisfactory and illustrate a way to bring immediate improvement. The project provides a valuable overview over the different informal housing practices and how they can contribute and be incorporated into the integrated system. Furthermore, it gives an extensive inside into the needs and requirements of low-income families when it comes to temporary housing solutions. In addition, the thesis presents a systemised way of identifying, adapting, and allocating vacancies as temporary housing. The main outcomes in form of the framework for the integrated housing system and the catalogue of spatial interventions combines all the collected knowledge in a condense way and introduces a result that will not only benefit the focus group of low-income families but also other household types that live in temporary accommodation. Furthermore, while spatial interventions on the street and area scale are recommended with the intention of increasing the suitability for temporary housing placements, the general enhancement will benefit all users of these spaces and thus contribute to creating more liveable and safe streets and areas.
However, a couple of points mentioned in the main research question fell short and would require further research to be answered fully. Firstly, the question asks for a solution that also contributes to

the reduction of low-income families at the risk of homelessness and displacement. Regarding the first aspect meaning the risk of homelessness, as families are of priority need, they will always be provided with a housing option through the formal allocation system. Thus, the integrated housing system cannot contribute to reducing their number. However, the organisational and spatial interventions presented as part of the thesis outcome, can significantly improve the conditions of the provided temporary accommodation and therefore improve the low-income family's experience in the system. Furthermore, by utilising vacancies and introducing the organisational changes and a better co-ordination between boroughs the risk of displacement can be reduced.

Secondly, the question focuses on vacancy in the private sector. While some general assumptions can be made regarding the owners of these vacancies and thus the potential future landlords for temporary accommodation, in order to have more targeted engagement strategies further research of these property owners is recommended. However, it can be said that the financial incentives for building improvements included in the integrated housing system and the aim to bring vacant properties back into use can generally be understood as a positive development for all types of property owners.

In summary, the project addresses an issue with a high urgency that significantly impacts the daily life of many low-income families and households in London. Thus, the presented outcomes including the framework for the integrated housing system and the catalogue of spatial design interventions could provide immediate improvements and form the base to initiate long-term changes towards a better and more local housing system that provides sufficient housing solutions for all.

RECOMMENDATIONS

Following the conclusion and based on the outcomes of the thesis, a number of recommendations can be made. The recommendations consist of a set of general recommendations for London on the one hand and two main takeaways that are transferable and applicable for other urban contexts on the other hand.

Recommendations for London:

- As the space in London is scarce and the city is constantly growing and developing, the first recommendation consists of making more use of under-utilised and vacant spaces. In order to do so the city need a clear overview of where they have which type of space available for utilisation. Therefore, the first recommendation consists of having a public register for the locations and types of vacant properties and under-utilised spaces as well as their ownership. This would make these spaces more accessible for temporary or intermediate uses and thus, could contribute to reducing vacancy in the city in general. Furthermore, a public register and more available data could support research about vacancies in cities, their reasons and how to utilise them.

- The analysis of the current situation of temporary accommodation revealed that the quality the support of the local councils as well as the provided housing options and can vary significantly. This is due to missing standards for temporary housing, individual temporary accommodation schemes of each local authority, as well as unclear responsibilities. Therefore, the second recommendation includes the introduction of a set of generalised housing standards for temporary accommodation in the Greater London area or preferably in England one the hand. Moreover, the temporary allocation scheme should be modernised and generalised to ensure equal support and treatment throughout London and England.

- As the analysis showed, London is oftentimes lacking communication, knowledge exchange and co-operation between the different boroughs when it comes to housing concerns. Therefore, the third recommendation directed to the Greater London Authority consists of establishing direct lines of communication, extending the shared knowledge base, and encouraging co-operation when it comes to temporary accommodation and housing concerns in general.

Next to the recommendations that are addressing London directly, the project also reveals two main approaches that have the potential to be generalised and applied in different urban contexts as they are concerned with issues can be observed that can be found in many metropolitan cities.

Recommendations transferable to other urban settings:

- As the project has highlighted, informality can be a powerful tool in the evolution and transformation of urban spaces that is becoming more important in Western settings. Informal practices can be a great inspiration for developing and designing urban environments as they are often rooted in local communities and are concerned with the peoples needs. They provide creative and innovative ways of improving the daily life and surroundings of people in the city as they utilise first-hand experiences and local knowledge to address issues. However, if they are originating from the civil society, they are often lacking primarily financial resources and influential power. Thus, the first recommendation states that informal practices should generally be supported by providing frameworks where they can function properly, by encouraging their efforts through financial backing, as well as by drawing inspiration and advocating their ideas to be integrated in formal systems.

- London is a prime example to observe changes in the urban environment and a shift in the ownership of the city caused by gentrification and the growing global interconnectivity. As this thesis illustrates, the related processes of privatisation, financialisation and urban redevelopment have impacted the value and use of urban space and oftentimes result in high numbers of vacancies. These developments are not only happening in London. A shift in the ownership of urban space and an increased number of vacancies due to privatisation and financialisation are a phenomenon that can be observed in metropolitan cities all over the globe. At the same time cities worldwide are growing in size and the number of inhabitants so urban space becomes scarce and more expansive. Therefore, the second recommendation addresses the potential of bringing under-utilised or vacant spaces back into use. However, in order to better decide, which types of under-utilised or vacant spaces should be used for different purposes, it is recommended to use a multi-scalar approach of determining their suitability. As the thesis project showcases, indicators for the suitability of a certain use can be more or less important depending on the scale. Thus, it is advised to understand the different indicators for suitability not only in relation to the intended use but also in relation to scale when it comes to the utilisation of vacancies and under-utilised spaces.

In summary there are several recommendations that although they are developed in the specific context of London's housing crisis, are transferable to various urban settings. Thus, the project can be seen as an example to learn from and as an inspiration to encourage further research the continued development of the presented approach.

Figure 120: Overground station in Willesden (Photo: by author)

REFLECTION

Starting with a particular interest in housing and vacancy at first, I faced a few initial struggles when developing a clear topic for my thesis. But once I had clarified a clear set of research questions, I felt confident in developing my methodology and building the conceptual framework due to the great support from my mentors and the helpful input provided by my graduation studio in the form of workshops and additional lectures. Throughout this process, I used the research questions as a guide and a control tool to check whether the literature I was reading or the methods I considered to use would benefit my project and provide me with useful knowledge.

When looking back at the research questions itself, I am wondering if the limitation of only looking into 'temporary solutions' was the right choice. The problem definition showed that there is an urgent need for immediate solutions and thus, cost-efficient, and fast interventions that are often temporary. However, when it came to the application and design stage of the project I realised, that the aspect of temporariness was limiting potential interventions on the bigger scale and in public space to a certain degree. However, this limitation also provided an interesting challenge. Alternatively, it could have also been interesting to think about spatial interventions with the possibility of turning from temporary to long-term. Therefore, when thinking of a potential continuation of the project, it could be interesting to investigate the transition of temporary interventions into long-term changes.

Furthermore, throughout the year I discovered an interest in temporary and meanwhile uses of vacant spaces in cities in general. Therefore, if I were about to start my Master thesis now, I could imagine myself focusing on this topic in more detail. In that regard, the report 'Meanwhile use in London' by Bosetti & Colthorpe was a great inspiration for me as it showcases how temporary uses can have a positive effect on the transformation and improvement of an area (2018).

One of the biggest challenges for me was to develop a clear idea of the spatial elements in my project as my focus was heavily directed towards understanding the practices, systems and policies related to temporary accommodation. Moreover, this difficulty was additionally enhanced by the fact that, during the spatial analysis it became apparent that, it is difficult to detect spatial patterns and typologies for the different types of vacancies and where they are located. Thus, I encountered some struggles to transfer the gathered knowledge into a spatial strategy. Therefore, the systematic approach turned out to be a good choice for this project.

When reflecting on the research process itself, two main elements that caused some issues, come to my mind. They are time planning and the dependence on external experts and data. I had chosen expert interviews as an important part of my methodology. During the process of organising and setting up these interviews, I encountered difficulties in establishing connections with possible interviewees in some cases. I am happy that I could find three interesting partners that covered different areas of knowledge that were relevant for my thesis, especially in relation to temporary accommodation and the requirements for temporary housing solutions. However, I would have liked to also find an expert that covered that topic of vacancies in London in more detail. In addition, next time I would start the preparation process for the interviews earlier to calculate in late replies and finding alternative options to gather the necessary knowledge.
Furthermore, I encountered some difficulties when it came to the collection of statistical and spatial data of vacancies. Especially during my spatial analysis, I had some problems due to the lack of spatial data regarding vacancies. Consequently, I had to rethink my approach to the spatial analysis which was challenging but also a great learning experience for me to understand how factual data can be interpreted in different ways to serve different purposes.

In addition, throughout the process it became apparent that focus of the project and its outcomes will be more on the research and less on the design side. However, during the time of my Masters, I had already realised that the research side is what I am particularly interested in. While I am fascinated by spatial design, my interest is mostly drawn to understanding the interconnections between public, economic, and political activities in relation to the natural and built environment.

When reflecting on the thesis from a personal perspective, I once again realise how privileged I grew up and how special it is to be a position where I can freely pursue my dreams. While I was aware of poverty and the struggles that low-income individuals and families are facing, it was still an eye-opening and humbling experience to talk with the members of my focus group. Thus, I am particularly grateful that they reported their experiences so openly and raw.
Moreover, the process of working on the project and doing the fieldtrip has also changed my per-

spective on how I view London as a city. The experience has made me more sensitive for the complexity of the situation and how circumstance, politics, economics as well as luck come together in that place and how all these factors can have an impact on an individual’s situation.
Lastly, I was reminded again, that there is no easy one-size-fits-all solution, but that every small change can have a significant impact on someone’s life and their chance to get into a better position. Thus, I admire all the people who put their everyday effort into making this happen.

In summary, the process of working on my Master thesis was a challenging but also exciting experience as I was free to find my own way of working, could test out new methods and was faced with approaching and overcoming obstacles to build my own position and perspective as an urban designer. I am happy to have learned to much during this process and the realisation that I am capable of managing a project on this scale by myself gives me confidence for future challenges I will face in my career.

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APPENDIX

INTERVIEW SCRIPTS

Interview 1

Setup:

Interviewee: Alex Firth (Justfair)
Position: Researcher and expert for housing, poverty, and inequality in the UK

Reasons for choosing the interview partner:
- Author of the report ‘I want us to live like humans again’ about the situation of temporary accommodation in London
- Expert for housing, poverty, and inequality in the UK with a focus on families and children

Date: 22/03/2023

Main themes of the questions:
- Experience with the formal allocation system
- Issues with the offered housing solutions
- Spatial requirements for the housing units and surroundings

Duration of the interview: 30-45 min

Script:

As you know, my project is focused on developing an improved system for the provision and allocation of temporary accommodation by utilising vacancies in London. The group I am particularly interested in are low-income families. Therefore, I would like to learn something about your experience with TA and your knowledge regarding the needs of my focus group.

1. What are advantages and disadvantages with the formal allocation system practiced by the local authorities?
- Based on your experience, why is it particularly difficult to provide appropriate housing for families although they have a high priority?
- Why and where do households and especially families look for alternative housing solutions?

In your report ‘I want us to live like humans again’ you documented the situation of families living in TA in London and what types of issued they have encountered. I want to learn more about these issues and how the local authorities are dealing with them to develop a system that improves the situation.

2. What are the biggest issues the households and especially families have encountered with the TA by the local authorities?
- Do you know locations within London where the situation is especially severe?
- Can you describe the spatial conditions of these locations?

3. What types of control mechanisms are in place?
- Which parts of them are working and where do they need to be improved?
- Do you have recommendations on how these mechanisms can be improved?

You also had the chance to talk to families living in TA and see their accommodations first-hand. I would like to ask some questions about the spatial conditions of these accommodations.

4. What types of temporary accommodation do you know of?
- What are their advantages and disadvantages?
- Do you think utilising vacant buildings for examples offices or commercial units could be a good alternative?

Since my goal also includes a spatial design aspect, I would like to learn more about the needs and requirements of my focus group regarding the spatial conditions of temporary accommodation.

5. What would you say are spatial conditions that cover the basic housing needs of a low-income family?
- How do they differ from other household types and why is it difficult to cover those needs?
- What are the most important spatial conditions for children living in temporary accommodation to improve their sense of self-esteem, growth and learning environment? (Size, spaces, utilities)
- Are there spatial conditions of the surroundings that could minimize the impact of displacement? (Meaning access to public transport, facilities, etc.)

Interview 2

Setup:

Interviewee: Melanie Sirinathsingh (Kineara)
Position: Communications and Impact Lead

What does Kineara do?

- Organisation that supports groups at the risk of homelessness
- Supports households to sustain their tenancies in the private rent sector

Date: 29/03/2023

Main themes of the questions:

- Experience with the formal allocation system
- Parterships with the private sector
- Issues with the offered housing solutions
- Spatial requirements for the housing units and surroundings

Duration of the interview: 30-45

Script:

As you know, my project is focused on developing and improved system for the provision and allocation of temporary accommodation by utilising vacancies in London. The group I am particularly interested in are low-income families. Therefore, I would like to learn something about your experience with TA and your knowledge regarding the needs of my focus group.

1. What are advantages and disadvantages with the formal allocation system practiced by the local authorities?

- Based on your experience, why is it particularly difficult to provide appropriate housing for families although they have a high priority?
- Why and where do households and especially families look for alternative housing solutions?

Your work for the low-income households entails close partnerships with various organisations and services as well as individual support adapted to the situation.

2. Can you name the most important partnerships with both the public and private sector and explain what role they play in your work?

- Do you see potential to intensive and upscale some of these partnerships?

- Which types of private housing providers are you working with, and can you name their motivation/reasoning for co-operating with you?

In your work you are interacting with individuals and households at the risk of homelessness or living in temporary accommodation on a daily basis. I would like to ask what they report about their experience with temporary accommodation so that I know what I can do to improve it.

4. What types of temporary accommodation do you know of?
- What are their advantages and disadvantages?
- Which types have the potential for lowering the number of displaced low-income households?

5. What would you say are spatial conditions that cover the basic housing needs of a low-income family?
- How do they differ from other household types and why is it difficult to cover those needs?
- What are the most important spatial conditions for children living in temporary accommodation to improve their sense of self-esteem, growth and learning environment? (Size, spaces, utilities)
- Are there spatial conditions of the surroundings that could minimize the impact of displacement? (Meaning access to public transport, facilities, etc.)

Interview 3

Setup:

Interviewee: Haringey Housing Action Group

What does the Haringey Housing Action Group do?

- give and receive support on housing problems and campaign for better housing
- Most members have first-hand experience with housing problems

Date: 06/04

Main themes of the questions:

- Experience with the formal allocation system
- Experience with informal housing practices
- Issues with the offered housing solutions
- Spatial requirements for the housing units and surroundings

Duration of the interview: 30-45

Script:

As you know, my project is focused on developing and improved system for the provision and allocation of temporary accommodation by utilising vacancies in London. The group I am particularly interested in are low-income families. Therefore, I would like to learn something about your experience with TA and your knowledge regarding the needs of my focus group.

1. What are the biggest issues you have experienced with the (formal allocation) housing system practiced by the local authorities?

As part of my research, I am also interested in alternative ways of housing people. Therefore, I would like to learn something about your experiences with informal housing practices.

2. Do you know any informal housing practices and what are their advantages and disadvantages? (For clarification, they can include housing co-operations, housing associations or agencies or property guardians etc.)

- Why and where do households and especially families look for alternative housing solutions?
- Are there specific alternatives that are frequently used by families?

As many of your members have previously encountered housing problems I would like to ask if some of you have first-hand experience with temporary accommodation. As my project aims to improve the condition of temporary accommodation, I would like to know about spatial conditions that you think need to change in order to provide better housing.

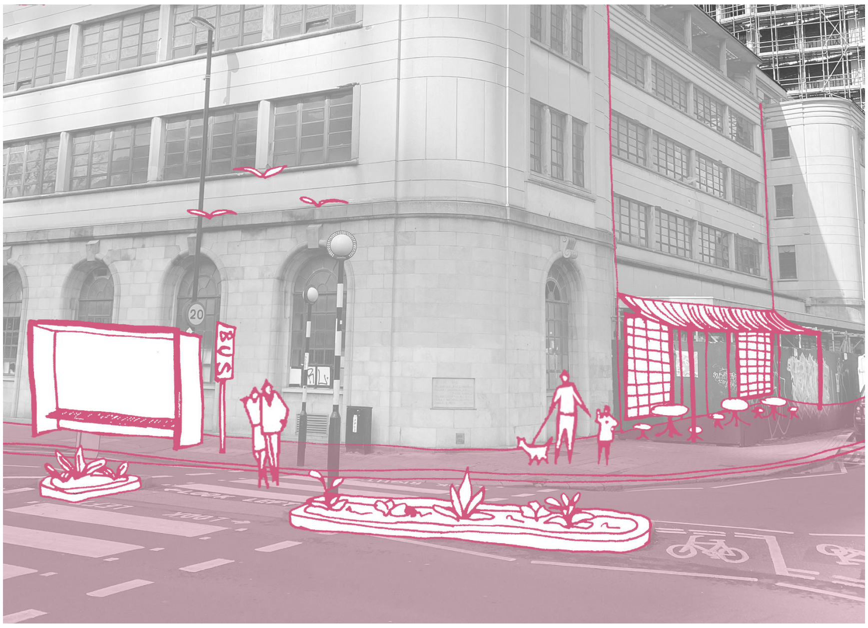
3. What types of temporary accommodation do you know of?
- What are their advantages and disadvantages?
- Which spatial conditions in the temporary housing units you lived in made you feel comfortable or uncomfortable?
- If you could have made improvements to your temporary accommodation, what would they have looked like?
- How has the duration of your stay in a temporary accommodation influenced your experience?

4. Have you encountered temporary accommodation in former office or commercial buildings?
- How was your experience with this type of temporary accommodation?

In my project I am specifically focusing on families, therefore I would like to ask a few questions that relate to their needs and requirements in particular.

5. What would you say are spatial conditions that cover the basic housing needs of a family?
- What are the most important spatial conditions for children living in temporary accommodation to improve their sense of self-esteem, growth and learning environment? (Size, spaces, utilities)
- Are there spatial conditions of the surroundings that could minimize the impact of displacement? (Meaning access to public transport, facilities, etc.)

ADDITIONAL IMPRESSIONS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