



'T Dörp bie Mekare Houwe

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Graduation Report

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Faculty of Architecture and the Build Environment
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Urbanism Track

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Foreword

Having grown up and living my whole life in Zeeland, in and around Middelburg, I have always been surrounded by the landscapes, villages and spatial qualities that make this region unique. At the same time, throughout these years, I became increasingly aware of the disappearance of facilities and everyday meeting places within many rural villages in Zeeland. Together with changing accessibility and increasing dependence on mobility, these developments slowly influence how villages function and are experienced in everyday life. What first started as personal observations within familiar places gradually developed into a broader interest in shrinking villages and rural identity, which eventually formed the starting point of this graduation project.

Throughout the process, the project gradually developed into a broader investigation into public space, identity and everyday life within rural contexts. During this research, I learned much more about the spatial and social challenges within Zeeland, but also about the qualities and identities that are still strongly embedded within these villages. Many new insights emerged throughout the process that I did not fully expect beforehand, while at the same time my own experiences and familiarity with the region helped me make context-specific and grounded design decisions. This combination between personal experience, research and design played an important role throughout the project and strengthened my understanding of how spatial design can contribute to the future of shrinking rural villages.

I would like to sincerely thank my graduation tutors for their guidance, feedback and support throughout this process. In addition, I would like to thank the Province of Zeeland, the Zeeuwse Vereniging van Kleine Kernen and the other involved stakeholders for their valuable conversations and insights regarding the future of rural villages within Zeeland. Finally, I would like to thank my family and friends for their support during this graduation project. I hope this research can contribute to the ongoing discussion about the future of shrinking villages and the importance of identity, public life and accessibility within rural regions.

Abstract

This research explores how shrinking rural villages can strengthen their identity through public space, accessibility and multifunctional facilities. The research focuses on the village of Krabbendijke in Zeeland, where processes such as facility decline, increasing mobility dependency and the fragmentation of everyday life influence the social, functional and symbolical identity of the village. As discussed by Christiaanse (2023), shrinking rural regions are increasingly dealing with changing accessibility, disappearing facilities and transformations in everyday village life. Rather than approaching shrinkage only as a demographic or economic issue, this research investigates how these processes affect social interaction, public life and the experience of the village environment.

Through literature research, spatial analysis, fieldwork and research-by-design, the relationship between accessibility, facilities, public space and identity is analysed on multiple scales. The research identifies three interconnected forms of identity within shrinking villages: functional identity, social identity and symbolical identity. These identities are explored through themes such as local habits, historical values, landscape qualities, community spaces, spatial accessibility, functional structures and social interaction potential.

The research demonstrates that facilities function as more than functional services alone. They often act as social anchors, meeting places and symbolical carriers of village identity. Their disappearance therefore affects not only accessibility, but also collective memory, social interaction and public life. At the same time, the research concludes that the car remains an important part of rural life within Zeeland since there are lots of villages with limited accessibility. The challenge therefore lies in balancing accessibility and mobility with more socially active and walkable public spaces.

Through research-by-design, these findings are translated into a spatial vision for Krabbendijke, structured around four overarching strategies focused on multifunctionality, social interaction, intergenerational resilience and landscape identity. These strategies are tested through interventions on smaller scales within the village core, station area and connecting landscape structures. The design proposal illustrates how public space can strengthen the relationship between social, functional and symbolical identity by reconnecting facilities, daily routines, landscape and cultural structures to everyday village life.

Although the spatial outcomes are highly context-specific, the analytical framework and thematic approach developed throughout this research can also contribute to comparable shrinking rural regions within Zeeland and beyond.

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I. Introduction

1.1 Problem context

1.1.1 Introduction to context and problem

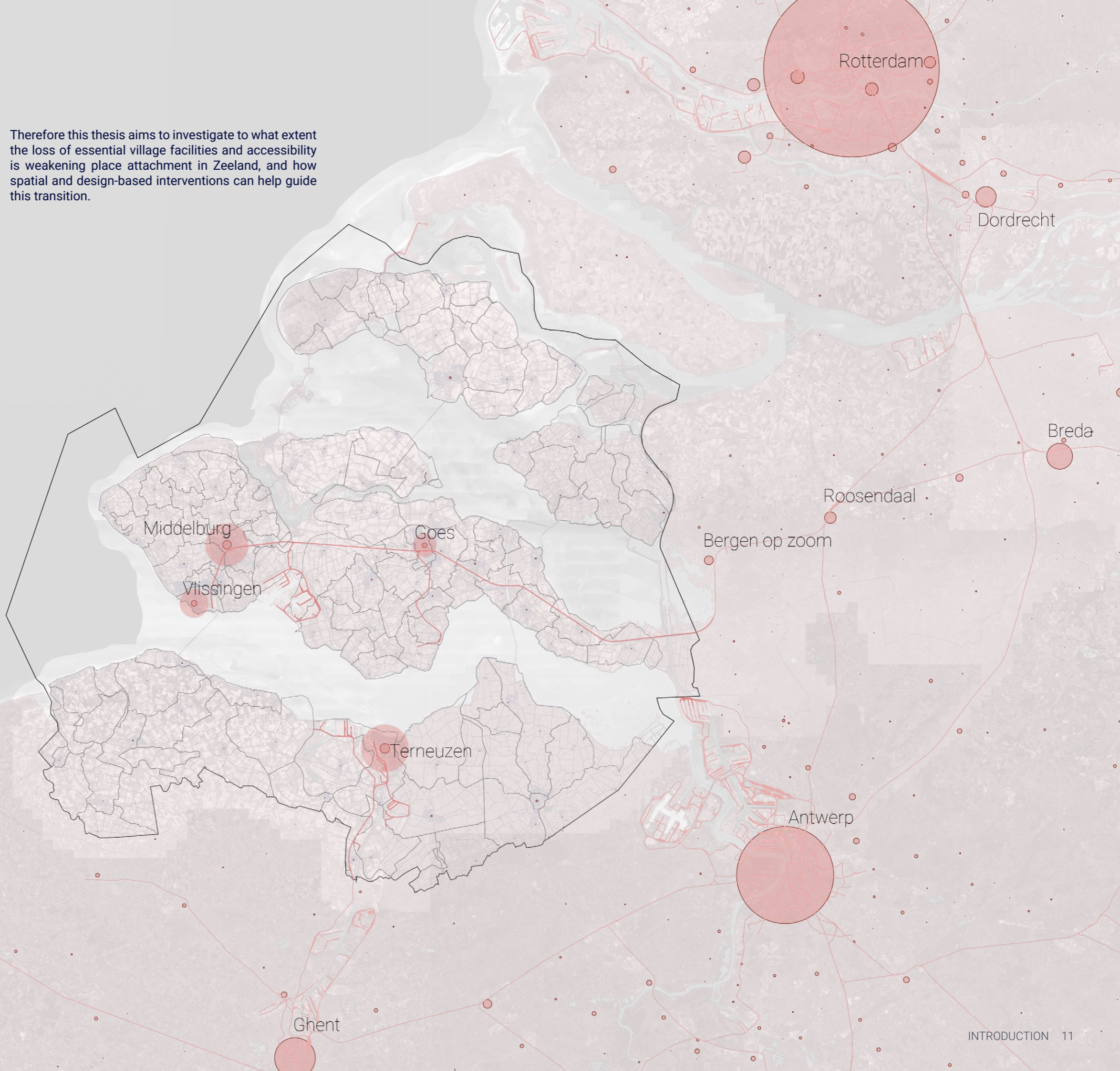
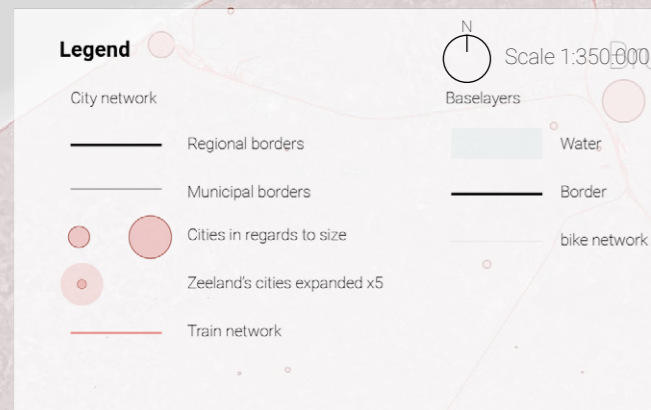
Zeeland is located in the southwest of the Netherlands and, with approximately 393,000 inhabitants, is the country's least populous province (CBS, 2025a). The province consists of several islands and borders South Holland, North Brabant, and Belgium. Despite moderate population growth over recent decades, Zeeland has a dispersed settlement structure with many small villages. Administratively, the province is divided into 13 municipalities, with Middelburg as its capital and Terneuzen as its largest municipality (CBS, 2025b).

Accessibility and mobility play a central role in Zeeland's spatial context. Public transport infrastructure is limited, with only one direct railway connection linking the province to North Brabant and the Randstad. Within the province, daily mobility is therefore largely car-dependent. In southern Zeeland, logistic connections are often oriented towards Belgian cities such as Ghent and Antwerp, which provide access to work and services but reduce reliance on local facilities. As a result, many villages increasingly depend on external centres for daily needs.

At the same time, essential village facilities such as shops, schools, healthcare services and public transport have gradually disappeared. While increased mobility makes regional centres more accessible, it also weakens local provision and everyday social interaction within villages. For residents with limited mobility, reduced public transport further increases dependence and isolation. Together, these developments put pressure on accessibility, liveability and social cohesion in Zeeland's rural villages (CBS & PBL, 2010; Provincie Zeeland, 2023).

Therefore this thesis aims to investigate to what extent the loss of essential village facilities and accessibility is weakening place attachment in Zeeland, and how spatial and design-based interventions can help guide this transition.

Figure 1. Regional map of centres and mobility in Zeeland. Own analysis based on CBS demographic data, OpenStreetMap data and PDOK base mapping (CBS, 2025a; OpenStreetMap, n.d.; PDOK, n.d.).



1.1 Problem context

1.1.2 History of the problem

Zeeland's demographic and spatial development shows a gradual but persistent shift. While the province as a whole still maintains modest population growth, many of its smaller villages have experienced the long-term withdrawal of everyday services. Patterns of local living have been reshaped by broader structural processes such as increasing mobility, scale enlargement and the centralisation of facilities like described by the Dutch social geographer Christiaanse (2020; 2021). As a result, villages in Noord-Beveland, Tholen, Hulst and Reimerswaal have seen the closure of shops, banks, schools, post offices and bus lines, a trend that is regularly documented in Zeeuws regional news (PZC, 2023).

These changes have not only physical but also social consequences. Rural communities are traditionally characterised by stable populations and strong interpersonal ties, concluded by European environmental psychologists (Anton & Lawrence, 2014) and European human geographers (Rérat, 2014). The disappearance of social and practical services gradually weakens these bonds, as facilities often serve as anchors for everyday encounters and collective memory like described by dutch rural geographers (Christiaanse & Haartsen, 2017; Gieling et al., 2018). When such places disappear, feelings of disconnection and uncertainty about the village's identity can grow according to Dutch rural sociology (van der Star & Hochstenbach, 2022). Local reporting shows that residents often associate the loss of such facilities with declining social interaction and uncertainty about the future of their village, reinforcing these broader social effects (PZC, 2025).

At the same time, mobility patterns have changed. Growing car ownership has made it easier to access regional centres, which in turn reduces local dependency and undermines the viability of small-scale services according to European urban scholars (Pittaluga, 2020). Public transport provision has become increasingly limited, particularly for groups with reduced mobility, thereby making daily travel more difficult, as highlighted in transport and social equity research (Smoyer-Tomic et al., 2006; Lucas et al., 2016). In Zeeland, this is intensified by ongoing reductions in public transport services, particularly affecting smaller villages with limited alternatives (Provincie Zeeland, 2023).

Although Zeeland remains an attractive region and its larger towns continue to grow, many smaller settlements are becoming more like woondorpen: places where people still feel emotionally attached, but rely on other centres for work, shopping and services as described by Dutch sociologists in rural transformations in the Netherlands (Thissen & Loopmans, 2013). This ongoing transition reshapes everyday routines and contributes to a slow fragmentation of local identity.

This historical development sets the background for understanding today's challenges in Zeeland's rural villages. The processes is shown on the timeline and includes centralisation of services, growing mobility, facility withdrawal, declining public transport and increasing isolation. They together shape the conditions in which the current downward spiral of facility loss and reduced liveability emerges.

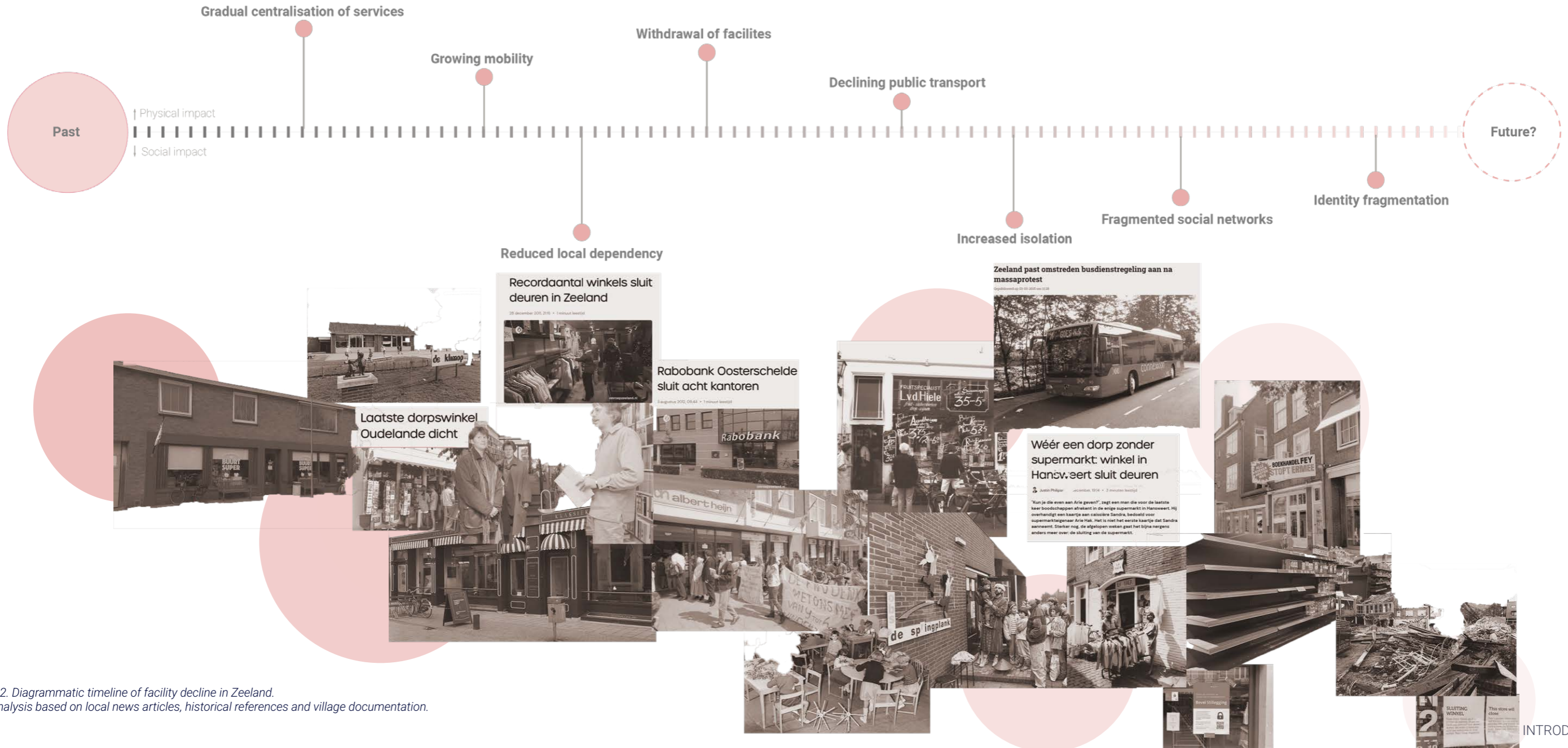


Figure 2. Diagrammatic timeline of facility decline in Zeeland. Own analysis based on local news articles, historical references and village documentation.

1.2 Problem statement

Rural areas in the Netherlands are undergoing long-term structural changes shaped by urbanisation, scale enlargement, and demographic stagnation (CBS & PBL, 2010; CBS, 2025). While shrinkage is often mentioned as the main cause of facility loss, research shows that this relationship is way more complex. Facility decline is frequently driven by structural processes such as increasing mobility, economies of scale, deregulation, and shifting consumption patterns (Christiaanse, 2020; 2021). As a result, small villages in regions like Zeeland increasingly lose supermarkets, schools, health services, sports clubs, libraries, and other facilities that are crucial for everyday life (Brereton et al., 2011; CBS, 2025; Haugen et al., 2012). Residents of peripheral areas increasingly feel neglected or “left behind” according to regional development scholars (MacKinnon et al., 2021). Despite growing policy attention to regional balance, such as the intention of the Nota Ruimte (2025) to strengthen regions like Zeeland, the effects of these structural processes continue to negatively impact daily life. Which is why understanding these dynamics is crucial to ensure fair access and social inclusion, especially in villages experiencing the loss of facilities.

These closures have consequences beyond reduced functional access. Rural communities are historically characterised by social stability and strong local bonds (Anton & Lawrence, 2014; Rérat, 2014), meaning that disappearing facilities weaken not only the convenience but also the emotional and symbolic roles these places carry. Research on place attachment suggests that relationships between people and places emerge through interactions between individuals, everyday practices, and the physical and social environment, as

conceptualized in the person–process–place model (Scannell & Gifford, 2010). Facilities often play a main role within this interaction by structuring routines, social encounters, and shared meanings. They serve as anchors of identity and belonging as they shape the collective memory and everyday cultural practices (Gieling et al., 2018; Christiaanse & Haartsen, 2017). According to public administration and rural sociology scholars, their loss can therefore intensify feelings of disconnection and diminished place identity (van der Star & Hochstenbach, 2022; Kim, 2025). Studies further show that the decline of social infrastructure can erode both subjective belonging and the shared understanding of what a village “is” or “should be” (Kim, 2025).

Zeeuwse villages are losing essential facilities at a pace that is not aligned with the demographic change they are experiencing. Research shows that facility decline often does not directly correlate with population decline (Christiaanse, 2020). Small villages are particularly vulnerable, as processes of scale enlargement tend to disadvantage smaller nodes within rural settlement systems (Neumeier, 2016). This leads to increased dependency on regional centres and a gradual weakening of local identity structures. Although recent national policy aims to strengthen regional resilience and liveability, the everyday impacts of facility loss remain strongly felt. As residents’ place images, routines, and social interactions are disrupted, the transition from “autonomous villages” to “woondorpen” becomes socially and emotionally challenging for inhabitants (Thissen & Loopmans, 2013).

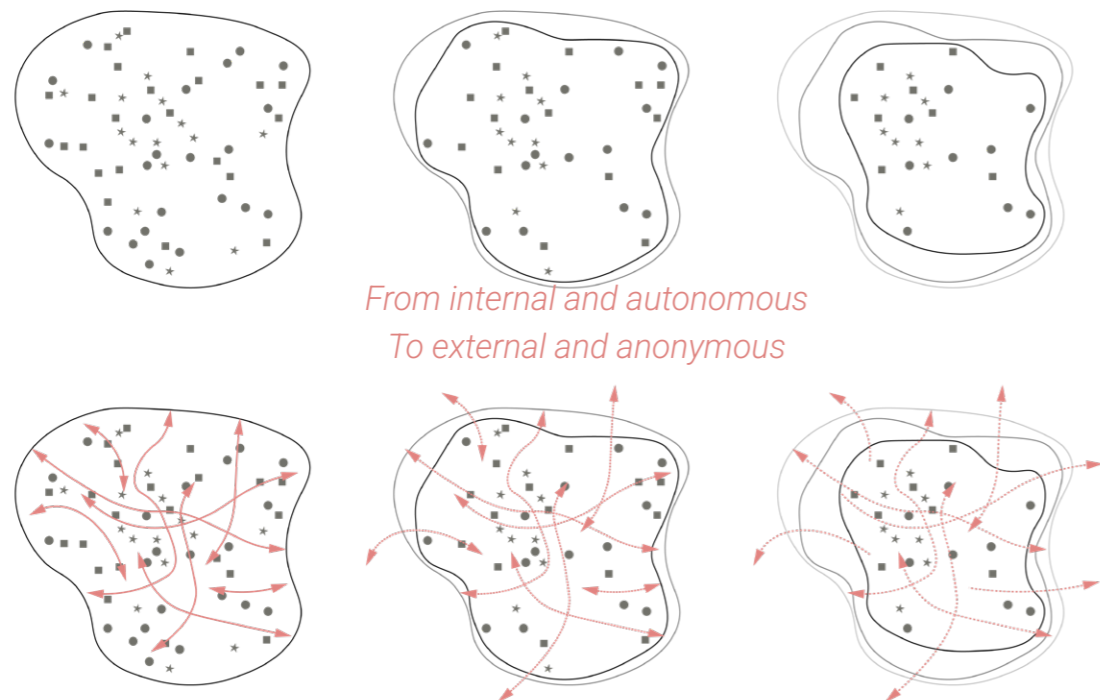


Figure 3. Diagrammatic transition from internal village towards external networks.



*From loss of essential facilities
To diminished place attachment*



Figure 4. Collages illustrating the social and spatial effects of facility decline within shrinking villages.

1.2 Problem statement

Rural villages in Zeeland are increasingly caught in a downward spiral in which structural changes gradually weaken local life. Urbanisation, mobility growth, and the centralisation of services have reduced the viability of essential facilities in many small settlements. As shops, schools, community buildings, and public transport lines disappear, residents become more dependent on cars and on larger towns for daily needs.

This rising dependency weakens remaining services even further, erodes everyday social encounters, and slowly fragments local identity. Over time, the loss of facilities and declining accessibility reinforce one another, shaping a cycle that pushes villages toward becoming dormitory places rather than self-sustaining communities. The diagram shows key moments in this transition for Zeeland and illustrates how these processes unfold over time.

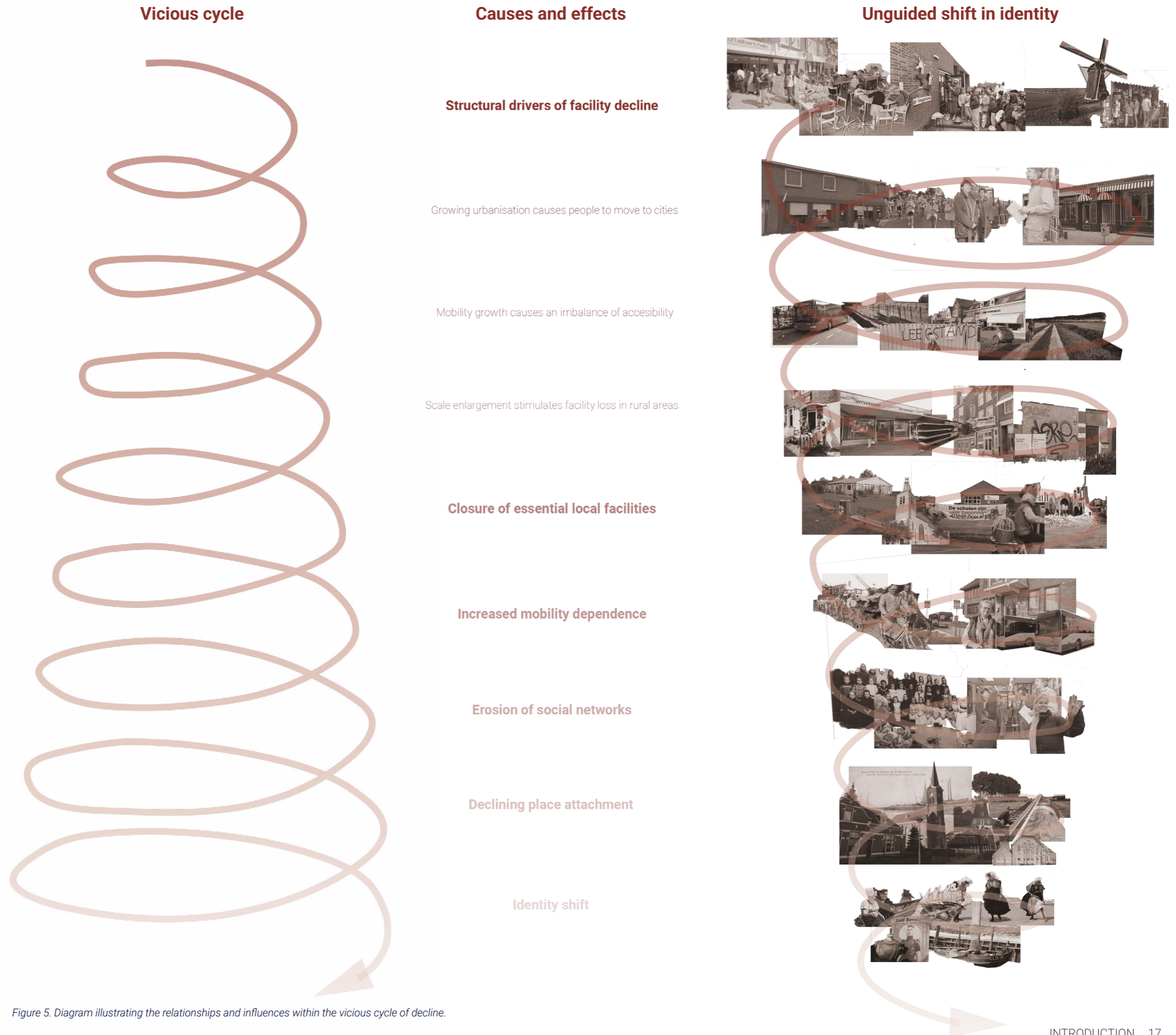


Figure 5. Diagram illustrating the relationships and influences within the vicious cycle of decline.

1.3 Research and design questions

This thesis is structured around a distinction between research and design, although in practice these phases inform one another throughout the process. The main research question, which is the base of everything, focuses on understanding how declining accessibility and the loss of essential village facilities in Zeeland is influencing everyday routines, and the sense of place experienced by residents. Each research sub-question contributes a specific goal within this broader investigation, but all lead towards the answer of the main research question. The first aims at interpreting regional decline patterns to reveal which essential facilities have disappeared and how this manifests in different forms. The second analyses how accessibility is connected to daily practices and mobility in villages facing facility decline. The third looks at how these developments affect daily life, place attachment, and a sense of belonging for the communities in these settlements.

The design phase builds on the insights gained from the research phase. The main design question is introduced as tool to answer the main research question. It aims to investigate how a design can support a shift in local identity while re-establishing lost facilities in new and more resilient long-term forms. The design sub-questions are directly linked to the research part to ensure a coherent process.

The first two design questions focus on translating research findings into spatial strategies and are linked to the outcomes of the research, using scenarios. The third design question aims to synthesise the first two scenarios, and exploring further detail and scales.

Community-supported design is an essential part of this process. Non structured interviews and conversations with residents will help to understand how people experience change and how they imagine the future of their village. These local perspectives feed directly into the development of spatial strategies and interventions. The combination of research, community input, and design exploration leads to a final set of design strategies that support Zeeland's villages during their ongoing transition.

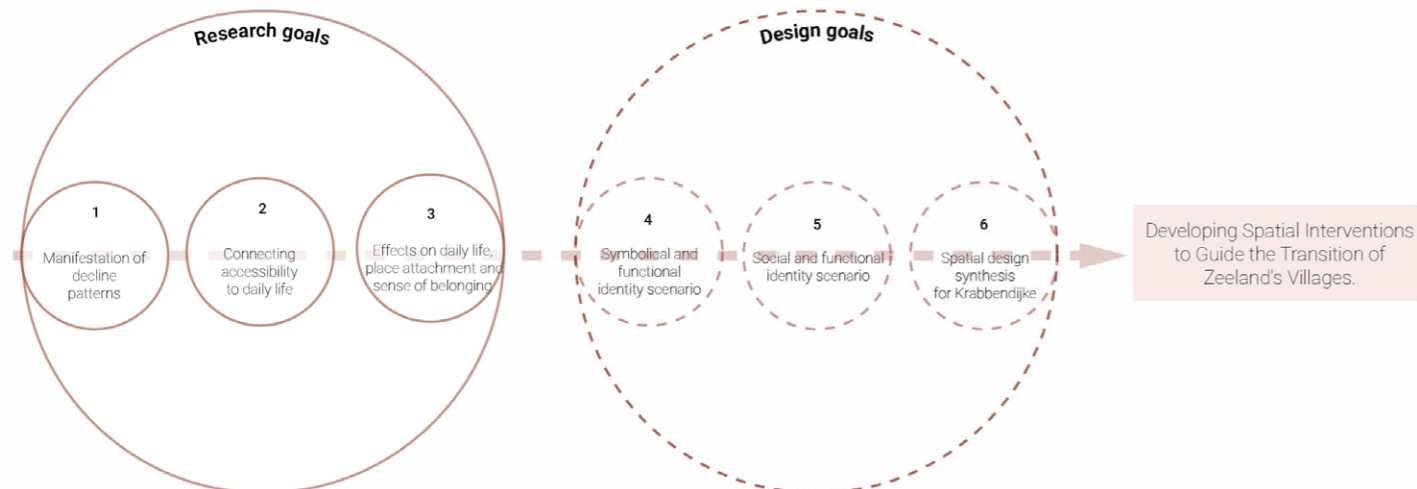


Figure 6. Diagram illustrating the main goals and spatial ambitions of the project.

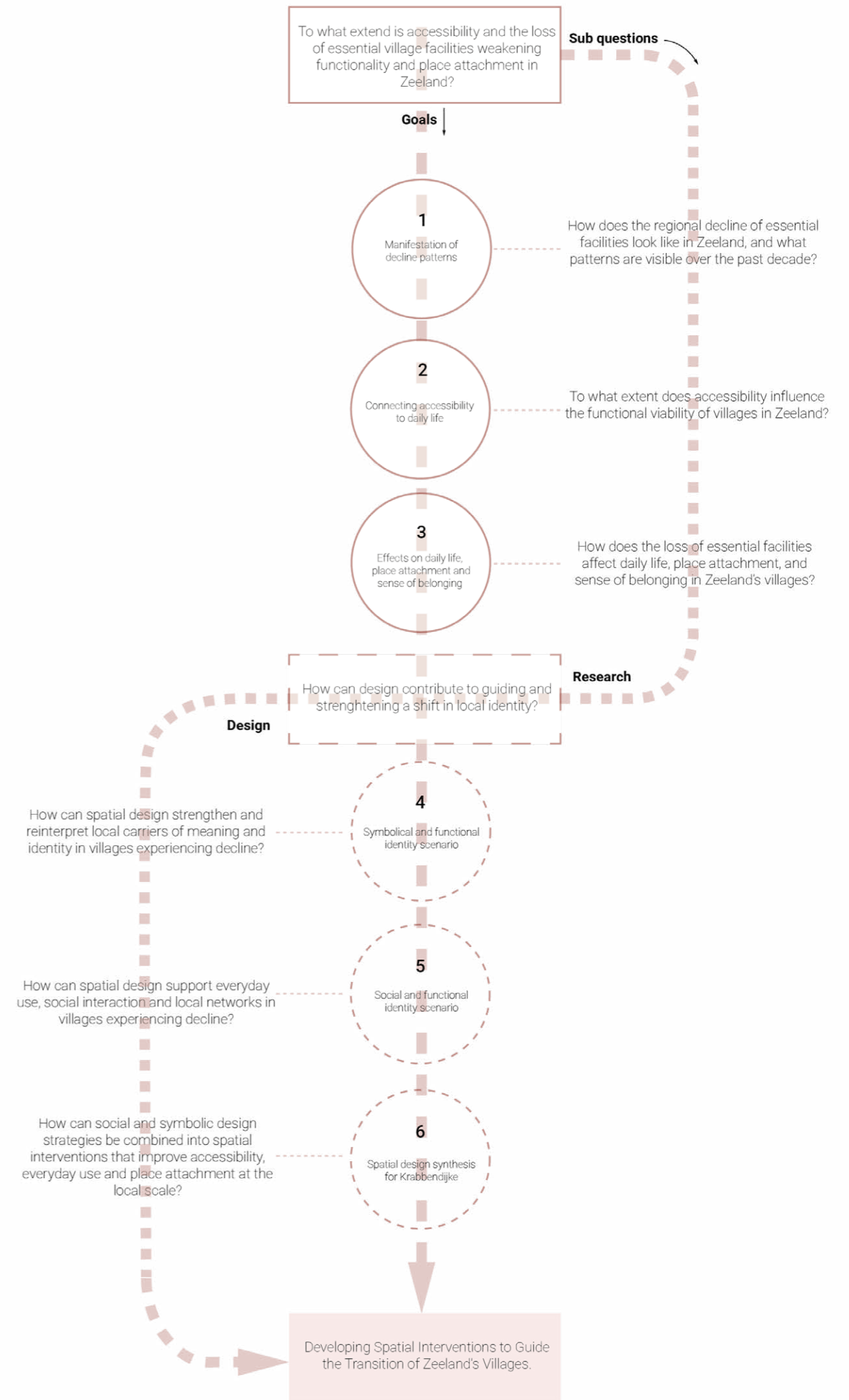


Figure 7. Diagram linking the sub-questions to the project goals.

1.4 Relevance

Societal

Shrinking and transitioning rural regions face growing inequalities in access to services. Residents of peripheral areas increasingly feel neglected (MacKinnon et al., 2021; Provincie Zeeland, 2025; PZC, 2023), which can contribute to political distrust and reduced social cohesion, like described by European sociologists (Klinenberg, 2018; Mattinson, 2020). The decline of essential facilities particularly affects those with limited mobility, making daily life increasingly dependent on private transportation which is causing social exclusion (Gieling et al., 2018; Christiaanse & Haartsen, 2017; Smoyer-Tomic et al., 2006). This problem is also highlighted in research by national institutions such as CBS and PBL (2025, 2010), which identify facility decline and reduced accessibility as challenges in regions like Zeeland. Understanding this transition is crucial to ensure fair access and social inclusion, especially in villages experiencing the loss of facilities such as schools, shops and public transport options.

Spatial and planning

Dutch planning policy has long prioritised growth in metropolitan areas, while expecting villages to adapt mainly through scale enlargement and concentration of functions, like researched by Dutch urban geography (Bontje, 2015). This strong focus on growth has left little space for guiding shrinkage or decline, which has proven problematic in peripheral regions. Evidence shows that these areas require more locally grounded and flexible strategies. The approaches currently argue that rural development should start from local identity, resources and community capacities. Where they can be supported by higher-level institutions rather than being dominated (Ray, 2001; Vazquez-Barquero & Rodriguez-Cohard, 2016). Recent spatial policy reflects this shift, as the Nota Ruimte (2025) emphasises the need to strengthen regional balance and spatial equality. It identifies regions such as Zeeland as requiring targeted, place-specific investment. In addition to that, the magazine Zeeland 2050 (Provincie Zeeland, 2025) also strongly continues on these topics. This research contributes to these perspectives by proposing design strategies that respond to decline while reinforcing local identity and regional resilience.

Academic

Literature recognises the importance of place attachment and belonging in understanding why people remain in shrinking areas (Barreira et al., 2019; Westin, 2016). Yet few studies explicitly connect facility decline, with accessibility and identity shifts in regards to the Dutch context. By integrating social aspects together with accessibility research and planning theory, this study aims to fill that gap and provide a framework to understand the transitions in small villages. In addition to that, local governments have been linked to influence community well-being (Morgan et al., 2024), but there is limited research linking local governance together with facility availability and place attachment. In conclusion making this study academically relevant.

Decaying feelings of place attachment

Causing a fading identity in Zeeland



Figure 8. Collage illustrating the fading of local identity.

1.5 Objective and motivation

The primary objective of this research is to analyse the multidimensional impact of the loss of essential facilities in the villages of Zeeland, the region in the Netherlands with the lowest population density. The study looks at how facilities are being withdrawn, a process driven by broader structural changes such as scale enlargement and centralization. It analyses how this affects accessibility and mobility, but also people's collective village identity and their sense of place attachment.

Building on these insights, the research explores ways to support villages in navigating change without losing their character. I want to look at practical strategies that keep Zeeland's villages liveable and unique, while also involving the people who live there. From the start, residents will be part of the process, sharing their experiences and ideas to help shape both the research and potential design solutions. The goal is to create a kind of "guided transition," where change is managed thoughtfully and collaboratively, allowing villages to develop new identities while ensuring a liveable and socially vibrant future rather than just applying top-down regeneration or smart shrinkage approaches.

Rural villages are often simplistically portrayed as static or inevitably declining, yet academic literature (Thissen & Loopmans, 2013; Rauws & De Roo, 2011) confirms they are dynamic places shaped by social change, mobility, and evolving forms of belonging. Zeeland's smaller settlements are increasingly 'woondorpen', residential places with strong emotional bonds but high dependence on external centres for services.

My motivation is to understand how these villages can be guided during this transition without losing their identity and essential functions. Exploring the emotional value of facilities, which anchor identity and belonging (Gieling et al., 2018; Christiaanse & Haartsen, 2017), leads to move beyond a narrative of only functional decline (van der Star & Hochstenbach, 2022). By incorporating community input, the study links accessibility, identity, and spatial planning, supporting social cohesion and locally grounded strategies in these vulnerable areas.

Guided degrowth with grounded strategies

Leading to new identities and remaining liveability



Figure 9. Collage illustrating the strengthening and return of local identity within the village.

1.6 Scope

1.6.1 Regional decline

The effects of facility decline in Zeeland are visible in national statistical data, which shows that several municipalities, particularly those with smaller and more dispersed settlements, are experiencing a reduction in everyday facilities (CBS, 2025). This decline is not evenly distributed across the province. Municipalities such as Noord-Beveland, Hulst, Tholen and Reimerswaal show stronger patterns of facility withdrawal than more central or urbanised areas. Regional reporting similarly highlights increasing travel distances to basic services for residents of small villages as local facilities disappear (PZC, 2023).

These regional patterns are also recognised in provincial mobility policy, where the accessibility of daily services is identified as a growing concern for rural settlements across Zeeland (Provincie Zeeland, 2023). The regional map is showing spatial data identifies where facility decline is most pronounced, while the graph illustrates the increasing distance to residents must travel to access essential facilities in Zeeland as a whole. This regional overview defines the broader spatial context within which the research is positioned.

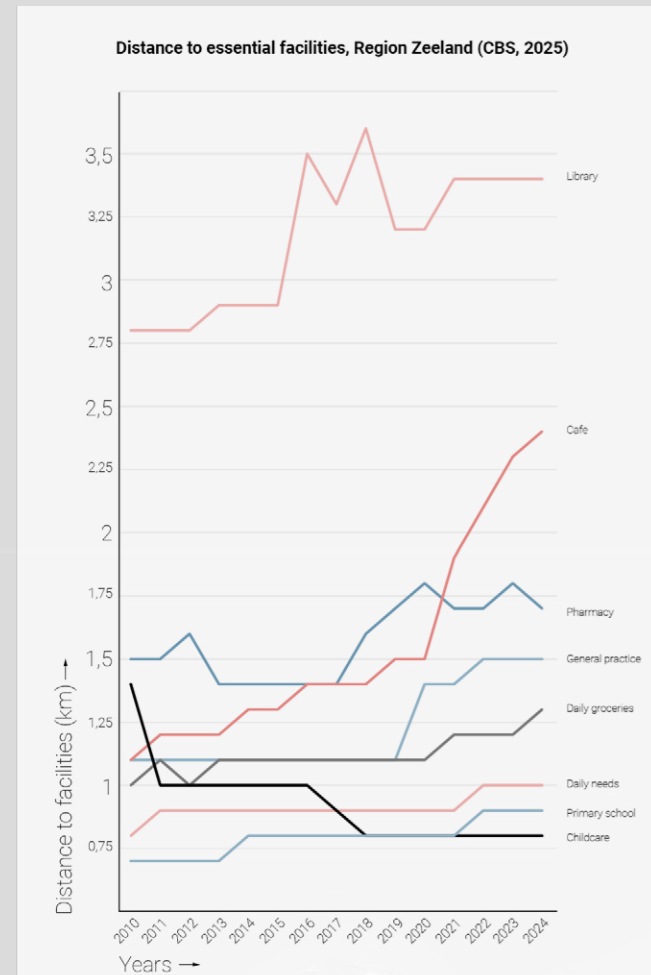
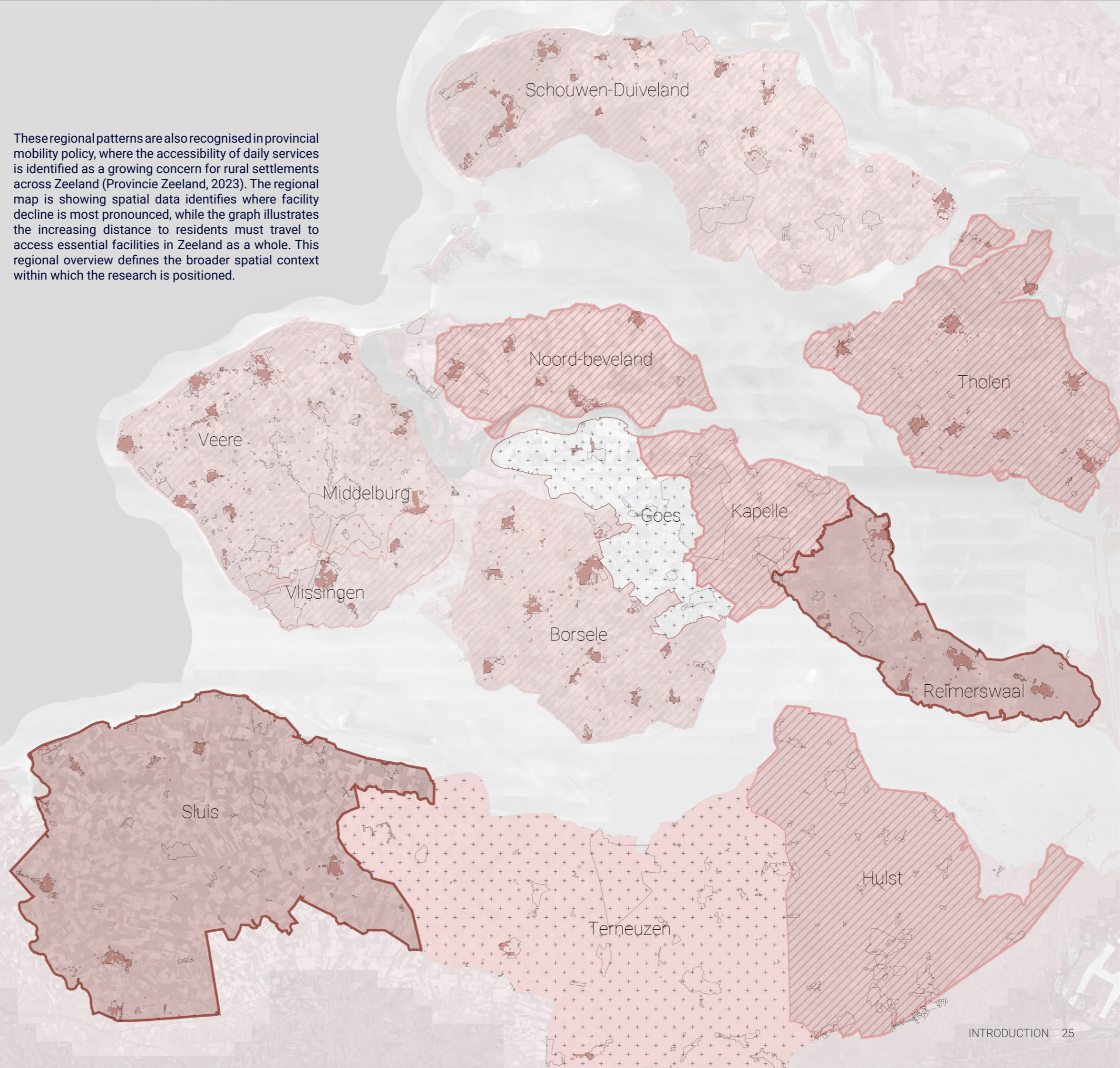
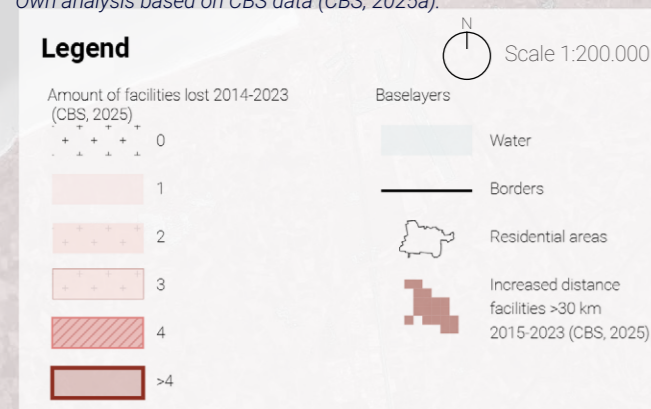


Figure 10. Graph showing the average distance to facilities within Zeeland. Based on CBS data (CBS, 2025a).

Figure 11. Map of municipalities in Zeeland experiencing facility decline. Own analysis based on CBS data (CBS, 2025a).



1.6 Scope

1.6.2 Municipal focus

Within this regional context, the research focuses on rural villages in the municipality of Reimerswaal, one of the areas where facility decline is most pronounced in statistical data (CBS, 2025). Reimerswaal is characterised by a dispersed settlement structure, strong car dependency and a steady withdrawal of everyday services, making it a relevant focus area for researching how facility decline affects daily life at the village level. While the focus is on Reimerswaal, insights will build a framework for a guided transition that could later be applied to other villages in Zeeland facing similar challenges.

The study focuses on essential village facilities, which are important for daily life and community identity. These include schools, supermarkets, public transport, sports facilities, and social amenities such as community centres and meeting spaces. These facilities are seen as essential because they support everyday needs, social interaction, and the emotional attachment residents have to their village (Christiaanse, 2020; van der Star & Hochstenbach, 2022). Loss of such facilities is particularly challenging for non-mobile residents, including older people and families with children, as it directly reduces their access to basic needs (Christiaanse, 2021).

The research examines how the loss of such facilities affects accessibility, mobility, and feelings of place attachment, while also exploring how villages change and could form new local identities (van der Star & Hochstenbach, 2022; Gieling, Haartsen & Vermeij, 2018). In terms of analysis of this research, quantitative data shows patterns of facility decline and spatial accessibility, while qualitative insights explore how residents experience changes in village identity and sense of belonging. Policy documents and governance strategies are reviewed to understand the planning framework (Thissen & Loopmans, 2013; Rauws & de Roo, 2011). Spatial interventions are investigated to support an identity-guided transition, rather than conventional regeneration.

The focus community includes residents most affected by facility decline and reduced accessibility, such as older people with limited mobility and young families reliant on nearby services, but also people who once used the lost facilities (Christiaanse, 2021). Engaging these groups helps understand the impact on daily life and place attachment, and to shape a framework for guiding transitions in a way that supports a liveable and social future (Pittaluga, 2020; MacKinnon et al., 2021).

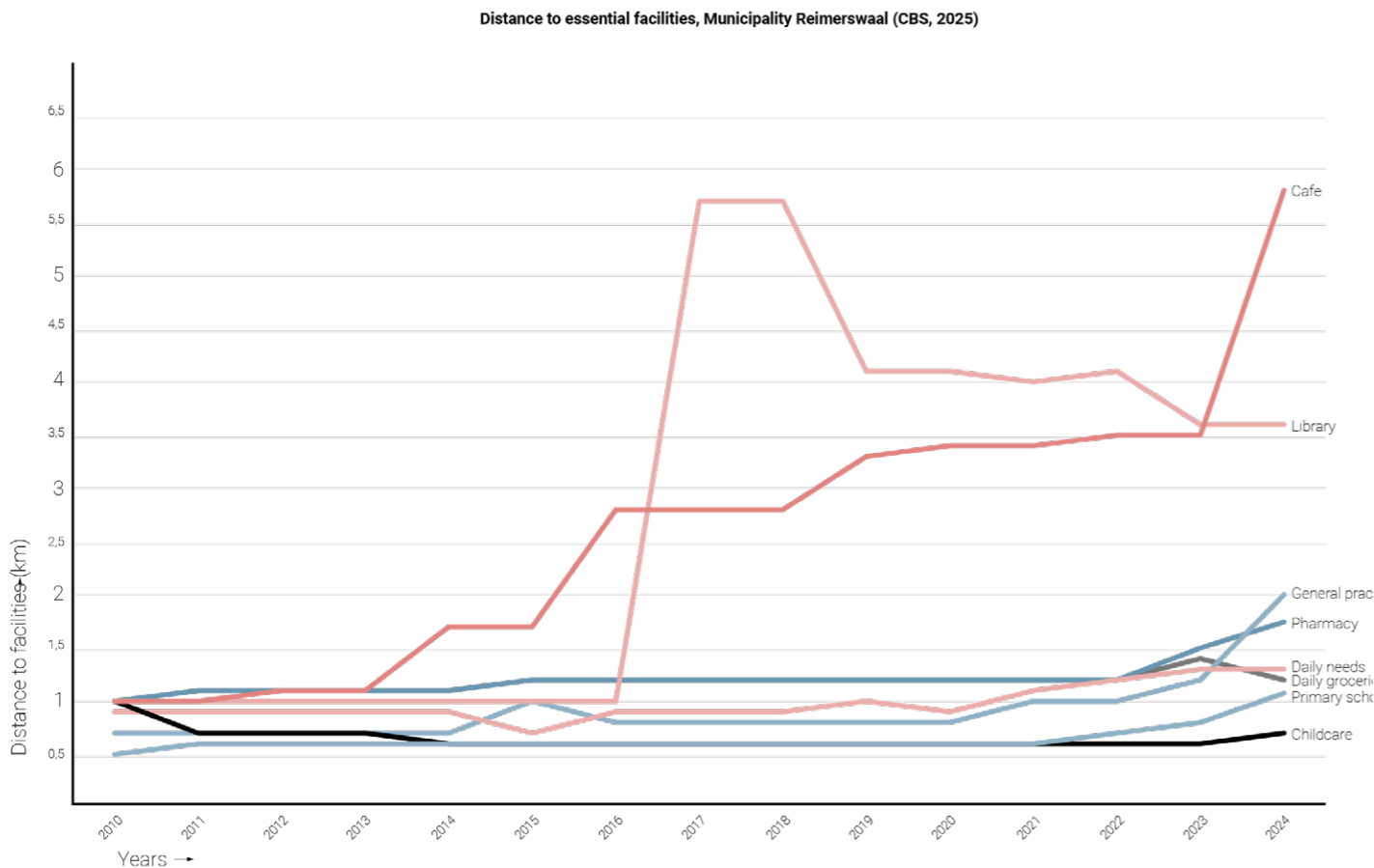


Figure 12. Graph showing the average distance to facilities within the municipality of Reimerswaal. Based on CBS data (CBS, 2025a).

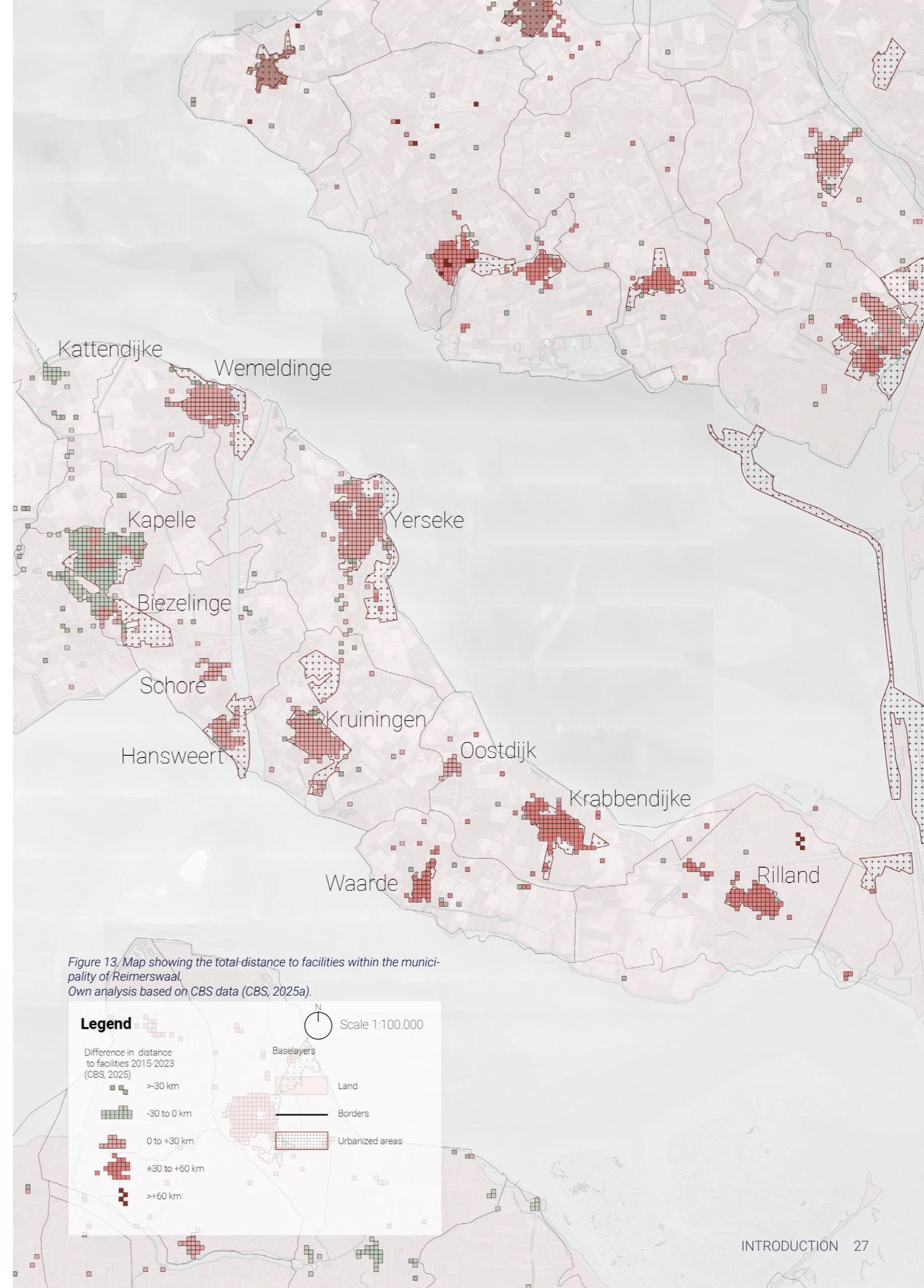


Figure 13. Map showing the total distance to facilities within the municipality of Reimerswaal. Own analysis based on CBS data (CBS, 2025a).

1.6 Scope

1.6.3 Krabbendijkes' paradox

Within the broader focus on Reimerswaal, this research further zooms in on the village of Krabbendijke, where the decline of essential facilities is particularly pronounced (CBS, 2025a). Despite its relatively urbanised structure and the presence of a railway station with direct national connections, Krabbendijke has experienced a steady withdrawal of everyday services in the past decade. This makes the village an interesting case, as accessibility at the regional scale does not automatically translate into local liveability or facility retention, making Krabbendijke a paradox.

The city-scaled map provides a detailed overview of Krabbendijkes' urbanized areas and non-residential functions, while facility-related data illustrates the decline with the squares. They highlight the increased distance to everyday functions (CBS, 2025a).



Figure 14. Historical photograph of the former bakery in Krabbendijke. Source: Krabbendijke, vroeger en nu (n.d.).



Figure 15. Historical photograph of the Dorpsstraat in Krabbendijke. Source: Krabbendijke, vroeger en nu (n.d.).



Figure 16. Map showing the distribution of facilities on the village scale in Krabbendijke. Own analysis based on CBS data (CBS, 2025a).

Legend

Different functions of Krabbendijke

- Housing function
- Storage/industry function
- Public function
- Industry areas
- Urbanized areas

Baselayers

- Water
- Bike network
- Valuable historical lines

Scale 1:10.000



II. Approach

- Research approach
- Theories
- Methodology
- Integration in process
- Planning
- Limitations, validity and ethics

II. Approach

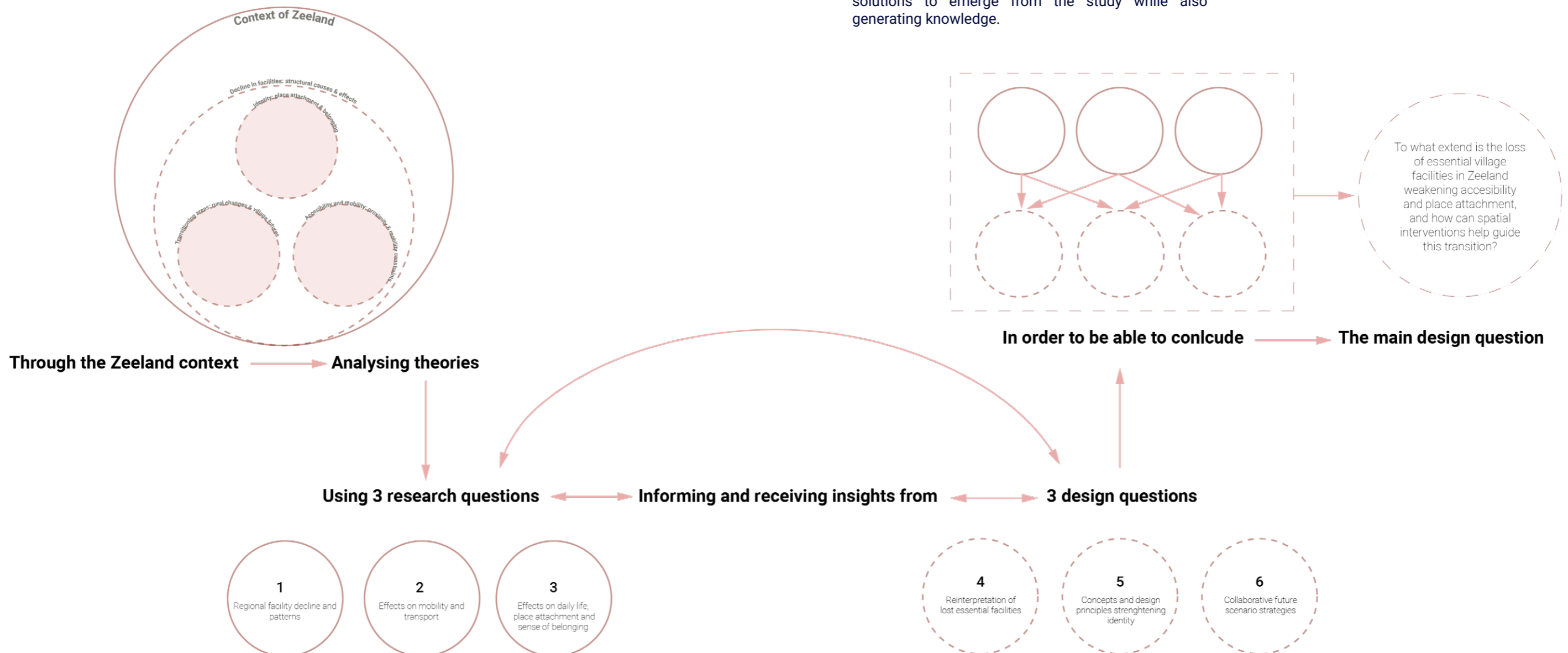
2.1 Research approach

2.1.1 Research structure

The diagram below shows the backbone of the research. It presents the different steps in the process and how they influence each other. The research starts with the context of Zeeland. Understanding this context is important because the decline of facilities happens in a specific social, economic, and geographic situation, and this can affect how the research and design questions are approached. The main theory focuses on the decline of facilities, and this theory is influenced by three supporting theories.

These theories will be analysed using three research questions. The insights from these research questions will inform the three design questions in later stages. The process is iterative, which means that the design questions can also give insights back to the research questions, even though they are developed in later phases. This iteration helps to connect theory and practice and ensures that the research is not only descriptive but also useful for designing solutions for the affected communities.

Finally, all six questions are used to answer the main design question. This structure shows how the different steps of the research and design process are connected and influence each other. This approach is shown to guide the reader through the reasoning behind each step and explain how the study develops from understanding the context to creating design solutions.



2.1.2 Research perspective

In this research, it is important to clarify the way knowledge is approached and how villages are understood. From an epistemological perspective, knowledge is seen in both measurable and interpretive ways. Spatial analysis can show measurable patterns, while questions of identity and belonging require a more qualitative, interpretive understanding.

From an ontological perspective, villages are seen as socio-spatial systems in transformation. They are shaped by factors such as mobility, governance, social practices, and the emotions of the people who live(d) there.

The research follows a mixed-methods paradigm, which is common in urbanism. This combines real-world spatial evidence, coming from a positivist tradition, with human experiences and meaning, coming from a constructivist or interpretive tradition. Design is also used as a form of inquiry, following a research-led design approach, which allows practical solutions to emerge from the study while also generating knowledge.

Figure 17. Diagram of the research structure and methodology.

2.2 Theories

2.2.1 Theoretical frameworks

This project takes the decline of facilities as a starting point and analyses it through the specific context of Zeeland. The loss of village facilities is not seen as a simple problem, but as the outcome of different processes. Zeeland forms the contextual lens through which these processes are looked upon. The diagram on the right shows how this context is the base of the theoretical framework. The context leads to a system of three interconnected theories that together structure the research, under the umbrella of decline in facilities. The theories are not specifically made with regards to Zeeland, but they are used to understand how decline unfolds and how it might inform spatial and design responses in this context.

Research on facility decline in rural areas shows that the disappearance of services is often too easily explained by population decline. Studies in the Dutch context demonstrate that scale enlargement, deregulation and changing mobility patterns have played a much larger role in the closure of local facilities than demographic shrinkage alone according to Dutch urban geographers (Christiaanse, 2020; Christiaanse, 2021). Other Dutch geographers Gieling, Haartsen and Vermeij (2018), add to this that village facilities function not only as service providers but also as social anchors that support everyday encounters and feelings of belonging. A study done by the geographers Christiaanse and Haartsen (2017) Highlights the symbolic and emotional meanings of rural facilities, showing that their loss can affect village identity even when alternatives remain accessible. In this way, current thoughts on smart shrinkage and degrowth planning are relevant, since they challenge the idea that decline must always be countered by growth. So that it is possible to frame shrinkage as a condition that can be managed in a more thoughtful and place-sensitive way according to European planning theories (Wiechmann, 2008; Nefs et al., 2013). Together these theories form the umbrella where the three interconnected theoretical perspectives are linked to.

The first theoretical perspective focuses on transitioning areas. Literature by Dutch sociologist and institutions on spatial transition describes rural and small scale areas as places moving from relatively autonomous systems towards more regionally connected and functionally mixed environments like described by Dutch planning scholars (Dammers et al., 2003; Thissen & Loopmans, 2013). These changes are often uneven in villages and are accompanied by uncertainty, as well as the appearance of shifting power relations and changing identities. European urban scholars (Sievverts, 2003) and the United Nations (2000) describe peri-urban and rural-urban fringes as fluid landscapes with overlapping rural and urban logic. While Dutch urban geographer Bontje (2015) shows how Dutch urbanisation policy has long been shaped by growth-oriented thinking, leaving less space

for regions that do not fit this narrative. For Zeeland, transitioning areas theories help understand facility decline as part of a broader restructuring of space, governance and everyday life. It also opens up the question of how villages can reposition themselves within regional networks, and which functions might adapt or survive under conditions of long-term change.

The second theory addresses accessibility and mobility. In rural contexts, the decline of facilities becomes more problematic when access to remaining services is limited. While European rural development scholar Neumeier (2016) frames basic facilities as services of general interest that are essential for maintaining quality of life, even if they are not present in every settlement. Smoyer-Tomic et al. (2006), a European health geography and spatial analytical study shows that increasing distances to services disproportionately affect people with low mobility, reinforcing social and spatial inequality. In Zeeland, public transport options are limited and car dependency is already high, therefore accessibility theory is crucial for understanding who is most vulnerable to the facility decline. This perspective changes the thoughts about presence or absence of facilities more towards concepts related to proximity and accessibility, while keeping in mind the equality in spatial policy.

The third theoretical perspective focusses on place attachment and identity. Place attachment is commonly understood as the emotional bond between people and places, relating to concepts such as sense of place, rootedness and belonging (Altman & Low, 1992; Lewicka, 2010). Scannell and Gifford's (2010) person-process-place model clarifies how attachment can exist through people, psychological processes and place characteristics. Earlier work by Steele (1981) already described sense of place as the outcome of a complex interaction between physical setting, social life and personal perception. Giuliani (1991) further emphasises that attachment to the home and everyday environments is rooted in mental representations shaped by memory, routine and emotion. Importantly, Brown and Perkins (1992) argue that attachment often becomes visible when places are threatened or lost. This is echoed in studies of rural shrinking regions, where decline can cause both feelings of loss and strong motivation to stay and contribute (van der Star & Hochstenbach, 2022). For Zeeland, place attachment theory helps to explain why facility decline influences the lived experience so strongly, since it affects not only daily practices but also identity and sense of belonging.

Together, these three theories form a framework for understanding the decline of facilities in Zeeland. Each theory contributes a different perspective, but their overlap allows the project be a context-specific reading that can inform both research and design.

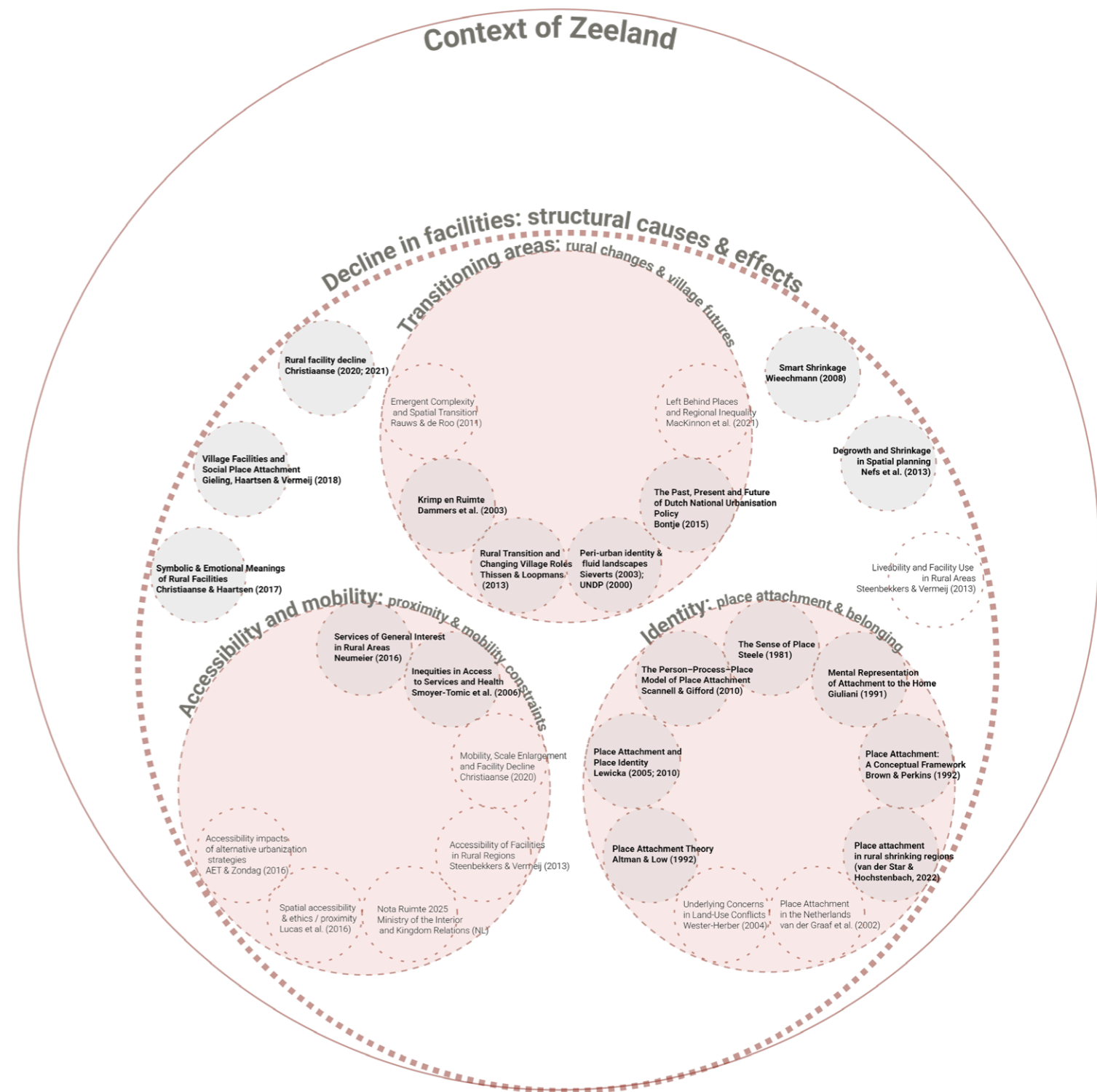


Figure 18. Theoretical framework

2.2 Theories

2.2.2 Conceptual framework identity

This research approaches village identity not as a fixed cultural essence, but as a spatially produced condition emerging through everyday life. Place attachment literature consistently describes identity as a multidimensional relationship between people and their environment (Altman & Low, 1992; Scannell & Gifford, 2010). Rather than treating identity as purely emotional, this study builds on Dutch rural geography and accessibility research to understand identity as structured through everyday spatial systems.

A first dimension can be described as functional identity, referring to the ability of residents to meet basic daily needs. Accessibility research and Dutch policy frameworks define essential facilities primarily through proximity to supermarkets, schools, healthcare and transport (CBS; PBL; Christiaanse, 2020). These functions support independent daily living and structure routines, particularly for less mobile groups. Christiaanse (2021) argues that the disappearance of such facilities does not only increase travel distances but alters the organisation of everyday life, thereby affecting how villages function as lived environments.

A second dimension concerns social identity, rooted in local interaction and networks. Social-geographical studies show that village facilities work as meeting places that enable spontaneous encounters and facilitate social relationships (Gieling, Haartsen & Vermeij, 2018; Thissen & Loopmans, 2013). Facilities such as cafés, schools, community centres and sports clubs function as everyday gathering points that improve social place attachment. Van der Star & Hochstenbach (2022) demonstrate that attachment in rural regions is strongly linked to opportunities for local interaction, suggesting that the social role of facilities is central to how residents experience sense of belonging.

The third dimension relates to symbolic identity, referring to memory, recognisability and shared meaning. Environmental psychology and place theory emphasise that attachment is also constructed through emotional and symbolic associations with specific settings (Relph, 1976; Scannell & Gifford, 2010). Dutch research on rural change shows that residents associate facilities with continuity, village pride and collective memory (Christiaanse, 2021; Gieling et al., 2018). The loss of certain places is therefore experienced not only as inconvenience, but as a weakening of the recognisable identity and symbolical value of the village.

Based on this synthesis, village identity in this research is conceptualised as a layered system in which functional accessibility, social interaction and symbolic meaning are interdependent. Essential village facilities operate at the intersection of these dimensions. Their decline represents not only a shift in service provision, but a restructuring of the spatial conditions through which identity is continuously reproduced in daily life. This model is not treated as a fixed conclusion, but as an analytical lens guiding the research on accessibility, mobility and the lived experience in Zeeland's villages.

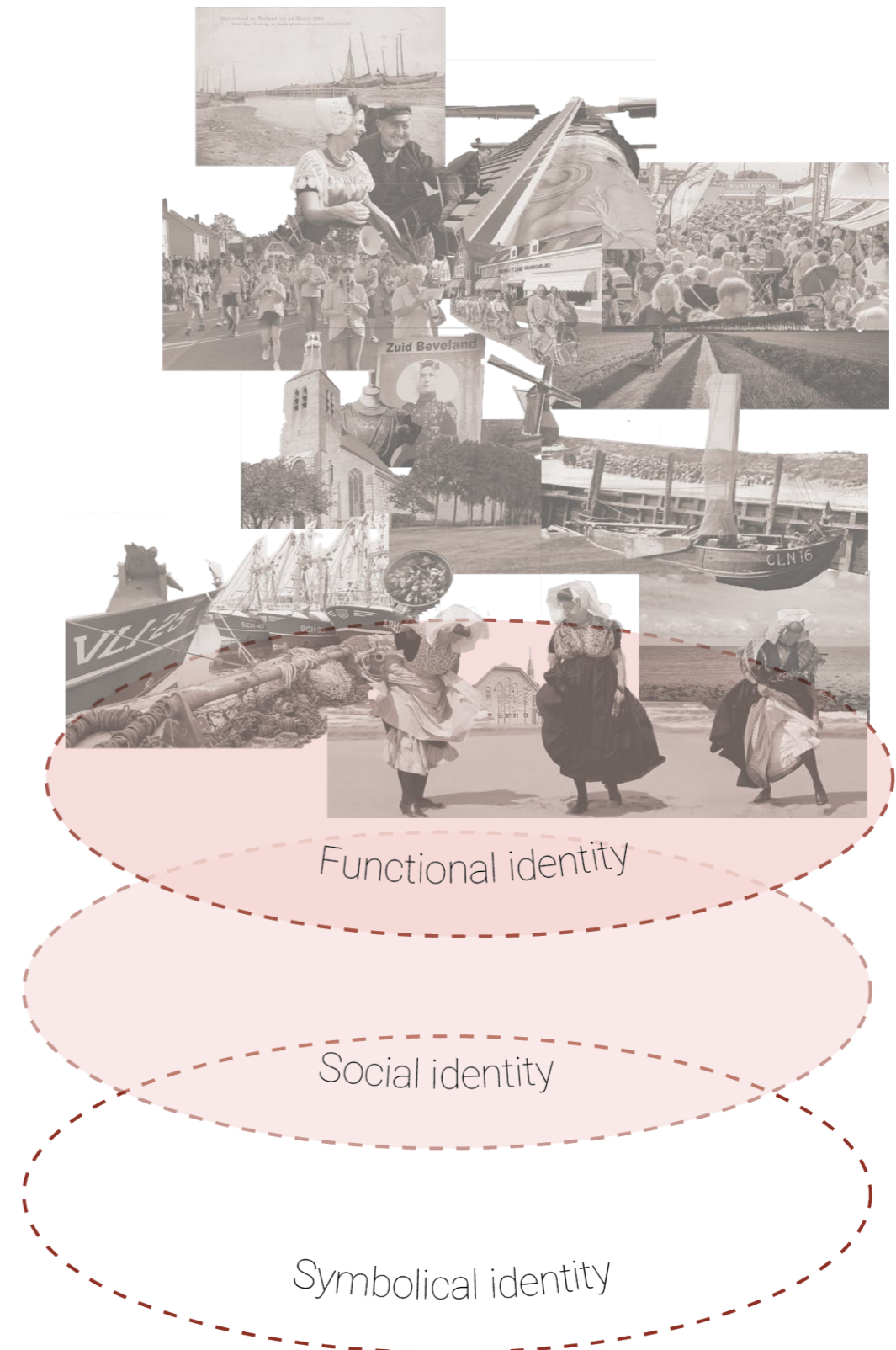


Figure 19. Conceptual framework of identity within the research.

2.2 Theories

2.2.3 Theoretical structure

This diagram shows the theoretical structure of the project and how the sub-questions relate to the different theories. The context of Zeeland forms the base of the framework and is combined with the overarching theme of facility decline. Together, these elements shape the way the research and design questions are approached.

From this foundation, three main theories are explored: accessibility and mobility, identity and place attachment, and transitioning areas. Each theory offers a specific way of understanding facility decline and informs different parts of the research. The straight lines in the diagram show the connections between the theories and the sub-questions they support.

The curved lines represent additional connections between the sub-questions themselves. They show that the questions are not separate or linear, but influence one another throughout the process. Insights gained in one part of the research can therefore feed into others. Taken together, the sub-questions work as a connected whole and guide the project towards answering the main research question and informing the final outcome.

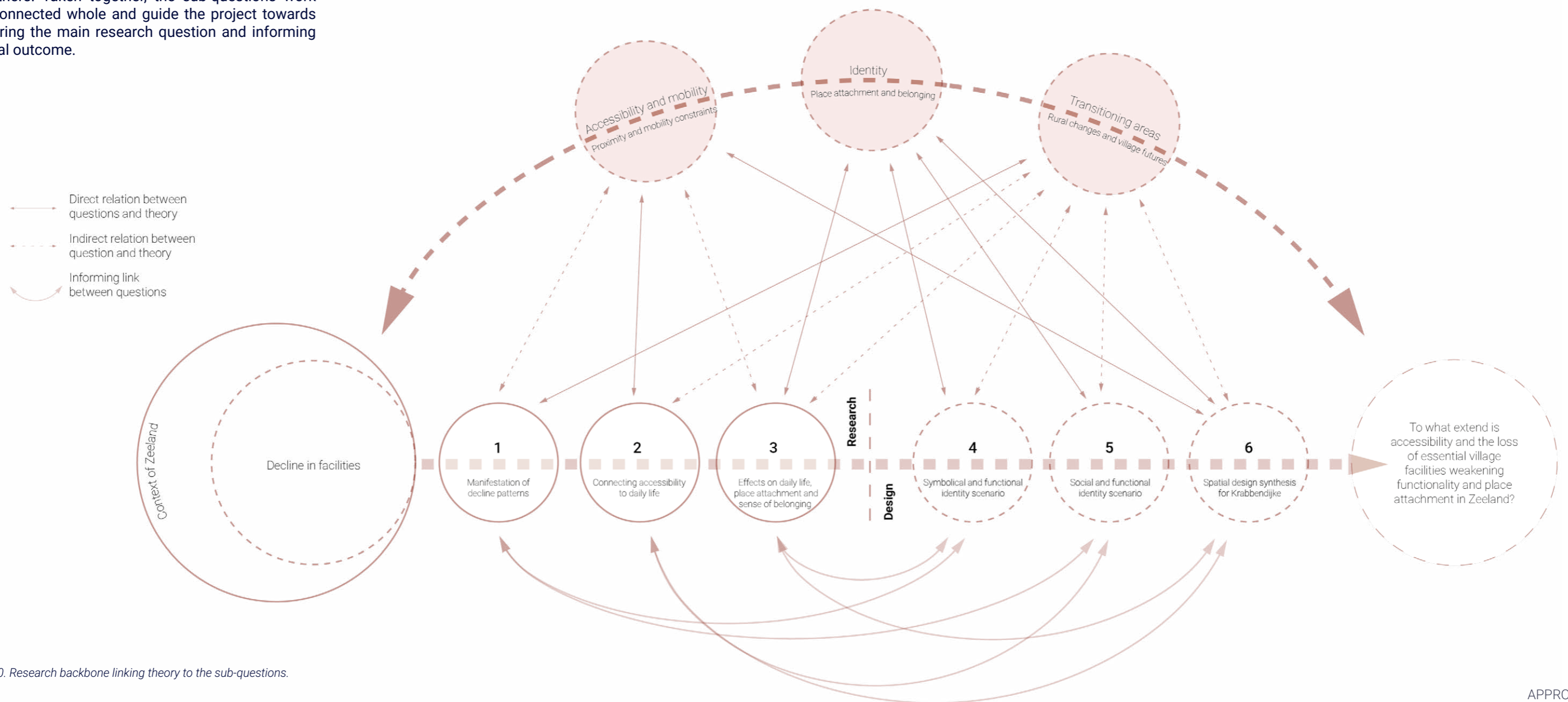


Figure 20. Research backbone linking theory to the sub-questions.

2.3 Methodology

2.3.1 Research overview

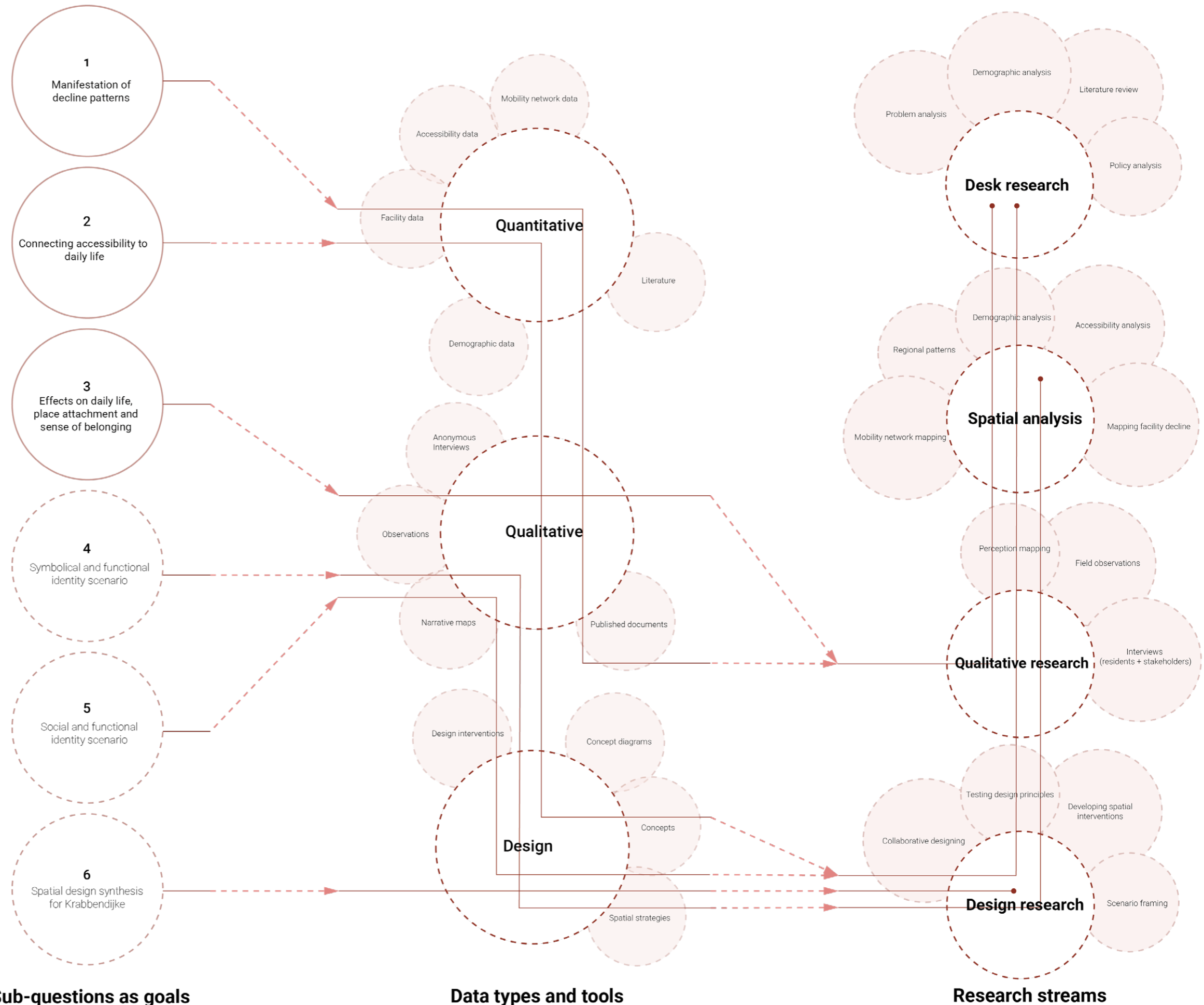
This research uses different methods organized into four main research streams: desk research, spatial analysis, qualitative research, and design research. Each of these streams includes specific techniques and approaches.

Desk research consists of policy analysis, literature review, demographic analysis, and problem analysis. Spatial analysis includes mapping facility decline, accessibility analysis, demographic analysis, regional pattern analysis, and mobility network mapping. Qualitative research is done through anonymous, non-structured interviews, field observations, and perception mapping. Design research involves scenario framing, developing spatial interventions, testing design principles, and collaborative designing.

Each of these methods is linked to different types of data, which are categorized as quantitative, qualitative, and design. Quantitative data in this research includes literature, mobility networks, accessibility data, demographic data, and facility data. Qualitative data includes narrative maps, published documentation, anonymous interviews, and field observations. Design data consists of spatial strategies, concepts, diagrams, and design interventions. These data types are connected to the methods in order to provide relevant insights for the research.

The six sub-questions of this research are represented as the goals they have. They show how the different methods are integrated into the research process. The flows of these methods and the types of data used for each sub-question are visualized in the diagram on the right. The diagram should be read, starting with a sub-question goal and following the flow to the related research stream and methods.

This overview visualizes how the research will combine different types of data and methods to answer each of the sub-questions. Desk research and spatial analysis provide quantitative evidence that can be used to map trends and patterns, while qualitative research results in deeper insights in terms of human experiences and perceptions. Design research allows these findings to be tested and explored through spatial interventions, while being informed by the first three research questions. By integrating these streams, the research creates an understanding of the methodology behind the research, which will in the end shape the answer to the main research- and design question.



Sub-questions as goals

Data types and tools

Research streams

Figure 21. Methodological framework of the research.

2.3 Methodology

2.3.2 Design method

The design phase of this project follows a research-led design approach, in which spatial interventions are developed on the basis of analysis and insights. The three design sub-questions build directly on the findings of the research phase and inform the final design answer. Instead of starting from a predefined form, the design process starts from an understanding of the spatial, social, and institutional influences that are shaping village transformation via the research.

This approach aligns with the analysis-led design method described by Alexander in 'Notes on the synthesis of form' (1964). Which defines design as a response to contextual forces and constraints, stating that "the process of design is the process of inventing physical form to solve a problem." In this project, design is therefore based on analysis of the theories about; facility decline, accessibility patterns and experiences of place attachment. The conclusions drawn from the three research questions form the basis for the development of multiple spatial scenarios, each representing a different strategic response to the identified challenges.

Lawson's work on design thinking supports this approach. In 'How designers think' (1980), Lawson sets the difference between problem-focused and solution-focused strategies, noting that many designers often move between analysis and synthesis. This project follows a problem-focused strategy in the early design stages, where research findings are translated into scenarios through iterative phases of analysis, strategizing, concept formation and the formulation of design principles. This design phase is a controlled solution-focused strategy, in which spatial interventions are developed and tested through iterative design and review.

Analytical findings are translated into design criteria using the key theories from the theoretical framework. The design process is iterative: multiple scenarios and concepts are developed at different scales using mapping, diagrams and spatial strategies. These scenarios are tested against criteria related to accessibility, transitioning areas and place identity, drawing on concepts such as recognisability, social interaction and everyday practices (Lynch, 1960; Scannell & Gifford, 2010). Following this testing phase, the scenarios are reflected upon and evaluated in relation to their contribution to the research questions.

The most relevant ideas and concepts emerging from the scenarios are then combined through a process of synthesis. This synthesis integrates usable strategies into a coherent spatial framework, in which individual interventions reinforce one another and respond to the specific context. The resulting spatial strategy is subsequently elaborated into the final design proposal.

Community input is an essential part of this research, even though it will be anonymous. Drawing on collaborative planning theories, Healey (1997) emphasises that spatial strategies become more resilient when local knowledge and visions are integrated into the design process. Community insights are therefore not treated as validation at the end, but as active input shaping the design direction in this research.

Methodologically, this design process reflects the mixed methods research principles described by Creswell and Plano Clark (2018), where earlier research phases inform later design stages. Finally, the project adopts a multi-scalar approach inspired by Lynch (1960), moving from the regional scale of Zeeland to the municipality, village, and facility level, ensuring that the final design proposal responds both to local identity and broader structural change.

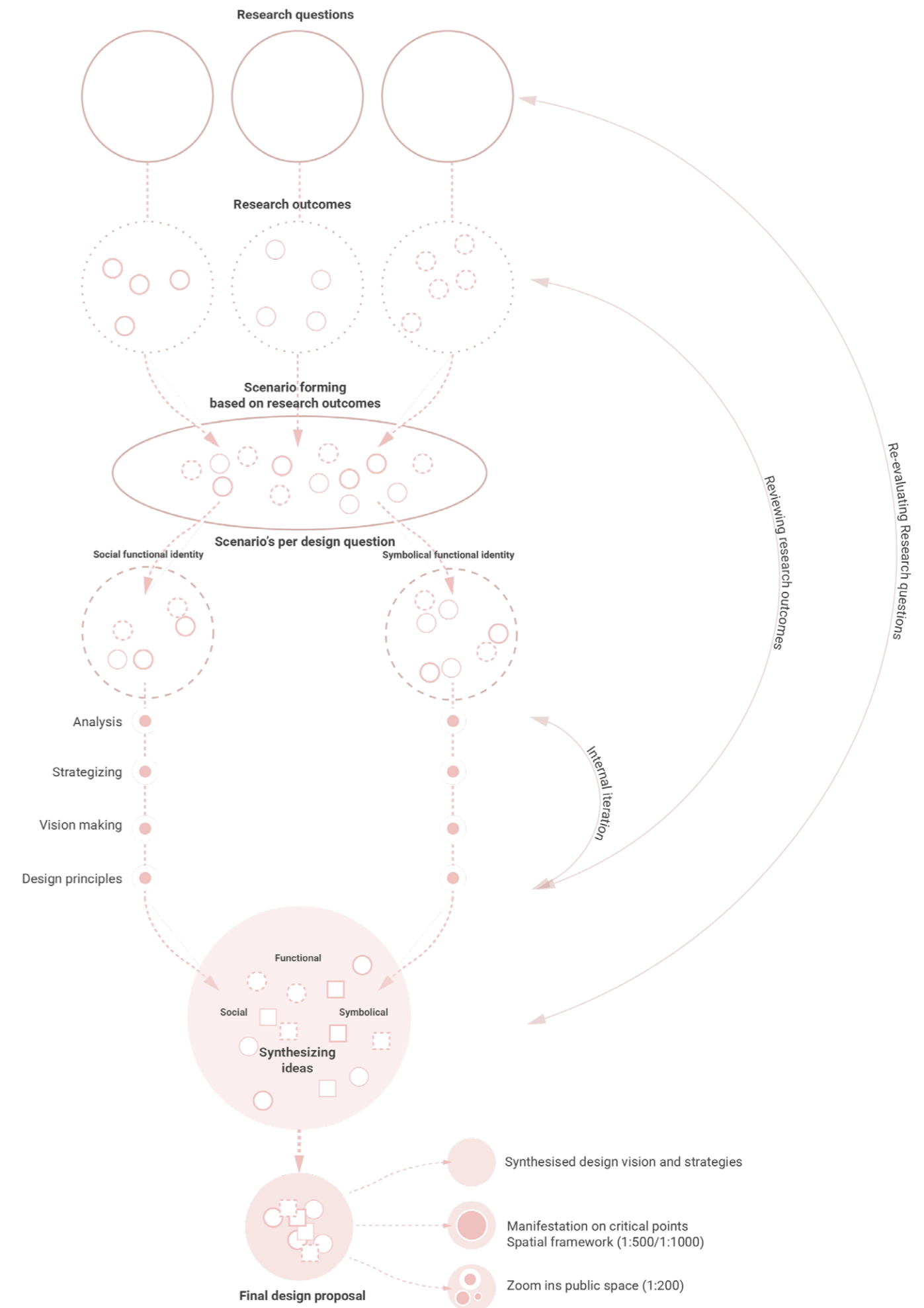


Figure 22. Design methodology diagram.

2.3 Methodology

2.3.3 Data collection

This research applies a mixed-methods approach combining desk research, spatial analysis, qualitative inquiries, and quantitative research to study regional decline and place identity in Zeeland. Using multiple methods allows the research and design questions to be informed by data as well as insights from the communities, making it more relevant.

Desk research is used to provide background context. Policy documents at national, regional and municipal levels are reviewed to understand how accessibility, facilities and regional development are framed in planning and governance. This situates the case study within broader policy discussions without forming the main focus of the research. In addition, an academic literature review supports the theoretical framework presented in the previous chapter. Literature is selected around three core themes: (1) the role and decline of everyday facilities, (2) social interaction, cohesion and meeting places, and (3) place attachment and identity in contexts of change. Search terms include place attachment, rural identity, facility decline, accessibility, mobility and everyday practices.

The study includes quantitative spatial analysis to examine spatial patterns of decline. Facility accessibility datasets from CBS ranging from 2015 to 2023, municipalities and the state are used to map accessibility changes between 2015 and 2023. Functions are derived from CBS accessibility indicators and operationalised as distances (in kilometres) to the nearest facility. These cover everyday services (such as supermarkets, childcare, education and healthcare), social and cultural amenities (including cafés, libraries and sports facilities), and regional infrastructure such as train stations and hospitals. While not all functions are equally relevant at the village scale, their inclusion allows for consistent regional comparison in a context where service availability is generally limited. As the analysis focuses on decline over time, previously absent facilities do not affect the results. At the local scale, a more selective set of functions will be defined based on insights from the site, while the regional analysis identifies broader accessibility patterns and pain points. Lastly, alternative service (delivery) models are considered where present.

Demographic analysis provides insight into population trends relevant to decline and service provision. These datasets are analysed through GIS software, which enables spatial relationships and patterns to be visualised and compared across the region, but also on the smaller scales.

Qualitative methods play a main role in understanding the lived experiences. Non-structured interviews are used to allow possible participants to speak truly about their perceptions of places and changes over time. Flexible interview formats makes it possible to capture personal meanings and attachments that may not emerge in more structured interviews. In addition to that, mental mapping exercises are used where relevant to support these narratives. The collected insights are analysed using thematic coding to identify patterns. To translate this, elements of discourse analysis are used to compare personal narratives with policy language.

Fieldwork supports the analysis through observations and photographic documentation of the built environment, public spaces, and everyday activities. These observations help contextualise both spatial data and interview responses. All participants are informed that this research is a graduation project intended to explore ideas and stimulate discussion, rather than produce binding policy or design outcomes. Participation is voluntary, and all data is handled anonymously. Names and identifiable details are not recorded, allowing qualitative insights to be used while protecting participants' privacy. The research follows TU Delft ethical guidelines for student research, ensuring informed consent, anonymity, and responsible data use without requiring a formal ethical approval procedure.

2.3.4 Analytical lens

The decline and loss of facilities are experienced most strongly by specific groups within rural communities, particularly those who rely on nearby services in their daily lives. For this reason, the analysis in this research is conducted through the perspective of affected residents. Professional and academic knowledge is combined with local insights and lived experiences to better understand how facility decline influences everyday life, liveability, and a sense of belonging. Viewing the downward spiral of decline through the eyes of residents shifts the focus from abstract indicators to the social and emotional consequences of spatial change.

This perspective forms both the analytical and the design lens of the project. Rather than approaching facility decline as a purely functional or economic issue, the research adopts a community-centred approach that recognises residents as active

contributors to spatial knowledge. Collaborative planning theory emphasises that spatial strategies become more resilient when local knowledge and visions are integrated into the design process (Healey, 1997). Community input is therefore not treated as a final validation step, but as an active element shaping the analysis and guiding design decisions.

By combining professional expertise with community perspectives, the project seeks to move beyond top-down and growth-oriented planning approaches. This is particularly relevant in regions like Zeeland, where facility decline affects not only accessibility but also local identity and social cohesion. Methodologically, the research follows mixed-methods principles in which insights from earlier analytical and participatory phases inform later design stages (Creswell & Plano Clark, 2018). In addition, a multi-scalar approach inspired by Lynch (1960) is applied, moving from the regional scale of Zeeland to municipalities, villages, and individual facilities. This ensures that design interventions remain grounded in local experience while responding to broader structural change.

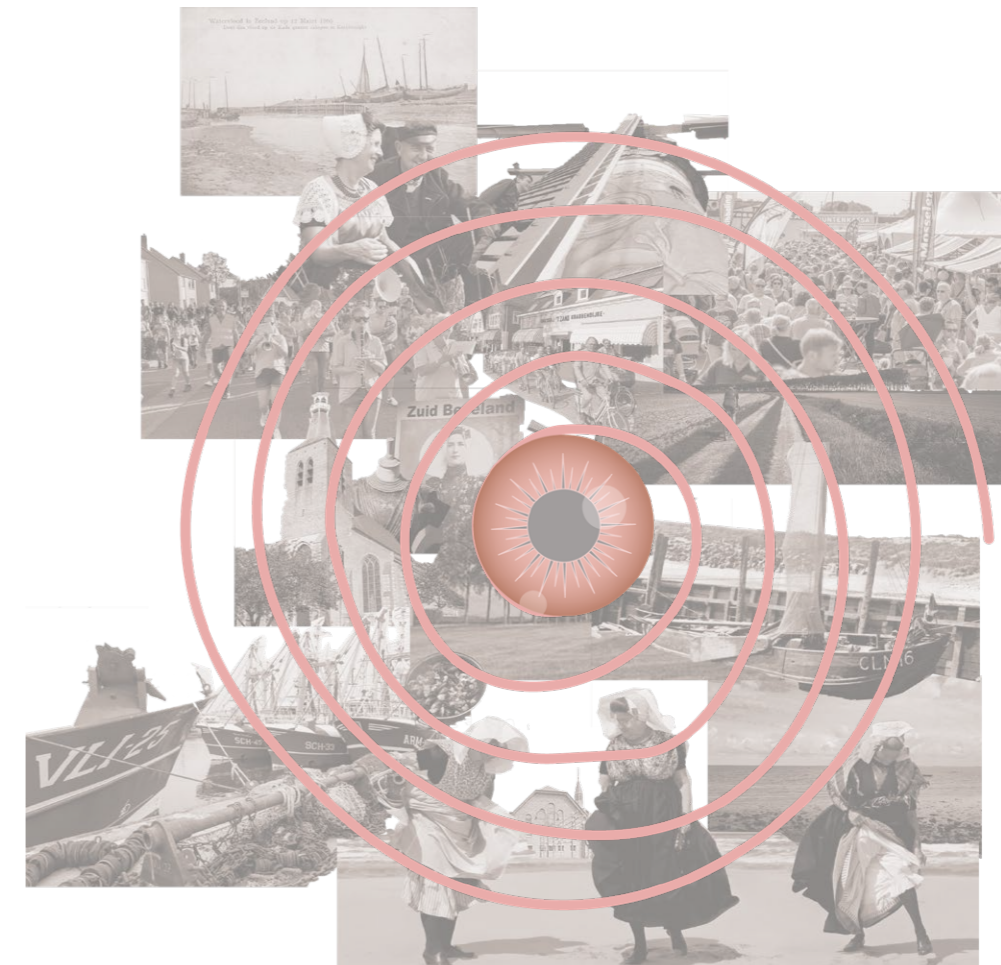


Figure 23. Analytical lens of the research.

2.4 Integration in process

The research diagram shows a general overview of the research process. It starts by presenting the problem, together with initial ideas about its causes and underlying issues. Within the diagram, the main research question forms the base of the constellation. This question is explored through a set of sub research and design questions.

These questions are represented by their goals and are connected to the theoretical and methodological framework through dashed lines, indicating indirect connections, and solid lines, indicating direct connections. In this way, the diagram shows how the different parts of the research are related to one another. The research process results in two end products: a graduation report and a design proposal.

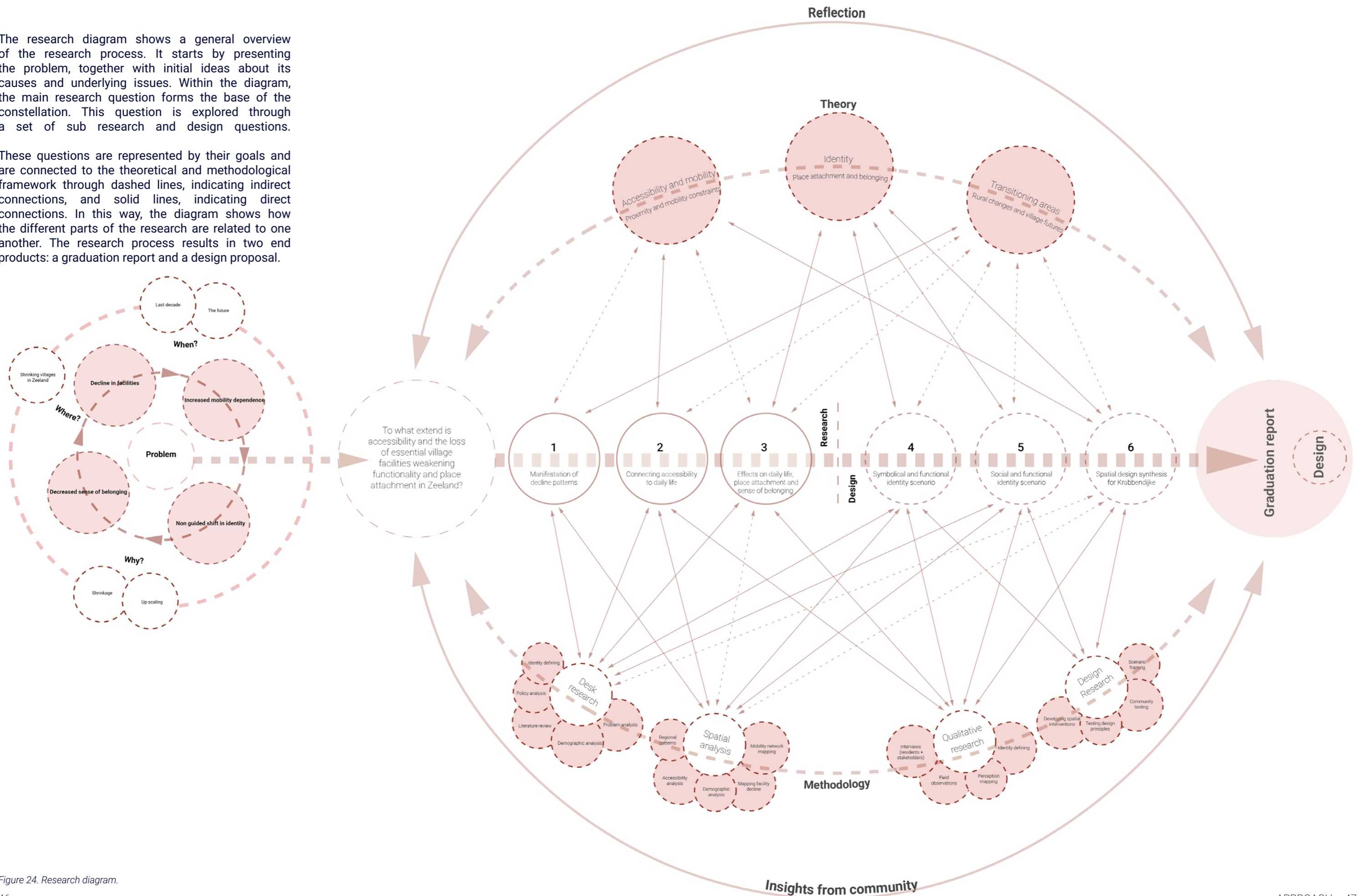


Figure 24. Research diagram.

2.5 Planning

The planning diagram shows how the different sub-questions are distributed over time and which methods are intended to be used each week. The lines in the diagram represent the weekly structure of the project and show how the sub-questions are connected to specific moments in the process. Presentation and hand-in weeks are highlighted in the centre of the diagram and linked to the lower section, where the corresponding weeks and dates are indicated.

For clarity, the process is divided into three main phases: the preparation phase, the research phase, and the design phase. Below this text, the planning is shown diagrammatically, with the key timelines highlighted and briefly annotated to explain them in the overall process.

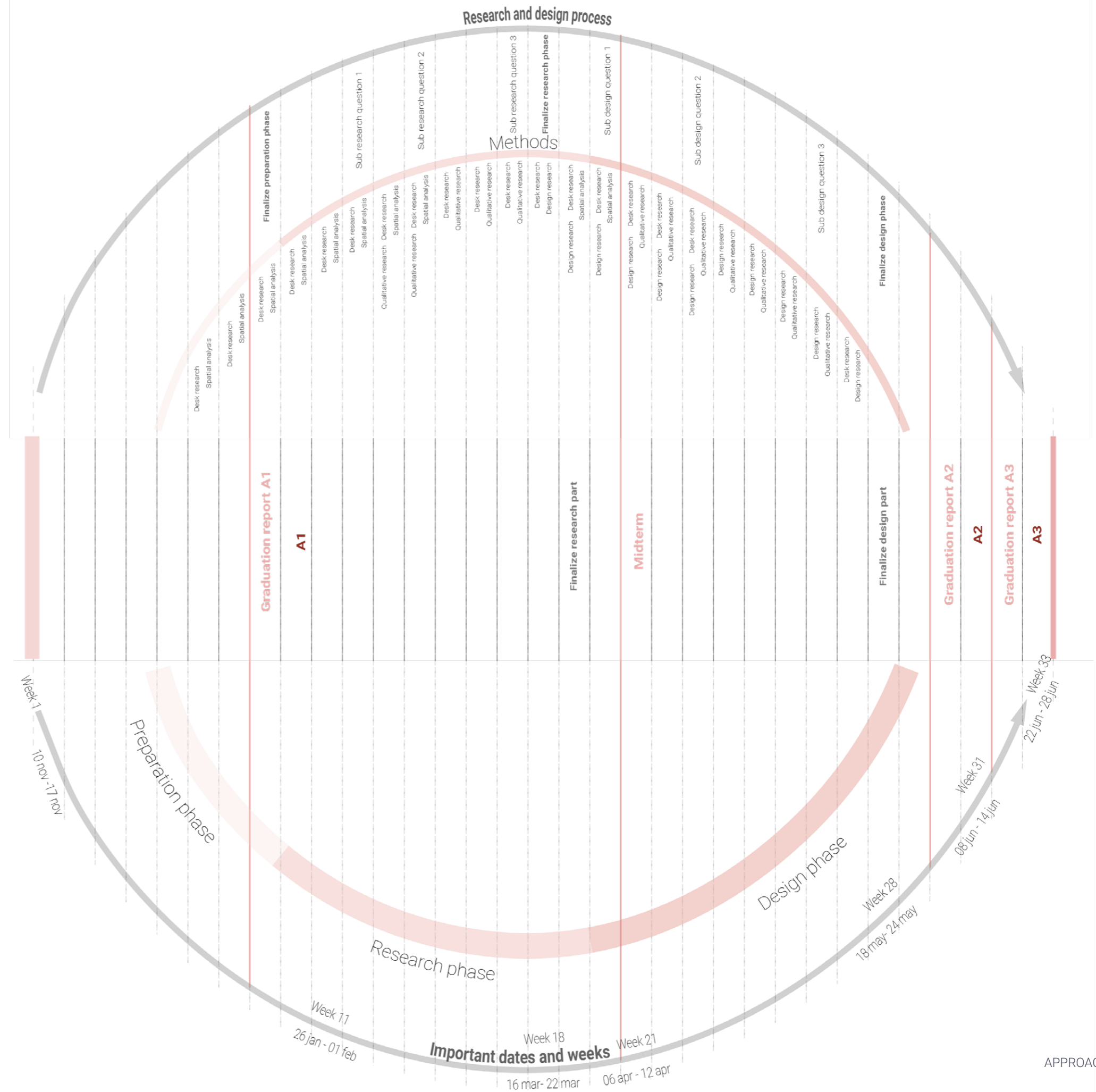
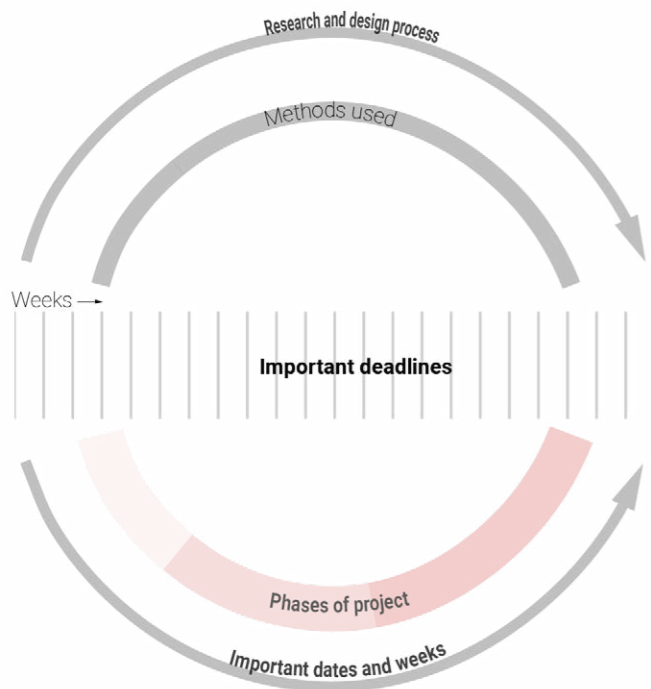


Figure 25. Planning diagram.

2.6 Limitations, validity and ethics

2.6.1 Research limitations

This research is subject to several limitations in terms of the conceptual, methodological, practical, and spatial scope. The concept of this study aims to engage themes such as place attachment and identity, which are subjective and unmeasurable.

Identity is defined as multi-layered and shaped by factors such as age, gender, income, and personal experience, making generalization extremely difficult. Each participant brings a different identity, or multiple identities, which limits the ability to draw universal conclusions. In addition, the concept of a spiral of decline does not account for individual differences and lived experiences within communities. The envisioned end products are informed by principles of degrowth, yet future conditions remain unknown. As a result, the outcomes can only be designed to be adaptable and resilient within the current knowledge.

Methodologically, the research is limited by the number and depth of interviews conducted, which may not fully represent the diversity of perspectives within the community. The use of GIS-based facility data may overlook informal meeting places that play an important role in daily life, but this will most likely be seen during site visits. Regional accessibility models can oversimplify patterns of everyday mobility, while facility databases often fail to capture the quality of places. Furthermore, focusing on one primary case study, Reimerswaal, limits the possibility for a broader generalization.

Practical limitations are the limited time available for the study in regards to the broad nature of the subject. Non-structured interviews provide valuable insights but offer less detailed data for further research. Participation also depends on the availability of respondents. Finally, seasonal differences in mobility and tourism in Zeeland further affect the results.

Spatially, the proposed interventions and concepts are developed specifically for this case study and are not directly applicable to the wider country of the Netherlands. While they may serve as inspiration for degrowing villages elsewhere, the research remains grounded in the specific context of Zeeland and is mainly applicable there.

2.6.2 Ethical considerations

Participation in this project will take place using non-structured interviews in public spaces on site. Participants are informed that the project is not a plan that will be developed further, but rather a form of possible inspiration. Anonymity is maintained, and no identifiable information is collected in this research. Efforts are made to give something back or offer help during any encounters, so that participants' time is respected and not fully taken away in the process. In this way, participation remains light and voluntary, allowing opinions to be shared freely without pressure. Attention is given to consent and the age of participants throughout the research to make sure it remains ethical. Community voices are represented with care and respect, avoiding harsh or judgmental ideas. In this research, I position myself as an outsider that is looking at the facts, while also acknowledging that I have lived in Zeeland my entire life, which makes the work personal to me despite growing up in a city.



Figure 26. Photograph of the 1953 North Sea flood disaster in Zeeland. Source: KNMI (n.d.).



Figure 27. Photograph illustrating the impact of the 1953 North Sea flood disaster. Source: Roessink (2023).



SEPTENTRIO.

III. Research results

- Patterns of decline
- Effects of mobility
- Effects of decline
- Conclusion

Research results

III.

Inter-antiquariaat Mefferdij & De Jonge (to de) Zeelandic Abraham Orietus, 1592 Antique map. Inter-antiquariaat

3.1 Patterns of decline

- Introduction
- Essential village facilities
- Spatial patterns of facility decline
- Decline patterns and manifestations
- Conclusion



Inter-Antiquaart Merfeldt & De Jonge (ed.) Zeelandic Abraham Ortelius, 1592 Antique map. Inter-Antiquaart

3.1 Patterns of decline

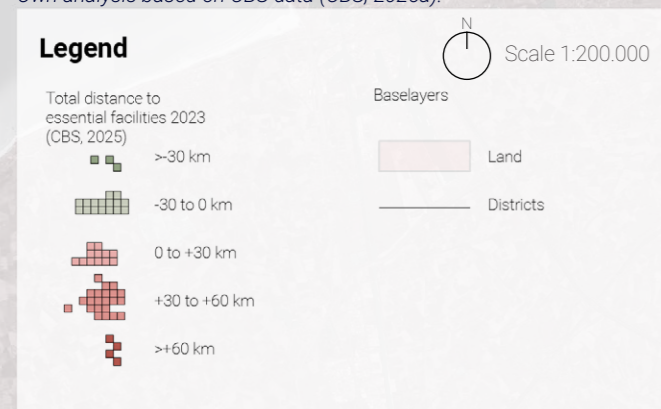
3.1.1 Introduction

Vulnerability of villages

The spatial distribution of facilities in Zeeland reveals a clear structural imbalance between villages and urban centres. Using CBS accessibility data at a 100x100 metre grid level, the regional map shows that distances to everyday facilities are consistently higher in rural villages than in cities and larger towns (CBS, 2025). While urban centres in Zeeland and neighbouring regions benefit from clustering and short travel distances, villages already start from a disadvantaged position within the regional system.

This pattern is not incidental. Research by CBS and PBL shows that facility provision in the Netherlands increasingly follows growth-oriented logics, favouring places with scale and density (CBS & PBL, 2010). As a result, villages with dispersed settlement patterns and limited population bases are more vulnerable to facility withdrawal. The map visualises this vulnerability clearly: villages appear as weak points where access is structurally lower, even before individual facilities disappear. In a region where policy attention still largely focuses on growth and efficiency, this spatial condition places rural villages in Zeeland at a persistent disadvantage.

Figure 28. Map illustrating the vulnerability of villages in Zeeland based on the total distance to facilities. Own analysis based on CBS data (CBS, 2025a).



3.1 Patterns of decline

3.1.1 Introduction

Vicious cycle

In villages, facility decline rarely occurs as a single event but unfolds as a cumulative and self-reinforcing process. This vicious cycle is particularly visible in Zeeland, where increasing distances to facilities, high car dependency and limited public transport interact over time (Provincie Zeeland, 2023; Christiaanse, 2020). As facilities disappear, residents become more dependent on regional centres, reducing local use and further undermining the viability of remaining services. This process affects villages more strongly than cities because their social and functional systems are more fragile. Where cities can absorb loss through density and diversity, villages often rely on a small number of key facilities that serve multiple roles at once (Gieling, Haartsen & Vermeij, 2018). When these disappear, not only access but also everyday routines and social encounters are disrupted.

The diagram next to this text illustrates how this cycle gradually narrows village life. What once functioned as a wide and open system of daily practices, meeting places and local identity becomes increasingly cropped and condensed. Mobility replaces proximity, efficiency replaces familiarity, and local identity weakens as everyday interactions shift elsewhere. Without guidance or intervention, this transition remains largely unguided, slowly transforming villages into places of residence rather than lived communities (Thissen & Loopmans, 2013).

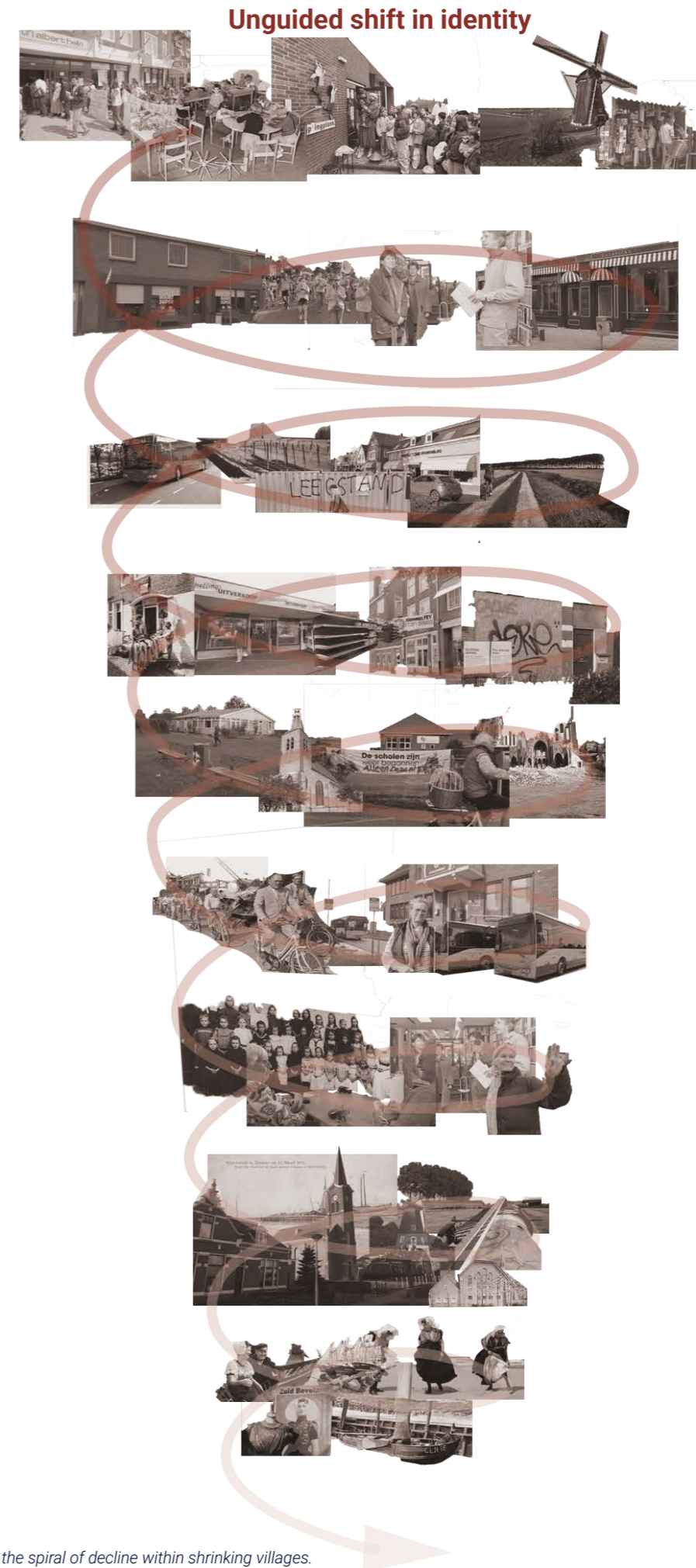


Figure 29. Collage illustrating the spiral of decline within shrinking villages.

3.1 Patterns of decline

3.1.2 Essential village facilities

Dutch scholars

Dutch scholarship does not offer a fixed definition of what essential village facilities are. Instead, the theories approach the concept through different analytical lenses, including accessibility analysis, rural transformation, governance, and place attachment. Synthesising these perspectives forms a clearer concept of which facilities could be considered essential in relation to their functions in the village life. A recurring starting point is the critique of the assumed link between population decline and facility loss. Christiaanse (2020; 2021) argues that facility decline in Dutch villages is mainly driven by scale enlargement, deregulation, and increased mobility, rather than demographic shrinkage. From a structural perspective, facilities are essential as they enable residents to meet basic daily needs without travelling too far. Christiaanse explicitly identifies supermarkets, primary schools, and general practitioners as the most essential facilities, because they support food, education, and basic healthcare. These functions are described as base for daily functioning, particularly for residents with limited mobility options. More importantly, Christiaanse argues that these facilities do not need to be present in every village, but they must remain accessible within reachable distances. In this study, how a function becomes essential, is defined through functional necessity and accessibility.

However, this functional definition is problematised when villages are understood as systems in transition. Rauws and De Roo (2011) understand villages and small towns as part of dynamic peri-urban and rural-urban networks. In this theory, facilities matter beyond the village scale. What becomes essential is not the facility as a fixed local object, but the continuity of its function within a wider spatial system. Facilities such as retail, healthcare, and services are increasingly clustered or networked, in that case they often skip smaller settlements. From this perspective, essential facilities are those whose functions remain available through new arrangements in the system, rather than through permanent local presence.

This transition-based view aligns with Bontje (2015) and Van Oosten (2018), who both analyse Dutch spatial policy and governance. Their work shows that Dutch planning has historically prioritised growth and expansion, leaving limited resources for maintaining or redefining facilities in non-growing areas. As a result, village facilities are often treated as instruments of growth instead of being the base for everyday life. In this context, facilities that do not contribute directly to growth, such as small shops, community buildings, or local meeting places, are more vulnerable to neglectance. Essential facilities, from this governance perspective, are therefore those whose functional necessity persists even when growth-oriented planning is regulated, especially basic services and everyday infrastructure that form the base for village life.

While the scholars above define essential facilities primarily through functional access, Dutch social-geographical research introduces a second layer of definition by examining how facilities function in daily social practice. Gieling, Haartsen, and Vermeij (2018) empirically analyse how different facilities contribute to social place attachment. Their work identifies primary schools, supermarkets, cafés, community centres, and sports facilities as places where everyday encounters occur. In the essence, they show that facilities perform distinct functions for different groups. Supermarkets primarily function as routine-based meeting places for elderly and less mobile residents, while cafés and sports facilities function as social networking spaces for younger residents and newcomers. In addition to this, community centres function as organised meeting spaces supporting intergenerational interactions.

In this work, whether a function is essential for the village is not determined by whether a facility provides for a basic need, but by the ability to provide local meeting opportunities that cannot easily be replaced by regional alternatives. Even when residents can travel elsewhere for shopping or services, the loss of these facilities reduces the frequency and spontaneity of social interaction within the village. Facilities are therefore essential as they structure everyday routines and social contact.

This relational understanding of facilities is further supported by Van der Star and Hochstenbach (2022), who study place attachment in shrinking rural regions. Although facilities are not their primary unit of analysis, they show that attachment is rooted in place dependency and social bonding. Both of which rely on the availability of everyday functions and recognisable places. Facility loss disrupts routines and reduces opportunities for social interaction which causes a weakened attachment, especially for residents who depend strongly on the local facilities. From this perspective, facilities are essential when they anchor daily practices, instead of their specific services.

The conceptual framework visualises these criteria and functions, together with a collage that reflects how the Dutch scholars recognize essential village facilities. Together they show that facilities are essential for daily functioning and accessibility. Which includes supermarkets, primary schools, and general practitioners, that enable residents to meet basic needs. Their essential quality lies in their accessibility, not necessarily in their local presence. In addition to that, facilities are considered essential for everyday routines and social interaction

These include cafés, community centres, sports facilities, and schools, which structure daily encounters and support social bonding. Their essential quality lies in their local embeddedness and role in everyday life.

Essentiality criteria



Primary schools

Café's



Supermarketets

Sports facilities

Community centres



Figure 30. Diagram of essential village facilities identified by Dutch scholars.

3.1 Patterns of decline

3.1.2 Essential village facilities

Governmental

Governmental- and policy frameworks define essential village facilities mainly through their role in providing basic living conditions in combination with accessibility and spatial equity.

The Centraal Bureau voor de Statistiek (CBS) provides the most explicit and systematic definition of essential facilities by translating them into datasets and accessibility indicators. In CBS classifications, facilities such as supermarkets, primary schools, general practitioners, pharmacies, childcare facilities, and public transport nodes are treated as core services necessary for daily life. These functions are monitored using distance-based indicators, typically measuring the distance residents must travel to reach the nearest facility (CBS, 2025). Essential village facilities are therefore framed as question of proximity and availability, allowing for spatial comparison between municipalities and villages. From this perspective, facilities are essential when their absence results in significantly increased travel distances. Especially important in areas with big elderly populations or limited mobility.

The Planbureau voor de Leefomgeving (PBL) builds on CBS data but also uses facility access within a broader understanding of vulnerability. In publications, CBS and PBL emphasise that essential facilities should be understood as services for the general interest. Which are functions that are not necessarily economically viable in every village, but are socially irreplaceable regionally (CBS & PBL, 2010). PBL specifically identifies healthcare, education, daily retail, and mobility infrastructure as essential for maintaining liveability in shrinking or peripheral regions. Importantly, PBL shifts the focus away from the presence of facilities in every settlement towards the ability of residents to access these functions within acceptable time and distance thresholds. This reframing is particularly relevant for rural areas such as Zeeland, where maintaining all facilities in every village is considered unrealistic.

National government policy reinforces this accessibility-based approach. In documents such as Grenzen aan de krimp and the Nota Ruimte (2025), the Rijksoverheid argues that essential facilities should be safeguarded primarily for vulnerable groups, including older residents, households without cars, and people with lower incomes. Facilities most frequently identified as essential are primary education, basic healthcare, daily shopping, and transport connections. Cultural or recreational amenities are rarely marked as essential, although they are supportive for social cohesion. The national policy stance therefore defines essential village facilities as those that enable independent daily living, rather than those that maintain village identity. At the regional and local level, this functional logic is again visible. The Gemeente Reimerswaal adopts a pragmatic interpretation in its Structuurvisie kernen en bedrijventerreinen (2024). Here, essential facilities are defined as functions that support the residential role of villages, instead of their economic dynamics. The municipality identifies local retail, primary schools, community buildings, sports facilities, and public transport access as crucial components for village liveability. However, it also acknowledges that not all facilities can be maintained locally and that some functions will increasingly be concentrated in larger cores. Whether a function is essential is therefore tied to the daily functioning of villages as places to live, rather than to their historical status.

Across governmental frameworks, essential village facilities are defined as functionally necessary services that enable daily life and independence, especially for vulnerable groups. Supermarkets, primary schools, basic healthcare, and transport access form the core of this definition. Rather than focussing on preservation of all facilities locally, policy frameworks prioritise accessibility and regional clustering. The conceptual framework visualises these criteria and functions, together with a collage that reflects how the Dutch governmental institutions perceive essential village facilities. Together they show that accessibility, functionality and demand are the most important for a functioning regional structure.

Essentiality criteria



Primary schools

Public transport stops



Supermarketets

General practitioners



Figure 31. Diagram of governmental perspectives on essential village facilities.

3.1 Patterns of decline

3.1.2 Essential village facilities

Local media

Local and regional media in Zeeland define essential village facilities primarily through their absence and increasing distance. Articles by Provinciale Zeeuwse Courant consistently highlights the disappearance of supermarkets, primary schools, healthcare services, cafés, and other meeting places in small villages. These frame losses as direct threats to everyday life and village identity (Provinciale Zeeuwse Courant, 2023; 2025). Facilities are presented as essential when they structure daily routines, such as grocery shopping, going to school, and medical visits, as well as when their loss disproportionately affects elderly and less mobile residents.

National coverage of Zeeland reinforces this framing. An article in De Volkskrant describes how the village of Kats has lost its school, café, and general practitioner, illustrating how essential facilities are understood as a combination of basic services and social anchors that support both functional living and community life (De Volkskrant, 2023). In this idea, cafés and communal spaces are treated not as optional amenities, but as indicators of whether a village still functions as a social environment.

In addition, regional reporting frequently identifies mobility and transport as a crucial for everyday life. Provincial communication on Reizen door Zeeland stresses that public transport is essential for maintaining access to facilities that are no longer locally available, particularly in a region with long distances and dispersed settlements (Provincie Zeeland, 2023). While transport itself is not framed as a village facility, it is repeatedly presented as necessity for accessibility.

Local news in Zeeland defines essential village facilities as specific, everyday services. Facilities like supermarkets, primary schools, healthcare services, cafés, and community spaces, whose loss directly affects daily routines, social life, and the perceived liveability of the village. Essentiality is confirmed based on lived experience, distance, and recognisability. The conceptual framework visualises these criteria and functions, together with a collage that reflects how the local news in Zeeland perceives essential village facilities. Together they illustrate that from a their narrative, essentiality is about function, how places support everyday life, social bonds and their impact on the community.

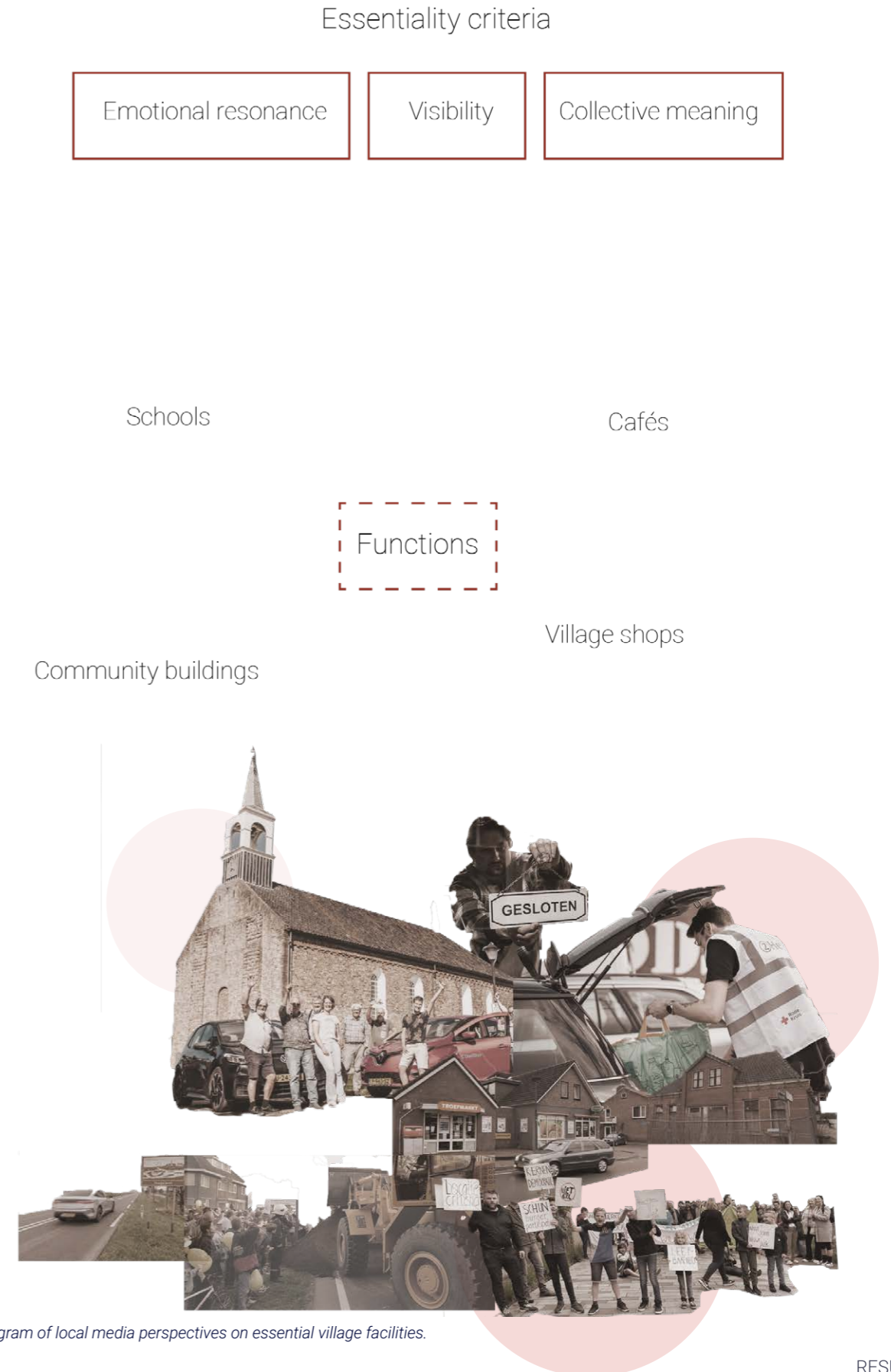


Figure 32. Diagram of local media perspectives on essential village facilities.

3.1 Patterns of decline

3.1.2 Essential village facilities

Local community

From the perspective of residents, essential village facilities are primarily defined through everyday use, personal meaning and social relationships. Observation and informal input from the community show that facilities become essential for them when they are important for daily routines and whether their absence would be strongly felt.

Four types of facilities are mainly mentioned as essential: schools, shops, cafés, and sports facilities. These places provide social function that goes beyond their functional meaning. According to local church communities in Krabbendijke, including both the Hervormde Kerk and the Gereformeerde Kerk, their role has always extended beyond worship to act as spaces for community gathering, mutual support and inter-generational engagement, with regular activities aiming to connect residents (Protestantse Gemeente Krabbendijke, n.d.). Another example, a school is not only important because of its education, but also as a place where parents meet, children grow up together, and a sense of continuity is maintained within the village. Similarly, local shops are valued not only for access to daily groceries, but for their role as informal meeting points where residents encounter unplanned.

Cafés and sports facilities are especially associated with community life and sense of belonging. They provide spaces where relationships are maintained, where people feel recognised, and where social life thrives. Sports clubs and their canteens are described as places that connect different generations, while cafés are linked to tradition and village identity. Local clubs like VV Krabbendijke explicitly frame themselves not just as places for sport, but as places for social interaction, reinforcing a sense of belonging for members and others (VV Krabbendijke, n.d.). Their importance lies less in their use, but more in their facilitating role in shared spaces for social life.

Residents' thoughts are reformed into four criteria. Firstly, everyday dependence: facilities that are part of daily or weekly routines are considered more essential according to them. Secondly, replaceability: when a function cannot easily be replaced elsewhere, it becomes essential. Third, social relationships: facilities that enable spontaneous encounters and sustain local networks are seen as crucial for community cohesion. Finally, meaning and identity play a role: places connected to memories, traditions or a shared sense of "being a village" are experienced as irreplaceable, even when alternatives exist nearby.

The conceptual framework visualises these criteria and functions, together with a collage that reflects how the community perceives essential village facilities. Together, they illustrate that from a community perspective, essentiality is not only about function, but about how places support everyday life, social bonds and a shared sense of belonging.



Figure 33. Diagram of local community perspectives on essential village facilities.

3.1 Patterns of decline

3.1.2 Essential village facilities

Synthesis

When combining insights from governmental frameworks, local media, and Dutch academic research, essential village facilities can be defined as those functions that structure everyday life in villages and determine whether residents can live independently and meaningfully in place. While each perspective approaches the issue from a different angle, a shared set of facilities repeatedly emerges, allowing for a more clear definition.

Governmental institutions such as CBS, PBL, and national spatial policy define essential village facilities primarily through functional necessity and accessibility. Facilities are considered essential when they enable residents to meet basic daily needs. Particularly food provision, education, healthcare, and mobility are important for these institutions. Supermarkets, primary schools, general practitioners, pharmacies, and public transport access are consistently prioritised in datasets and policy documents. Whether a facility is essential is determined through distance, travel time, and demographic vulnerability. While keeping in mind that specific attention needs to be given to vulnerable people.

Dutch scholars connect both perspectives by analysing how facilities function within everyday village life. Scholars such as Christiaanse, Gieling, Haartsen, Vermeij, Thissen and Loopmans show that village facilities operate on multiple levels simultaneously. At a basic level, facilities such as supermarkets, schools and healthcare services enable daily routines and needs while they reduce dependency on external core. Which is especially important for less mobile or vulnerable residents. These facilities also structure routines, social activities and informal encounters.

Local newspapers adds a experiential layer to the definition, reporting in regional regions such as the Provinciale Zeeuwse Courant and national coverage in De Volkskrant both identify the same facilities in their scope; Schools, supermarkets, healthcare services, cafés, and community spaces. They frame importance through loss, distance, and daily disruption. In these narratives, facilities become more important the moment they disappear. When grocery shopping requires long travel, when children must leave the village for school, or when elderly residents lose nearby healthcare. Media coverage also highlights cafés, community spaces, and meeting places as essential facilities. Not because they are able to provide basic needs, but because their disappearance signals that a village is “losing itself”.

Research on village facilities demonstrates that different facilities also offer different social functions. Supermarkets function as frequent, informal meeting places, particularly for older residents (Gieling, Haartsen & Vermeij, 2018). Primary schools support daily routines for families while symbolising village continuity and future prospects. Cafés, community centres and sports facilities provide spaces for social interaction, collective activities and organised association life (Christiaanse & Haartsen, 2017). Importantly, Dutch scholars emphasise that it is not one single facility, but the combination and diversity of facilities, that strengthens social interaction and place attachment (Christiaanse, 2021). As villages transition from autonomous settlements to woondorpen, reachability becomes more important than local presence, yet facilities with a social function remain critical for maintaining village identity.

Taken together, essential village facilities can be defined as those functions that:

1. Enable daily living (food, education, healthcare, mobility)
2. Reduce forced dependency on external centres
3. Support everyday routines and social interaction
4. Contribute to the recognisability of the village as a place

Based on this synthesis, the key facility functions to be analysed in the following sections are:

- Daily retail (supermarkets and small shops)
- Primary education (schools)
- Basic healthcare (General practitioners and pharmacies)
- Public transport and mobility acces
- Community and meeting spaces (including cafés)
- Sports facilities

While these facilities clearly perform functional roles, research show that their importance lies also for a big part in their symbolic and social values. The next section therefore explains more deeply how village facilities operate based on functionality and symbolical value as anchors of identity, belonging, and continuity (Christiaanse & Haartsen, 2017). Which is forming the basis for residents’ place attachment. The conceptual framework visualises these criteria and functions, together with a collage that reflects how this research defines essential village facilities.

Essentiality criteria



Public transport stops

Schools

Cafés

Sports facilities



Supermarketets

General practitioners

Village shops

Community buildings



Figure 34. Synthesis diagram of essential village facilities.

3.1 Patterns of decline

3.1.2 Essential village facilities

Differences between functional importance and symbolical value

The previous sections defined essential village facilities with the use of governmental frameworks, local media narratives and Dutch academic models. Together, these perspectives identify facilities such as daily retail, primary education, healthcare, mobility access and social meeting spaces as crucial elements for village life. However, these definitions remain abstract unless they are confronted with the lived experience. The meaning of loss is best shown through the voices of residents, who relate to their everyday life.

Community input example: 'You only notice what a place meant when it's suddenly gone.'

Functional loss occurs when the disappearance of a facility disrupts daily routines or increases dependence on facilities outside the village. This aligns with Dutch accessibility-based theories. In these, supermarkets, primary schools, general practitioners and public transport are defined as essential because of their role in meeting basic daily needs. (CBS & PBL, 2010; Christiaanse, 2020). Functional loss is unevenly distributed and particularly affects residents with limited mobility, such as elderly inhabitants or households without access to a car, like described by Dutch social geographer Christiaanse (2021). In Krabbendijke, residents articulate this form of loss through practical inconvenience like longer travel times, reliance on others, and reduced independence.

Community input example: 'For groceries, you now have to leave the village always. That changes your whole day.'

At the same time, Dutch scholars conclude that villages also experience a loss, even when alternatives remain available. Research by Gieling, Haartsen and Vermeij (2018) concludes that facilities such as schools, cafés, sports clubs and community centres perform social and symbolic functions and have more than just their functional use. They support informal- and formal encounters, help building social networks and are visible signs of village life. Their disappearance therefore affects social life and place attachment, even if the same services are still available elsewhere. This dynamic is also described by Thissen and Loopmans (2013), who argue that while villages increasingly function as woondorpen, residents continue to attach meaning to local places that once formed the core of community life.

Community input example: 'We can still go somewhere else, but it is not our place anymore.'

Local newspaper coverage also reinforces the symbolic concept of loss. Articles in the Provinciale Zeeuwse Courant and De Volkskrant show that resistance is often strongest when facilities with high emotional or identity-related value are threatened. (PZC, 2023; De Volkskrant, 2023). These narratives represent residents' concerns that the disappearance of such places is the start of a broader decline in the village.

Community input example: 'When the supermarket closed, it felt like the village mattered even less.'

Taken together, these perspectives suggest that a facility is considered "lost" in Krabbendijke when it either undermines everyday functioning (functional loss), erodes shared meanings (symbolic loss), or does both of these phenomena. Community input is essential for understanding where this boundary lies, as residents are best positioned to articulate whether a change is experienced as inconvenience or worse. The collage underneath visualises the community's experiences, translating personal thoughts into a collective idea.



Figure 35. Diagram illustrating the different layers of identity within the research.

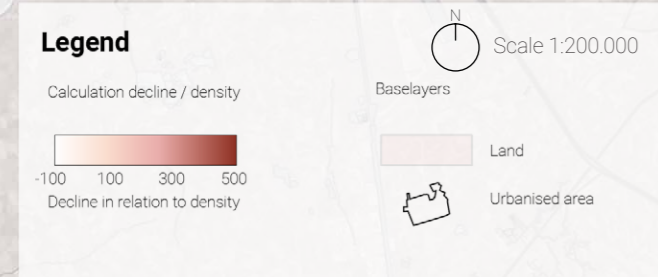
3.1 Patterns of decline

3.1.3 Spatial patterns of facility decline

Vulnerability of villages

The regional map of Zeeland visualises the increased distance to essential facilities from 2014-2023 in relation to the density. It clearly shows the structural vulnerability of villages within the province. Using CBS accessibility data at a 100x100 meter grid data, the map illustrates that rural settlements already start from a disadvantaged position, as we all know. Because the settlements are smaller, they have less facilities because of economic factors, which causes the distances to everyday services to be higher compared to urban cores (CBS, 2025), but in addition to that, the increased distance is also higher in smaller cores. This pattern aligns with findings by CBS and PBL, which show that facility availability increasingly concentrates in places with bigger scale and higher density, while villages face declining accessibility despite their stable population trends (CBS & PBL, 2010).

Figure 36. Map illustrating the relationship between population density and additional distance to facilities in Zeeland. Own analysis based on CBS data (CBS, 2025a).



3.1 Patterns of decline

3.1.3 Spatial patterns of facility decline

Municipal focus

Within this regional analysis, the municipality Reimerswaal is clearly visible. Further analysis visualizes the increased total distance to essential village facilities from the same dataset. This highlights smaller cores within the municipality, Reimerswaal is characterised by a dispersed settlement structure, strong car dependency and a steady withdrawal of everyday services, making it a relevant case for analysing how changes in facilities translate into spatial accessibility at the village level.

The map presents the changes in the average distance to essential village facilities within the municipality of Reimerswaal between 2014 and 2023. The results show a enormous increase in distance to these facilities. According to the graph translated from CBS data, cafés and libraries, but also to basic healthcare services such as general practitioners and pharmacies have been moving away.

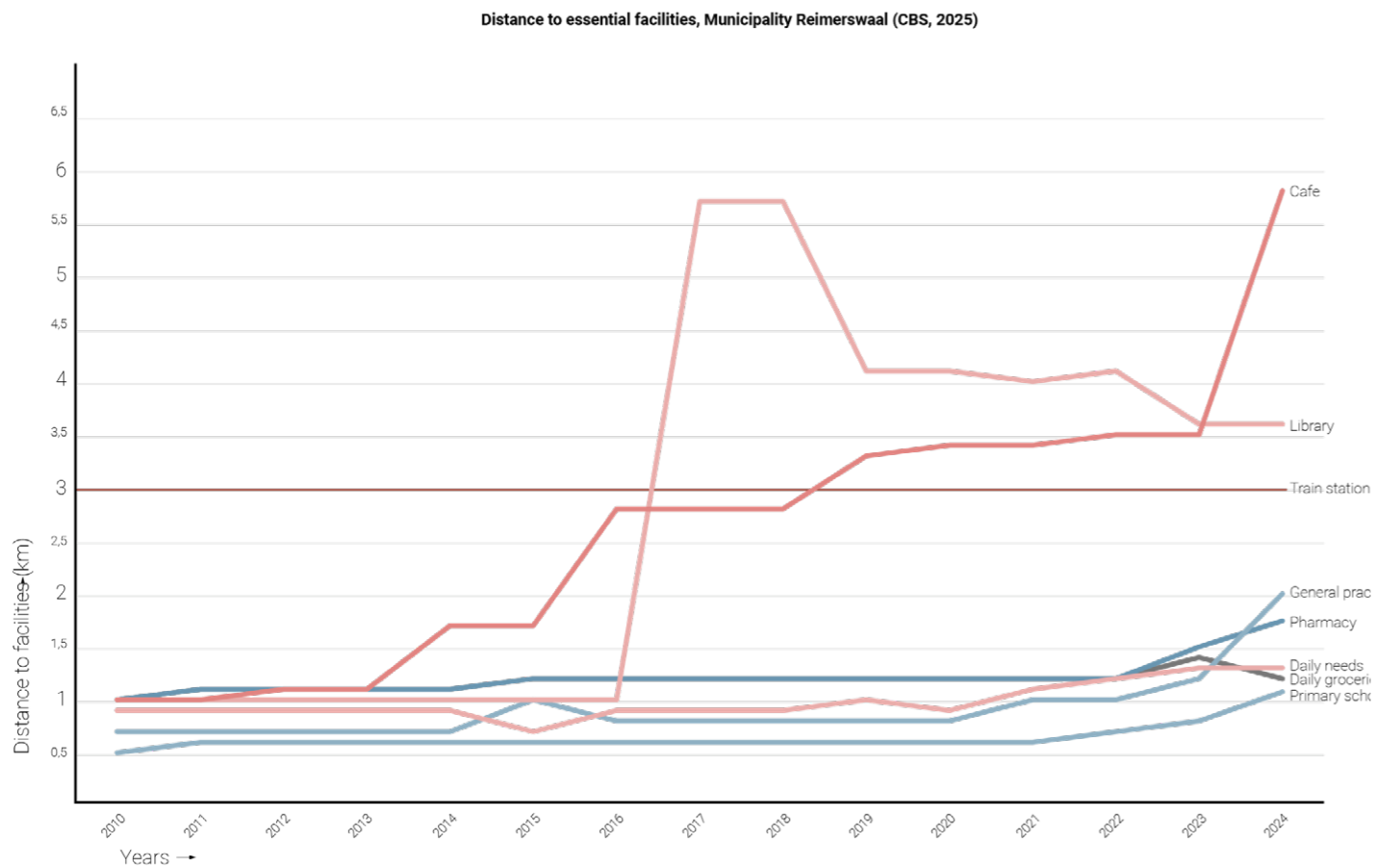


Figure 37. Graph showing the changing distance to essential facilities within the municipality of Reimerswaal over time. Based on CBS data (CBS, 2025).

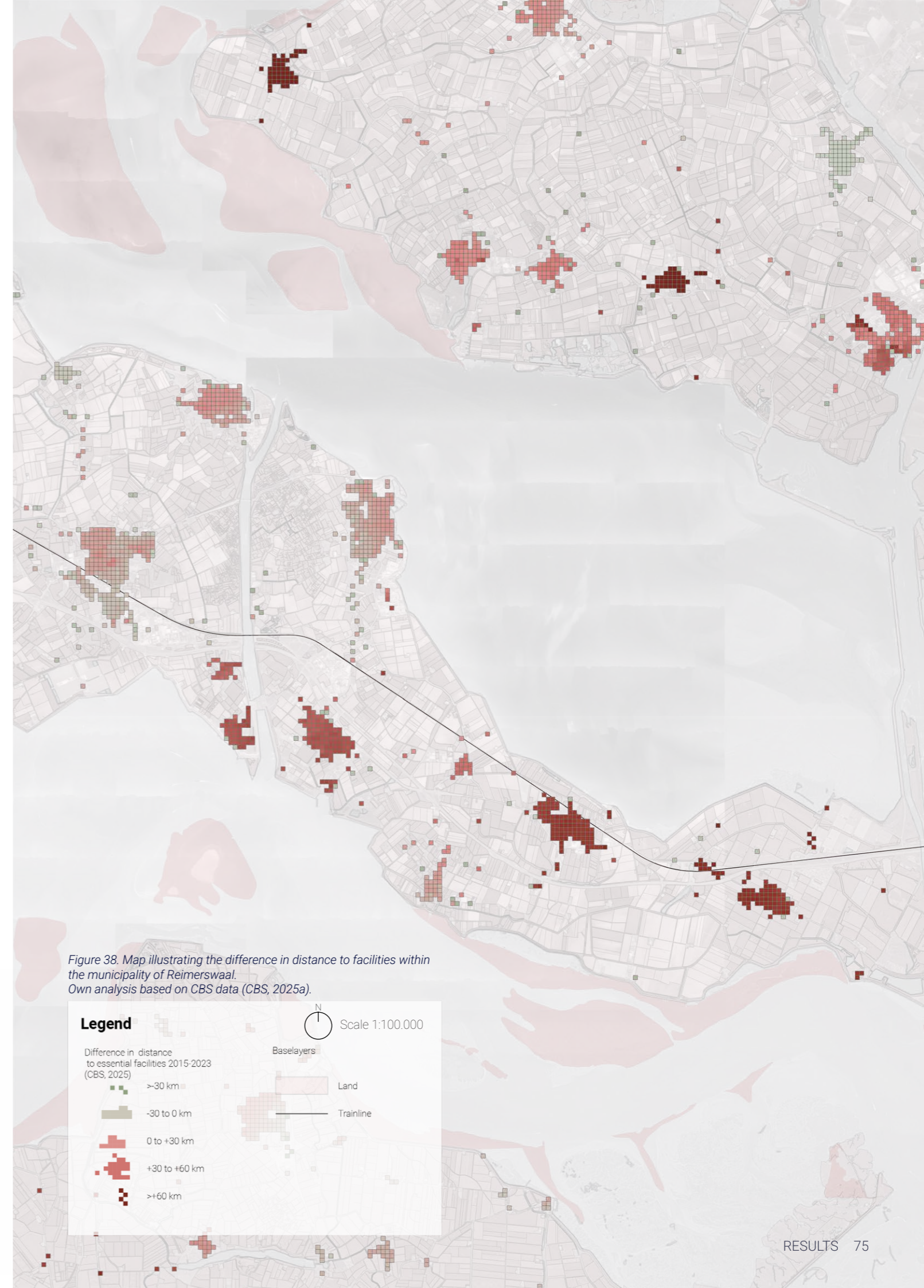


Figure 38. Map illustrating the difference in distance to facilities within the municipality of Reimerswaal. Own analysis based on CBS data (CBS, 2025a).

3.1 Patterns of decline

3.1.3 Spatial patterns of facility decline

Within the municipality of Reimerswaal, this vulnerability becomes even more pronounced. The map highlights that villages such as Rilland and Waarde have to travel considerably further to reach essential facilities, indicating limited local provision. Krabbendijke and Hansweert perform slightly better, yet still score poorly in terms of total distance to essential village facilities. Although these villages retain some services, the data suggests that they increasingly lack the facilities that structure everyday life, such as shops, healthcare and other social amenities. Similar patterns of facility withdrawal and increasing travel distances have been identified across rural regions in the Netherlands, where remaining services increasingly concentrate in larger centres (CBS & PBL, 2010; Bontje, 2015).

The map of Reimerswaal reinforces the meaning behind the collage sequence. Villages that once had a relatively strong base of social and public life are gradually losing the facilities that support everyday activities and interactions. As these services disappear, the functional, social and symbolic identity of villages becomes increasingly fragile. When essential amenities continue to withdraw, daily routines, social encounters and local identity become disrupted, weakening the conditions that allow people to live, meet and organise everyday life locally (Christiaanse & Haartsen, 2017; Gieling et al., 2018).

This risk is also recognised in regional and national policy. Maintaining liveable villages and accessible services is considered essential for the long-term vitality of Zeeland (Provincie Zeeland, 2021). Recent policy frameworks such as Zeeland 2050 and Nota Ruimte (2025) also emphasise the importance of strengthening village life in the region. In this sense, the current situation can be seen as a critical moment: without intervention, the continued loss of facilities may further erode village identity and liveability, making it increasingly difficult for residents to remain in these places.



Figure 39. Collages illustrating the fading of local identity within shrinking villages.

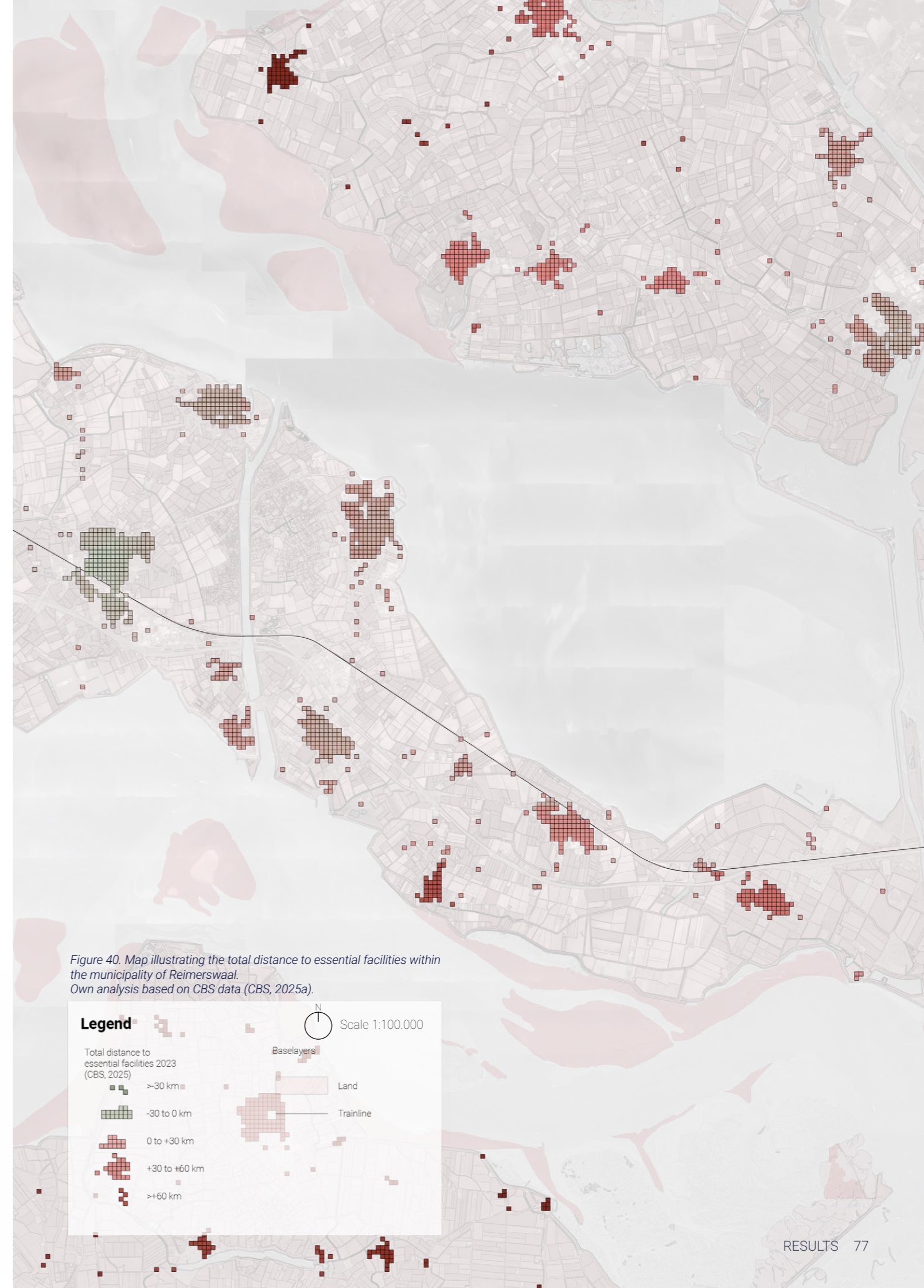


Figure 40. Map illustrating the total distance to essential facilities within the municipality of Reimerswaal. Own analysis based on CBS data (CBS, 2025a).

3.1 Patterns of decline

3.1.3 Spatial patterns of facility decline

Cafés

The map shows that smaller villages experience the largest increase in distance to cafés. This pattern is visible across most small settlements in the municipality. However, Kruiningen, Krabbendijke and Wemeldinge stand out, as these villages are relatively large within the municipal structure of Reimerswaal. The increase in distance in these locations indicates that even larger villages are gradually losing social meeting places that traditionally structure everyday social life.

Cafés often function as informal meeting spaces that support local social interaction and community life. When these disappear, villages lose an important element of their social infrastructure (Gieling et al., 2018). The increased distance visible in the map therefore reflects not only a spatial change, but also a weakening of everyday social meeting places within the municipality.

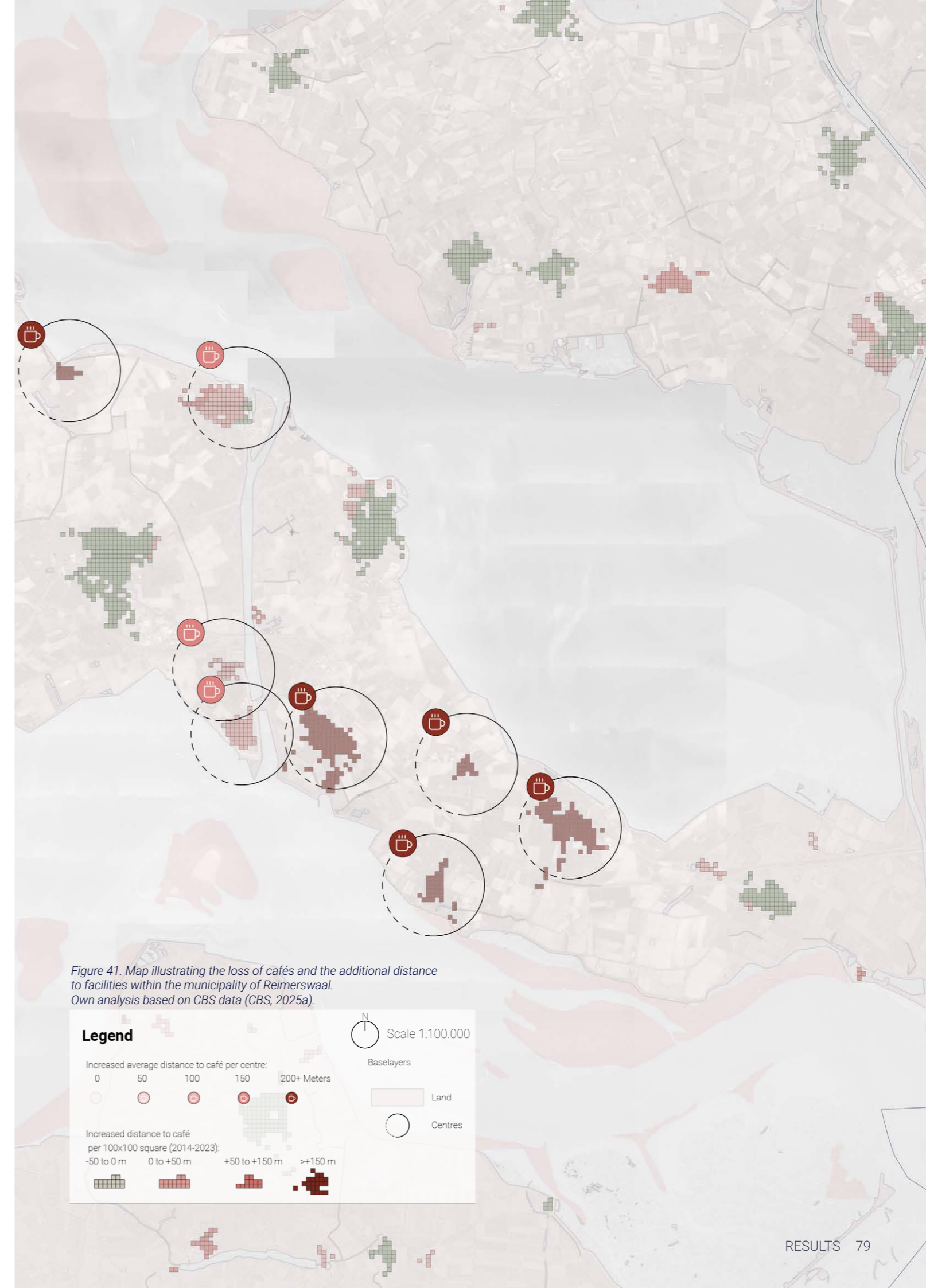
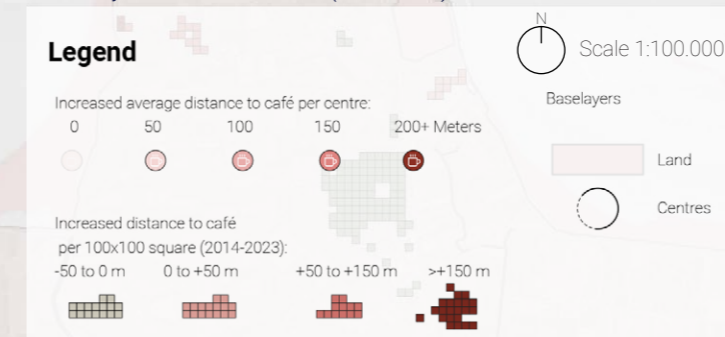


Figure 41. Map illustrating the loss of cafés and the additional distance to facilities within the municipality of Reimerswaal. Own analysis based on CBS data (CBS, 2025a).



3.1 Patterns of decline

3.1.3 Spatial patterns of facility decline

Community buildings

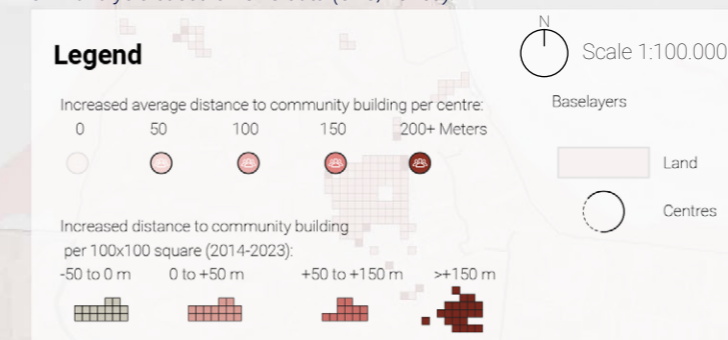
In this analysis, community buildings include facilities such as libraries, museums and other public cultural spaces. The map shows that Krabbendijke experiences the strongest increase in distance to these facilities. Surprisingly, the city of Goes also appears in the analysis, alongside villages such as Rilland and Yerseke.

In contrast, Wemeldinge shows relatively little change. Waarde and Oostdijk also appear relatively stable when compared to their size. This stability may partly be explained by the fact that these facilities were already located further away before the analysed period, meaning the relative change in distance is smaller.

Community facilities play an important role in supporting social participation and local identity, especially in rural regions where such spaces often combine multiple social functions (Christiaanse & Haartsen, 2017).



Figure 42. Map illustrating the loss of community buildings and the additional distance to facilities within the municipality of Reimerswaal. Own analysis based on CBS data (CBS, 2025a).



3.1 Patterns of decline

3.1.3 Spatial patterns of facility decline

Public transport stops

For public transport accessibility, the railway network has been used as the main indicator. As a result, no significant decline is visible in the data, since railway lines and train stops in Zeeland have remained largely stable over the analysed period.

However, this does not necessarily mean that public transport accessibility has not changed. The regional bus network has undergone several adjustments in recent years. Since this dataset does not include bus stops or bus accessibility, no conclusions can be drawn about these changes. This means that the analysis likely underestimates the decline in public transport accessibility experienced in smaller villages.

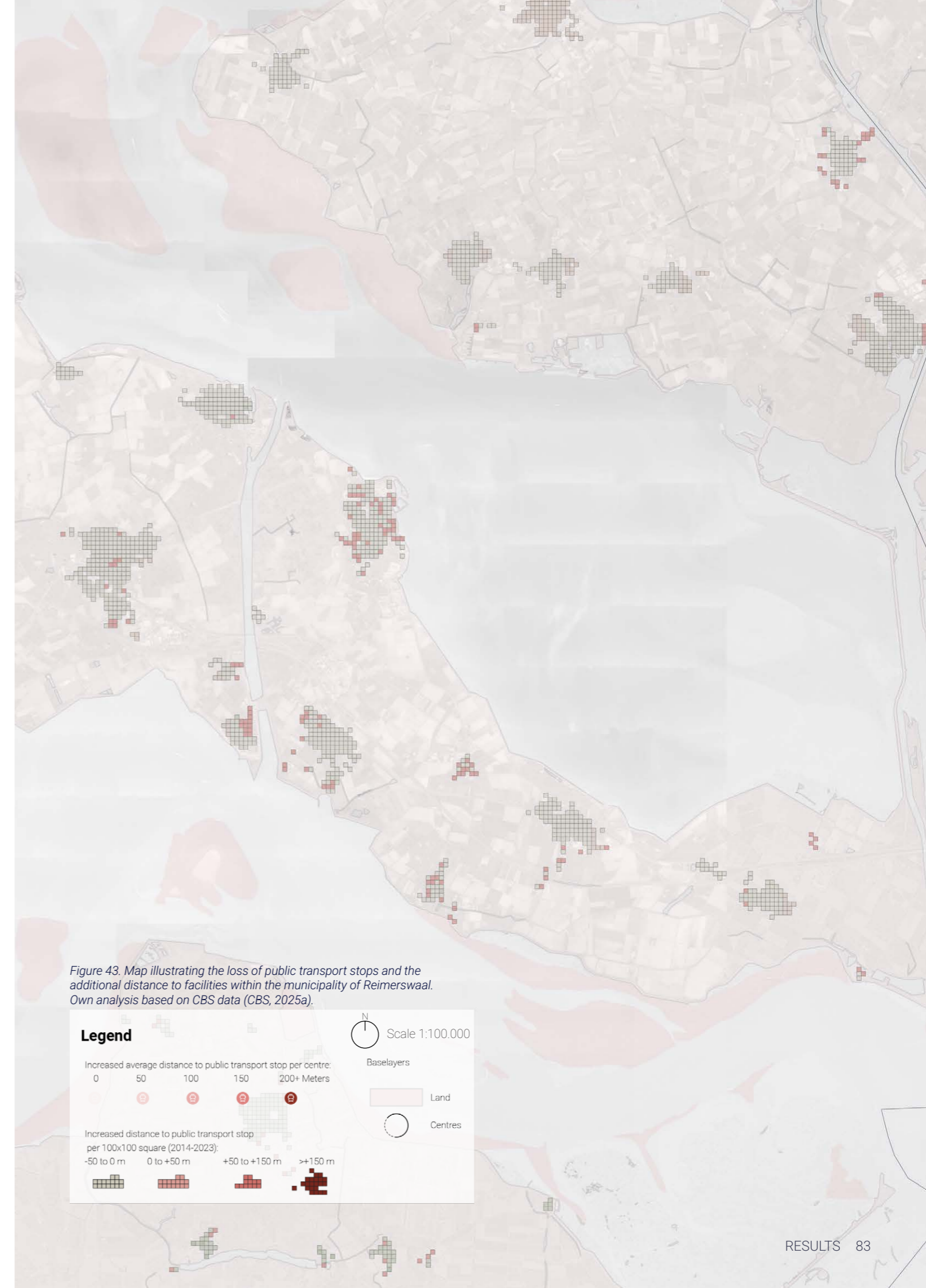


Figure 43. Map illustrating the loss of public transport stops and the additional distance to facilities within the municipality of Reimerswaal. Own analysis based on CBS data (CBS, 2025a).

3.1 Patterns of decline

3.1.3 Spatial patterns of facility decline

General practitioners

General practitioners are a critical facility for everyday life, as access to basic healthcare needs to remain relatively close to residents. For this reason, several general practitioner facilities are typically distributed across villages.

The map shows that smaller villages such as Rilland and Schore are losing access to these facilities or have already lost them entirely. Larger villages within the municipality, such as Krabbendijke and Wemeldinge, also appear to experience some increase in distance to general practitioner services. However, these villages likely still have nearby alternatives, which explains why the increase in distance is less pronounced.

The loss of nearby healthcare facilities is particularly problematic for older residents and less mobile groups, who depend more strongly on local access to services (Christiaanse & Haartsen, 2017; Gieling et al., 2018).

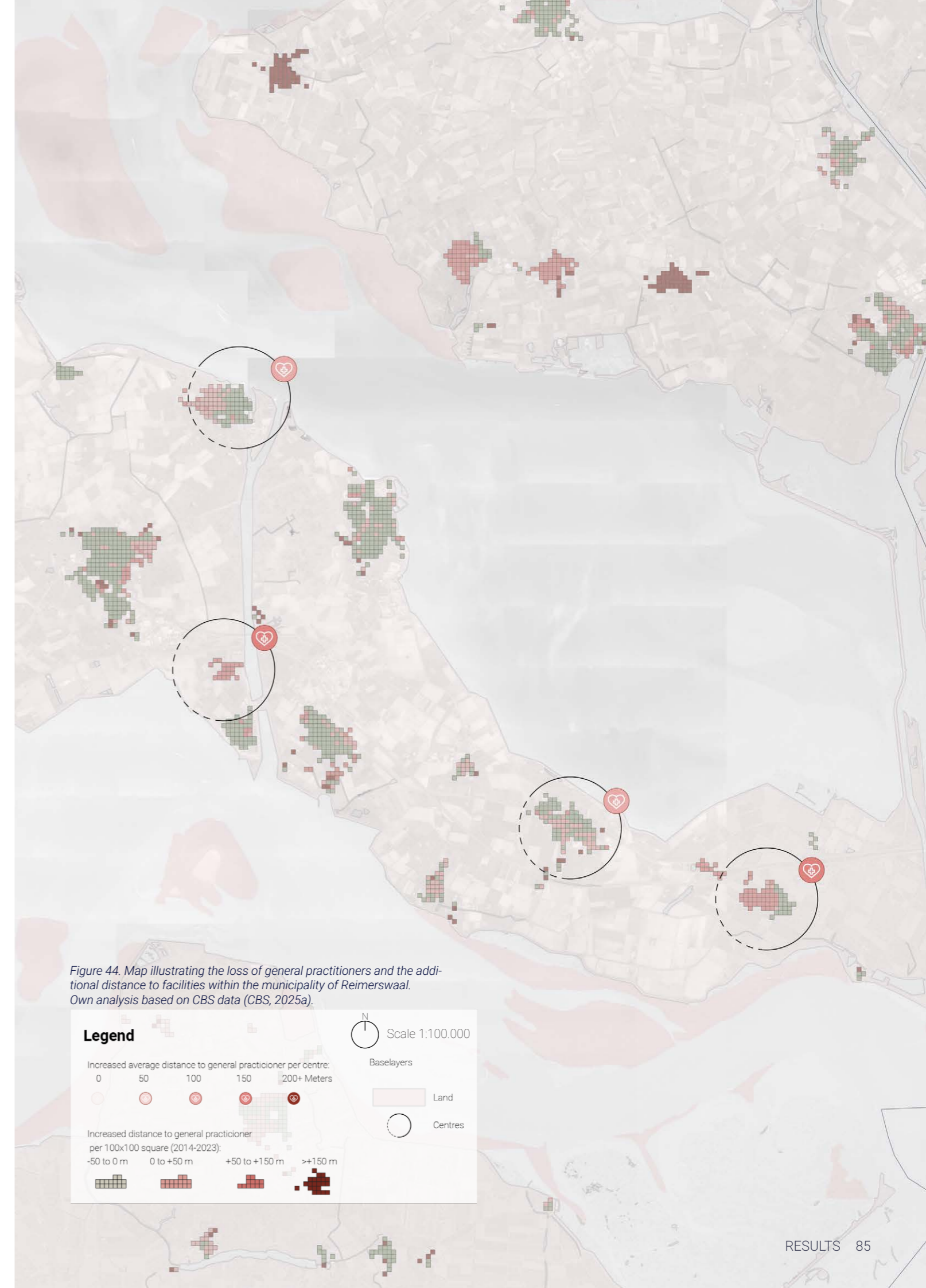


Figure 44. Map illustrating the loss of general practitioners and the additional distance to facilities within the municipality of Reimerswaal. Own analysis based on CBS data (CBS, 2025a).

3.1 Patterns of decline

3.1.3 Spatial patterns of facility decline

Supermarkets

The pattern for supermarkets largely follows expectations. Smaller villages show the largest increase in distance to supermarkets, as these facilities operate on a profit-based model and therefore depend on sufficient population size and purchasing power.

During a conversation with the Province of Zeeland it was noted that once supermarkets disappear from a village, they rarely return due to economic feasibility (Provincie Zeeland, 2026). The map also shows a slight increase in distance around Kruiningen. This is likely caused by changes in facilities located in outer residential areas, which may also influence accessibility for nearby villages such as Waarde.

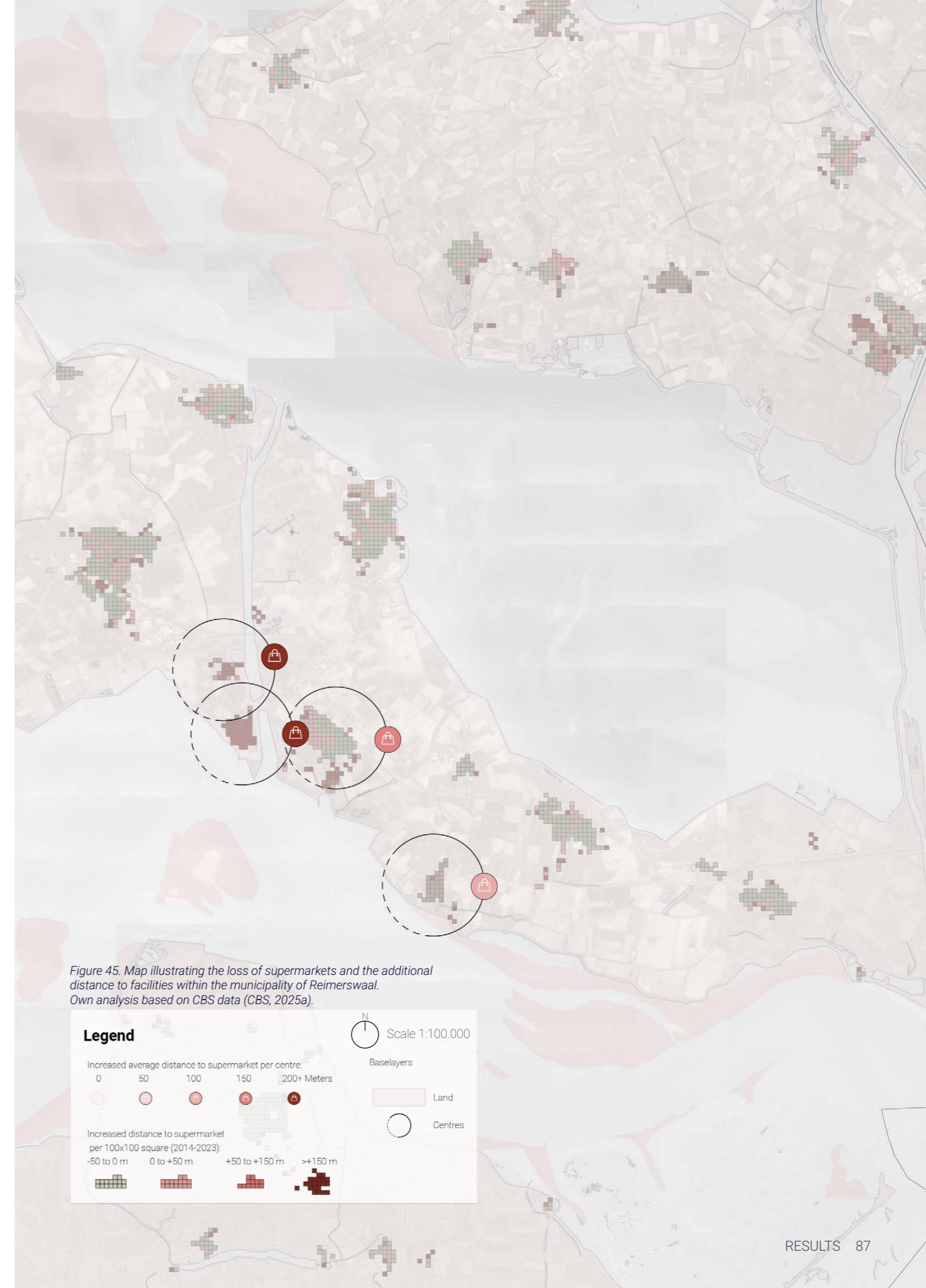


Figure 45. Map illustrating the loss of supermarkets and the additional distance to facilities within the municipality of Reimerswaal. Own analysis based on CBS data (CBS, 2025a).

3.1 Patterns of decline

3.1.3 Spatial patterns of facility decline

Sports facilities

For sports facilities, smaller villages again appear to be most affected. Many sports clubs depend heavily on local membership and volunteer capacity. In smaller villages, declining population numbers or ageing populations can make these organisations increasingly difficult to maintain.

As a result, sports facilities are often among the first community functions to disappear or merge with neighbouring villages when participation decreases.

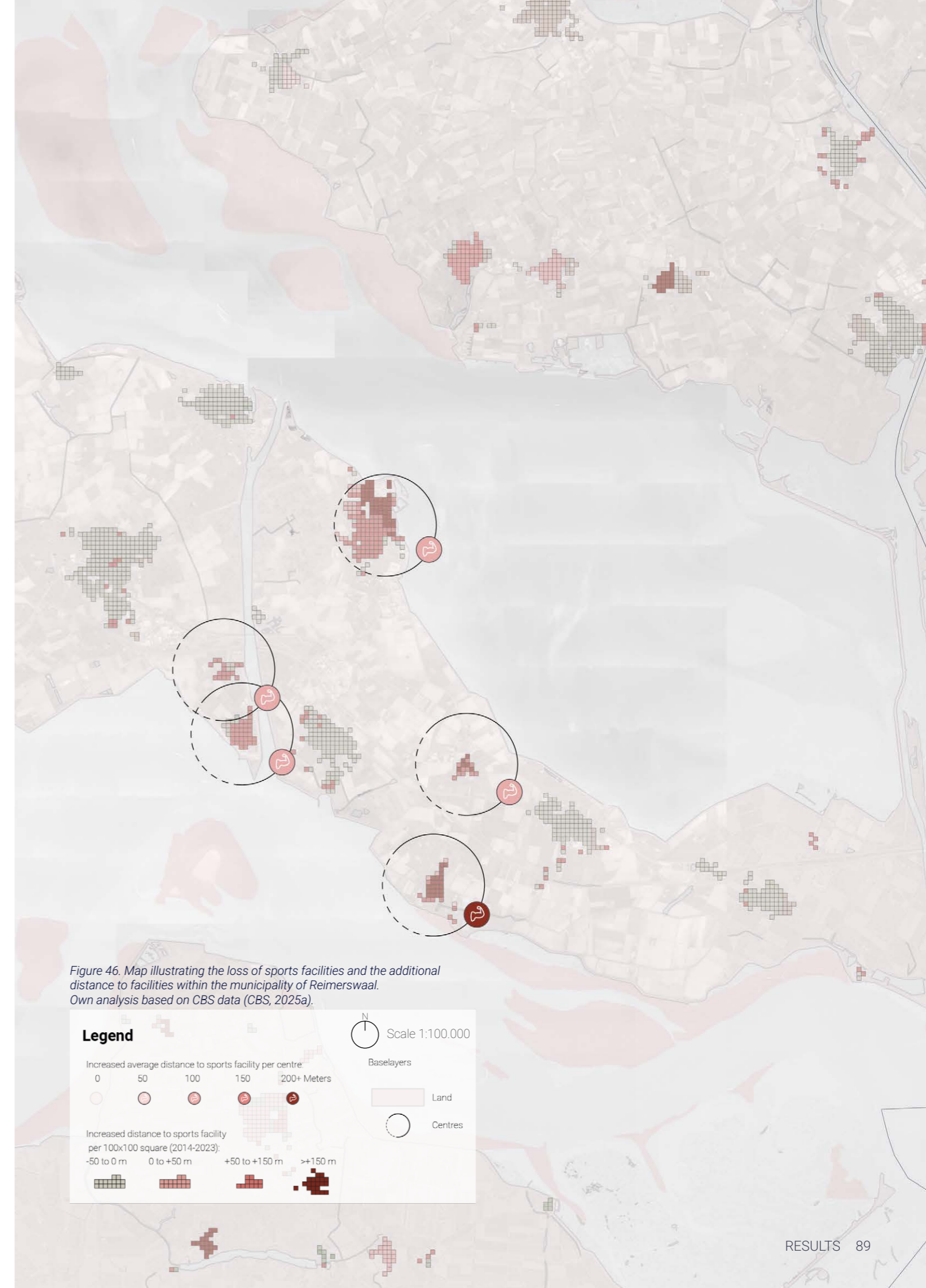


Figure 46. Map illustrating the loss of sports facilities and the additional distance to facilities within the municipality of Reimerswaal. Own analysis based on CBS data (CBS, 2025a).

3.1 Patterns of decline

3.1.3 Spatial patterns of facility decline

Synthesis

The combined map of increased distance to essential facilities shows a clear pattern across the municipality. Smaller villages appear to be most strongly affected by the loss of everyday services. These settlements often depend on a limited number of facilities, meaning that the closure of a single function can already result in a significant increase in travel distance for residents.

At the same time, several medium-sized villages such as Krabbendijke and Kruiningen also show notable increases in distance. This is somewhat unexpected given their relatively larger size within the municipal structure. These villages traditionally function as local service centres for surrounding settlements, yet the analysis suggests that even these centres are gradually losing important everyday facilities.

This indicates that facility decline is not limited to the smallest settlements, but is increasingly affecting a broader range of villages within the regional system. As national research by CBS and PBL shows, many everyday facilities have become concentrated in larger urban centres, while smaller settlements and intermediate villages experience increasing travel distances to basic services (CBS & PBL, 2010; CBS, 2025).

Medium-sized villages therefore become particularly important within the regional structure. They often still contain a mix of remaining services and therefore represent an intermediate level within the spatial network of villages. Because of this position, spatial interventions in these villages have the potential to be both scalable and adaptable to smaller settlements. Strengthening these intermediate villages may therefore function as a strategic approach to support the wider rural network of villages within the region, a strategy that also aligns with regional ambitions to maintain liveable village networks in Zeeland (Provincie Zeeland, 2022; Zeeland 2050).

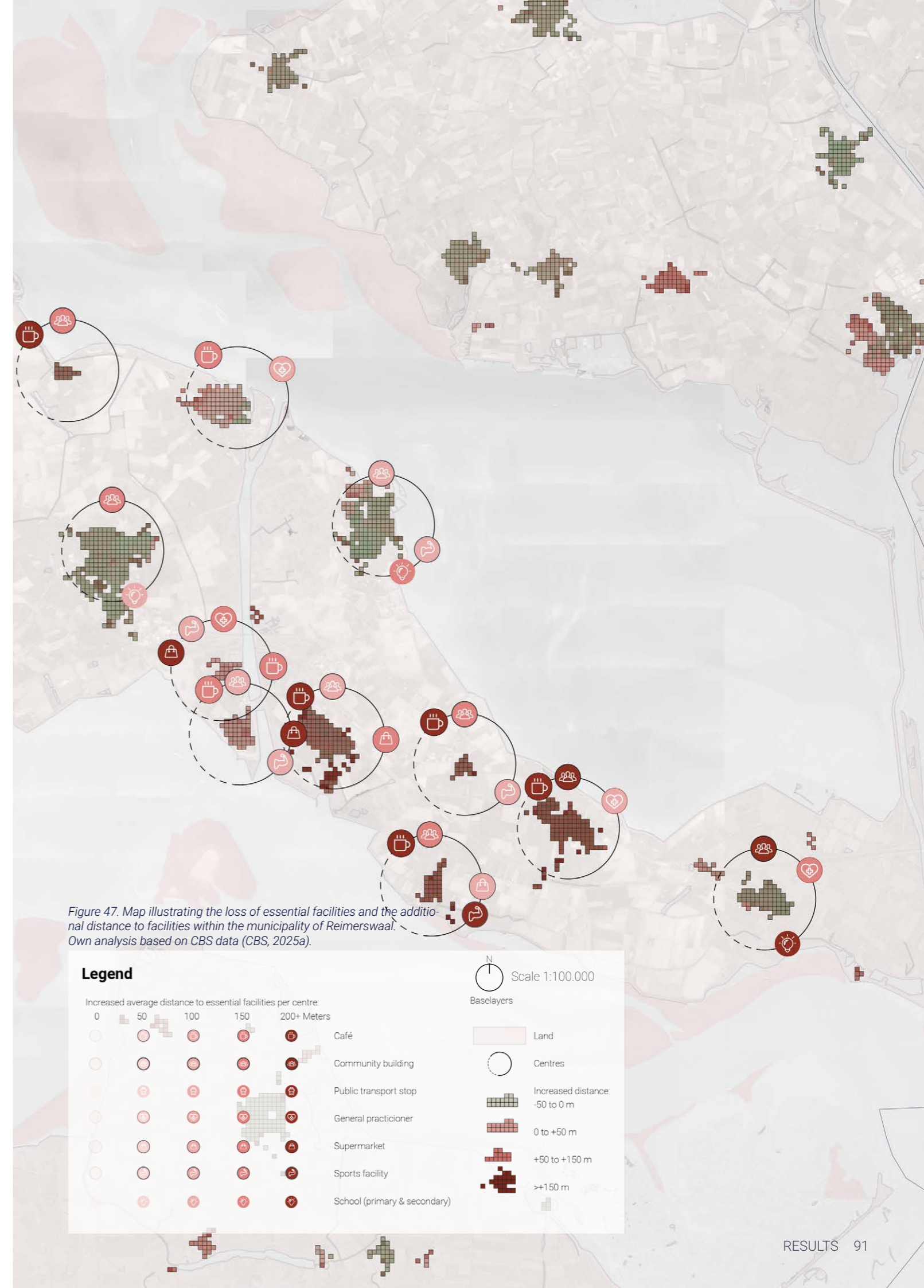
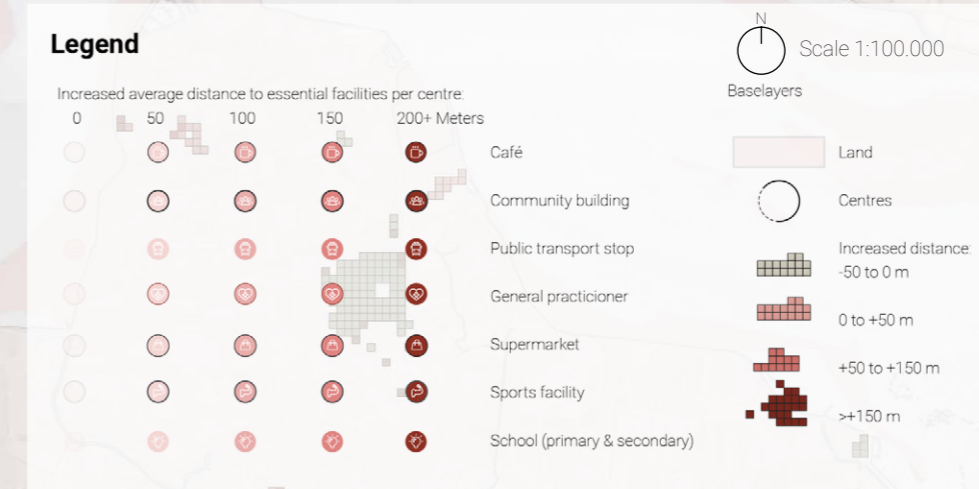


Figure 47. Map illustrating the loss of essential facilities and the additional distance to facilities within the municipality of Reimerswaal. Own analysis based on CBS data (CBS, 2025a).



3.1 Patterns of decline

3.1.3 Spatial patterns of facility decline

Translation to wider patterns

Based on the spatial patterns visible in the increased distance maps, villages within the municipality can be roughly classified according to their role within the regional system. This classification helps to understand how the decline of facilities manifests differently depending on the position and function of a village.

The first category consists of residential villages, such as Hansweert, Oostdijk, Schore and Kattendijke. These villages primarily function as residential environments with limited local facilities. Most daily services are already located outside the village, meaning that residents depend strongly on nearby service centres. In the maps, these villages often show increased distances across multiple facility types, reflecting their already limited local provision.

A second category can be described as service villages, such as Rilland and Waarde. These villages typically contain a small set of everyday facilities, such as a school, a shop or a meeting place, and therefore serve both local residents and nearby smaller settlements. However, the maps show that these villages are increasingly losing these services, causing them to shift towards a more residential role.

The third category consists of secondary centres, including villages such as Krabbendijke, Yerseke and Wemeldinge. These villages traditionally provide a broader range of facilities within the municipality and therefore function as important local nodes within the regional network. However, the increased distance maps show that even these villages experience a noticeable decline in certain facilities. This suggests that their role as local centres is gradually weakening. Finally, municipal cores, such as Kruiningen and Kapelle, function as the main service centres within the municipal structure. These locations generally retain the largest concentration of facilities and services. Nevertheless, the analysis also shows that even these centres experience changes in accessibility for certain facility types, indicating that the overall system of village services is shifting.

Across the maps, villages within each of these categories appear to display broadly comparable patterns of increased distance to facilities. For example, Hansweert as a residential village, Rilland as a service village, Krabbendijke as a secondary centre, and Kruiningen as a municipal core each show patterns that correspond to their position within the spatial system. Based on the quantitative data alone, this could suggest that facility decline follows relatively similar spatial trends across different types of villages. However, the way this decline manifests in everyday life is likely to differ significantly between these village types. While the maps show comparable increases in distance, the local impact of facility loss may vary depending on factors such as existing social structures, mobility options, remaining services and the role a

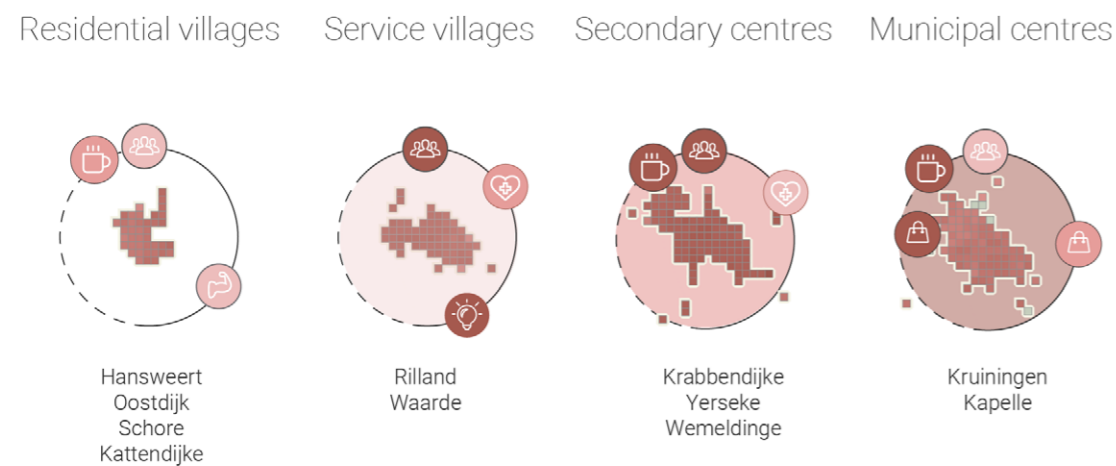
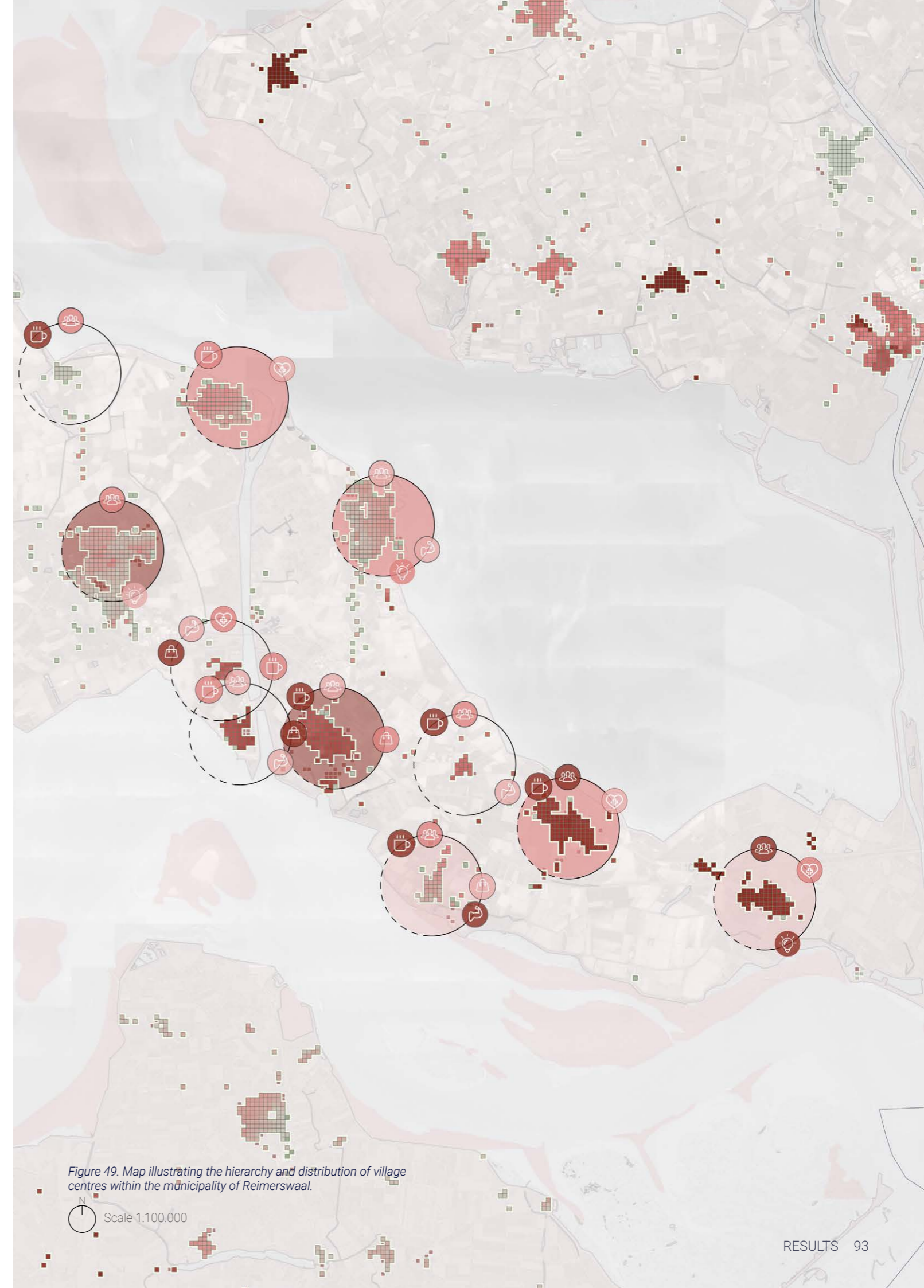


Figure 48. Diagram illustrating the different village centres and types of facility decline within the municipality of Reimerswaal.



3.1 Patterns of decline

3.1.4 Decline patterns and manifestations

Village typologies

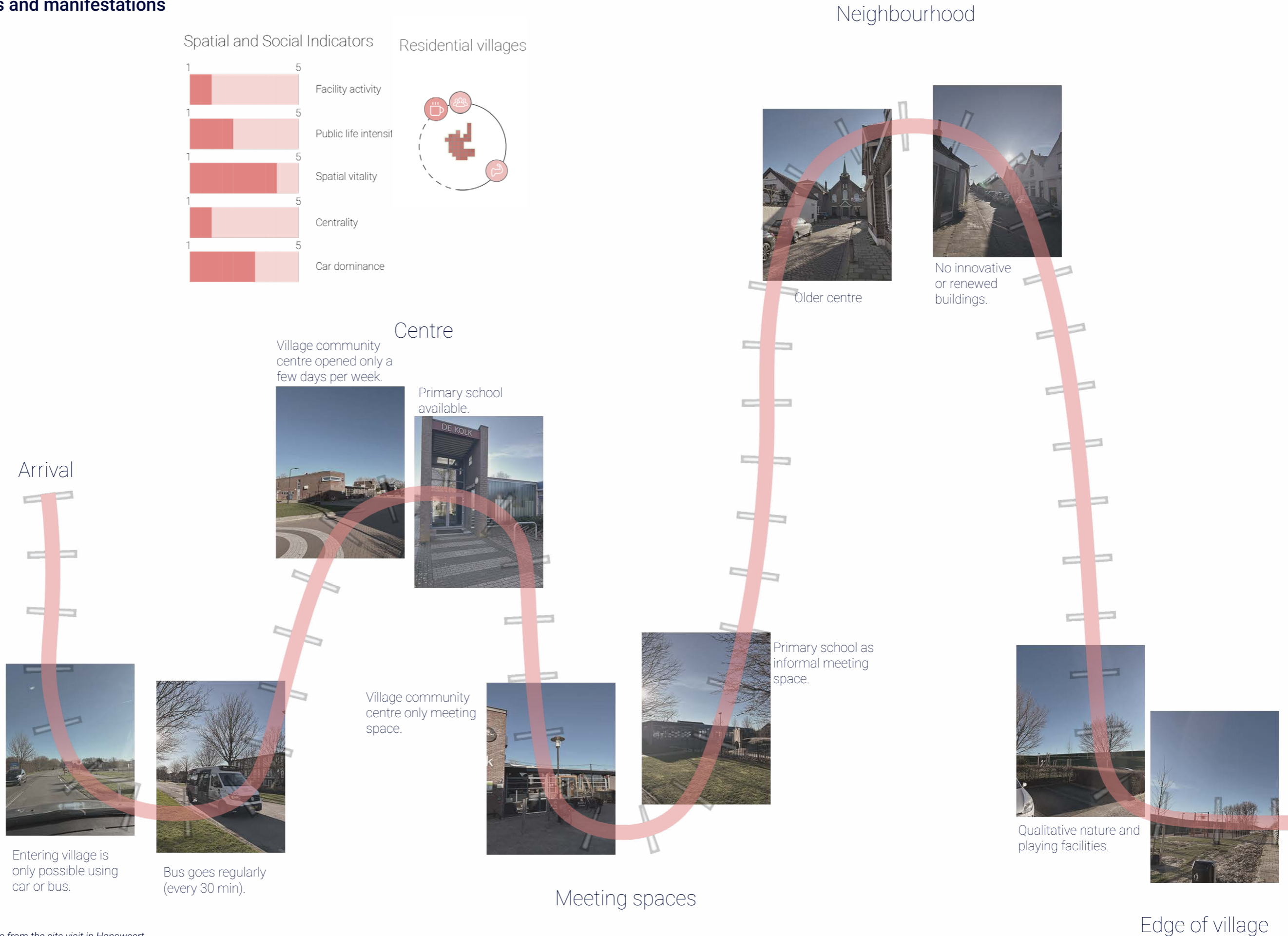


Figure 50. Visitor route and observations from the site visit in Hansweert.

3.1 Patterns of decline

3.1.4 Decline patterns and manifestations

Village typologies

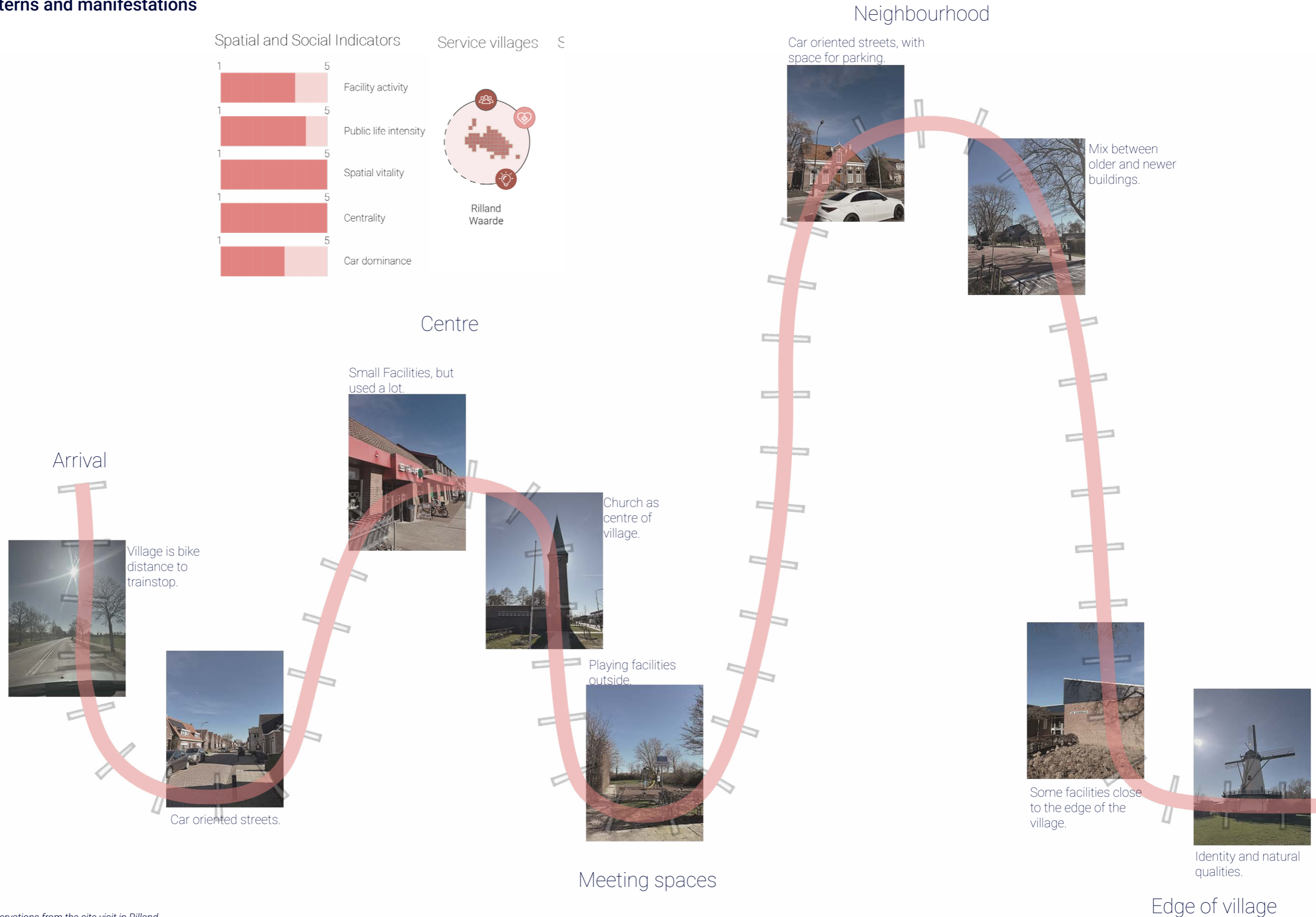


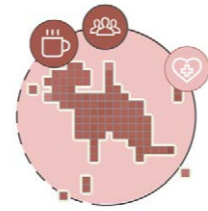
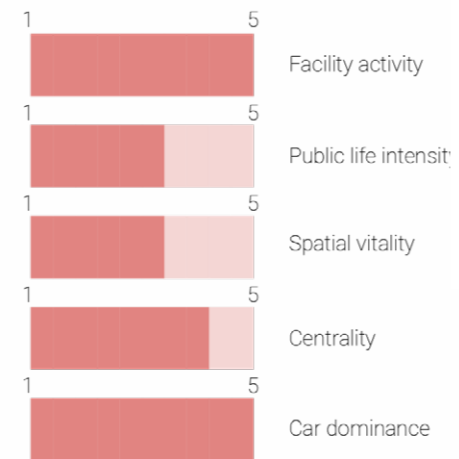
Figure 51. Visitor route and observations from the site visit in Rilland.

3.1 Patterns of decline

3.1.4 Decline patterns and manifestations

Village typologies

Spatial and Social Indicators Secondary centres



Neighbourhood

Neighbourhoods relatively more expensive in the centre.



Streets offer places for pedestrians, but no space for interactions or activities.

Centre

Functional centre with no place for interaction.

Square with lots of facilities, used regularly even though it is car oriented.



Arrival

Entering village is easier using train rather than car.



Streets oriented to parking, but also with enough space for pedestrians.

Church central as meeting place.



Meeting spaces

Car traffic and parking plays a big role.



Living functions play a main role, although there is some history.



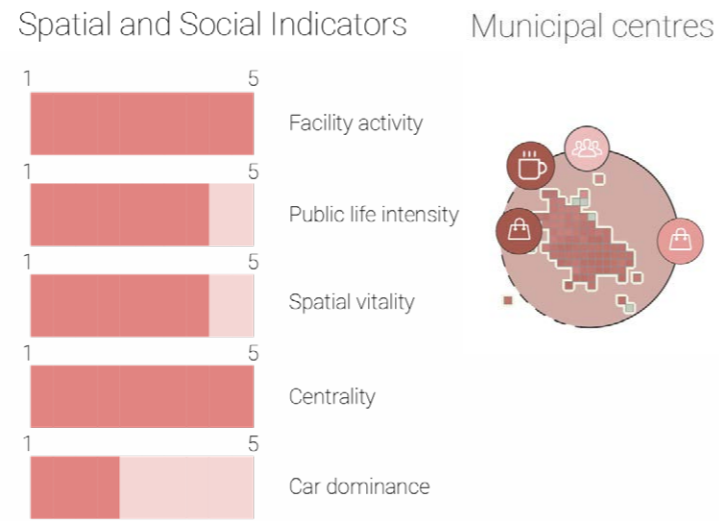
Edge of village

Figure 52. Visitor route and observations from the site visit in Krabbendijke.

3.1 Patterns of decline

3.1.4 Decline patterns and manifestations

Village typologies



Neighbourhood

Neighbourhoods offer central parking and a mix of living and facilities.



Streets offer places for pedestrians, and interactions.



Centre

Church as central role for historical values.



Multifunctional buildings and lots of facilities.



Multiple functions that relate to interactions.



Arrival

Entering village with car is made difficult.



Car plays a central role in connectivity.

Meeting place in form of cafe.



Extensive use of playgardens near schools.



Schools and other facilities also available near edges of village.



Living functions as main character, although there is nature closeby.



Meeting spaces

Edge of village

Figure 53. Visitor route and observations from the site visit in Kruijningen.

3.1 Patterns of decline

3.1.4 Decline patterns and manifestations

Comparison of typologies

The table compares the selected villages based on field observations conducted during site visits. It highlights how different villages respond to the decline of facilities in different ways. While some villages appear to struggle with the loss of functions, others show signs of adapting to these changes by reusing spaces, maintaining social activity, or developing alternative forms of local organisation. These differences become particularly visible through the fieldwork, suggesting that the local response to facility decline is not uniform across villages.

	Facility activity	Public life intensity	Spatial vitality	Centrality	Car dominance
 <p>Hansweert</p>					
 <p>Rilland</p>					
 <p>Krabbendijke</p>					
 <p>Kruiningen</p>					

Figure 54. Comparative table of the measured spatial and social conditions within the visited villages.

3.1 Patterns of decline

3.1.4 Decline patterns and manifestations

Translation of typologies to framework

The manifestation of facility decline represents the functional dimension of the broader transformation taking place in villages. Changes in the availability of everyday services influence not only practical accessibility, but also the social and symbolic identity of a place. When functional facilities disappear, opportunities for social interaction decrease and the symbolic meaning of certain places within the village can weaken. This aligns with earlier findings that facilities structure both daily routines and informal encounters, making them important carriers of social and symbolic meaning (Christiaanse & Haartsen, 2017; Gieling et al., 2018).

From the framework and the analysis, it becomes clear that functional loss does not operate in isolation. Instead, it has a broader influence on multiple layers of village life. Changes in functionality directly affect how places are used, which in turn influences social interaction and the symbolic value of these places. This means that functional decline also indirectly shapes social and symbolic conditions, while at the same time reinforcing further functional change. This interrelation forms the first key conclusion of the analysis: functional loss acts as a driver that influences not only functionality itself, but also the social and symbolic dimensions of the village.

The spectrum visualises how the investigated villages position themselves between these three dimensions. An ideal balance would be located near the centre of the diagram, where functional capacity and symbolic value are balanced and supported by a strong level of social activity. This position indicates a village where everyday services, social interaction and local identity reinforce one another.

Based on the analysis, Kruiningen scores the strongest within this spectrum, which aligns with its role as the municipal centre and its relatively diverse set of remaining functions. Rilland proved to be a positive surprise, showing adaptive behaviour despite its relatively small size. Krabbendijke, on the other hand, performed weaker than expected, particularly in terms of symbolic value and visible social activity. Hansweert showed the lowest position within the spectrum, which largely corresponds with its more residential character and limited functional base.

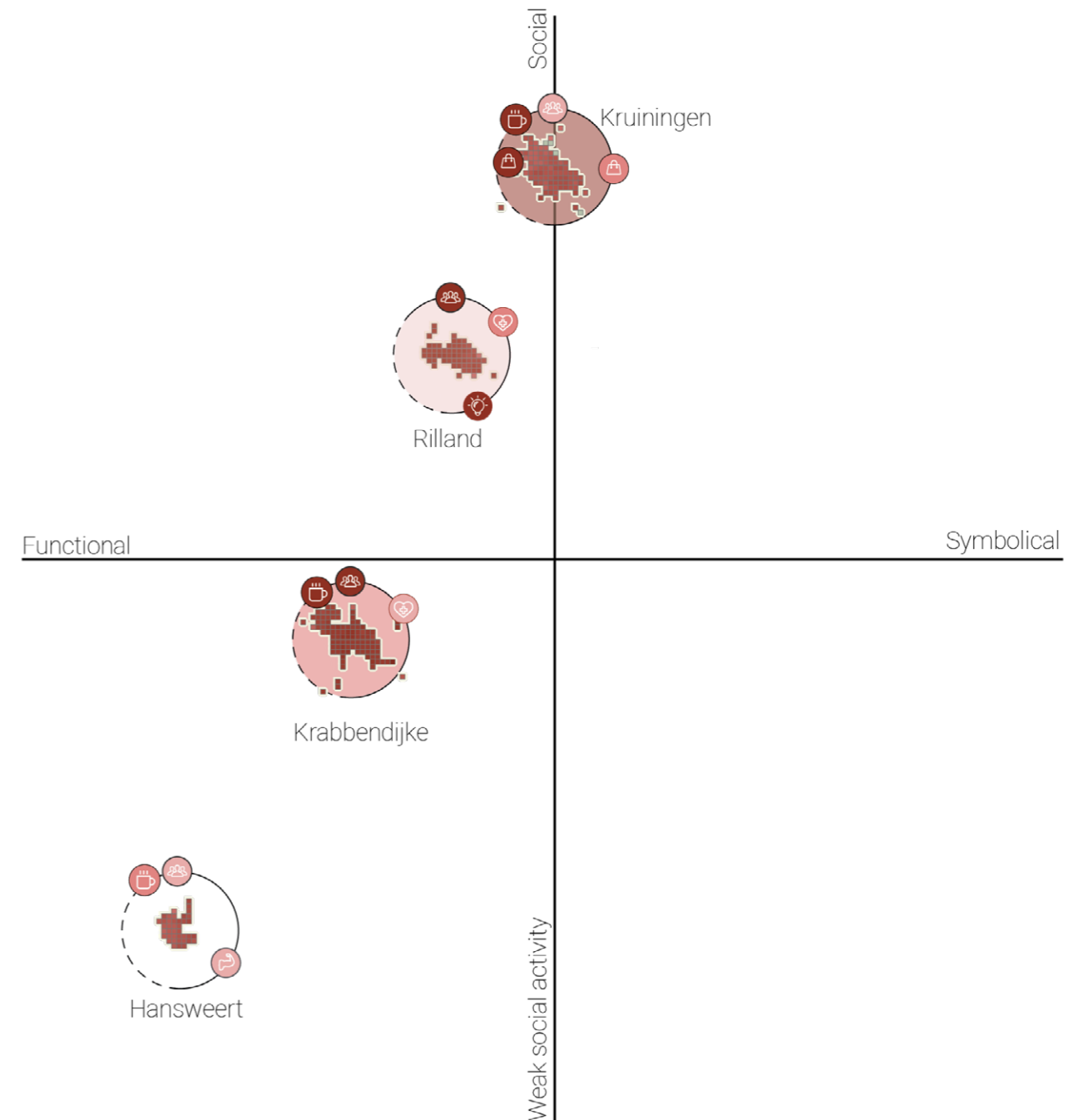


Figure 55. Diagram comparing village typologies based on functionality and social activity.

3.1 Patterns of decline

3.1.5 Conclusion

The analysis of essential village facilities in Zeeland reveals a clear structural vulnerability of rural settlements within the regional system. Accessibility data based on CBS datasets shows that villages already operate from a disadvantaged position compared to urban centres, with larger travel distances to everyday services such as retail, healthcare and social meeting places (CBS, 2025). Over the past decade these distances have increased further, reflecting a broader national trend in which facilities increasingly concentrate in locations with greater scale and density (CBS & PBL, 2010).

Within this regional context, the municipality of Reimerswaal clearly illustrates how these processes unfold at the local scale. The spatial analysis shows a steady increase in distance to several essential facilities, including cafés, community buildings, healthcare services and sports facilities. Smaller villages appear to be most strongly affected by this development, as they depend on a limited number of facilities that often fulfil multiple roles within everyday village life. When such facilities disappear, their impact is therefore not limited to functional accessibility, but also affects social interaction and place attachment within the village (Gieling, Haartsen & Vermeij, 2018).

From the analysis, it becomes clear that the functionality of villages is primarily driven by two interconnected themes: local facilities and dependence. Local facilities determine the degree of provision, diversity and availability of everyday services, as well as their essentiality and the underlying economic drive that supports their existence. At the same time, dependence describes how residents relate to these facilities, through levels of reliance, vulnerability, available mobility options and the broader economic viability of maintaining services locally. Together, these themes explain not only where facilities are located, but also how they function within the village system.

At the same time, the results indicate that facility decline is not limited to the smallest settlements. Several medium-sized villages, such as Krabbendijke, also show notable increases in distance to essential facilities. This is particularly relevant because these villages traditionally functioned as local service centres within the municipal structure. Municipal cores such as Kruiningen remain relatively strong within the regional system, which is also visible in the field observations where everyday activity and village life appear relatively stable. Still, the spatial analysis has shown that even these centres experience shifts and changes in accessibility for several essential facilities.

This suggests that the system of village services is gradually changing across multiple spatial levels, rather than only in the smallest settlements. This conclusion aligns with earlier research that identified facility decline as the result of broader processes such as scale enlargement, deregulation and increased mobility (Christiaanse, 2020).

To better understand how these spatial patterns manifest locally in different villages, villages were classified according to their role within the regional system, distinguishing between residential villages, service villages, secondary centres and municipal cores. The selected villages represent these different types and show a comparable degree of essential facility decline within the spatial analysis. This comparison shows how similar levels of decline can manifest differently depending on the position and function of a village. While the maps highlight changes in accessibility, field observations reveal that the local impact varies considerably. Some villages appear to adapt more easily to changing conditions, maintaining social activity and alternative uses of space, while others struggle more to sustain social interaction and symbolic identity as facilities disappear.

The findings highlight that facility decline should not only be understood as the disappearance of individual services, but as a broader change in how everyday life is organised across villages and regional centres. As more facilities move away from villages, residents increasingly depend on places outside their own village for everyday needs. This increasing dependence, combined with reduced local provision and diversity of facilities, directly influences the functional capacity of villages. At the same time, it also affects how places are used, experienced and valued.

As shown in the previous analysis, these changes extend beyond functionality alone. The loss of local facilities and the shift in dependence influence social interaction and gradually weaken the symbolic identity of villages. When everyday routines move away from the village, opportunities for informal encounters decrease, and places lose part of their meaning as anchors of daily life. Functional decline therefore acts as a driver that influences not only accessibility and provision, but also the social and symbolic layers of village identity.

In this sense, the spatial patterns of facility decline also raise questions about how residents are able to reach essential services and how this reshapes everyday life. Understanding how mobility and transport influence this accessibility therefore becomes an important next step in analysing the changing structure of village life in Zeeland.

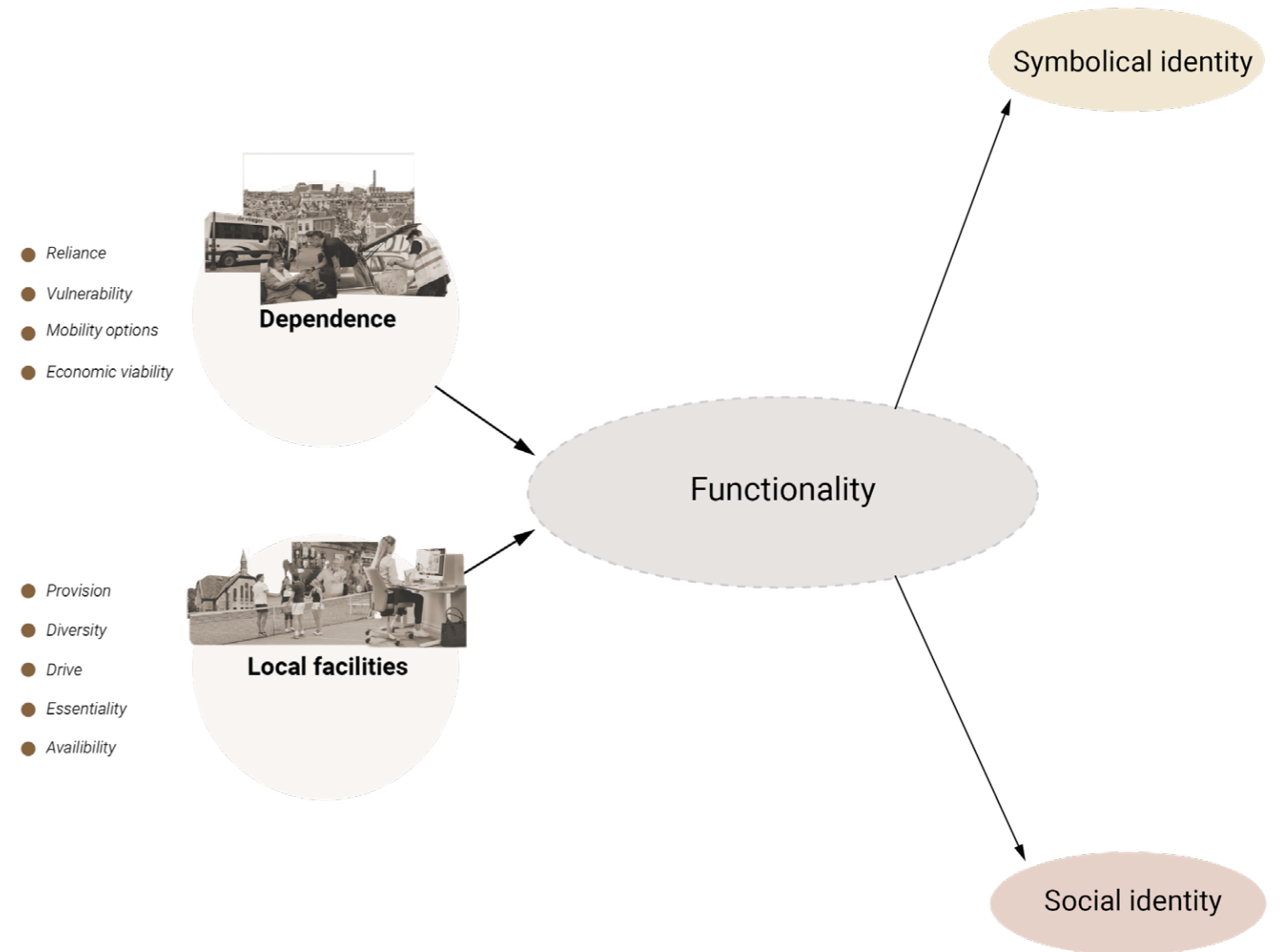


Figure 56. Conclusion framework of sub-question 1.

3.2 Effects of mobility

- Facilities and mobility as connected systems
- Public transport in Zeeland
- Digital accessibility effects
- Mobility experiences
- Social and spatial effects
- Conclusion



Inter Antiquariaat Mefferd & De Jonge (n.d.) Zeeland. Abraham Ortelius, 1592. Antique map. Inter-Antiquariaat.

3.2 Effects of mobility

3.2.1 Facilities and mobility as connected systems

In Zeeland, mobility is embedded in the spatial structure of everyday life, shaping how villages remain connected to essential services. The province has a dispersed settlement pattern and relatively large travel distances, that already make everyday life highly car-dependent (CBS & PBL, 2010; Provincie Zeeland, 2023). Public transport options are already very limited and many communities rely on private vehicles to access work, groceries, healthcare and education. Mobility is therefore not an exception, but a necessity that is already embedded in daily routines.

When local facilities disappear, this existing dependency intensifies. The loss of nearby services forces longer travel distances, turning everyday activities into journeys rather than local practices (Christiaanse, 2020). In villages, where a small number of facilities structure both functional and social life, this shift has unequal consequences. Increased distance causes even bigger mobility dependency, pushing daily activities toward regional centres and weakening local structures (Gieling, Haartsen & Vermeij, 2018).

As movement replaces proximity, the spatial organisation of village life changes. Informal encounters become less frequent, social spaces disappear, in addition to that, this has disproportional consequences on residents with limited mobility. In a region like Zeeland, where villages already have a fragile accessibility network, this cycle undermines existing qualities and liveability.

The diagram visualises how facility loss, distance and mobility dependency reinforce one another. Rather than compensating for decline, mobility actively reshapes everyday village life and becomes part of the structural transformation.



Unequal impact

Vulnerable groups affected most



Local facilities disappear

Everyday anchors are removed



Distances replace proximity

Mobility becomes necessity



Daily life shifts out of villages

Dependence on regional centres



Social life disappears

Loss of informal meeting spaces

Figure 57. Collage diagram illustrating the cycle of mobility dependency within shrinking villages.

3.2 Effects of mobility

3.2.2 Public transport in Zeeland

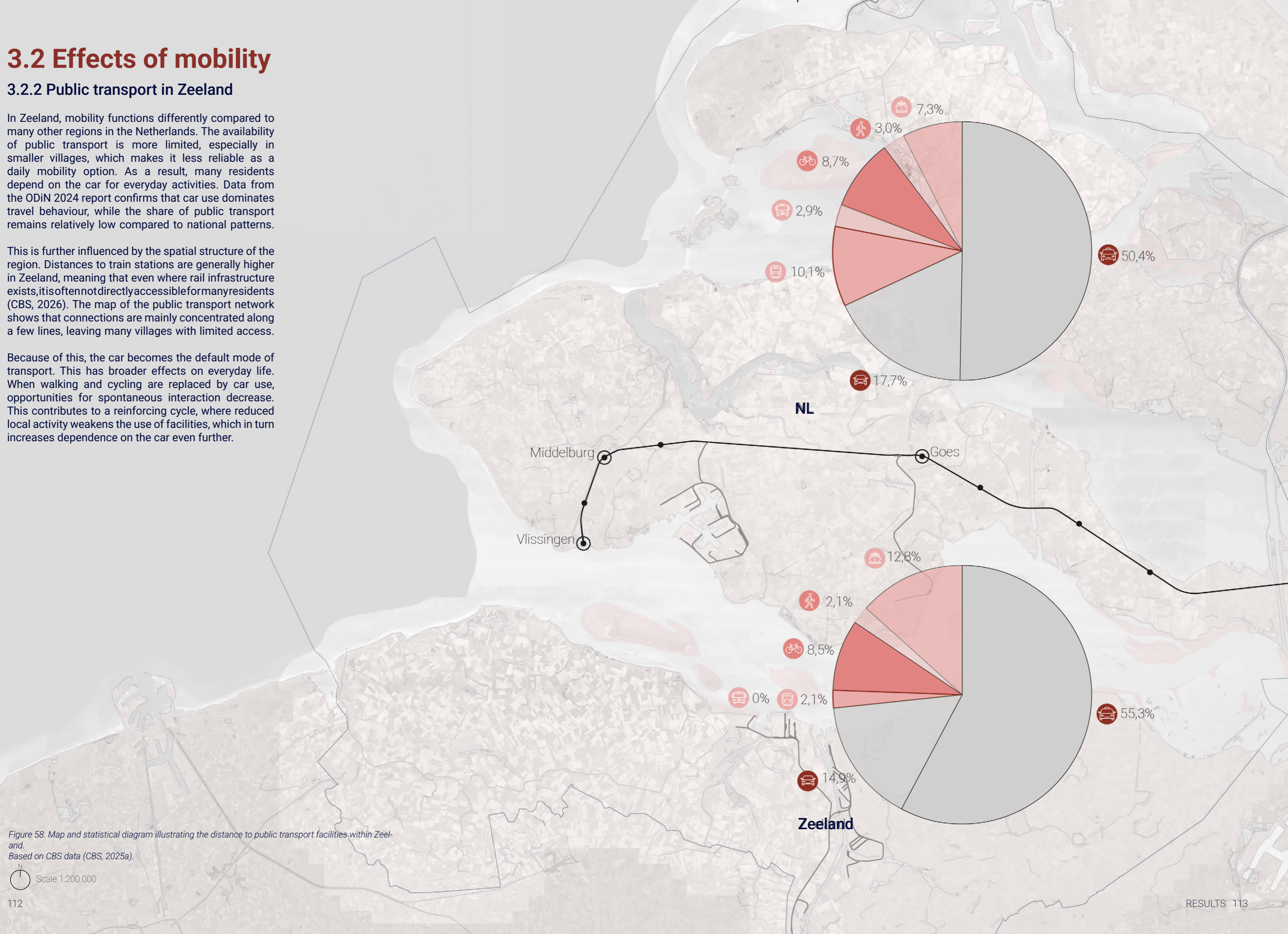
In Zeeland, mobility functions differently compared to many other regions in the Netherlands. The availability of public transport is more limited, especially in smaller villages, which makes it less reliable as a daily mobility option. As a result, many residents depend on the car for everyday activities. Data from the ODin 2024 report confirms that car use dominates travel behaviour, while the share of public transport remains relatively low compared to national patterns.

This is further influenced by the spatial structure of the region. Distances to train stations are generally higher in Zeeland, meaning that even where rail infrastructure exists, it is often not directly accessible for many residents (CBS, 2026). The map of the public transport network shows that connections are mainly concentrated along a few lines, leaving many villages with limited access.

Because of this, the car becomes the default mode of transport. This has broader effects on everyday life. When walking and cycling are replaced by car use, opportunities for spontaneous interaction decrease. This contributes to a reinforcing cycle, where reduced local activity weakens the use of facilities, which in turn increases dependence on the car even further.

Figure 58. Map and statistical diagram illustrating the distance to public transport facilities within Zeeland. Based on CBS data (CBS, 2025a).

Scale 1:200,000



3.2 Effects of mobility

3.2.3 Digital accessibility effects

The expansion of online services and home delivery has introduced a new layer of accessibility in rural regions. In Zeeland, where distances to physical facilities are already large and car dependency is high, digital accessibility can partially compensate for the disappearance of local services (Provincie Zeeland, 2023). Online grocery delivery, digital healthcare consultations and remote services reduce the need for physical travel and can support everyday functioning, particularly for residents with limited mobility.

However, the benefits of digital accessibility are unevenly distributed. Commercial delivery services often prioritise profitable routes, meaning that smaller villages are sometimes excluded or receive limited service coverage. Regional reporting shows that delivery networks in Zeeland tend to concentrate around larger cores, leaving peripheral settlements with fewer options (PZC, 2023). For residents in these villages, digital services can improve access compared to having no alternatives at all, but they do not eliminate structural inequality.

At the same time, digital accessibility reshapes social routines. When groceries, services and interactions move into the home, opportunities for spontaneous encounters decline. Research on rural social life emphasises that everyday trips to shops and facilities function as informal meeting moments that sustain local networks (Gieling, Haartsen & Vermeij, 2018). The replacement of these routines with home delivery can therefore weaken social cohesion and reduce the visibility of community life.

Digital services thus operate as a double condition: they improve functional liveability while simultaneously reducing everyday social contact. In declining villages, this makes digital accessibility both a stabilising factor and a subtle contributor to social thinning.

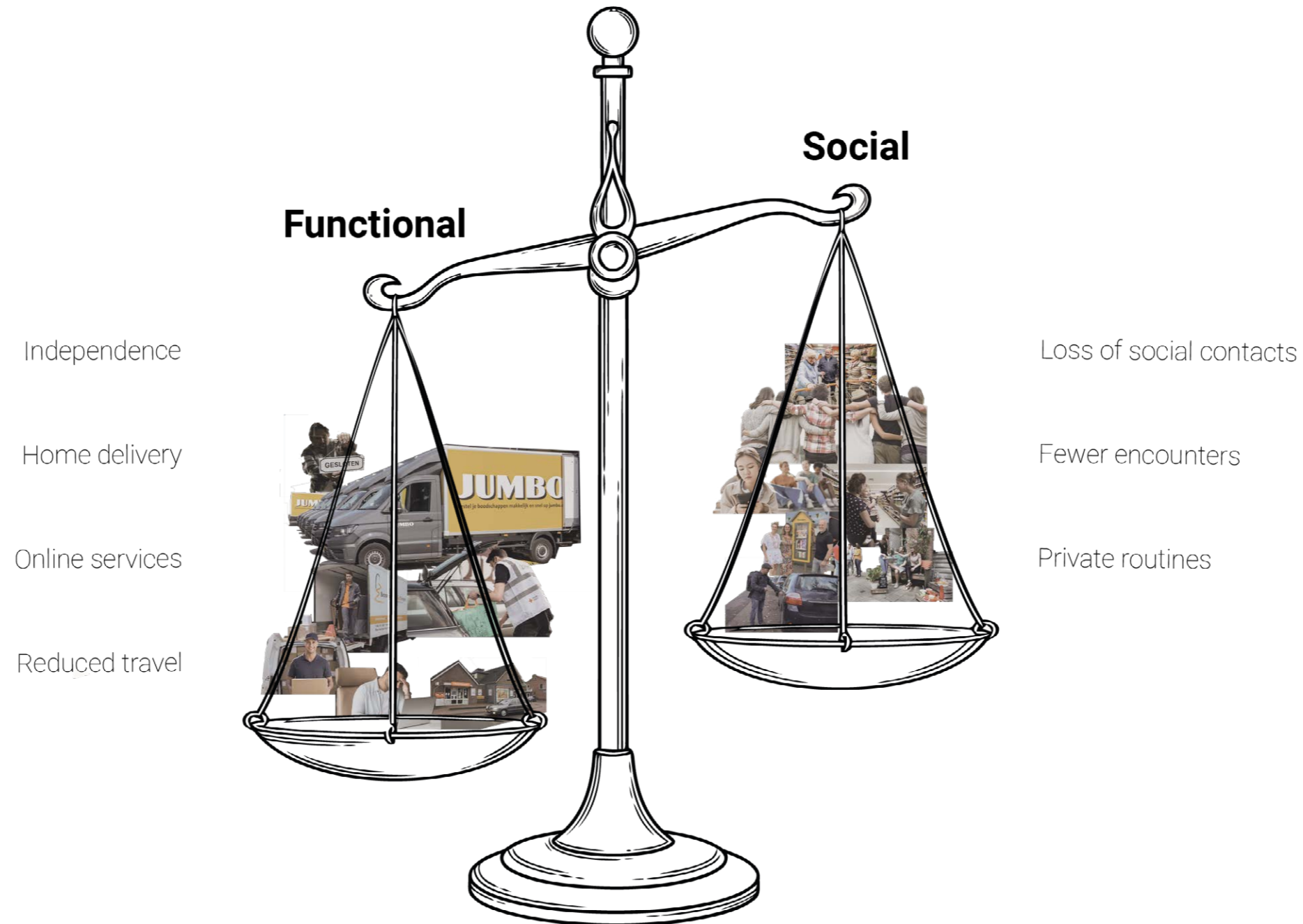


Figure 59. Diagram illustrating the balance between online services and physical accessibility.

3.2 Effects of mobility

3.2.4 Mobility experiences

Different people, different experience

In many villages in Zeeland, the car increasingly functions not as a convenience but as a prerequisite for participation in everyday life. Dispersed settlement patterns, limited public transport and increasing travel distances mean that access to work, healthcare and basic services is strongly tied to private mobility. Mobility capacity therefore plays an important role in determining how easily residents can access everyday services.

However, the impact of declining facilities and increasing travel distances is not experienced equally by all residents. Rather than treating villages as socially homogeneous, this research distinguishes five mobility groups that represent different relationships between residents, mobility options and local facilities.

Children depend strongly on nearby facilities such as schools, sports clubs and recreational spaces that can be reached independently by walking or cycling. Constrained residents, such as elderly populations or non-drivers, rely on nearby services because of limited mobility options. Remote workers spend more time within the village and therefore depend more strongly on local facilities for everyday activities and social interaction. Commuters rely on regional mobility networks connecting villages to employment centres. Finally, residents with optional mobility have flexible access to multiple transport modes and can reach services both locally and in nearby towns.

These groups do not represent fixed social identities but analytical categories that capture differences in mobility flexibility and dependence on local facilities. Distinguishing between them helps reveal how accessibility to essential facilities varies across village populations.

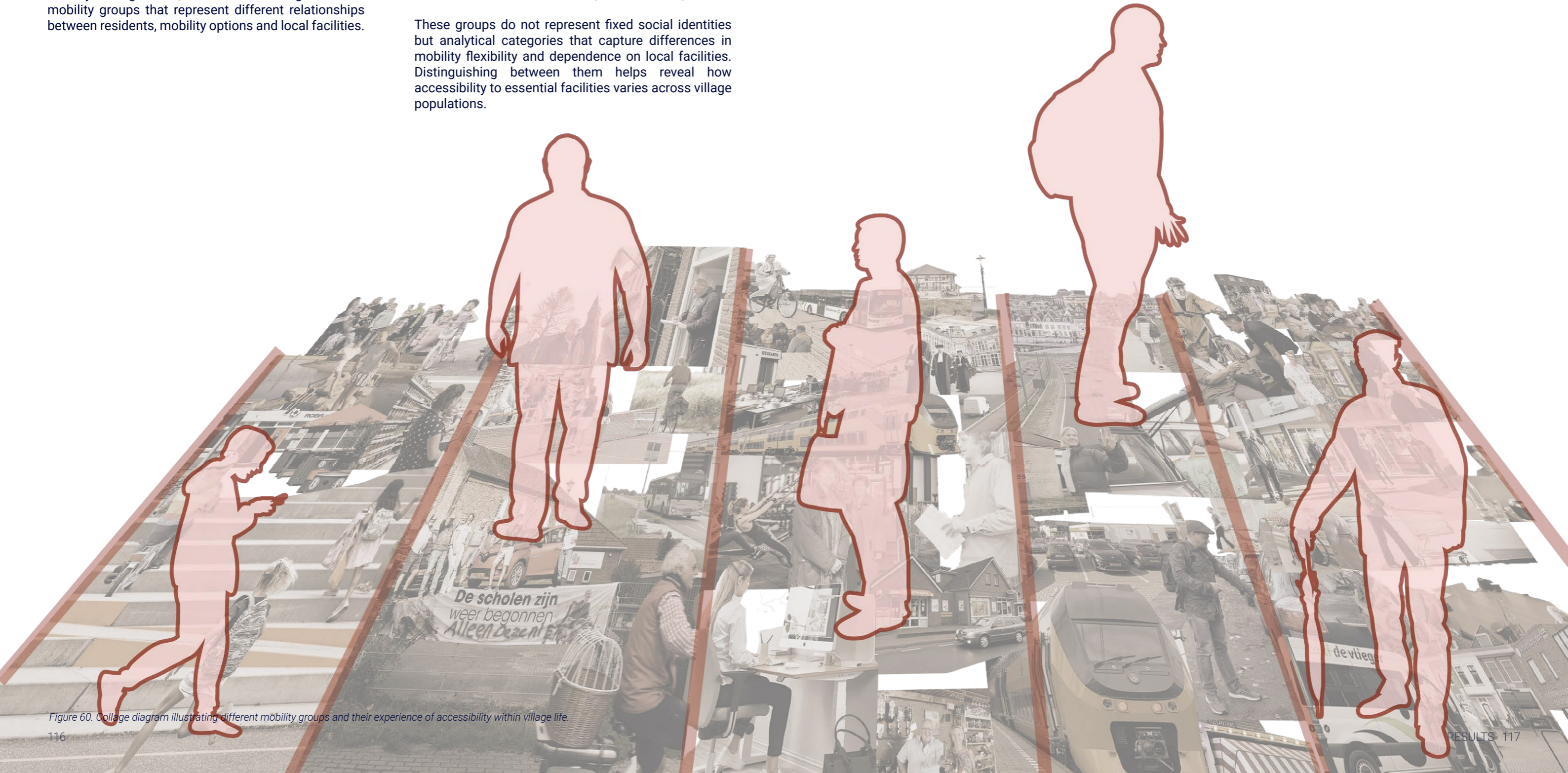


Figure 60. Collage diagram illustrating different mobility groups and their experience of accessibility within village life.

3.2 Effects of mobility

3.2.4 Mobility experiences

Accessibility options and ranges

To analyse accessibility to essential facilities, travel behaviour data and accessibility research were used to define realistic travel distance thresholds. The baseline mobility ranges used in this research are derived primarily from travel behaviour data from the Dutch National Travel Survey Onderweg in Nederland (ODiN) and accessibility research by the Netherlands Institute for Transport Policy Analysis (KiM).

Travel behaviour data from ODiN shows that daily travel in the Netherlands is strongly structured by distance. Approximately half of all trips are shorter than 5 kilometres, with walking and cycling representing the dominant travel modes for these short-distance trips (CBS, 2024). Cycling in particular plays an important role in everyday mobility: KiM reports that the average cycling trip in the Netherlands is approximately 3.8 kilometres, indicating that many routine activities take place within cycling distances of roughly 2.5–5 kilometres (KiM, 2023).

Accessibility research further shows that everyday services such as supermarkets, schools or healthcare facilities are typically expected to be reachable within 9–18 minutes of travel time, depending on the type of activity (KiM, 2024). When these travel times are translated into spatial distances using average modal speeds (5 km/h for walking, 15 km/h for cycling and approximately 40 km/h for car travel), they correspond roughly to the following baseline mobility ranges:

Mode	Typical travel time	Baseline
Walking	5–15 minutes	0.4–1.2 km
Cycling	10–20 minutes	2.5–5 km
Car	15–30 minutes	10–20 km

These distances form the baseline thresholds for accessibility used in this research. Because mobility capacity differs between population groups, the ranges are adjusted slightly to better reflect the realistic travel behaviour of each group. The following sections explain how these baseline ranges are applied and modified for the different mobility groups.

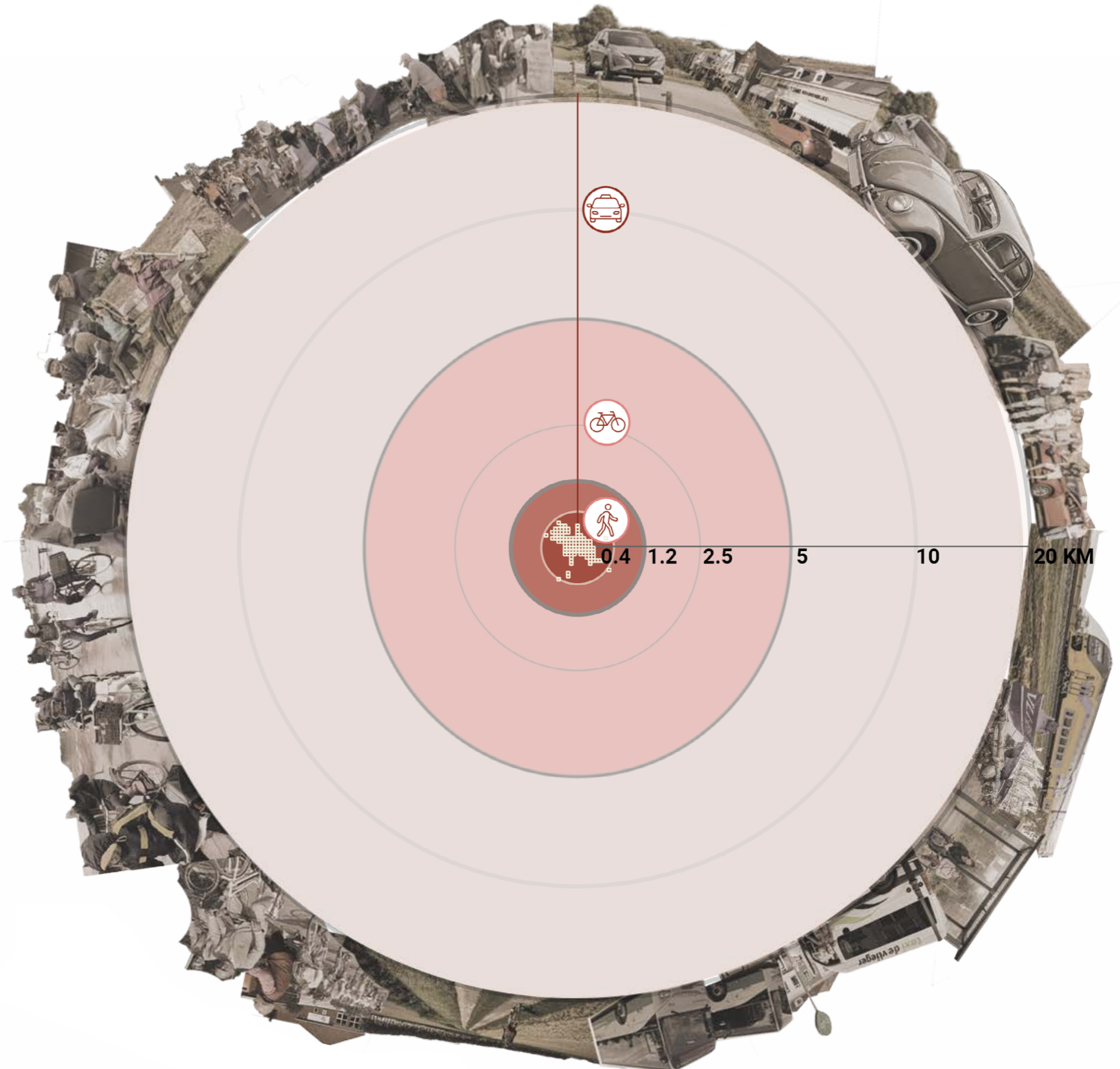


Figure 61. Diagram illustrating the circle of mobility and standard travel ranges within Zeeland. Based on ODiN (CBS, 2024) and KiM (2023) mobility data.

3.2 Effects of mobility

3.2.4 Mobility experiences

Children

Children represent a mobility group with relatively limited flexibility in their transport options. Their independent mobility is generally restricted to walking and cycling, while longer trips often depend on parents or caregivers. Research on children's travel behaviour shows that distance strongly influences children's mobility patterns and travel independence, particularly for daily activities such as school, sports and social interaction (Helbich, 2017; Masoumi, 2020). Because children are typically unable to travel long distances independently, their activity space is largely determined by the availability of facilities within short walking and cycling distances.

As a result, children are highly dependent on the presence of local facilities, such as schools, playgrounds and sports clubs. These facilities not only support daily activities but also play an important role in social development and community interaction. When such facilities disappear from villages, children's participation in local activities may decline or become dependent on car transport provided by parents.

Within the analytical framework of this research, children therefore represent a group with low mobility flexibility and high local dependency. This position is illustrated in the four-axis mobility diagram, where the group is placed in the quadrant representing limited mobility options and strong reliance on nearby facilities. The corresponding circle of mobility shows their different options of transport.

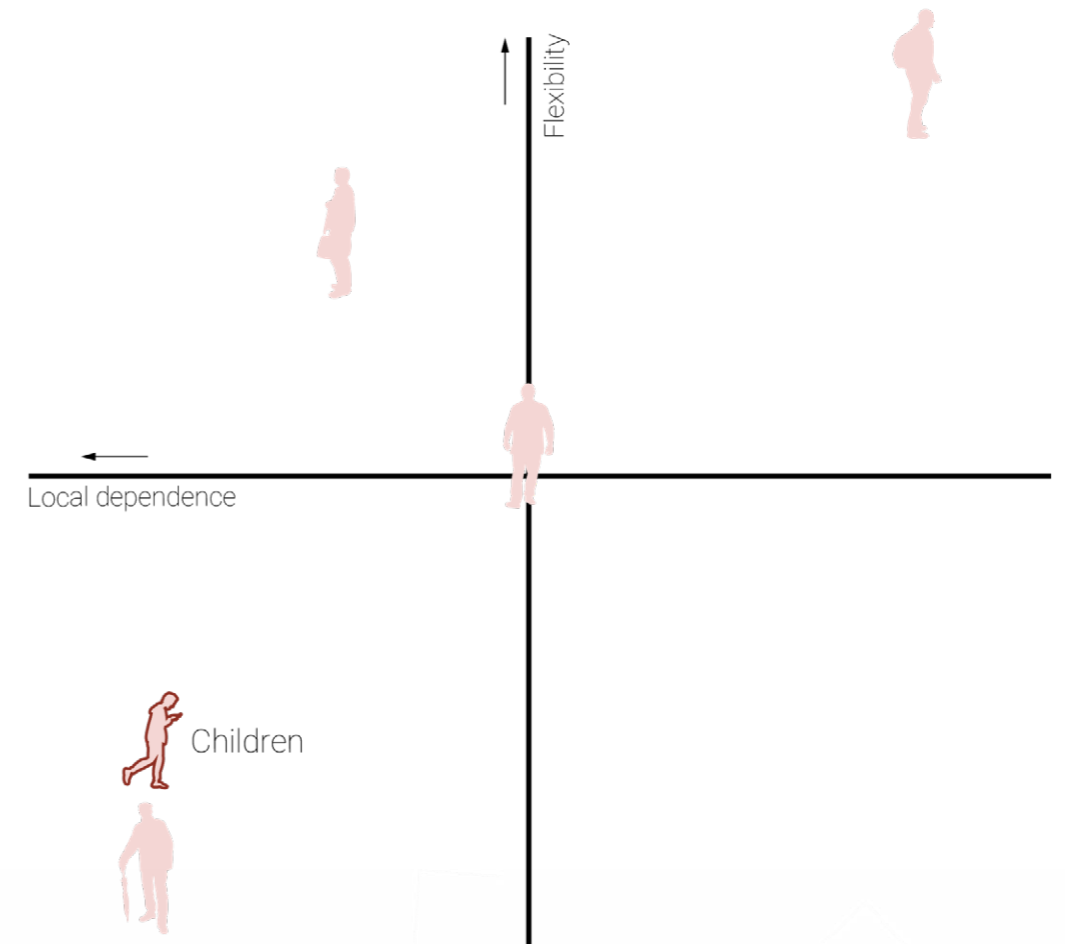


Figure 63. Diagram positioning children within the mobility scale of the research.

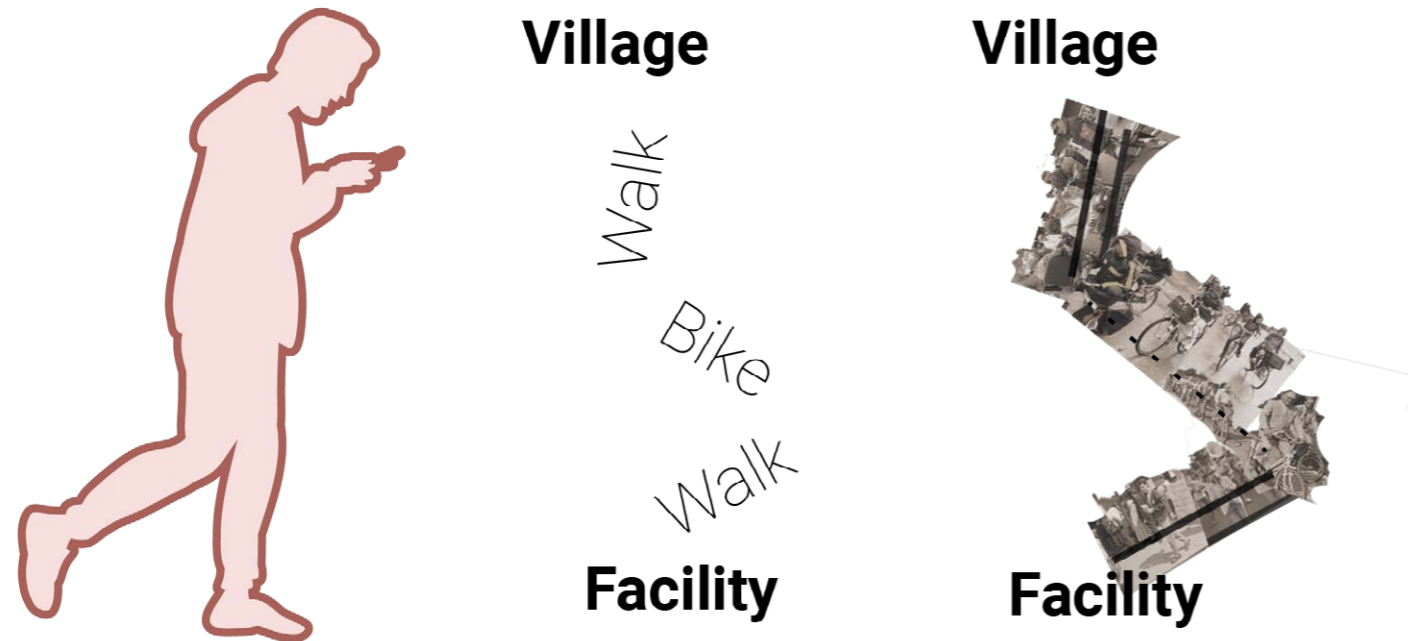


Figure 62. Diagram illustrating the possible daily routes of children within the village.

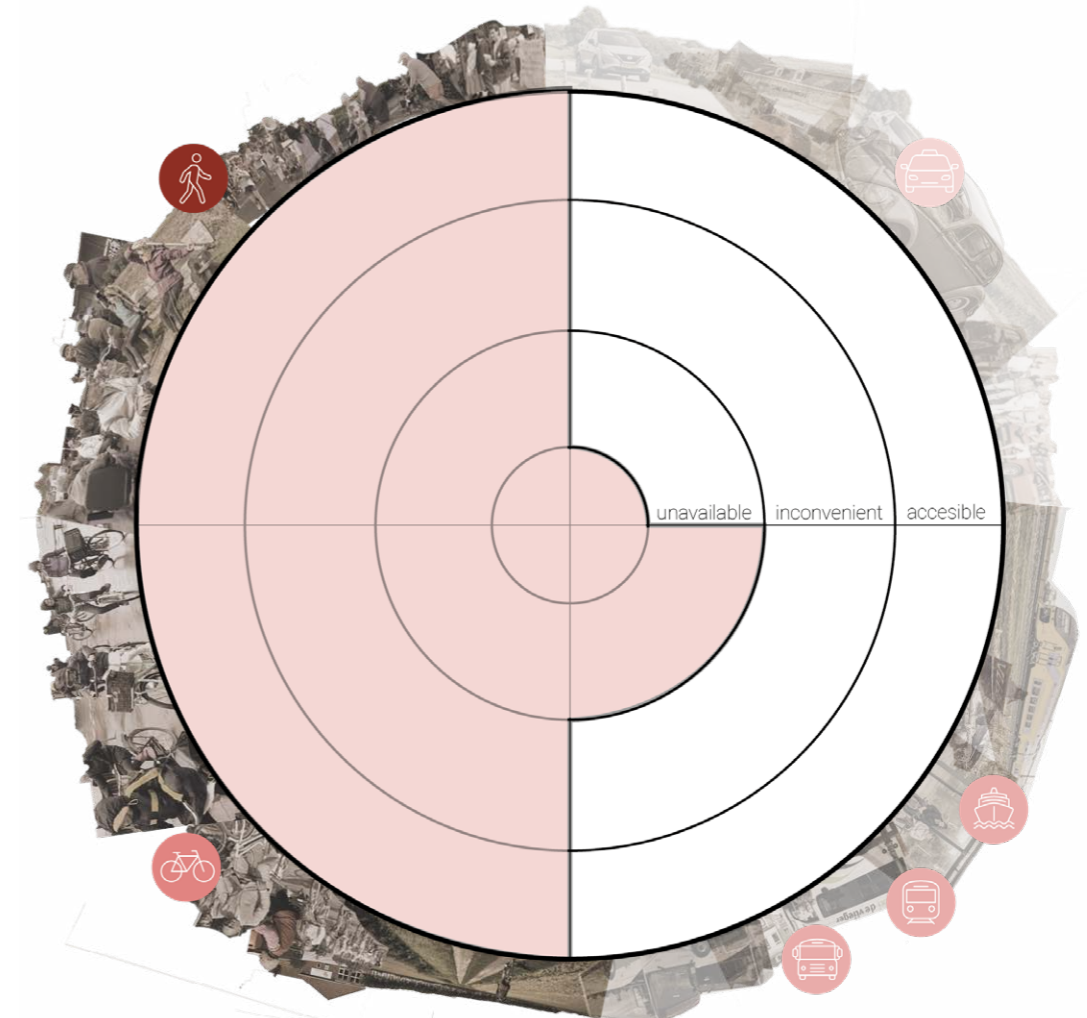


Figure 64. Diagram illustrating accessibility opportunities for children within village life.

3.2 Effects of mobility

3.2.4 Mobility experiences

Children's daily activities are largely organised around a small number of recurring destinations. Travel behaviour data from the Centraal Bureau voor de Statistiek (ODiN) shows that most trips made by young residents occur over short distances and are typically made by walking or cycling. Accessibility research by the Netherlands Institute for Transport Policy Analysis similarly indicates that everyday services should ideally be reachable within short travel times.

Because of this limited travel range, children depend strongly on facilities located within the village or its immediate surroundings. The most important functions include primary schools, playgrounds and sports clubs, which structure many of their daily activities. These places also act as meeting points where children and parents interact regularly. Research on Dutch villages shows that such facilities often form the social core of local communities and contribute to the connection residents feel with their village (Gieling et al., 2018; Christiaanse & Haartsen, 2017).



Figure 65. Collage illustrating the essential facilities and spaces required for children within village life.

3.2 Effects of mobility

3.2.4 Mobility experiences

Although the baseline cycling distance derived from travel behaviour data is approximately 2.5–5 kilometres, children generally have more limited independent mobility than adults. Their daily travel is typically dominated by walking and short cycling trips, especially for activities such as school, sports and recreation.

Research on school travel behaviour shows that distance strongly influences the transport mode used by children. Studies of school commuting patterns in the Netherlands indicate that most primary school trips occur within approximately 1 kilometre when walking and within roughly 2–3 kilometres when cycling (Helbich, 2017). Similarly, research on children’s independent mobility has shown that walking independence decreases significantly when the distance to school exceeds approximately 1 kilometre, indicating that shorter travel distances are more suitable for independent mobility (Masoumi, 2020). Because children rely primarily on walking and short cycling trips, the baseline cycling range of 2.5–5 kilometres was adjusted slightly downward for this group in order to reflect realistic travel behaviour. The resulting mobility thresholds used in the accessibility analysis are therefore:

Walking: up to 0.8 km
Cycling: up to 2.5 km

These thresholds correspond closely to the distances reported in studies of children’s school travel behaviour. The accessibility maps included in this research illustrate which essential facilities fall within these ranges. Facilities located within these distances are considered directly accessible for children, while facilities located beyond these ranges become increasingly difficult to reach independently.

The map illustrates the mobility options and accessibility ranges for each centre based on the mobility thresholds defined for the different population groups. Using the Dutch road and path network as the basis for the analysis, travel distances were calculated along the actual transport network rather than using straight-line distances. The resulting travel ranges are visualised as polygons that represent the maximum distance that can be reached from each centre for the selected transport modes.

For each centre, there is an indication showing which essential facilities can be reached from each centre by the specific mobility group. Facilities are classified according to the most accessible transport mode with which they can be reached.

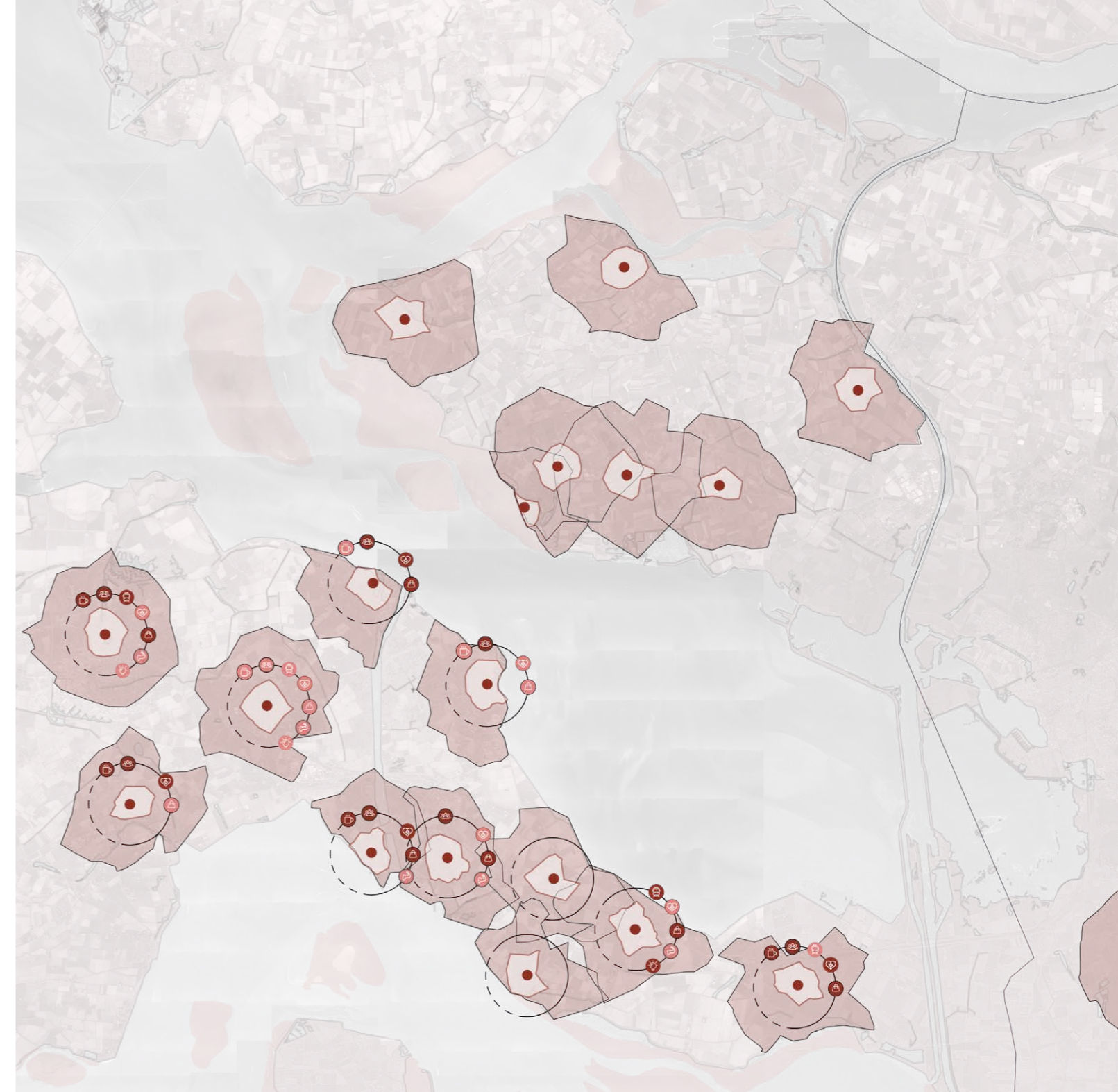
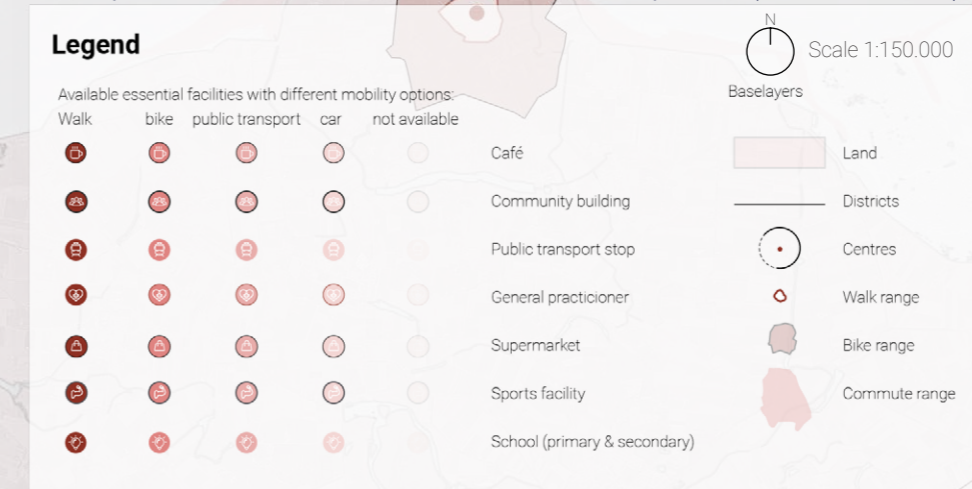


Figure 66. Map illustrating the mobility ranges of children and the reachable facilities within the village. Own analysis based on CBS data, ODIN mobility data and KIM mobility research (CBS, 2024; KIM, 2023).



3.2 Effects of mobility

3.2.4 Mobility experiences

Optional mobility

The optional mobility group represents residents with access to multiple transport modes, such as walking, cycling, public transport and private cars. Research on multimodal travel behaviour shows that individuals who can choose between different transport modes generally experience higher levels of accessibility because they can select the most efficient mode depending on distance and travel purpose (Geurs & van Wee, 2017).

Because this group has a wide range of mobility options, they can easily adapt their travel behaviour when local facilities disappear. Services that are no longer available in the village can often still be reached in nearby settlements or urban centres.

As a result, this group is characterised by very high mobility flexibility and relatively low dependency on local facilities. In the four-axis mobility diagram, the optional mobility group occupies the quadrant representing the highest level of mobility flexibility. The corresponding circle of mobility shows their different options of transport.

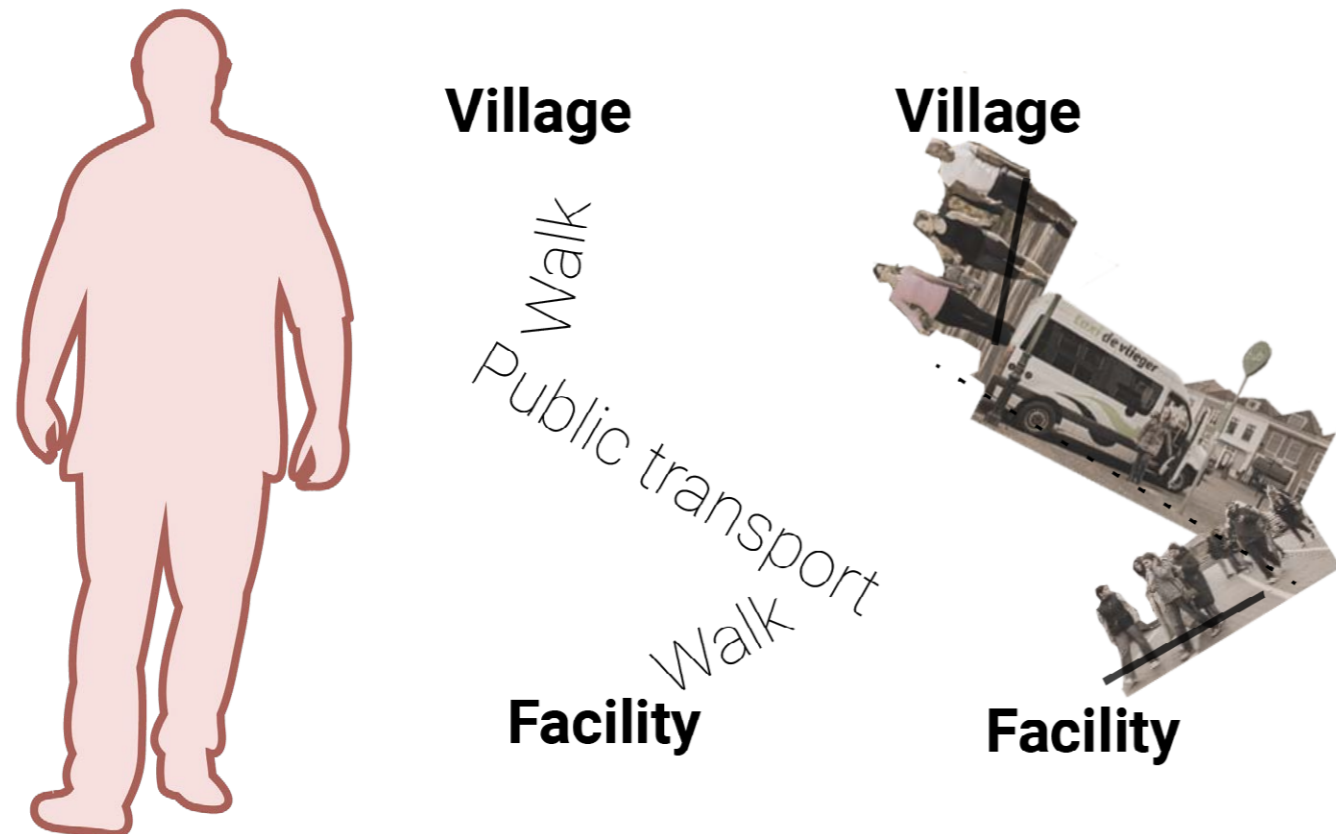


Figure 67. Diagram illustrating the possible daily routes of optional mobility groups within the village.



Figure 68. Diagram positioning optional mobility groups within the mobility scale of the research.

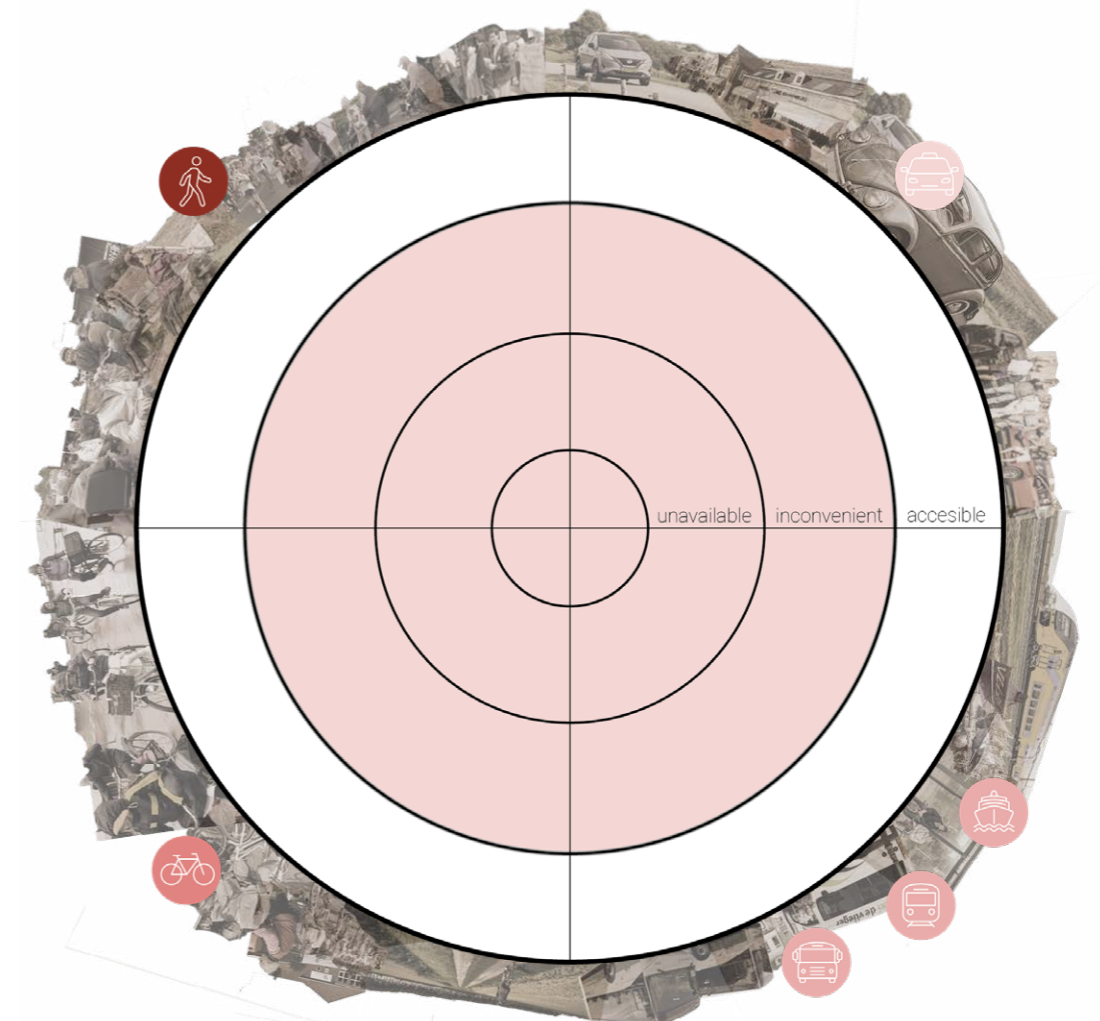


Figure 69. Diagram illustrating accessibility opportunities for optional mobility groups within village life.

3.2 Effects of mobility

3.2.4 Mobility experiences

Residents with optional mobility have access to multiple transport modes and can therefore reach facilities both locally and in nearby towns or cities. Travel behaviour data from the Centraal Bureau voor de Statistiek (ODiN) shows that people with flexible mobility options often combine different transport modes depending on the distance and purpose of the trip.

Because of this flexibility, residents in this group are less dependent on specific facilities being located directly within the village. However, certain functions still play an important role in shaping everyday village life. Facilities such as cafés, sports clubs, community spaces and local shops provide opportunities for social interaction and participation in local activities.

Research on rural facilities in the Netherlands shows that these places help maintain the vitality of villages and contribute to residents' connection with their living environment (Christiaanse & Haartsen, 2017; Gieling et al., 2018).



Figure 70. Collage illustrating the essential facilities and spaces required for optional mobility groups.

3.2 Effects of mobility

3.2.4 Mobility experiences

The optional mobility group represents residents with access to multiple transport modes, including walking, cycling, public transport and private cars. Because this group has a high level of mobility flexibility, their travel behaviour generally reflects the overall patterns observed in national travel data.

ODiN data shows that cycling is widely used for trips up to approximately 5 kilometres, while car travel becomes more common for longer trips (CBS, 2024; KiM, 2023). Individuals who have access to multiple transport options can choose the most efficient travel mode depending on distance and purpose, which increases their overall accessibility to services.

For this reason, the baseline mobility ranges derived from travel behaviour data were applied directly to this group.

The resulting thresholds used in this accessibility analysis are therefore:

Walking: up to 0.8 kilometre
 Cycling: up to 4 kilometres
 Public transport: up to 5 km
 Car: 6.5 kilometres

These distances represent the spatial scale within which facilities remain accessible for residents with flexible mobility options.

The map illustrates the mobility options and accessibility ranges for each centre based on the mobility thresholds defined for the different population groups. Using the Dutch road and path network as the basis for the analysis, travel distances were calculated along the actual transport network rather than using straight-line distances. The resulting travel ranges are visualised as polygons that represent the maximum distance that can be reached from each centre for the selected transport modes.

For each centre, there is an indication showing which essential facilities can be reached from each centre by the specific mobility group. Facilities are classified according to the most accessible transport mode with which they can be reached.

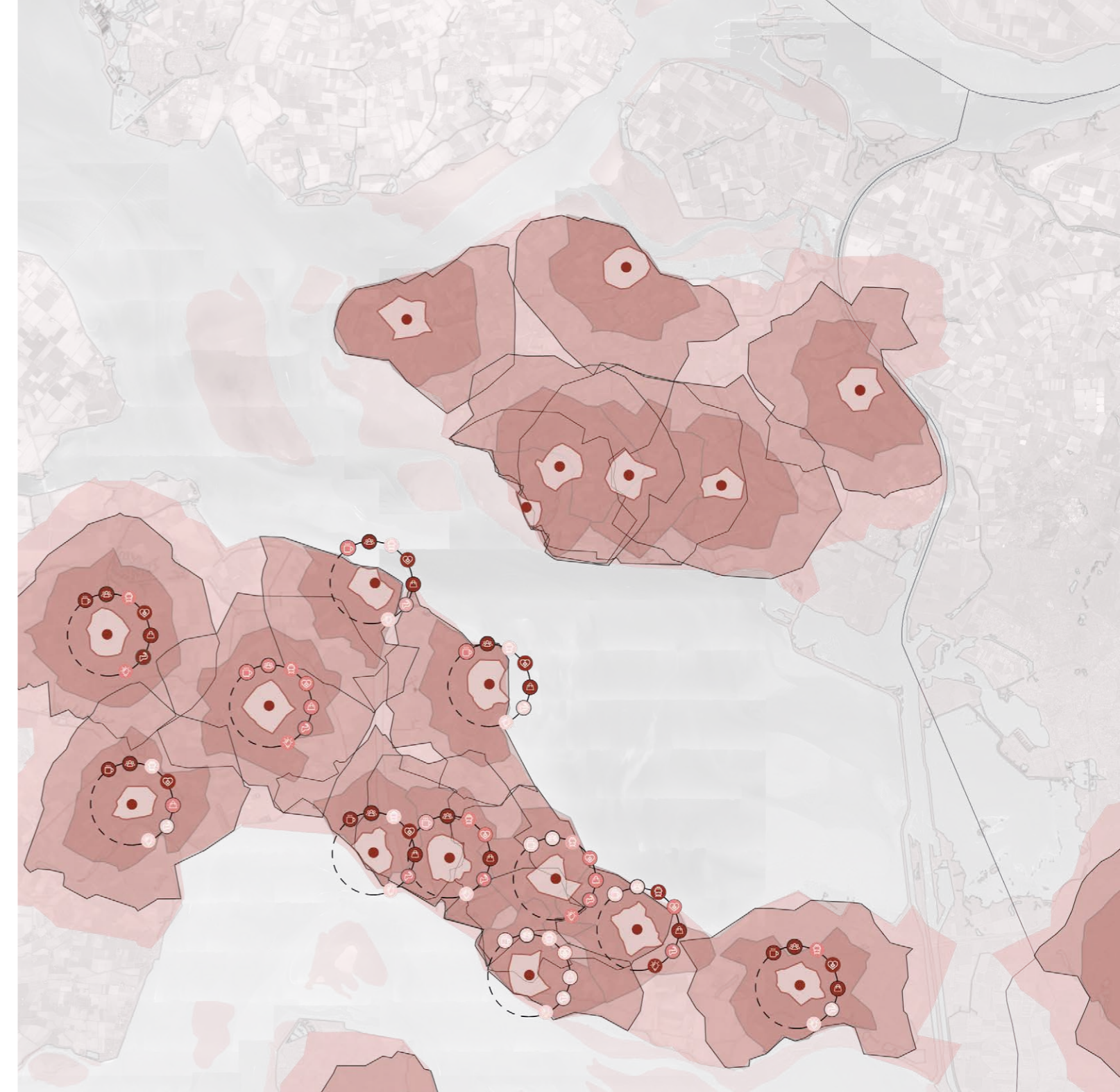
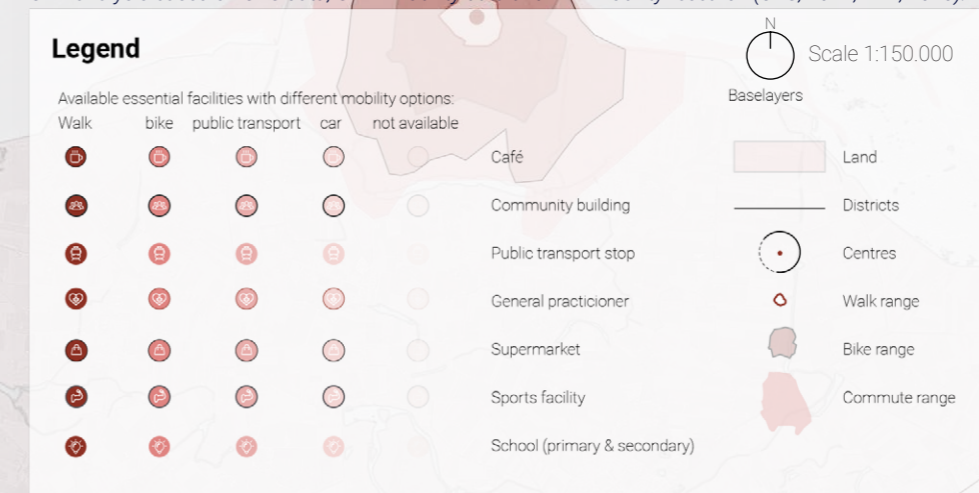


Figure 71. Map illustrating the mobility ranges of optional mobility groups and the reachable facilities within the village. Own analysis based on CBS data, ODiN mobility data and KiM mobility research (CBS, 2024; KiM, 2023).



3.2 Effects of mobility

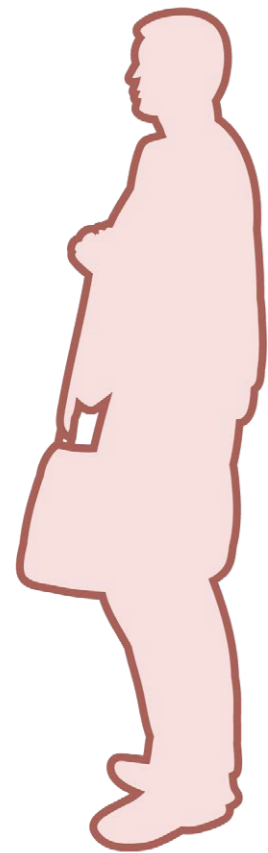
3.2.4 Mobility experiences

Remote workers

Remote workers represent a group whose daily mobility patterns differ from traditional commuting patterns. As working from home has become more common, residential environments have become more important for daily routines and social interaction. Research by Statistics Netherlands shows that people who frequently work from home often live further away from their workplace but make fewer commuting trips overall (CBS, 2024).

In terms of transport options, remote workers generally have moderate to high mobility flexibility, as many have access to both bicycles and private cars. However, because they spend more time in their residential neighbourhood, their daily activities are often oriented toward nearby services such as supermarkets, cafés or recreational spaces.

This results in a mobility pattern where remote workers are moderately flexible but still somewhat locally dependent for everyday activities. In the four-axis mobility diagram, this group is therefore positioned between highly mobile commuters and more locally dependent groups. The corresponding circle of mobility shows their different options of transport.



Village

Walk
Public transport
Walk

Facility

Village



Facility

Figure 72. Diagram illustrating the possible daily routes of remote workers within the village.

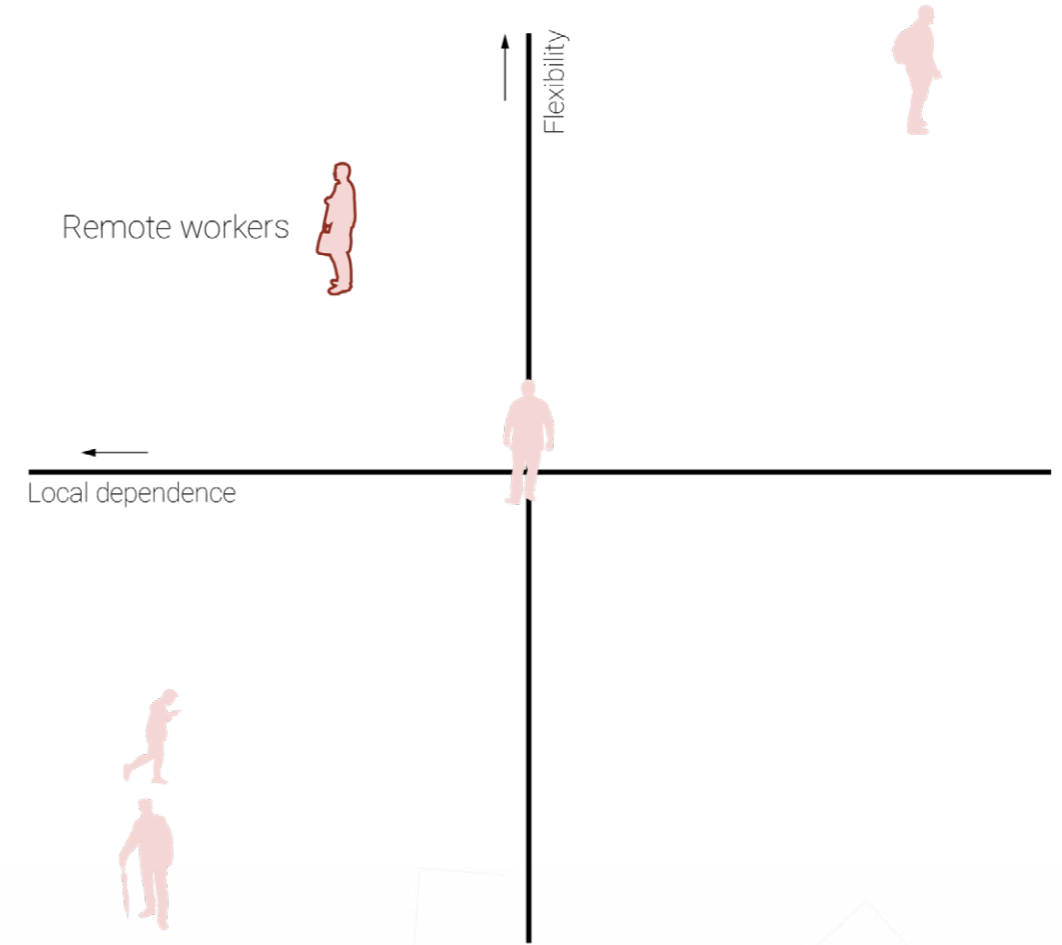


Figure 73. Diagram positioning remote workers within the mobility scale of the research.

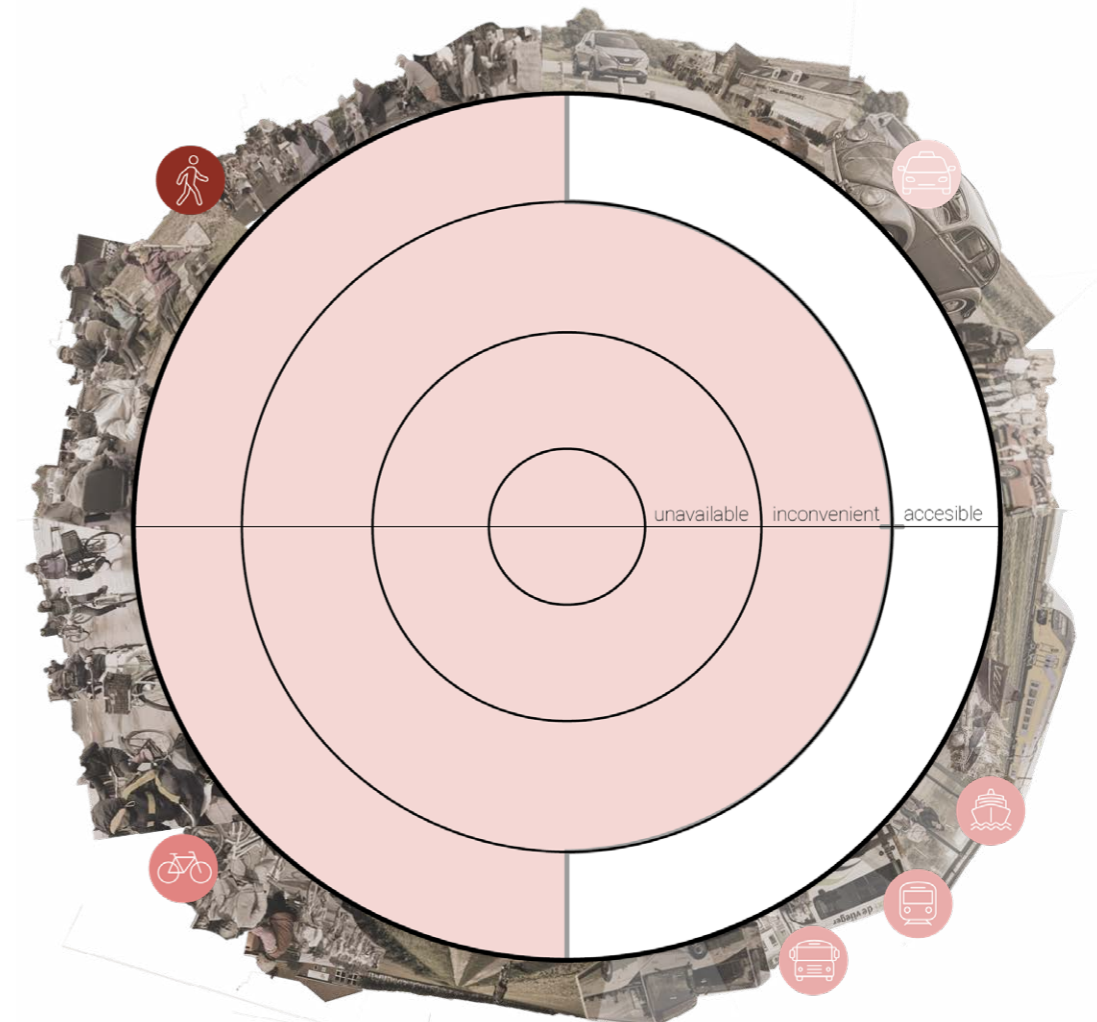


Figure 74. Diagram illustrating accessibility opportunities for remote workers within village life.

3.2 Effects of mobility

3.2.4 Mobility experiences

For remote workers, the residential environment plays a larger role in everyday life because fewer daily trips are made to a fixed workplace. Research by the Centraal Bureau voor de Statistiek shows that people who work from home often travel less frequently for commuting, meaning that more daily activities take place in or around the neighbourhood.

As a result, certain facilities become more important within the local environment. These include cafés or small hospitality venues, sports facilities, local shops and informal workspaces, which can support both daily routines and social interaction. Accessibility research by the Netherlands Institute for Transport Policy Analysis suggests that people generally expect such everyday services to be reachable within short travel times.

In rural villages, facilities such as cafés, sports associations or community spaces can therefore support local activity and interaction between residents. Studies on village facilities show that these places contribute to the social life of villages and help maintain connections between residents (Gieling et al., 2018).



Figure 75. Collage illustrating the essential facilities and spaces required for remote workers.

3.2 Effects of mobility

3.2.4 Mobility experiences

Remote workers represent a mobility group whose daily travel patterns differ from those of traditional commuters. Statistics Netherlands reports that people who frequently work from home often live further away from their workplace but make fewer commuting trips overall (CBS, 2024). As a result, many daily activities are performed closer to home.

Despite these changes in commuting behaviour, remote workers generally have similar mobility possibilities to the overall population, including access to bicycles and private cars. For this reason, the baseline mobility ranges derived from ODIN travel behaviour data and KiM accessibility research are applied directly to this group.

The resulting mobility thresholds used in the accessibility analysis are therefore:

- Walking: up to 1.5 km
- Cycling: up to 4 km
- Public transport: up to 5 km
- Car: up to 5 km

These distances correspond closely to the baseline ranges derived from travel behaviour data and represent the spatial scale within which everyday services such as supermarkets, cafés or recreational facilities can be accessed conveniently.

The map illustrates the mobility options and accessibility ranges for each centre based on the mobility thresholds defined for the different population groups. Using the Dutch road and path network as the basis for the analysis, travel distances were calculated along the actual transport network rather than using straight-line distances. The resulting travel ranges are visualised as polygons that represent the maximum distance that can be reached from each centre for the selected transport modes.

For each centre, there is an indication showing which essential facilities can be reached from each centre by the specific mobility group. Facilities are classified according to the most accessible transport mode with which they can be reached.

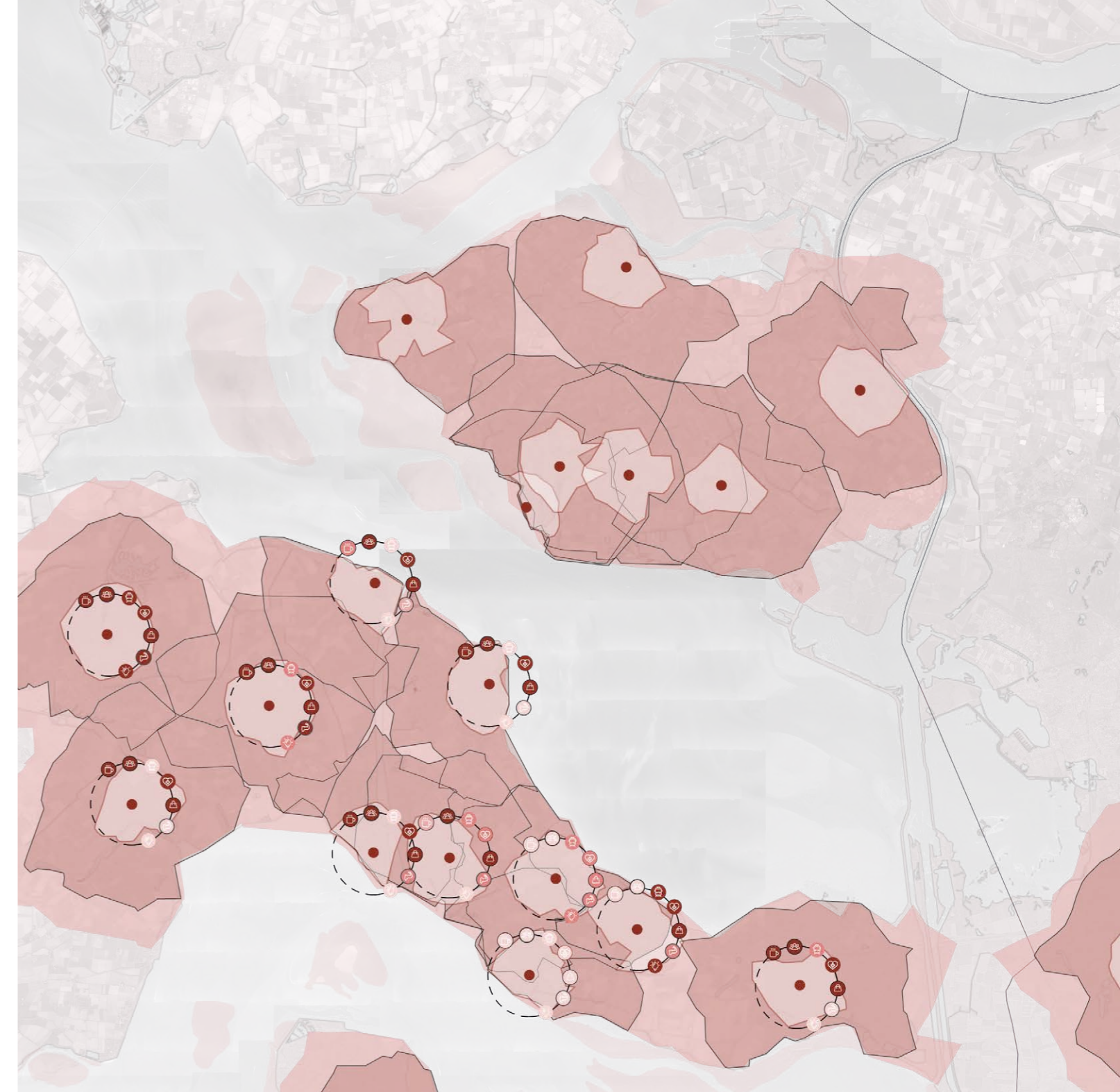
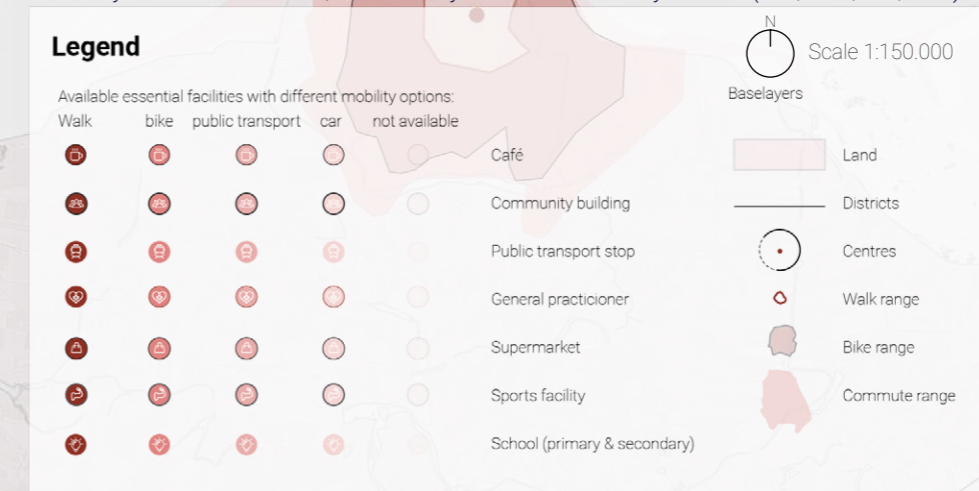


Figure 76. Map illustrating the mobility ranges of remote workers and the reachable facilities within the village. Own analysis based on CBS data, ODIN mobility data and KiM mobility research (CBS, 2024; KiM, 2023).



3.2 Effects of mobility

3.2.4 Mobility experiences

Commuters

Commuters represent a mobility group characterised by relatively high mobility flexibility. Travel behaviour data from the Dutch National Travel Survey (ODiN) shows that commuting trips are often longer than other daily trips and frequently involve car or public transport use (CBS, 2024). As a result, commuters typically have a larger daily activity space than other groups.

Because commuters regularly travel beyond their residential neighbourhood, they are generally less dependent on local facilities for daily activities. Essential services such as supermarkets, workplaces or leisure facilities can often be accessed in nearby towns or urban centres within reasonable travel times.

This means that commuters can be characterised as having high mobility flexibility and relatively low local dependency. In the four-axis mobility diagram, this group is therefore positioned in the quadrant representing high mobility options and low reliance on nearby facilities. The corresponding circle of mobility shows their different options of transport.

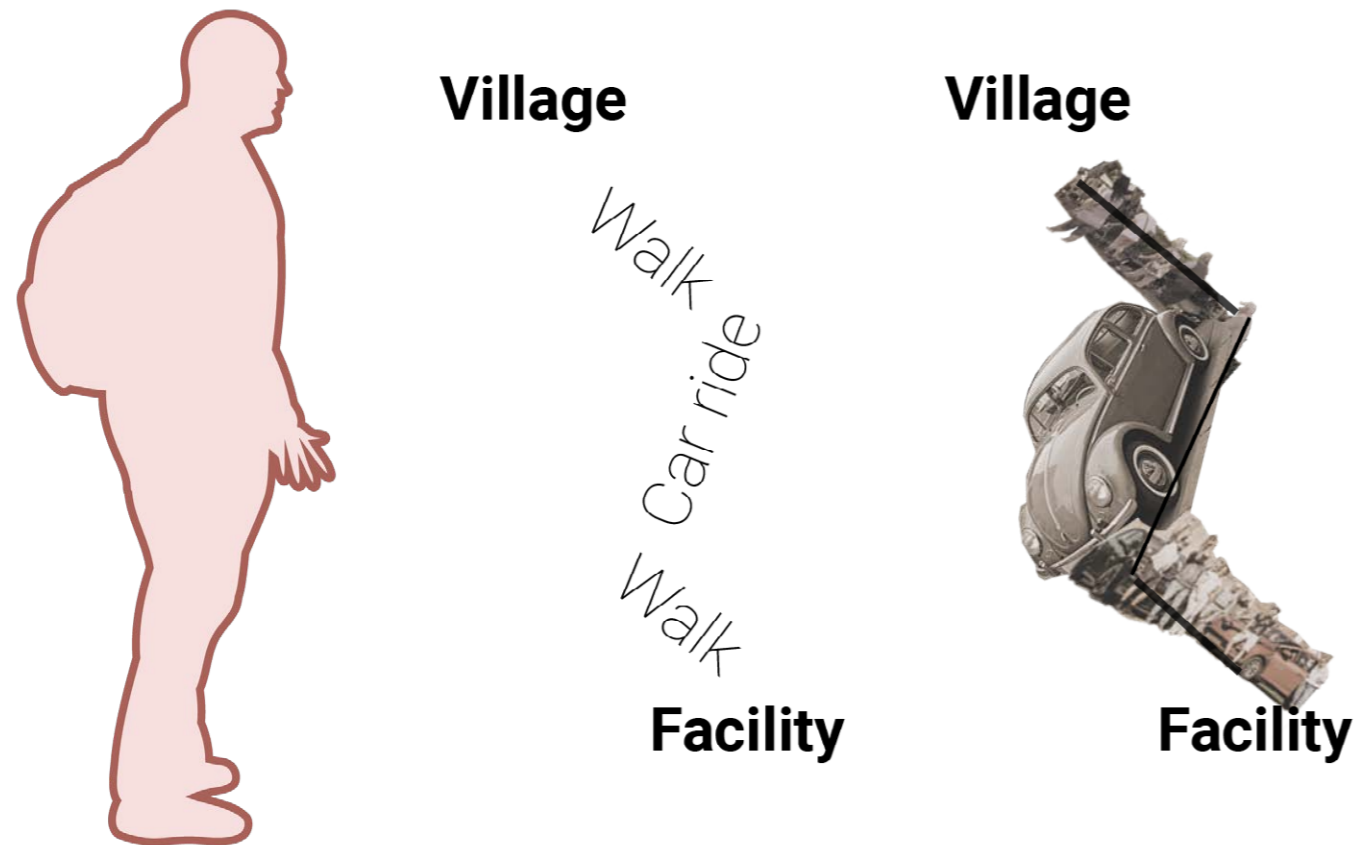


Figure 77. Diagram illustrating the possible daily routes of commuters within the village.

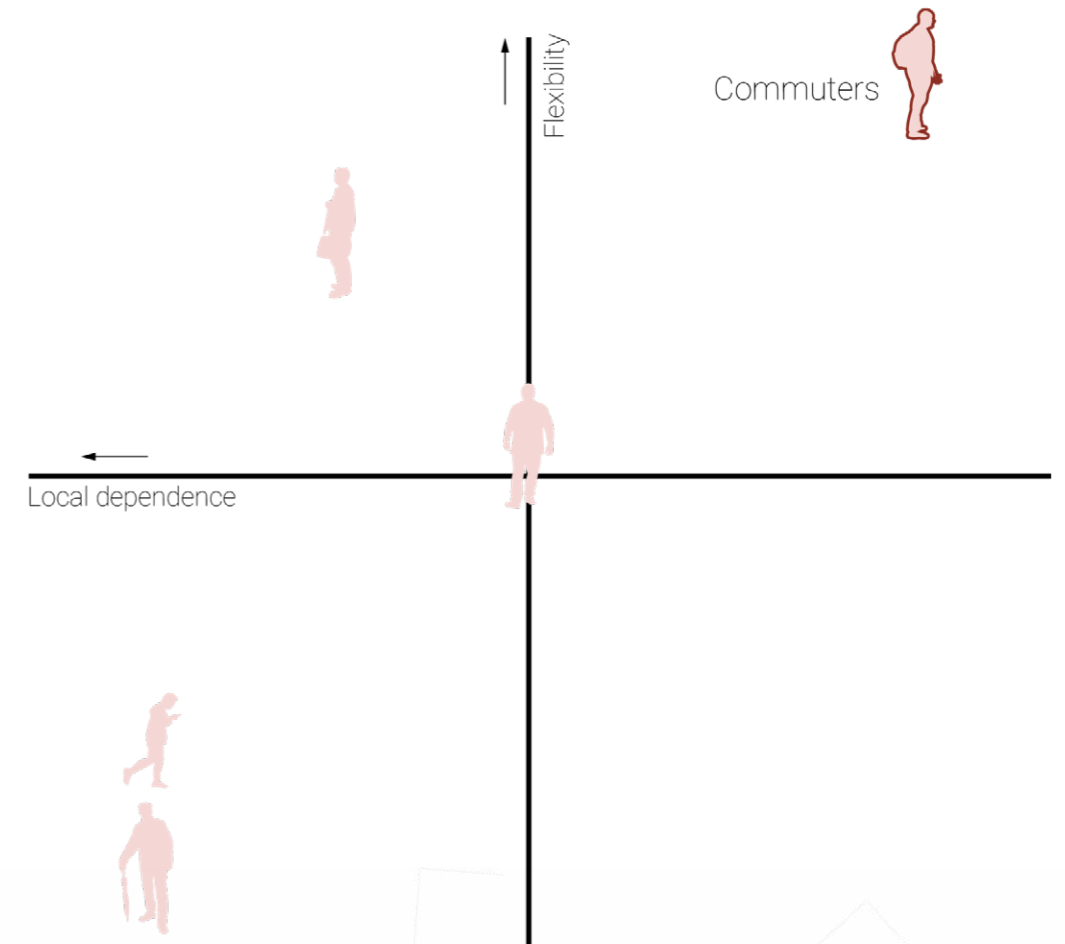


Figure 78. Diagram positioning commuters within the mobility scale of the research.

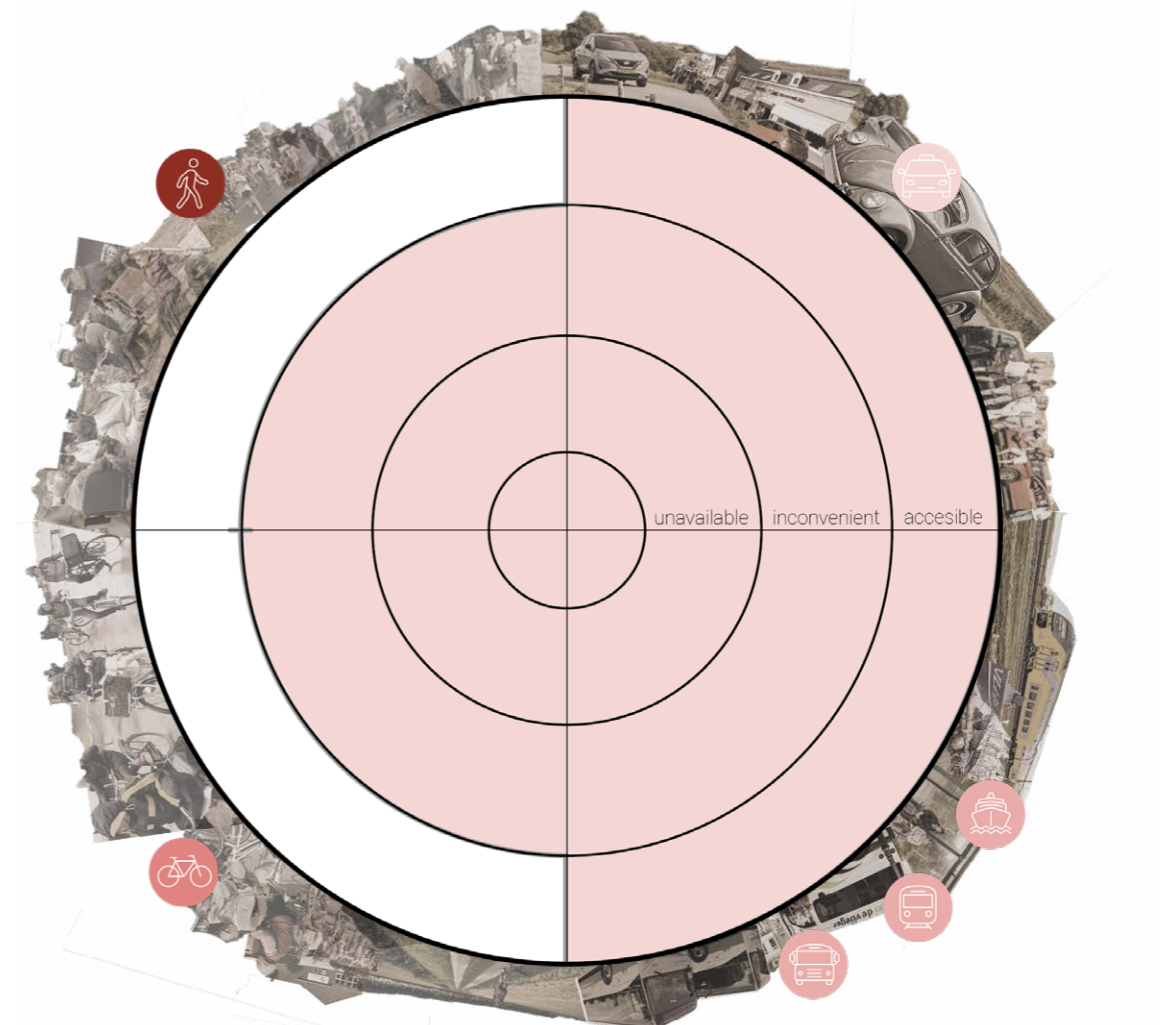


Figure 79. Diagram illustrating accessibility opportunities for commuters within village life.

3.2 Effects of mobility

3.2.4 Mobility experiences

Commuters typically travel longer distances to reach their workplace. Travel behaviour data from the Centraal Bureau voor de Statistiek (ODiN) shows that commuting trips in the Netherlands are often significantly longer than trips for daily services such as shopping or leisure. Because commuting connects villages with nearby towns or cities, residents can access many services outside their immediate residential environment.

However, a number of everyday facilities remain important within the village itself. Functions such as supermarkets, schools, sports clubs and cafés support daily routines outside working hours and contribute to the attractiveness of residential environments.

Research on Dutch villages shows that these facilities often play an important role in maintaining local social life and interaction between residents (Gieling et al., 2018; Christiaanse & Haartsen, 2017). Accessibility research by the Netherlands Institute for Transport Policy Analysis also emphasises that good connections to nearby towns remain essential for commuting households.



Figure 80. Collage illustrating the essential facilities and spaces required for commuters.

3.2 Effects of mobility

3.2.4 Mobility experiences

Commuters generally have the largest daily activity spaces among the groups analysed in this research. Travel behaviour data from the ODIN survey shows that commuting trips in the Netherlands are significantly longer than trips made for other daily activities.

In the Netherlands, the average commuting distance is approximately 22 kilometres, indicating that many workers regularly travel beyond the typical cycling range used for everyday activities (CBS, 2024). In addition, cycling research shows that commuting trips by bicycle can be longer than typical everyday cycling trips, particularly with the increasing use of e-bikes (KiM, 2023).

Because commuters often travel longer distances and frequently have access to private cars or public transport, the upper range of the baseline mobility thresholds was applied for this group.

The resulting thresholds used in the accessibility analysis are therefore:

- Walking: up to 0.6 km
- Cycling: up to 4 kilometres
- Public transport: up to 5 km
- Car: up to 10 kilometres

These distances represent the broader spatial scale within which commuters typically access services in nearby towns or regional centres.

The map illustrates the mobility options and accessibility ranges for each centre based on the mobility thresholds defined for the different population groups. Using the Dutch road and path network as the basis for the analysis, travel distances were calculated along the actual transport network rather than using straight-line distances. The resulting travel ranges are visualised as polygons that represent the maximum distance that can be reached from each centre for the selected transport modes.

For each centre, there is an indication showing which essential facilities can be reached from each centre by the specific mobility group. Facilities are classified according to the most accessible transport mode with which they can be reached.

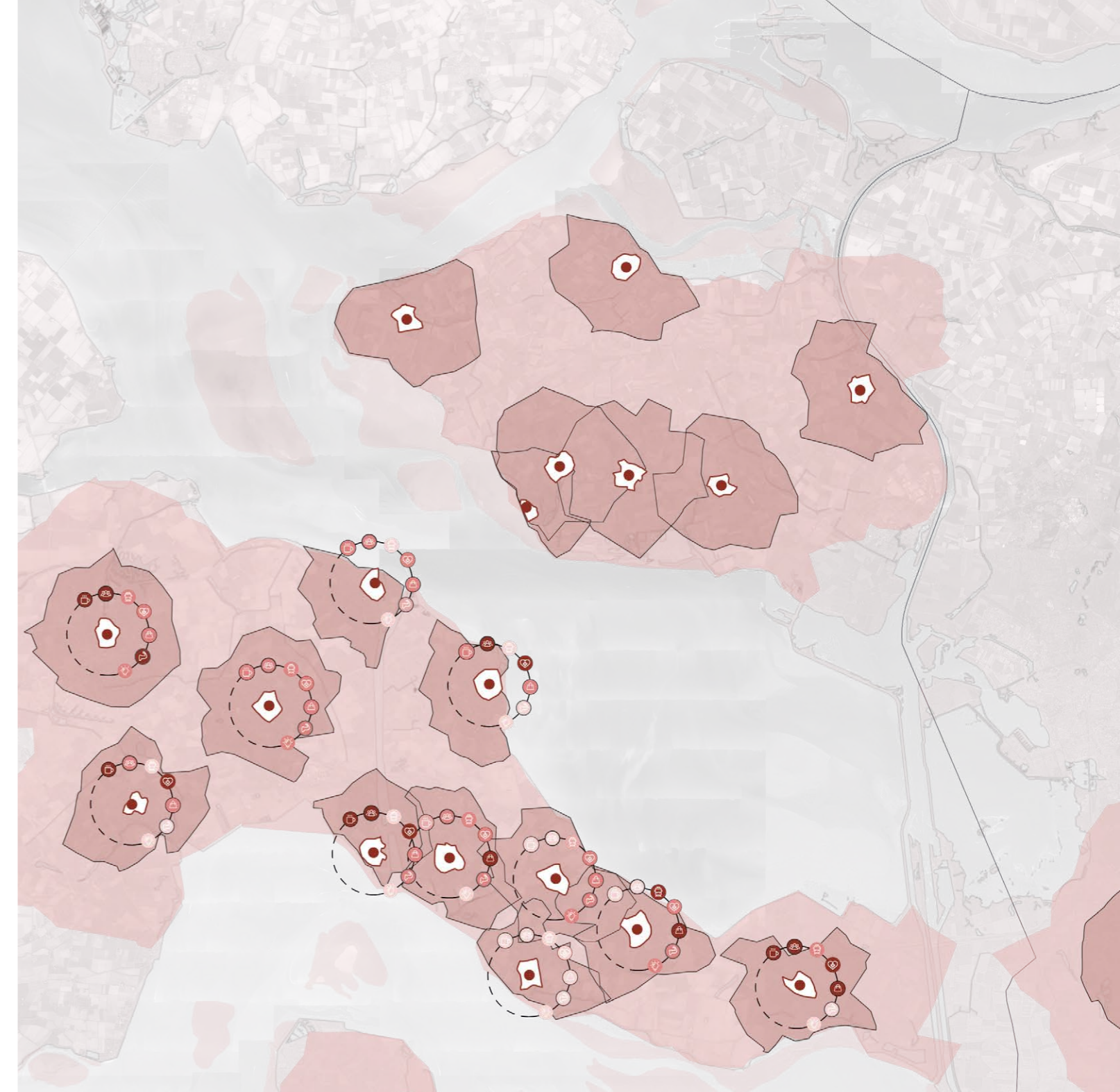
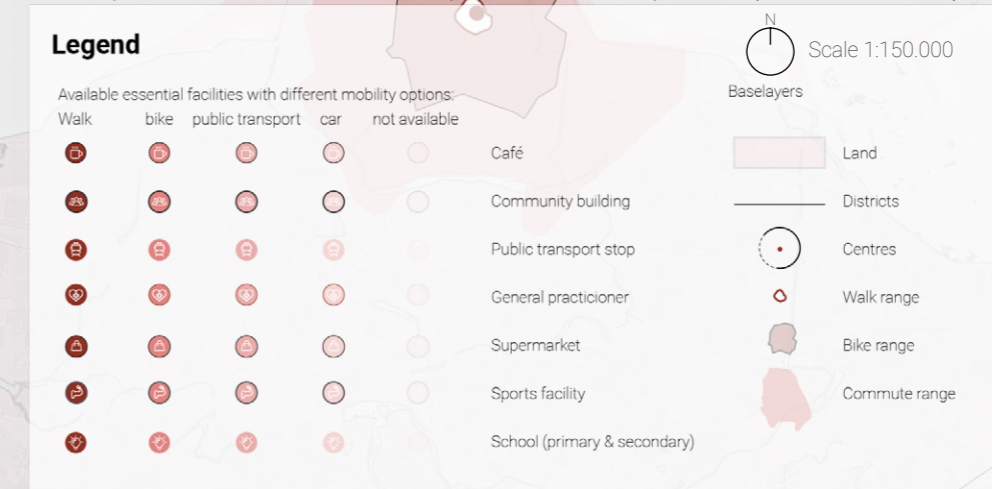


Figure 81. Map illustrating the mobility ranges of commuters and the reachable facilities within the village. Own analysis based on CBS data, ODIN mobility data and KiM mobility research (CBS, 2024; KiM, 2023).



3.2 Effects of mobility

3.2.4 Mobility experiences

Constrained

Residents with constrained mobility include groups such as elderly residents, individuals with limited physical mobility and households without reliable access to a private car. These residents generally have fewer transport options and often rely primarily on walking, cycling or public transport. Research on transport-related social exclusion shows that people without access to a car frequently experience reduced accessibility to services and opportunities, particularly in rural areas (PBL, 2022; Shergold & Parkhurst, 2012).

Because of these limitations, this group typically has a smaller activity space compared with more mobile populations. Many daily activities such as grocery shopping, healthcare visits or social interactions are therefore concentrated within the immediate neighbourhood. Studies of older adults' travel behaviour show that proximity to essential services becomes increasingly important as mobility decreases (Musselwhite & Haddad, 2010).

For this reason, residents with constrained mobility can be characterised as having low mobility flexibility and strong local dependency. In the four-axis mobility diagram, this group is positioned similarly to children in terms of limited mobility options, but with an even stronger reliance on nearby facilities due to physical or financial constraints. The corresponding circle of mobility shows their different options of transport.

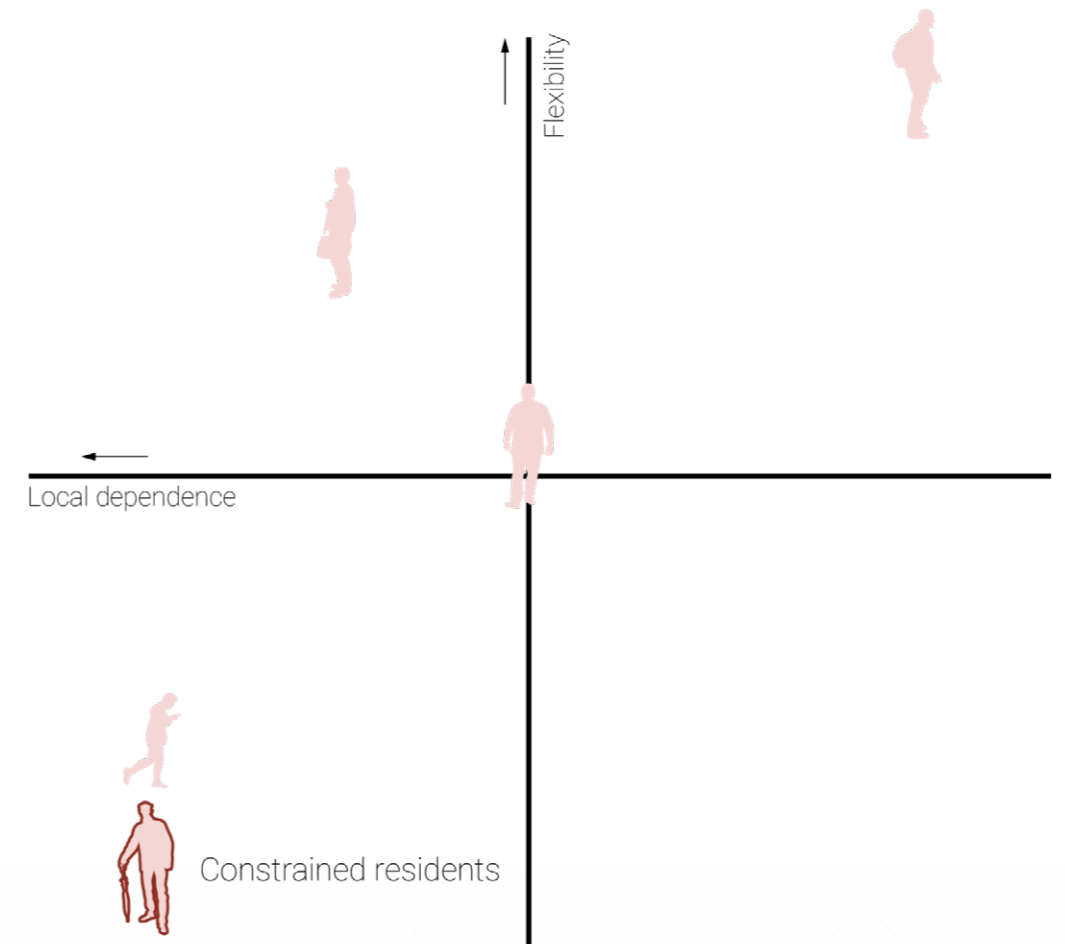


Figure 83. Diagram positioning constrained mobility groups within the mobility scale of the research.

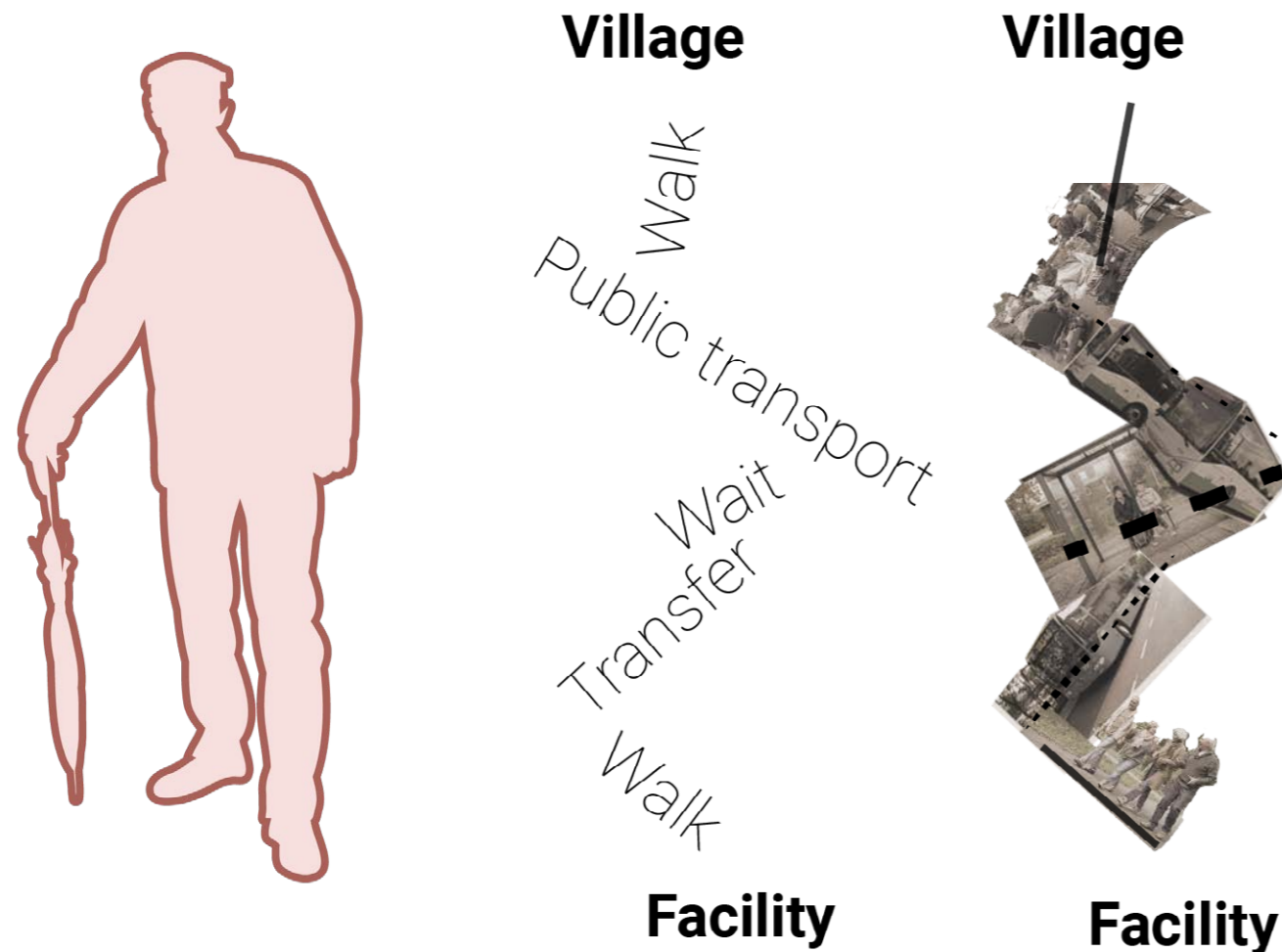


Figure 82. Diagram illustrating the possible daily routes of constrained mobility groups within the village.

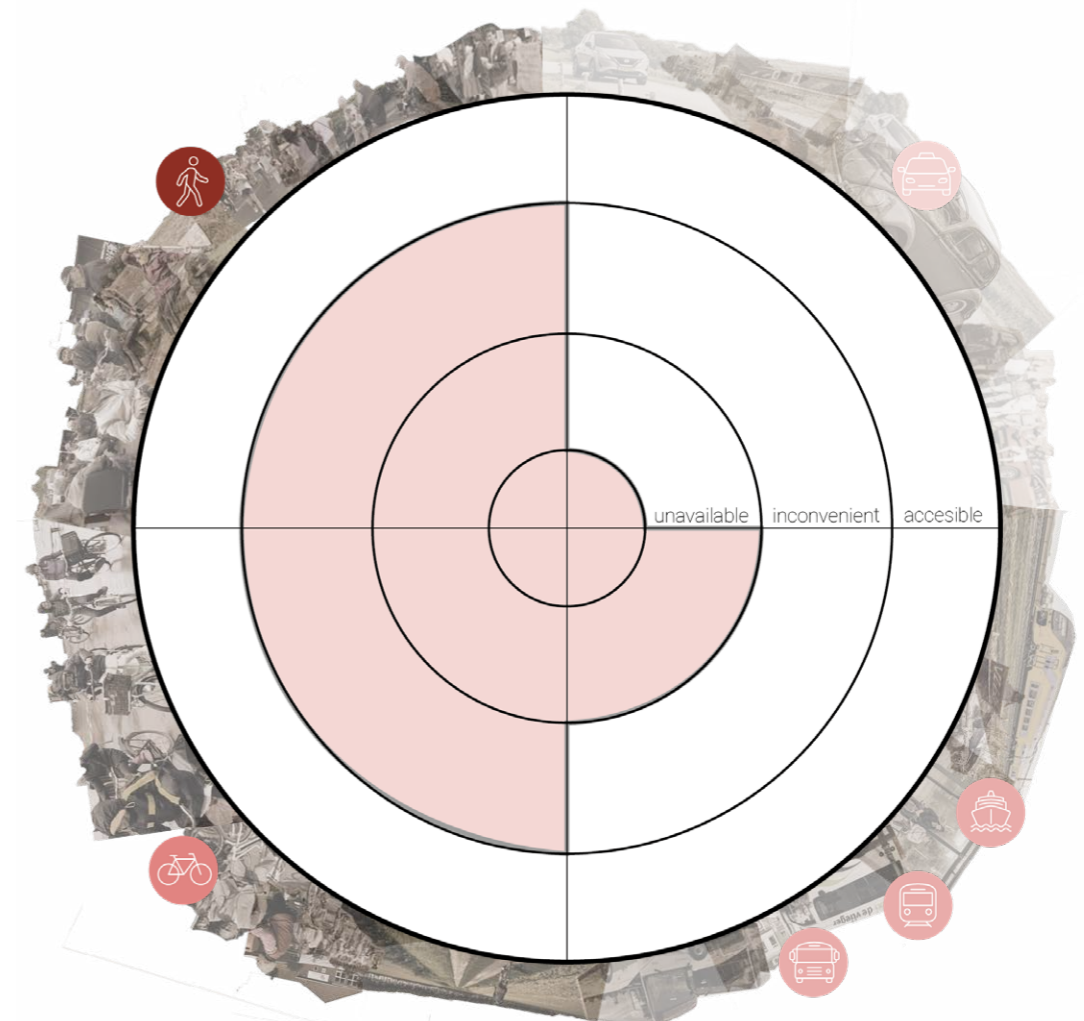


Figure 84. Diagram illustrating accessibility opportunities for constrained mobility groups within village life.

3.2 Effects of mobility

3.2.4 Mobility experiences

For residents with constrained mobility, such as elderly residents or households without access to a car, daily routines are strongly shaped by the availability of nearby services. Travel behaviour data from the Centraal Bureau voor de Statistiek (ODiN) shows that many everyday trips in the Netherlands occur within short distances and are often made by walking or cycling. However, accessibility research by the Netherlands Institute for Transport Policy Analysis indicates that residents without access to private transport depend more heavily on services located nearby.

For this group, the most important facilities are supermarkets, healthcare services such as general practitioners or pharmacies, and accessible social meeting places such as cafés or community centres. In rural villages, these functions often play a dual role: they provide essential services while also functioning as places where residents meet others in everyday life. Research on rural facilities in the Netherlands shows that such places are important for maintaining social interaction and community cohesion (Christiaanse & Haartsen, 2017; Gieling et al., 2018).

A supportive living environment for mobility-constrained residents therefore includes nearby daily retail, healthcare services and accessible social spaces, ideally located within short travel distances.



Figure 85. Collage illustrating the essential facilities and spaces required for constrained mobility groups.

3.2 Effects of mobility

3.2.4 Mobility experiences

Residents with constrained mobility, such as elderly residents or households without access to a car, often have smaller activity spaces than the general population. Although the baseline cycling range derived from travel behaviour data is 2.5–5 kilometre, mobility research shows that older adults often travel shorter distances, particularly when walking.

Studies of mobility patterns among older adults show that daily activities are typically concentrated within the immediate neighbourhood, with walking trips often occurring within short distances and longer trips increasingly requiring motorised transport (Shergold & Parkhurst, 2012). Research on accessibility inequalities also demonstrates that vulnerable groups tend to rely more strongly on nearby facilities because their mobility options are more limited (PBL, 2022).

Because of these mobility constraints, the upper part of the baseline cycling range was reduced for this group. This adjustment results in mobility thresholds that better reflect the realistic travel behaviour of elderly and mobility-constrained residents.

The resulting accessibility thresholds used in this research are therefore:

Walking: approximately 0.6 km
Cycling: up to 1.5 km
Public transport: up to 5 km

These thresholds correspond to the lower end of the baseline mobility range derived from travel behaviour data. The accessibility maps included in this study illustrate which essential facilities fall within these travel distances.

The map illustrates the mobility options and accessibility ranges for each centre based on the mobility thresholds defined for the different population groups. Using the Dutch road and path network as the basis for the analysis, travel distances were calculated along the actual transport network rather than using straight-line distances. The resulting travel ranges are visualised as polygons that represent the maximum distance that can be reached from each centre for the selected transport modes.

For each centre, there is an indication showing which essential facilities can be reached from each centre by the specific mobility group. Facilities are classified according to the most accessible transport mode with which they can be reached.

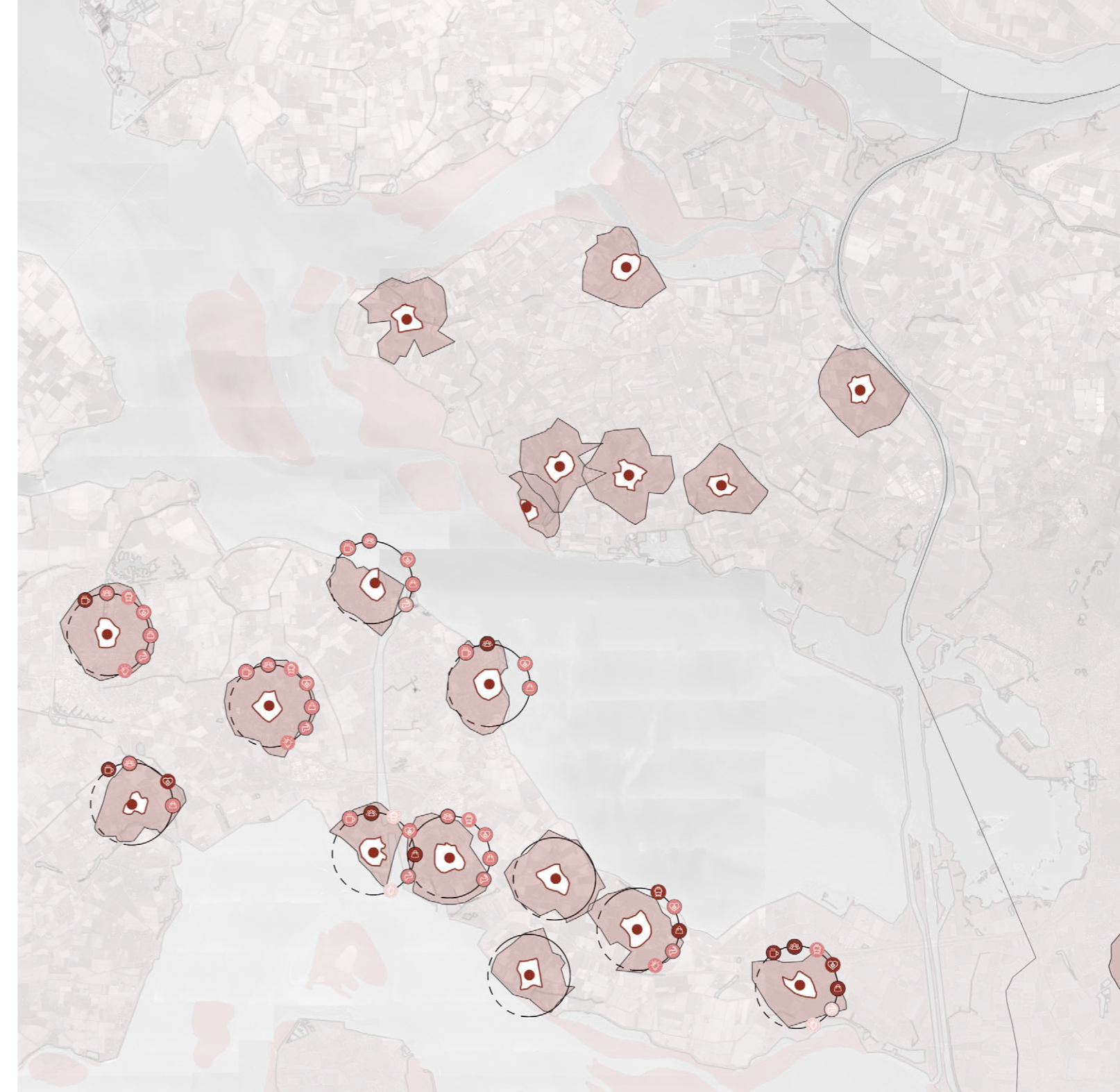
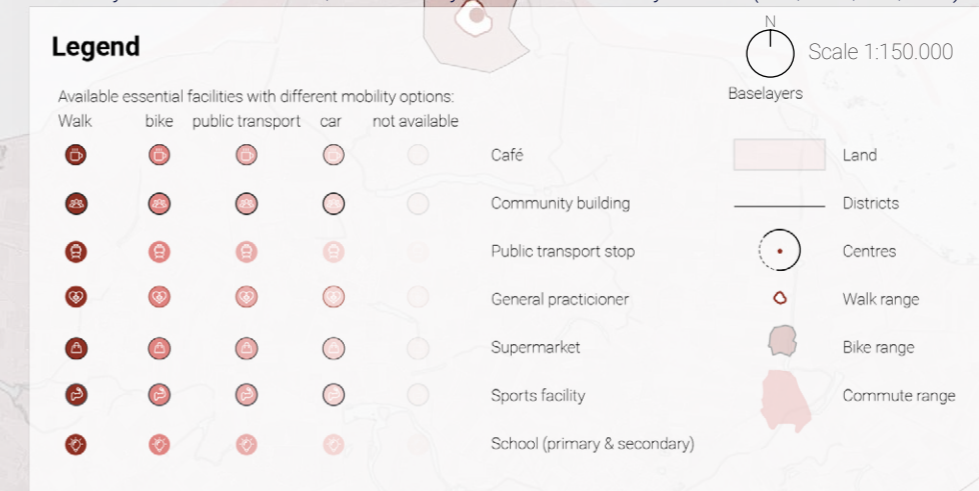


Figure 86. Map illustrating the mobility ranges of constrained mobility groups and the reachable facilities within the village. Own analysis based on CBS data, ODIN mobility data and KIM mobility research (CBS, 2024; KIM, 2023).



3.2 Effects of mobility

3.2.5 Social and spatial effects

The accessibility assessment reveals clear spatial differences in how villages support the daily mobility of different groups. The map shows which centres provide a functional living environment for each mobility group, based on the travel limits defined in the research. These patterns illustrate how the spatial distribution of services affects residents their ability to participate in everyday activities.

A clear pattern that emerges from the analysis is the increasing vulnerability of smaller villages. Settlements such as Waarde and Oostdijk show significantly lower accessibility for residents with limited mobility, particularly elderly populations and children. Because essential services are located outside walking or short cycling distances, these groups face structural barriers in reaching everyday facilities. Research on transport accessibility shows that limited mobility options can create forms of transport-related exclusion, particularly in rural areas where distances to services are larger (Lucas et al., 2018). However, the analysis also shows that the decline of facilities does not have equal effects on residents in different villages. Medium-sized villages such as Krabbendijke, Yerseke, and Wemeldinge do not provide optimal accessibility conditions for all groups. Although these villages still offer a number of services, the disappearance of key facilities means that some daily functions are no longer reachable within the mobility ranges.

For residents with access to a car, these limitations are often compensated by travelling to nearby centres. This creates a stronger dependency on car mobility, as many facilities are only accessible within commuting distance. As a result, everyday activities will increasingly shift from the village, to bigger urban centres. Facilities such as shops, cafés, and community spaces normally function as meeting places within daily routines. So when these places disappear and activities shift towards regional centres, opportunities for spontaneous encounters become less frequent, which can gradually reduce social interaction and cohesion in the villages (Klinenberg, 2018).

At the regional scale, larger centres such as Goes and Kapelle offer the most complete accessibility conditions, which is logical because they are the most densely populated. These centres contain a wider range of services within reachable distances for most population groups. This spatial concentration reflects a broader process of centralisation, in which facilities gradually shift towards larger centres, because of economic drive. Accessibility research suggests that proximity strongly influences where residents perform everyday activities, meaning that the concentration of services in regional centres can reshape local activity patterns (Haugen et al., 2012).

An interesting exception appears in the case of Rilland. Despite being a relatively small settlement, the village performs almost as well as Kruingen in terms of accessibility for several population groups. This suggests that Rilland has managed to maintain a relatively balanced service structure despite the broader trend of facility decline in smaller settlements. Overall, the map illustrates how differences in accessibility are not only determined by village size, but also by the spatial organisation of facilities and the capacity of villages to adapt to changing conditions. These spatial differences form the basis for broader social and spatial effects that influence the everyday village life.

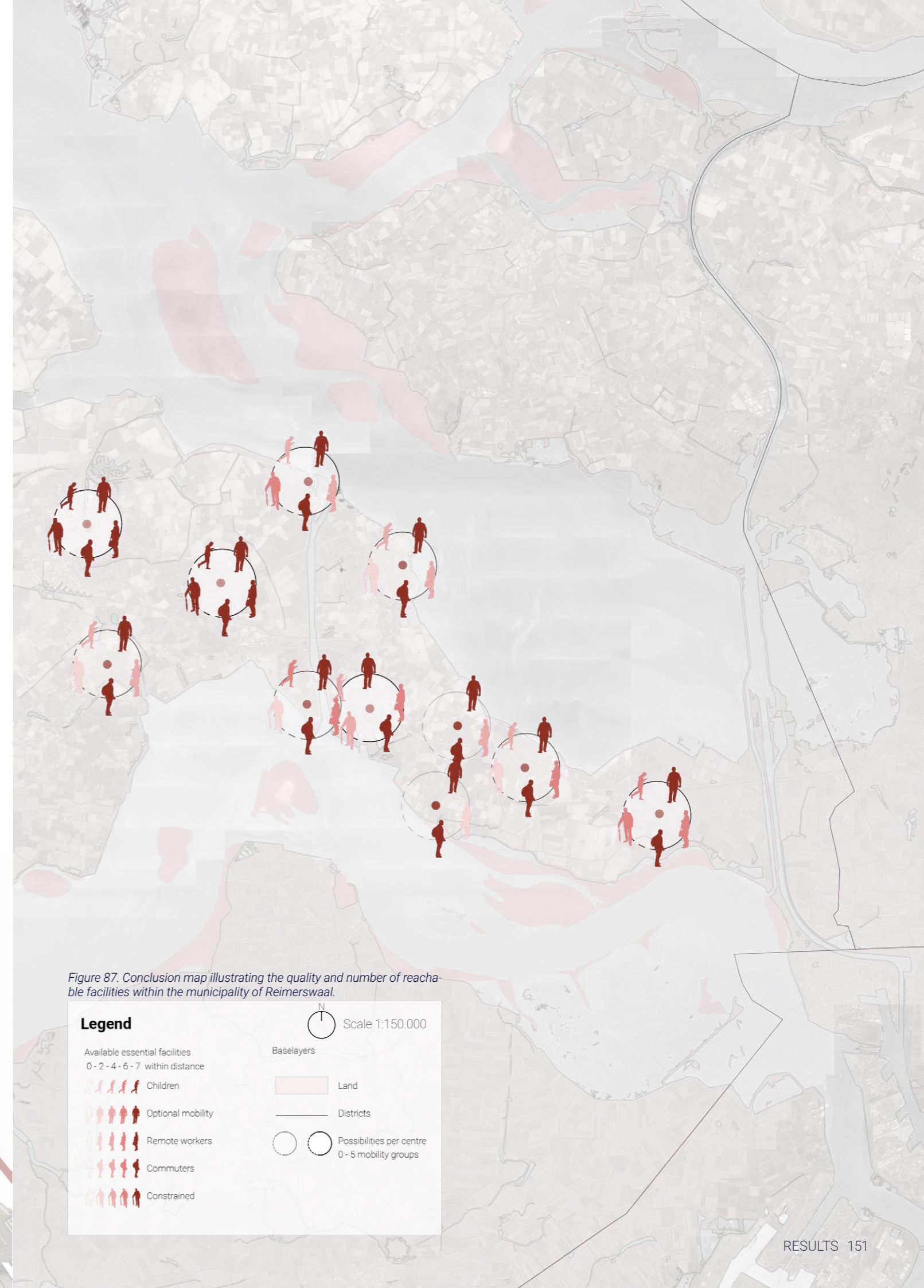
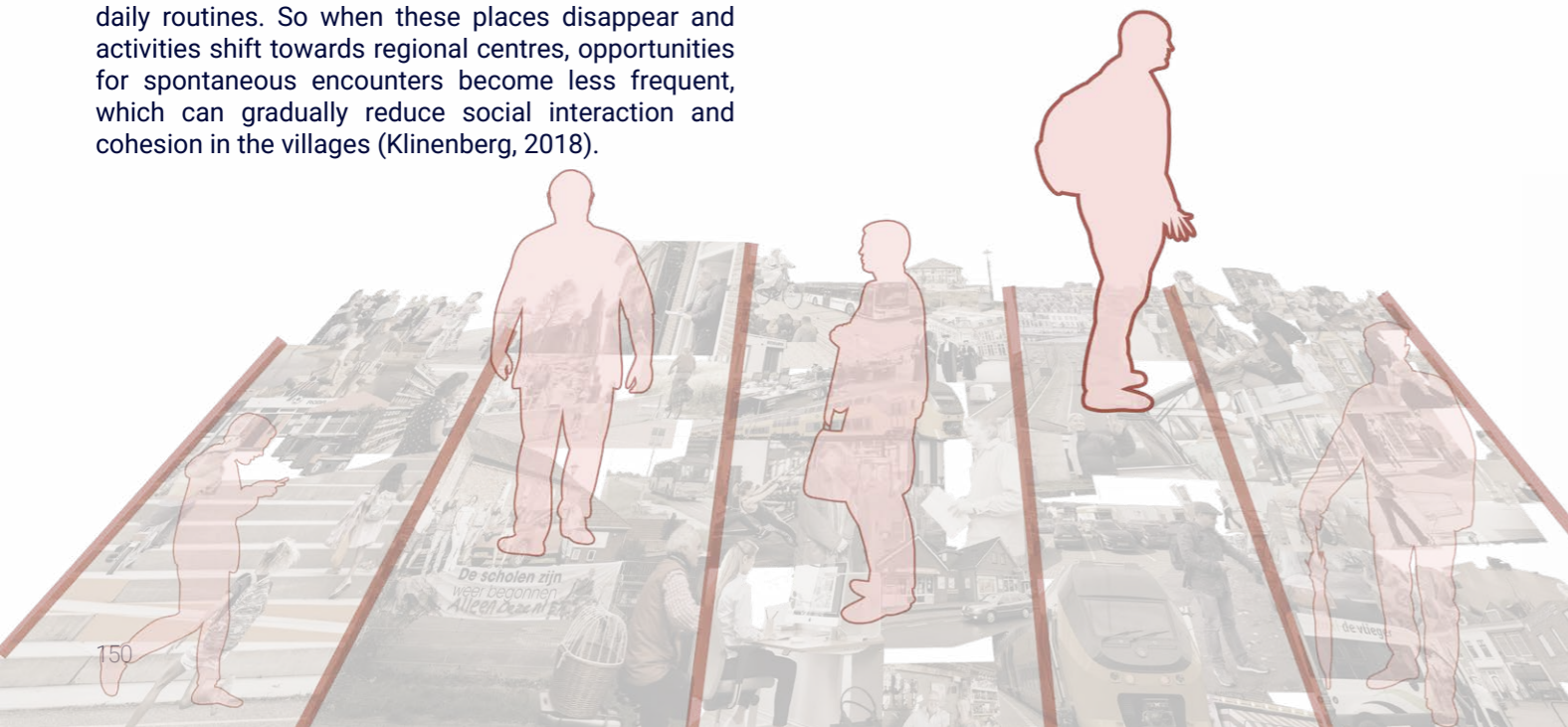


Figure 87. Conclusion map illustrating the quality and number of reachable facilities within the municipality of Reimerswaal.

3.2 Effects of mobility

3.2.5 Social and spatial effects

While the accessibility maps illustrate spatial differences between villages, they also reveal broader social and spatial consequences for everyday life. As facilities disappear and distances increase, mobility becomes a determining factor in how residents organise their routines. The diagram translates these findings into a conceptual overview of how different population groups are affected by the loss of facilities in Zeeland.

Facilities such as cafés, local shops and community spaces function as social infrastructure that supports everyday encounters (Klinenberg, 2018). These routine-based interactions, such as shopping or meeting neighbours, are essential for maintaining local social life (Latham & Layton, 2019). In villages, these places therefore have a double role: they provide services while also structuring social interaction (Gieling, Haartsen & Vermeij, 2018).

When these facilities disappear or shift towards regional centres, daily activities become more dependent on mobility. Residents are required to travel further, which fragments routines and spreads activities across multiple locations. As a result, interactions become less frequent and more planned, reducing opportunities for informal encounters. This affects how residents relate to their environment, as place attachment is strongly shaped by repeated everyday interaction (Altman & Low, 1992; Scannell & Gifford, 2010).

The spectrum shows that these effects are not equally distributed. Groups with limited mobility options, such as children and elderly residents, experience the strongest negative impacts, as their activity space is restricted to short distances. In particular, elderly residents are more dependent on nearby social environments, making them more vulnerable to the loss of local meeting places (Musselwhite & Haddad, 2010). In the context of Zeeland, where a large share of residents already experiences loneliness, this becomes even more critical.

However, the effects are not limited to vulnerable groups. Even residents with higher mobility flexibility increasingly organise their daily activities outside the village, contributing to a decline in local interaction and a more dispersed everyday life.

Taken together, these findings show that mobility differences strongly influence how residents are able to participate in everyday village life. The decline of facilities therefore does not only affect accessibility, but directly impacts both the functional and social viability of villages. These effects can be understood through two key themes: accessibility and routines. Accessibility determines which services can be reached based on distance, modal options and spatial position, while routines describe how frequently places are used and how everyday activities and social interaction are organised. As such, facility decline leads to a restructuring of daily life in which both access and use become increasingly dependent on mobility.

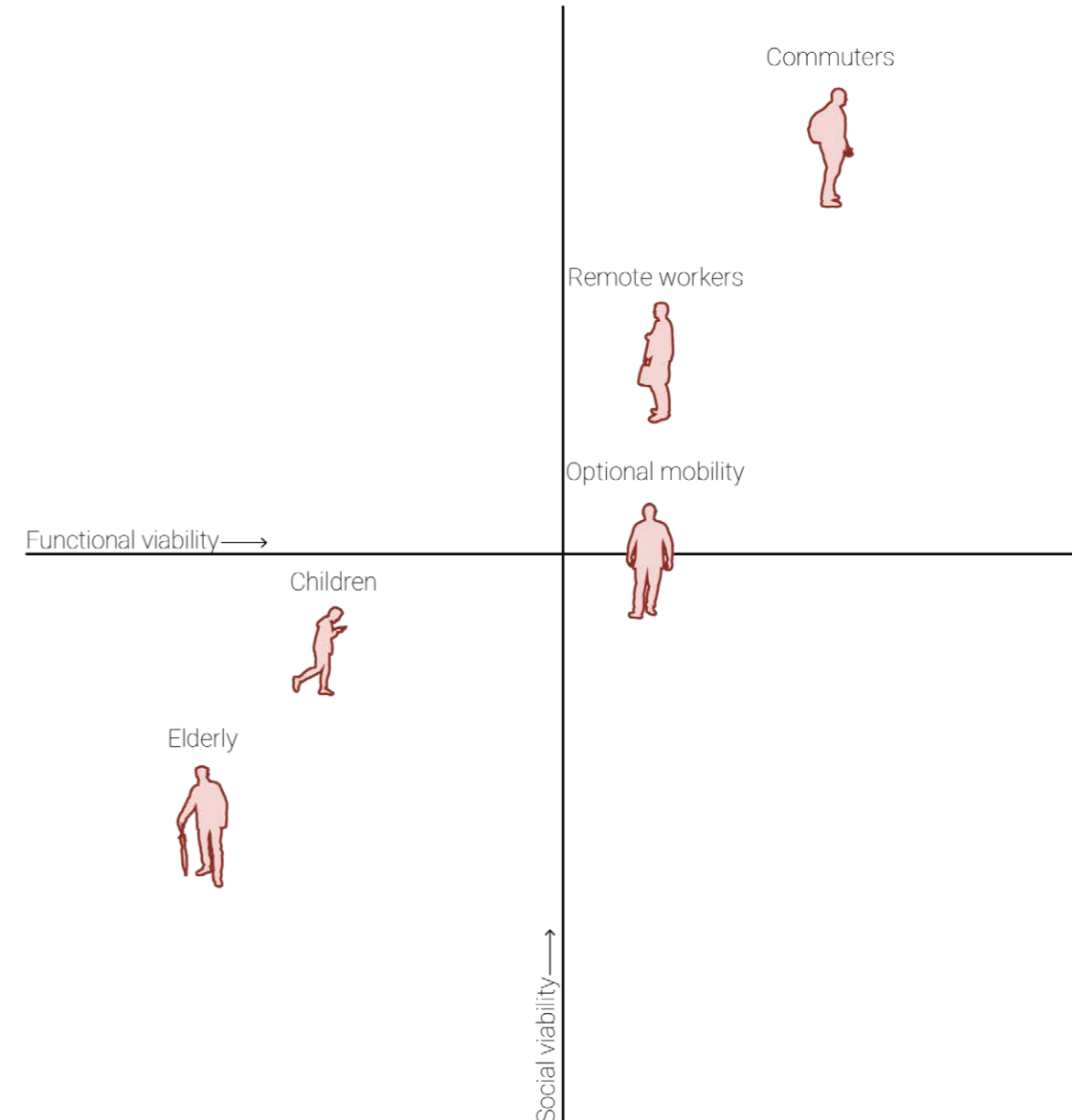


Figure 88. Diagram positioning the different mobility groups within the accessibility spectrum of the research.

3.2 Effects of mobility

3.2.6 Conclusion

This chapter examined to what degree the loss of essential village facilities affects mobility and transport in Zeeland's villages. The analysis shows that facility decline increases travel distances and strengthens mobility dependency, especially in a region where car use already dominates everyday life.

Although transport infrastructure can partly compensate for the disappearance of local services, the case of Krabbendijke shows the limits of this idea. Even with a train station and relatively strong regional and national connections, the village still experiences a decline in local facilities. This suggests that public transport accessibility alone is not enough to keep facilities viable in the context of Zeeland.

In Zeeland, the role of public transport in everyday accessibility is relatively small. According to Zeeland 2050, only around 8% of residents regularly use public transport. This means that most daily activities depend on private mobility, mainly the car. As a result, transport infrastructure cannot fully compensate for the structural effects of declining local provision and demand.

Instead, the analysis shows that other factors, such as population size, demographic composition and economic drive, play a larger role in the resilience of local facilities. Smaller villages with ageing populations are especially sensitive to these changes.

At the same time, the results also show that decline is not the same everywhere. Some villages, such as Rilland, show a certain level of adaptability by maintaining a relatively balanced set of facilities, even within the broader regional trend.

Looking at the analysis as a whole, two main themes become visible: accessibility and routines. Accessibility is about the spatial side of village life, including distances, modal options and how central a place is within the regional system. As facilities disappear, distances increase and accessibility becomes more dependent on mobility. Routines are more about how everyday life is organised, such as patterns of use, frequency of visits and moments of social interaction. When facilities move away, these routines become more fragmented and less connected to the village itself.

These findings show that the future of village facilities in Zeeland cannot rely only on transport solutions. Strengthening local centres, supporting community initiatives and exploring new forms of local services are just as important to maintain liveability in small villages.

Finally, the results show that the loss of facilities does not only influence mobility patterns, but also reshapes everyday routines and accessibility. This affects both how daily life is organised and how often people interact, which in turn influences the social and symbolic role of places within the village, especially for more vulnerable groups. The next chapter therefore focuses on how these changes affect the social and symbolic identity of villages.

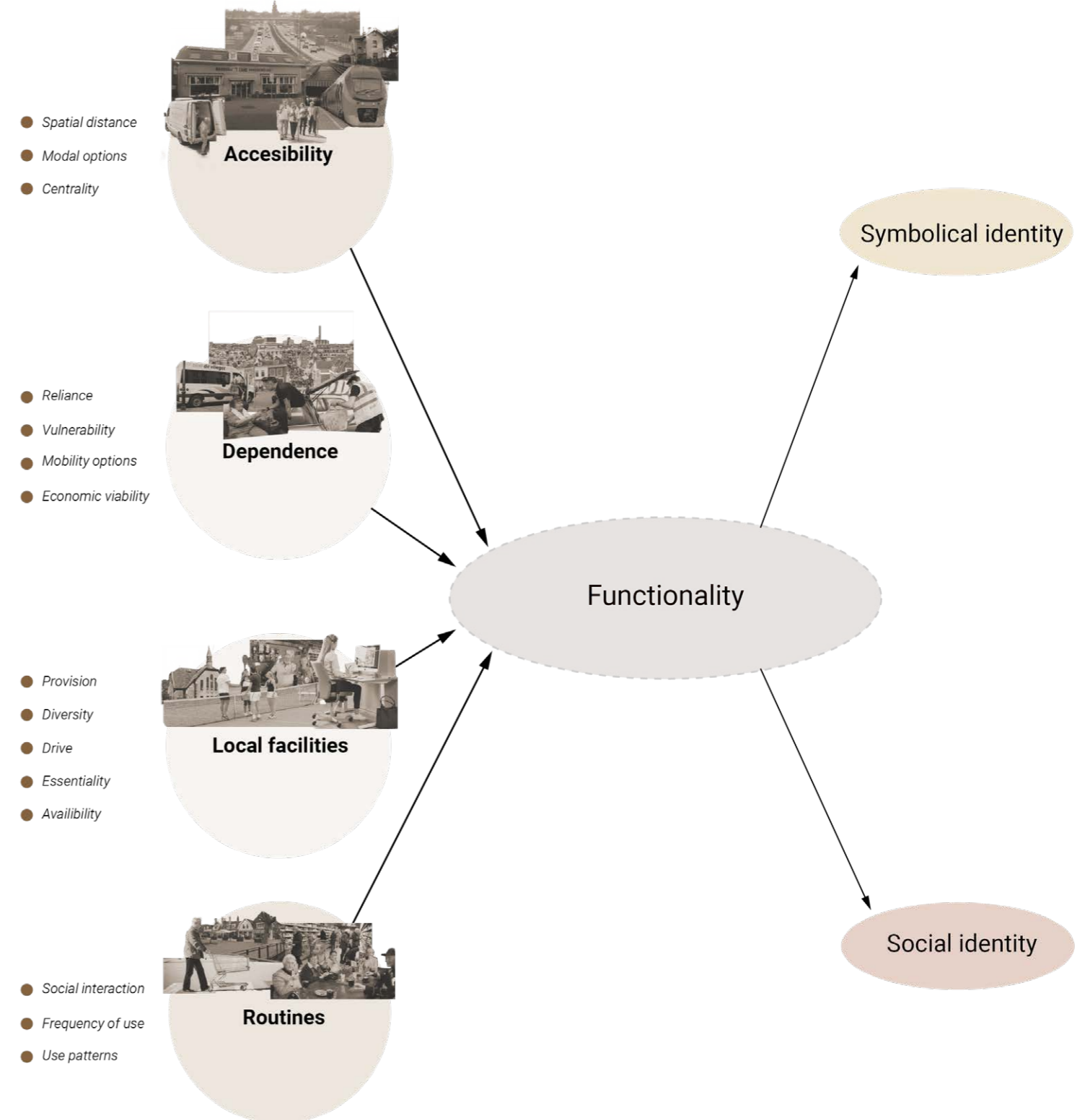


Figure 89. Conclusion framework of sub-question 2.

3.3 Effects of decline

- From loss and decline to experience
- Symbolical Identity anchors
- Social Identity anchors
- Conclusion



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3.3 Effects of decline

3.3.1 From loss and decline to experience

The previous research questions analysed how the decline of essential village facilities in Zeeland manifests spatially and how this decline relates to mobility and accessibility. Together, this analysis shows that the loss of facilities is not an isolated or purely functional issue, but part of a broader spatial transformation that relates strongly to the organisation of everyday life in villages. What becomes visible is a shift from proximity-based systems, in which daily needs could be met locally, towards mobility-dependent systems, in which access increasingly relies on travelling to other places.

Accessibility data from the Centraal Bureau voor de Statistiek shows that villages already operate from a disadvantaged position, with larger distances to essential services compared to urban centres (CBS, 2025). Over time, these distances have increased further, reflecting a broader pattern in which facilities concentrate in locations with greater scale and density, following growth-oriented logics (CBS & PBL, 2010). From a Dutch rural studies perspective, Christiaanse (2020) argues that this process is not simply driven by demographic decline, but by structural dynamics such as scale enlargement, deregulation and increased mobility. As a result, villages gradually lose the facilities that once supported their everyday routines.

This loss directly affects how residents organise their daily lives. As facilities disappear, activities such as shopping, healthcare visits and social participation increasingly require travelling. In regions such as Zeeland, where dispersed settlement structures and limited public transport already create a strong reliance on private mobility, this leads to even more car dependency (Provincie Zeeland, 2023). Insights from Dutch accessibility and transport inequality research show that this shift is not experienced equally. Residents with limited mobility options, such as elderly populations or households without access to a car, are more strongly affected by increasing distances and reduced local accessibility (PBL, 2022; Musselwhite & Haddad, 2010).

At the same time, mobility does not simply compensate for the disappearance of facilities. While it enables access to services elsewhere, it also reshapes the spatial organisation of daily routines. Activities that were previously embedded within the village shift towards multiple other centres, leading to a fragmentation of everyday life. Research emphasises that overlapping routines are crucial for creating opportunities for informal encounters and maintaining social interaction (Latham & Layton, 2019). When routines shift away from the village, these encounters become less frequent and social life in the village regresses.

In this context, facilities play an important role beyond their functional purpose. Empirical research in Dutch rural sociology shows that places such as supermarkets, schools, cafés and sports facilities act as everyday meeting points embedded within routine practices (Gieling, Haartsen & Vermeij, 2018; Christiaanse & Haartsen, 2017). Their disappearance therefore has an additional impact: it reduces functionality and accessibility while also weakening the social structures of villages. This interpretation is reinforced in local and national media narratives, where the loss of such facilities is framed not only as a practical inconvenience, but as a signal of declining liveability and community life (Provinciale Zeeuwse Courant, 2023; De Volkskrant, 2023).

These findings indicate that functional loss extends beyond accessibility alone. Changes in mobility and routines influence everyday interaction, and point towards broader effects on the social and symbolic dimensions of village life.



Figure 90. Diagram illustrating the different layers of identity within the research.

3.3 Effects of decline

3.3.1 From loss and decline to experience

Building on these findings, the decline of village facilities can be seen as a layered process of change. It does not only affect functionality, but also how people move, interact and relate to their living environment.

As distances increase, mobility becomes more important. Everyday routines become more dependent on movement between places. Activities that used to happen locally shift towards regional centres. This reduces the presence of daily life within the village. It also means that people encounter each other less often in everyday situations.

Research shows that these routine-based encounters are important for local social networks (Latham & Layton, 2019). When routines shift away from the village, opportunities for spontaneous interaction decrease. Over time, this weakens social structures. This is especially the case for people who depend more on nearby facilities, such as elderly residents or less mobile groups (PBL, 2022; Musselwhite & Haddad, 2010).

At the same time, this process also has a symbolic side. Meaning is connected to everyday use and repeated interaction with familiar places (Thissen & Loopmans, 2013; Van der Star & Hochstenbach, 2022). When facilities disappear, not only do functions move away, but places lose part of their meaning. Buildings can still be there, but if they are no longer used, their symbolic value becomes weaker.

The diagram on this page shows this process. It explains how changes in local facilities and accessibility lead to social and symbolic effects, but also that mobility and routines influence the functionality in their own way. It shows that facility decline is not only a functional or spatial issue, but something that affects everyday village life.

Based on this, the following research looks further into these effects through social and symbolical identity. The focus is on how accessibility, dependence, local facilities and routines influence everyday practices, social interaction and the meaning of place, through the symbolical and social identity dimensions.

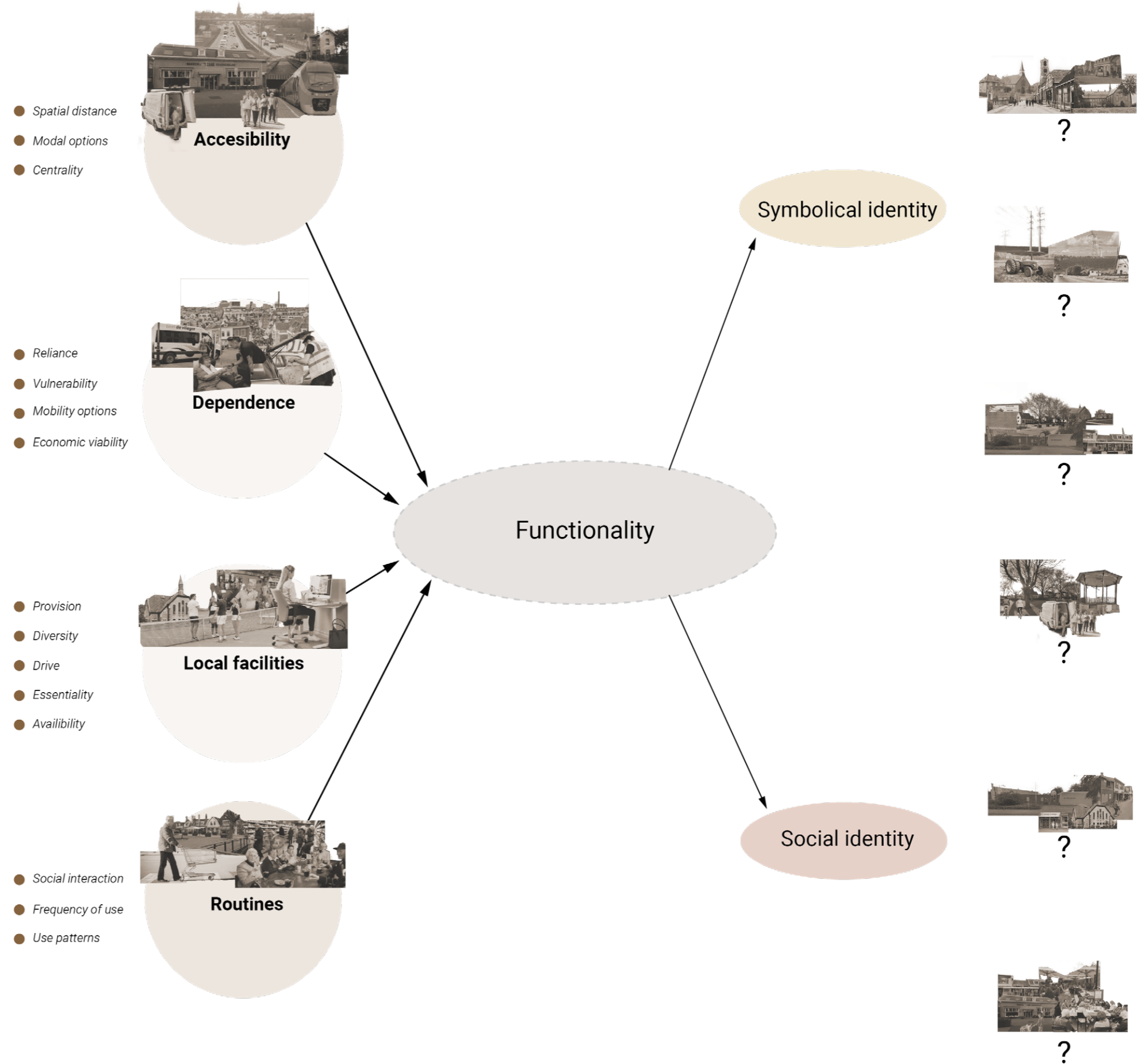


Figure 91. Diagram integrating the frameworks of sub-question 1 and 2, illustrating the transition towards the identity-related research themes.

3.3 Effects of decline

3.3.2 Symbolical identity anchors

Introduction

In addition to functional and social changes, the decline of village facilities also influences a less visible layer: the symbolic identity of the village. In this research, symbolic identity is not seen as something fixed, but as something that develops through everyday use, memory and shared experience.

From the previous analysis, it already became clear that meaning is strongly connected to daily routines and repeated interaction. Thissen & Loopmans (2013) describe how places gain meaning through use, while Van der Star & Hochstenbach (2022) show that this depends on continuity over time. When routines shift away from the village, this continuity becomes less present. As a result, the connection between people and place can weaken. In that sense, meaning is not in the object itself, but in how it is used and experienced (Altman & Low).

When talking about symbolic identity in villages, the focus is often on visible elements like churches, historic buildings or the village square. These are important, but they are only part of the story. From this research, it becomes clear that symbolic identity is just as much about how places function in everyday life. It is about recognition, routines and shared use. A place becomes meaningful because people use it, meet there, and attach memories to it.

As facilities disappear, these everyday connections start to change. Activities move away from the village, and with that, the use of certain places also decreases. Even if these places are still physically there, they are no longer part of daily routines. This means that their symbolic value can slowly weaken over time.

At this point, symbolic identity can be seen as something that is closely linked to everyday life and local use. Not just to what is physically present, but to how places are part of routines and interaction. What this exactly means for Krabbendijke will be explored further in the next sections, where the focus shifts to how symbolic identity is built up and how it changes under these conditions.



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Symbolical identity

Figure 92. Diagram illustrating the possible themes related to symbolic identity within the research.

3.3 Effects of decline

3.3.2 Symbolical identity anchors

History

The development of Krabbendijke is closely tied to the interaction between water, land reclamation and agricultural use. The village originated from a landscape that was repeatedly shaped by flooding and re-embankment, in which human intervention played a crucial role in making the land habitable and productive. This process of continuous transformation has left a strong imprint on the spatial structure of the village and its surroundings.

Rather than being defined by a single historical moment, Krabbendijke developed gradually through the construction of polders and the organisation of agricultural land. This resulted in a landscape and settlement pattern that is strongly oriented towards cultivation, infrastructure and efficiency. At the same time, these processes also shaped local ways of living, in which agriculture, church life and close-knit communities formed the basis of everyday routines.

Over time, the village evolved from a relatively autonomous settlement into part of a larger municipal and regional system. Despite these changes, certain structures have remained important. Community spaces, such as churches, local associations and shared facilities, have historically played a central role in organising social life and maintaining connections between residents.

This historical development highlights that the value of Krabbendijke lies not only in its physical form, but also in the practices and habits that have developed over time. The village's identity is therefore rooted in a combination of landscape, local traditions and everyday use, which together continue to influence how the village is experienced today.

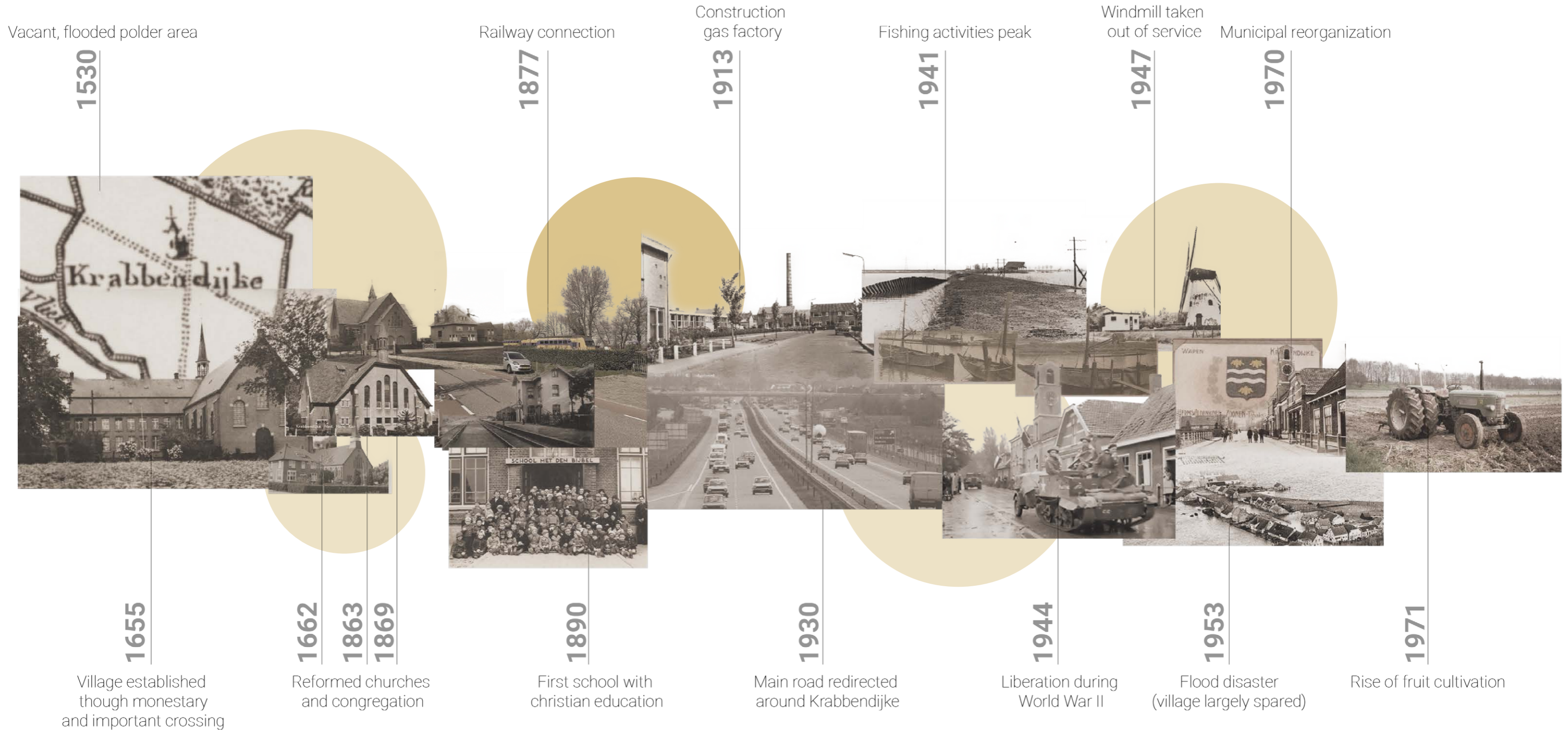


Figure 93. Timeline collage illustrating important historical moments and developments within Krabbendijke and Zeeland.

3.3 Effects of decline

3.3.2 Symbolical identity anchors

Spatial analysis

The spatial structure of Krabbendijke clearly shows how important the landscape has been in shaping the village. The polder system, dikes and agricultural fields determined where people could live and how the village developed over time. This is not only something from the past. The landscape still plays a major role today and remains the base layer of the village. It defines the open character, the long sightlines and the way the village is positioned within the wider region.

These spatial conditions also influenced local habits. Agriculture has long been the dominant form of work, which shaped daily routines and the way people organise their lives. This can still be seen in how the land is used, but also in the mentality and structure of the village. In addition, elements such as language and religion are closely connected to this context. The presence of multiple churches shows how important religion has been, and still is, in daily life. These churches are not only historical buildings, but continue to contribute to the character and recognisability of the village.

Infrastructure and mobility routes form another important layer. The dikes and roads structured early movement, but later the railway and the station became key elements in connecting Krabbendijke to the region. The railway line cuts through the landscape and the station still functions as an important node. These elements influenced not only how people move, but also how the village expanded and positioned itself over time. Because of this, they are not only functional, but also part of the historical and symbolic value of the village.

At the local scale, several places stand out as important within the village structure. Landmarks such as the former town hall, the central square and important intersections have historically functioned as meeting places. These are locations where events took place, where people gathered, and where local traditions and everyday practices became visible. These spaces played a role in both organised activities and informal encounters, making them important for community life.

What becomes visible in the map and collage is that these elements are all connected. The landscape, infrastructure, religious buildings and local meeting spaces together form a layered structure. This structure does not only organise the village physically, but also reflects local habits, social interaction and shared meaning. Even though some of these elements are old, they still contribute to how the village is experienced today. In that sense, they form an important base for the symbolic identity of Krabbendijke.



Figure 94. Spatial analysis collage illustrating important historical places and identity carriers within Krabbendijke.

3.3 Effects of decline

3.3.2 Symbolical identity anchors

Observations

In addition to the spatial analysis, non-structured interviews were conducted in Krabbendijke to understand how residents experience the village in everyday life. From these conversations, it becomes clear that the identity of the village is not only shaped by its physical structure, but also by local habits, shared values and daily interaction.

Residents often refer to agriculture and fruit cultivation as important parts of the village. This reflects both the landscape and the local economy, but also how people relate to their environment. Infrastructure, such as the station and main routes, is mentioned as an important layer, as it influences movement and the connection to the wider region. The village is described as a place where people know each other. Small things, such as greeting each other or speaking in local dialect, still play a role in everyday life. Religion is also often mentioned, where churches are seen as active parts of the community rather than only historical buildings.

Local facilities and the role of Krabbendijke as a centre also come forward. The village is not only a place to live, but also supports surrounding settlements.

Together, this shows that the identity of Krabbendijke is formed through a combination of physical elements, local practices and social relationships, which become visible in everyday use.

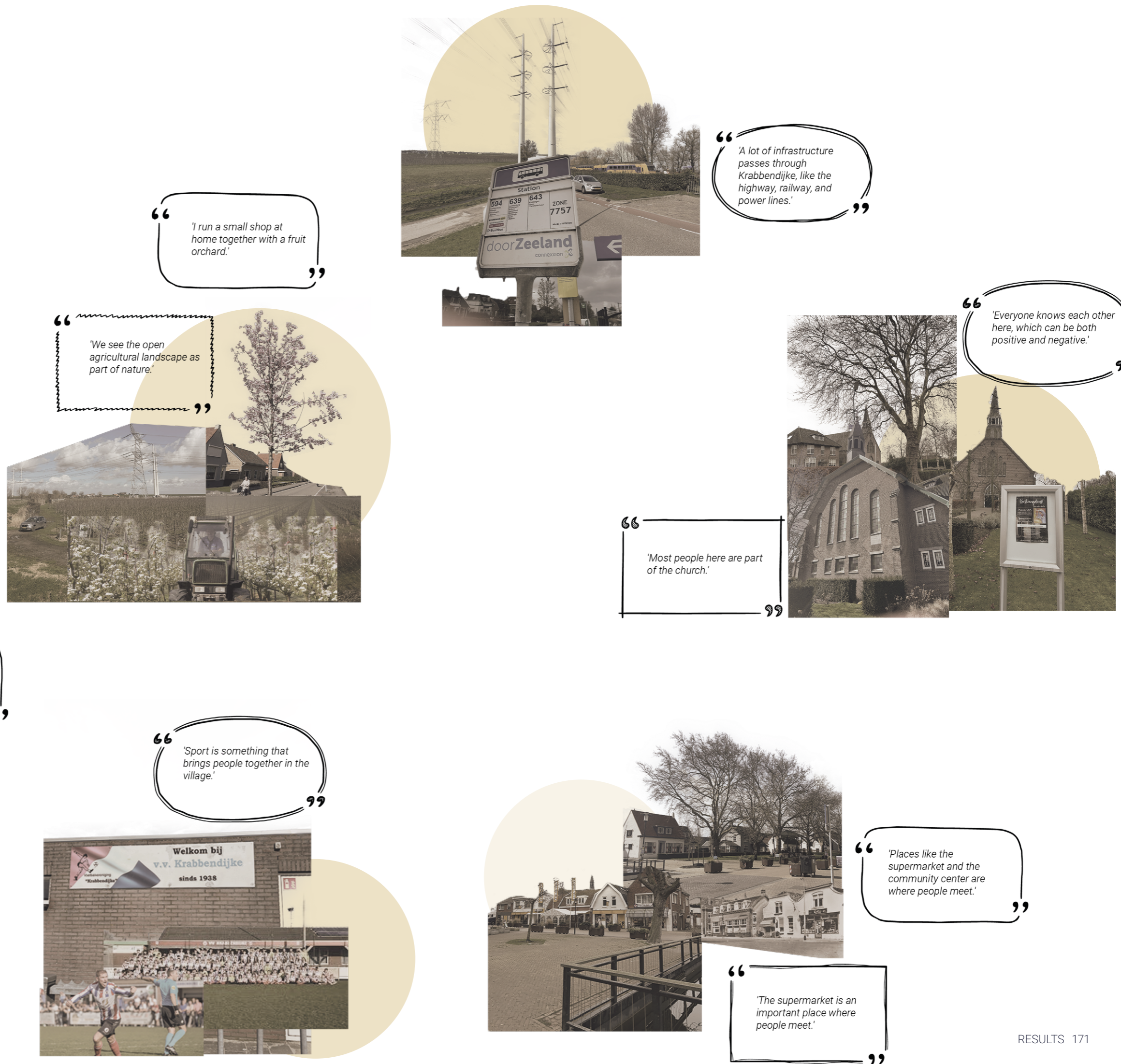


Figure 95. Collage of fieldwork observations in Krabbendijke.

3.3 Effects of decline

3.3.2 Symbolical identity anchors

Cultural expressions

In addition to spatial structure and everyday use, cultural expressions such as local songs and visual representations also give insight into how Krabbendijke is understood and remembered. These sources show how the village is not only experienced physically, but also represented symbolically over time.

Religious songs, especially in the mid-20th century context, highlight the role of the church as more than just a building. It functioned as a social anchor and an important carrier of identity, where community and shared beliefs came together. This confirms the strong connection between religion, daily life and social structure within the village.

Earlier references, such as the 18th-century song "Vreugt-Gezang, door 't geheele Eyland van der Goes" (± 1740), place Krabbendijke within a wider network of villages. Rather than being described as a central place, it appears as part of a chain of settlements. This reflects the idea of the village as a connection point, a crossing or passage within a larger system, which also aligns with insights from the interviews.

Visual sources, such as paintings of the village core and the book *Krabbendijke in vroeger tijden*, further reinforce this image. They show recurring themes such as religion, agricultural activity and infrastructure, confirming their long-term importance in shaping the village. At the same time, more recent cultural references, such as the song *Marijke uit Krabbendijke*, present the village as a recognisable and typical place. Here, the focus is less on history and more on everyday life and familiarity.

Together, these cultural expressions show that symbolic identity is not only shaped by physical elements, but also by how the village is represented, remembered and recognised. They reflect both continuity and change, and form an important layer in understanding the symbolic identity of Krabbendijke.



KRABBENDIJKE



Figure 96. Collage illustrating cultural expressions within village life.

3.3 Effects of decline

3.3.2 Symbolical identity anchors

Themes

The previous analyses show that the identity of Krabbendijke can be understood through four closely related themes. Local habits reflect everyday practices, such as agriculture, religion and social interaction. Historical values highlight the continuity of these practices and the importance of heritage over time. Landscape qualities form the spatial foundation, shaping both the physical structure and ways of living. Community spaces connect these layers, as places where daily life, interaction and shared meaning come together.

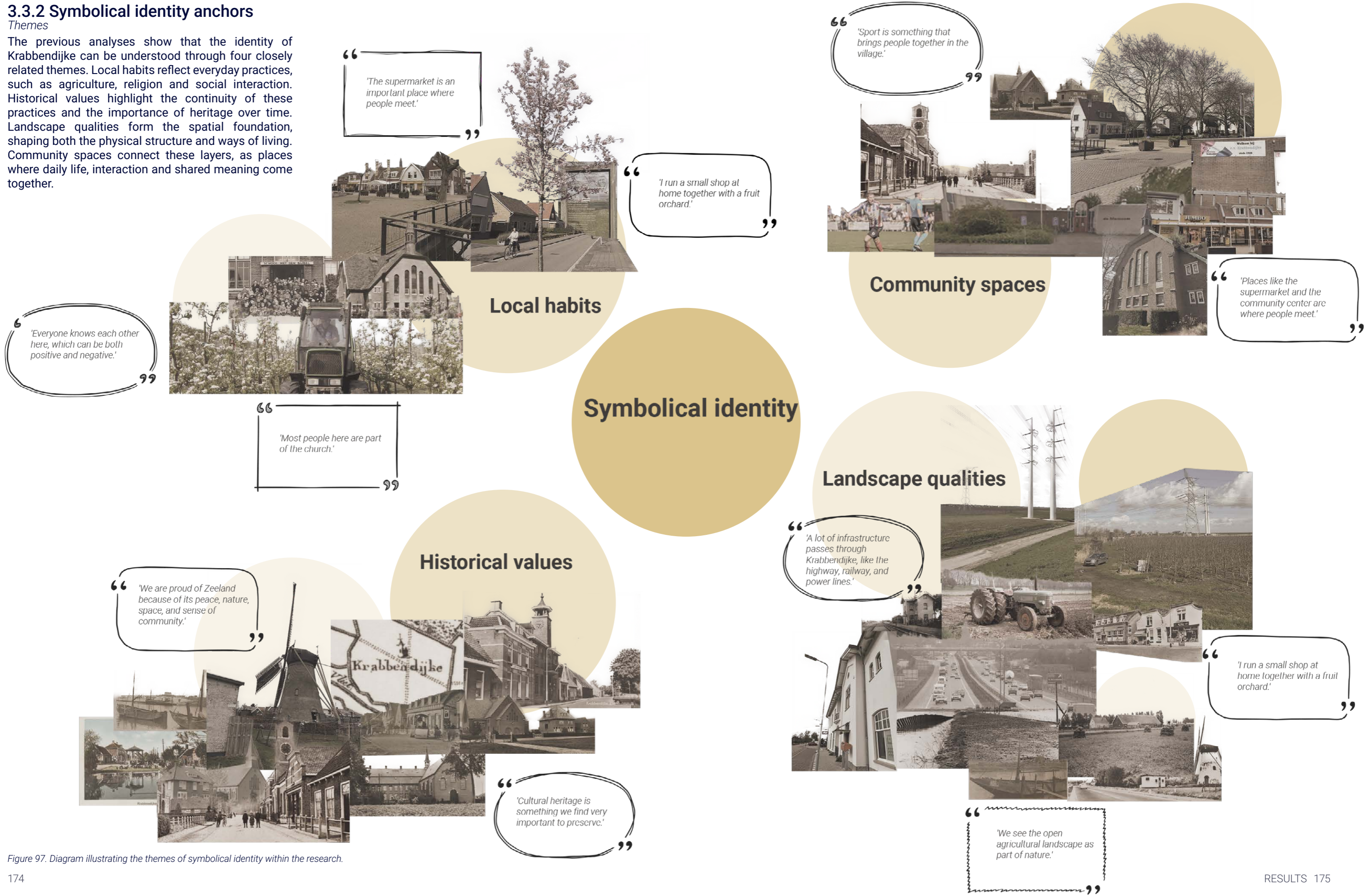


Figure 97. Diagram illustrating the themes of symbolical identity within the research.

3.3 Effects of decline

3.3.2 Symbolical identity anchors

Effects

The analysis shows that symbolic identity in Krabbendijke can be understood through four main themes: local habits, historical values, landscape qualities and community spaces. Within these themes, more specific elements can be identified. In this research, these are defined as components. These components are not theoretical abstractions, but have emerged directly from spatial analysis and non-structured interviews conducted in the village. They reflect how residents describe, use and experience their environment in everyday life.

Each of the themes represents a different layer of meaning. Local habits relate to everyday practices such as greeting, religious routines and agricultural work, which structure daily life and reinforce a shared identity. Historical values can be found in elements such as churches, older buildings and former civic structures, which remain visible and continue to contribute to how the village is recognised over time. Landscape qualities form the underlying layer, where the polder structure, open fields and infrastructural lines define not only the spatial organisation, but also the way the village is perceived and experienced. Community spaces, such as the village square, meeting places and local facilities, function as locations where these layers come together and become visible in everyday interaction.

As also discussed in the interviews, the meaning of these components is not fixed in the object itself, but in how they are embedded in daily routines. This aligns with earlier research showing that symbolic meaning develops through repeated interaction and use over time (Thissen & Loopmans, 2013). Similarly, Christiaanse & Haartsen (2017) show that rural facilities carry strong symbolic and emotional meanings that go beyond their functional role, and that their loss can lead to a broader sense of decline rather than only reduced accessibility.

When looking at the identified components across these four themes, a set of effects becomes visible. Changes in accessibility, mobility and facility presence influence how often places are used, how routines are organised and how people relate to specific locations. This affects local habits by altering daily patterns, weakens the use and visibility of community spaces, and reduces the continuity of historical values when they are no longer part of everyday life. At the same time, landscape qualities often remain physically present, but their meaning can shift when they are less actively experienced or connected to daily practices.

This process is not only spatial, but also social and emotional, as described in research on place attachment, where the connection between people and place depends strongly on daily interaction and familiarity. National and regional studies further show that changes in behaviour, accessibility and spatial organisation play a key role in shaping local environments, beyond demographic change alone. In Zeeland specifically, quality of life is strongly related to social cohesion, familiarity and everyday experiences, rather than only the presence of facilities.

At the same time, policy and local practice emphasise the importance of maintaining these relationships. The Zeeland2050 vision highlights the need to strengthen villages by building on their specific qualities, including landscape, community and identity. Similarly, the Zeeuwse Vereniging voor Kleine Kernen shows that local identity is closely tied to lived experiences, where everyday elements such as meeting places, churches and local initiatives remain central.

Taken together, this shows that symbolic identity is not defined by individual objects, but by the interaction between local habits, historical values, landscape qualities and community spaces. The effects identified in this research indicate that when everyday use declines, symbolic meaning across these themes can gradually weaken. This means that spatial and functional changes do not only affect accessibility or liveability, but also influence how places are recognised, valued and remembered. Understanding these relationships is essential for further analysing how symbolic identity can be supported or strengthened within future spatial interventions.

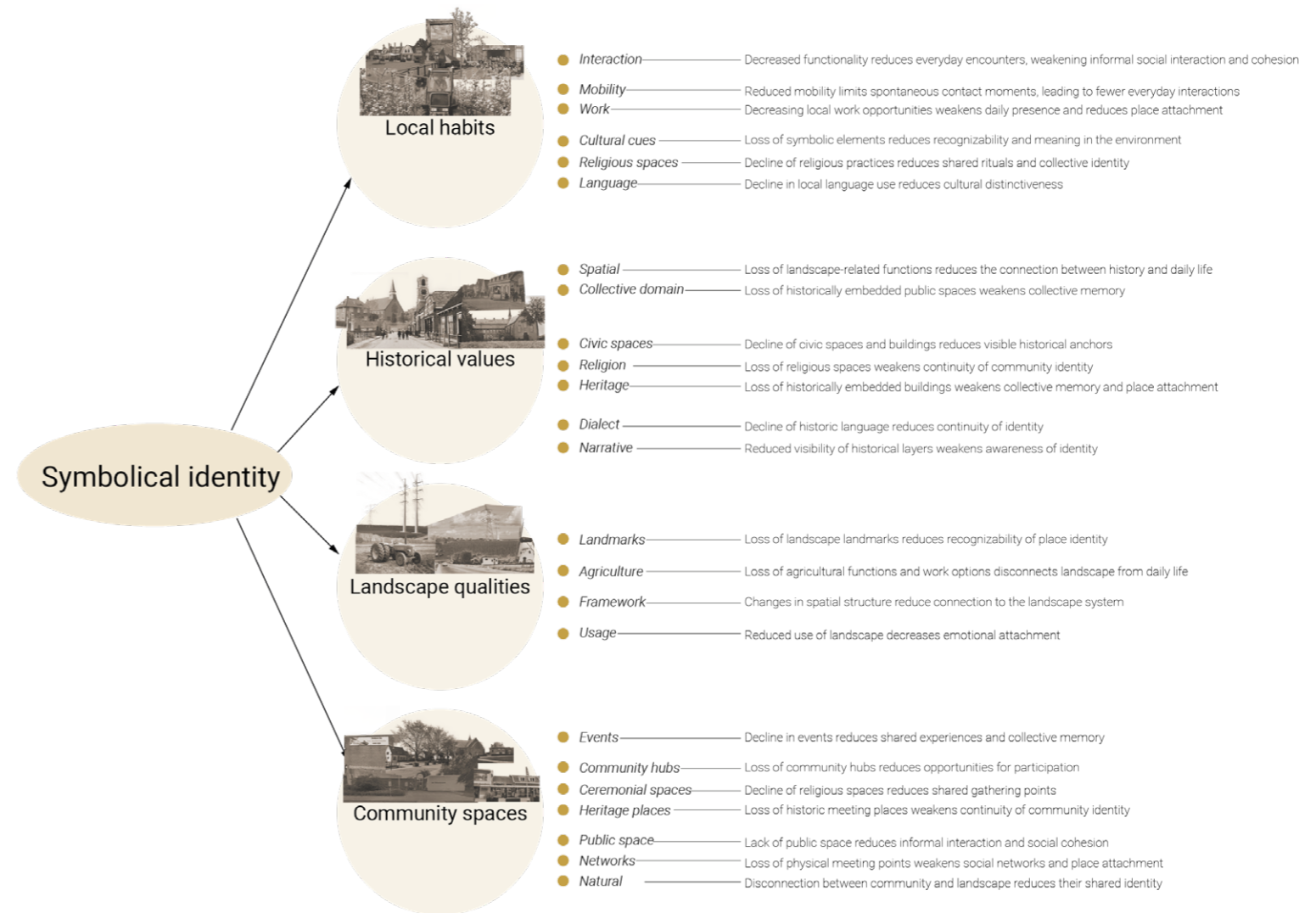


Figure 98. Expanded framework diagram illustrating the themes, effects and spatial applications of symbolical identity within the research.

3.3 Effects of decline

3.3.3 Social identity anchors

Introduction

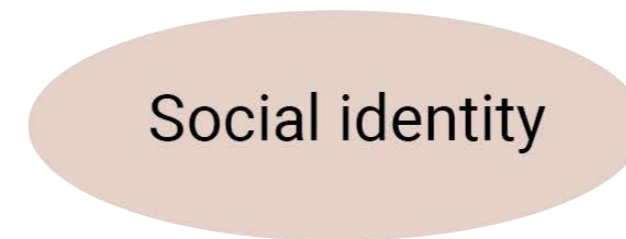
In addition to functional changes, the decline of village facilities also affects the social dimension of village life. Within this research, social identity refers to the way in which social relationships, everyday interactions and a sense of belonging are formed within the village. Similar to symbolic identity, this is not a fixed condition, but something that develops through daily practices and repeated encounters.

As described in the previous chapters, facilities such as supermarkets, cafés, schools and sports clubs play an important role in structuring everyday life. Research by Gieling, Haartsen & Vermeij (2018) shows that these places function as everyday meeting points where informal interactions take place. These routine-based encounters are essential for maintaining local social networks. In addition, Christiaanse & Haartsen emphasise that such facilities support both functional needs and social interaction, making them important anchors within village life.

When these facilities disappear, the structure of daily routines changes. Activities such as shopping or leisure increasingly take place outside the village, causing everyday life to become more spatially dispersed. As a result, opportunities for spontaneous encounters decrease. As also discussed earlier, overlapping routines are important for creating informal interaction (Latham & Layton, 2019). When these routines shift away from the village, social interaction becomes less frequent and more planned.

Social identity is therefore closely linked to the presence of shared spaces and everyday practices. It is not only about organised activities or formal networks, but also about small, repeated interactions that create familiarity and recognition between residents. When these interactions become less embedded in the village, the sense of belonging and local connectedness can gradually weaken.

At this stage, social identity can be understood as something that is rooted in everyday interaction and shared use of space. However, how this differs between villages, and how strongly it is affected by changes in facilities and mobility, requires further investigation. The following sections will therefore explore more specifically how social identity is shaped and how it responds to ongoing spatial and functional transformation.



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Figure 99. Diagram illustrating the possible themes of social identity within the research.

3.3 Effects of decline

3.3.3 Social identity anchors

Usage patterns

Based on observations over multiple days, it becomes clear that the use of Krabbendijke is strongly structured around a few key places and moments during the day.

The schools are one of the most active locations, especially during mornings and afternoons, where parents and children create clear peaks in activity. The supermarket also plays an important role. It is not only used for daily shopping, but functions as a social place where people meet and talk. Throughout the day, it acts more as a social anchor than just a functional facility.

At the same time, there is a noticeable absence of spaces for younger people. As a result, they tend to claim public spaces themselves, which sometimes leads to informal use and leftover waste. Although Krabbendijke still has a relatively strong centre with several facilities, many residents work outside the village. In the mornings, a large group of commuters leaves by car or work vans, which makes the village noticeably quieter during weekdays.

This pattern shifts slightly in the weekend, when more people stay in the village and activity increases. In the evenings, however, the village becomes quiet quite early. Due to the limited number of functions that remain open after working hours, there is little reason for people to stay outside. Apart from a single café, which is not heavily used, most activity disappears after around 9 PM, making the village feel calm and inactive.

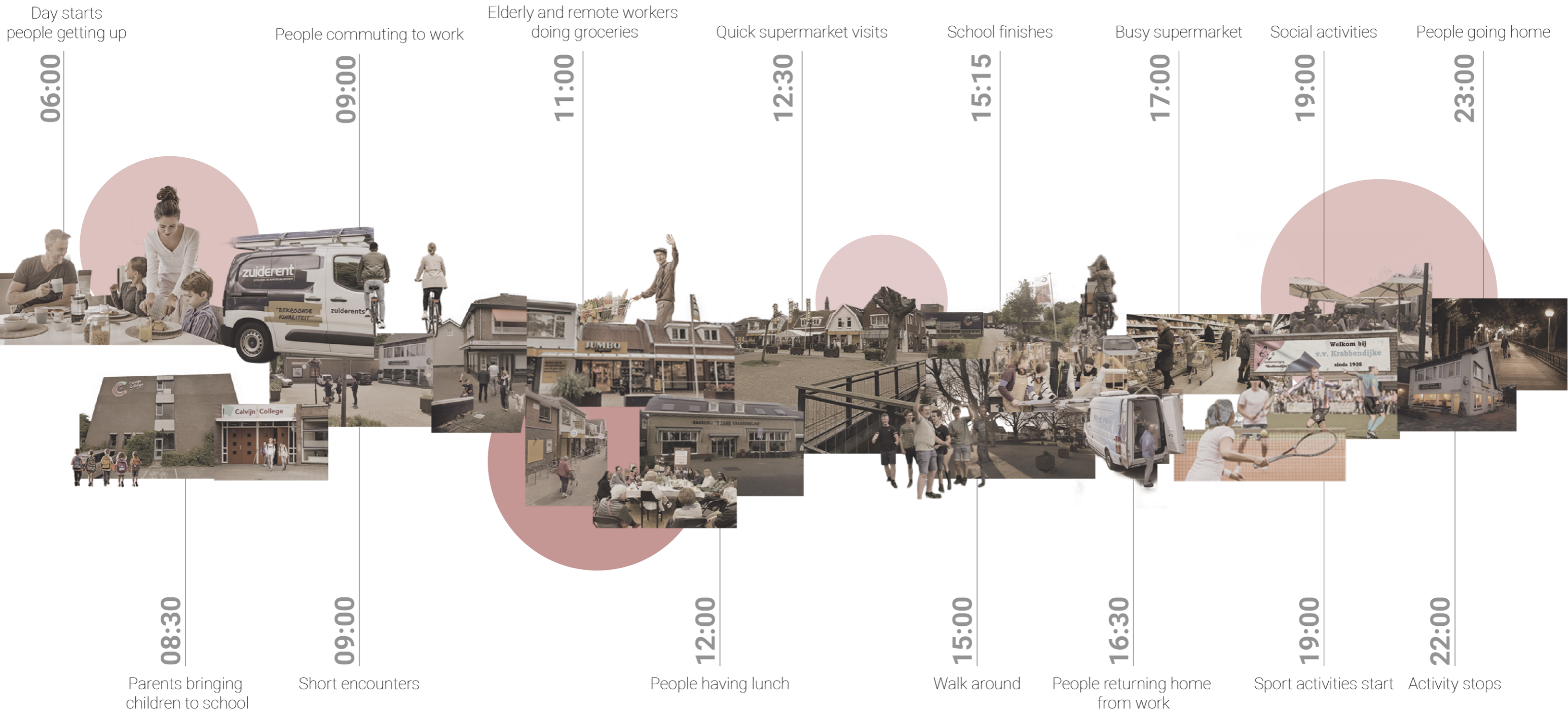


Figure 100. Diagrammatic timeline illustrating a possible daily rhythm within village life.

3.3 Effects of decline

3.3.3 Social identity anchors

Usage patterns

According to the work of W.H. Whyte (1988), *The Design of Spaces*, the way people use public space is strongly related to everyday behaviour, observation and the presence of other people, rather than only the physical design of a place.

Based on this idea, and the observations in combination with the mobility groups, the diagram of usage of public functions and activity was made. As seen during site visits, the life in Krabbendijke does not extend much further than around 22:00 during weekdays.

In the collages, the different functions that are used during the day are represented for each mobility group. This diagram is therefore not a strict scientific model, but rather an interpretation of the site visits, supported by the way Whyte describes observing everyday use of space.

What also becomes clear, both from the observations and from Whyte's work, is that the use of space follows clear daily rhythms. Whyte shows that activity in public spaces often peaks at specific moments, such as lunch hours, and drops significantly outside of these times. A similar pattern can be recognised in Krabbendijke, where certain places are used intensively during the day, but become quiet relatively early in the evening.

From the diagram, it can be read that there are multiple spaces for different groups, but also spaces that are relevant for more groups at the same time. Places like the supermarket, sports clubs, public transport nodes and churches stand out as shared locations. These are the places where different mobility groups overlap, both within and outside of Krabbendijke.

Following Whyte's observations, these shared spaces become important because they attract people and create opportunities for interaction, simply by being used. In that sense, the diagram reflects how everyday use, and its timing, shapes the activity patterns within the village. This strongly relates to accessibility and social interaction potential.

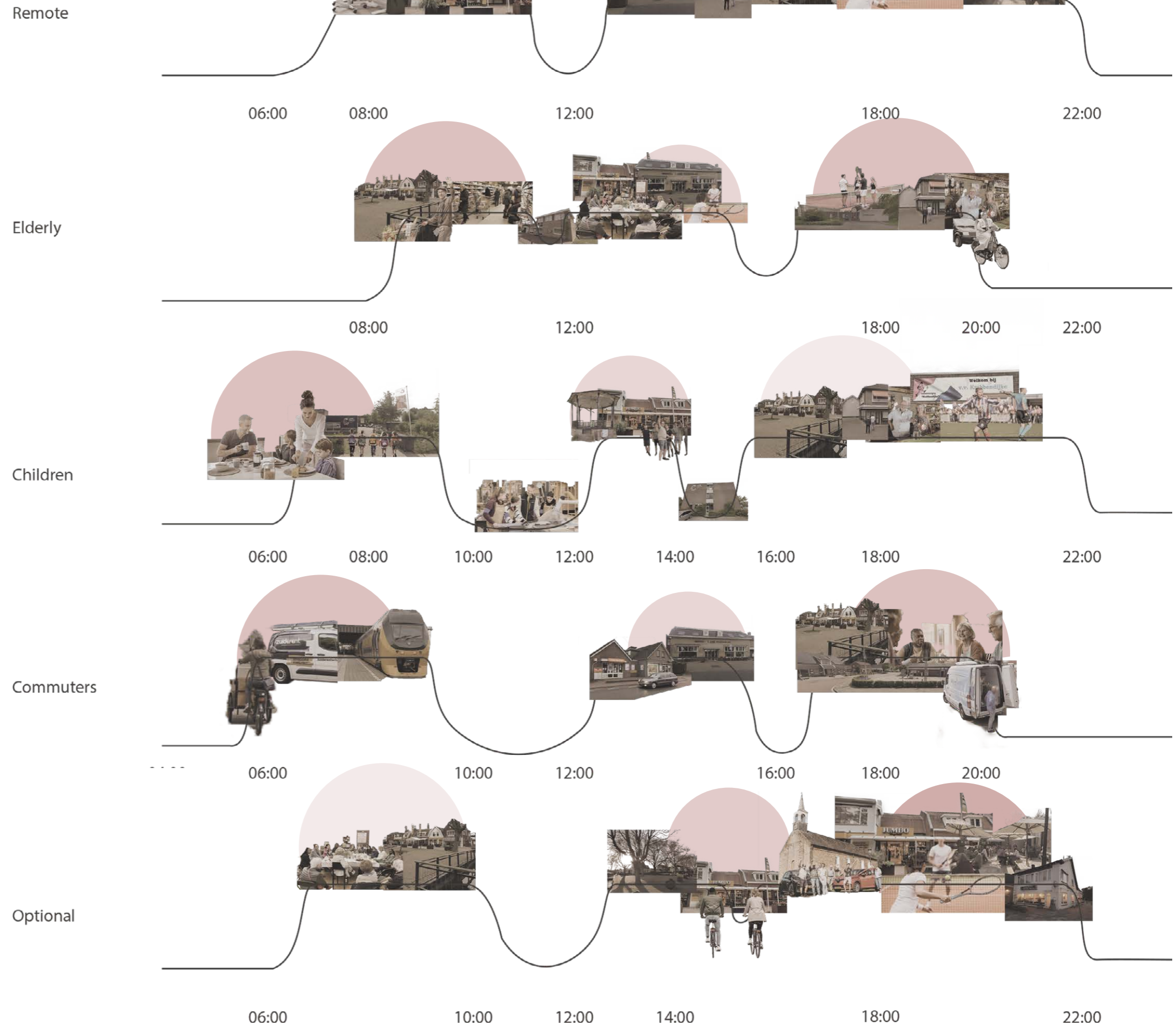


Figure 101. Diagram illustrating the daily timelines of different mobility groups within village life. Based on Whyte (1988).

3.3 Effects of decline

3.3.3 Social identity anchors

Spatial analysis

The spatial analysis of Krabbendijke shows that social interaction is not concentrated in one place, but spread across the village. On the map and in the collages, different locations are highlighted where people meet in everyday life. These include churches, schools, sports facilities and public transport, but also public spaces and the centre with its functions.

Each of these places plays a different role. Schools and sports facilities are used at specific moments during the day and mainly attract certain groups. Churches function not only as religious spaces, but also as social anchors within the village. They are places where people meet regularly and where community life becomes visible. Public transport, and especially the station, is more about movement, but still creates moments where people cross paths.

At the same time, there are places that are used more continuously. The centre, with the supermarket and café, stands out here. These places are not only functional, but also support everyday interaction. People go there as part of their routines, which makes them important for informal encounters.

What becomes clear from the analysis is that social interaction potential is strongly related to these functional structures. Places that are easy to reach and have a clear function are used more, and therefore create more opportunities for interaction. At the same time, not all places in the village have the same role. Some areas are more active, while others remain more quiet.

Together, this shows that both social interaction potential and functional structures are important in understanding how the village works in daily life.



Figure 102. Spatial analysis collage illustrating important social spaces and meeting places within Krabbendijke.

3.3 Effects of decline

3.3.3 Social identity anchors

Observations

In addition to the spatial analysis, non-structured interviews were conducted in Krabbendijke to understand how social life is experienced in everyday use. From these conversations, it becomes clear that many places are not only functional, but also have a social role. The supermarket is often mentioned as an important meeting place and is used throughout the day, while the community centre acts as a social attractor when it is open.

At the same time, there are few places designed for staying, as most spaces are focused on movement rather than meeting. The village is described as a place where people know and greet each other, but contact often remains surface-level. Sports play an important role in connecting people, especially younger groups, but there are hardly any places where youth can meet in public space. As a result, they sometimes claim spaces in the centre, which can lead to nuisance. Overall, this shows that accessibility of facilities is important not only functionally, but also socially, while interaction between different groups in the village remains limited.



'Older people walk around for social contact.'



'People mostly just greet each other in passing.'

'There is not enough for young people.'

'Sport brings people together.'



'The bandstand is one of the only places to sit.'

'Young people hang out there because there is nowhere else.'



'The community center is an important meeting place.'



'There are no other places to stay.'



'People go to the bakery or cafeteria to sit and talk.'

Figure 103. Collage illustrating observations from fieldwork and non-structured interviews in Krabbendijke.

3.3 Effects of decline

3.3.3 Social identity anchors

Observations

The observations at different locations in Krabbendijke show how social identity is closely related to the way spaces are used and structured in everyday life. At the centre and the main square, the space is mainly used by children and youth for longer periods of time. At the same time, it is strongly car-dominated, with a focus on parking and movement rather than staying. There are limited sitting areas and the central crossing is not perceived as safe for children alone. This shows that, although the location has potential as a social node, the spatial accessibility (routing, safety and proximity) and functional structure limit its role as a meeting space.

At the sport hub, activity is very dependent on time. During school hours, the area is relatively quiet, with mainly older people present. Facilities such as the football club and tennis club attract different groups, but there is no clear spatial structure that connects them. The surrounding area is also car-dominated, which affects both accessibility and social interaction potential. The schools are busy during the day, but their outdoor spaces are not accessible afterwards, which limits shared use and reduces the continuity of social routines.

The station functions mainly as a connection point within the wider region. Many children pass through the area, but there are almost no supporting public functions. Facilities such as a restaurant or atelier are mostly closed, and there are no elements such as seating or water points. This results in a space that is strongly defined by routing and transport modes, but has very low social interaction potential, as it lacks social attractors and meeting spaces.

In contrast, the community centre (dorpshuis) shows a different pattern. Although it is located at the edge of the village and not strongly connected to other functions, it is used frequently and throughout the day. It offers multiple social functions, including church services and informal gathering, and has good sitting spaces outside. The presence of shared use areas and its multifunctional character make it an important social node, despite its more peripheral location.

Together, these observations show that social interaction potential in Krabbendijke is strongly influenced by the combination of spatial accessibility and functional structures. Places that are well-connected and have active functions can support everyday interaction, while car-dominated or mono-functional spaces reduce opportunities for meeting. This makes clear that social identity is not only about the presence of people, but about how spaces support visibility, routines and interaction between different groups.



Figure 104. Photographs of fieldwork observations at the main square, sports spaces, station area and village centre.

3.3 Effects of decline

3.3.3 Social identity anchors

Themes

The previous analyses show that the functioning of Krabbendijke can be understood through three closely related themes. Functional structures describe how facilities and places are used in everyday life, including their use patterns, social functions and role within the local system. Spatial accessibility explains how these places are reached, through routing, transport modes, connections, safety and proximity. Social interaction potential reflects how spaces support meeting, visibility and everyday interaction, and where social nodes and attractors emerge.

Together, these themes show that the village is not only shaped by the presence of functions, but also by how they are connected and used. Based on this, a collage has been made that highlights the most important components within each theme, showing how different places contribute to everyday life and social interaction in Krabbendijke.

Social identity

Social interactions

"The supermarket is where people meet."

"The community center is an important meeting place."

"Older people walk around for social contact."

"Sport brings people together."

"You always run into someone there."

Spatial accessibility

"There are no other places to stay."

"Older people walk around for social contact."

"Young people hang out there because there is nowhere else."

"Older people walk around for social contact."

Functional structures

"The bandstand is one of the only places to sit."

"There is not enough for young people."

Figure 105. Collage illustrating the themes of social identity identified through research and fieldwork.

3.3 Effects of decline

3.3.3 Social identity anchors

Effects

The analysis shows that social identity in Krabbendijke can be understood through three main themes: spatial accessibility, functional structures and social interaction potential. Within these themes, different components can be identified. These components are not theoretical concepts, but come directly from the spatial analysis, observations and non-structured interviews. They reflect how people use the village, how they move through it and where interaction takes place in everyday life.

Spatial accessibility forms an important base layer. Elements such as routing, transport modes, connections, safety and proximity determine how easily people can reach places and move through the village. In Krabbendijke, many of these structures are strongly car-oriented, which makes places accessible, but not always socially active or safe for all users. Especially for children and elderly, safety and proximity play an important role. This shows that accessibility is not only about distance, but also about how spaces are experienced and used (PBL, 2022; Musselwhite & Haddad, 2010).

Functional structures build on this by shaping how places are actually used. Components such as facilities, public functions, local economy, shared spaces and use patterns determine where people go and what they do. As also described by Gieling, Haartsen & Vermeij (2018), these places are not only functional, but also important as everyday meeting points. In Krabbendijke, places like the supermarket or sports facilities clearly show this double role. At the same time, other areas are more focused on movement than on staying, which limits their social value.

This becomes even more visible when looking at social interaction potential. Elements such as visibility, routines, meeting spaces, social nodes and attractors determine where interaction can actually take place. Based on the observations, it becomes clear that not all spaces support this equally. Some places are used by specific groups, while others lack the conditions for longer stays or interaction. This reflects Whyte's (1988) idea that social life in public space depends on opportunities to stay, sit and observe, rather than only on movement.

When combining these themes, a number of effects become visible. Changes in accessibility and the decline of facilities influence how often places are used, how routines are organised and how different groups move through the village. As described

by Christiaanse (2020), this is part of a broader transformation in which everyday life becomes less locally embedded and more dependent on movement between places. As a result, routines become more fragmented and take place across different locations.

This fragmentation also affects social interaction. Research shows that overlapping routines are important for everyday encounters (Latham & Layton, 2019). When different groups use different places at different times, these overlaps become smaller. In Krabbendijke, this can be seen in the separation between age groups and the limited number of shared meeting spaces. Even though people know each other and social cohesion is still present, interaction often remains short and situational.

In the context of Zeeland, this becomes even more relevant. The strong dependence on car mobility means that many daily activities take place outside the village, which reduces the frequency of local encounters. This aligns with regional insights that show how accessibility and mobility influence participation in everyday social life (Provincie Zeeland, 2023).

Taken together, these findings show that social identity is not only shaped by who lives in the village, but by how spaces are structured, used and connected. The decline of local facilities and the increasing dependence on mobility do not only affect functionality, but also reduce opportunities for interaction. This means that functional change directly influences social identity, by reshaping routines, limiting encounters and weakening the everyday use of shared spaces.

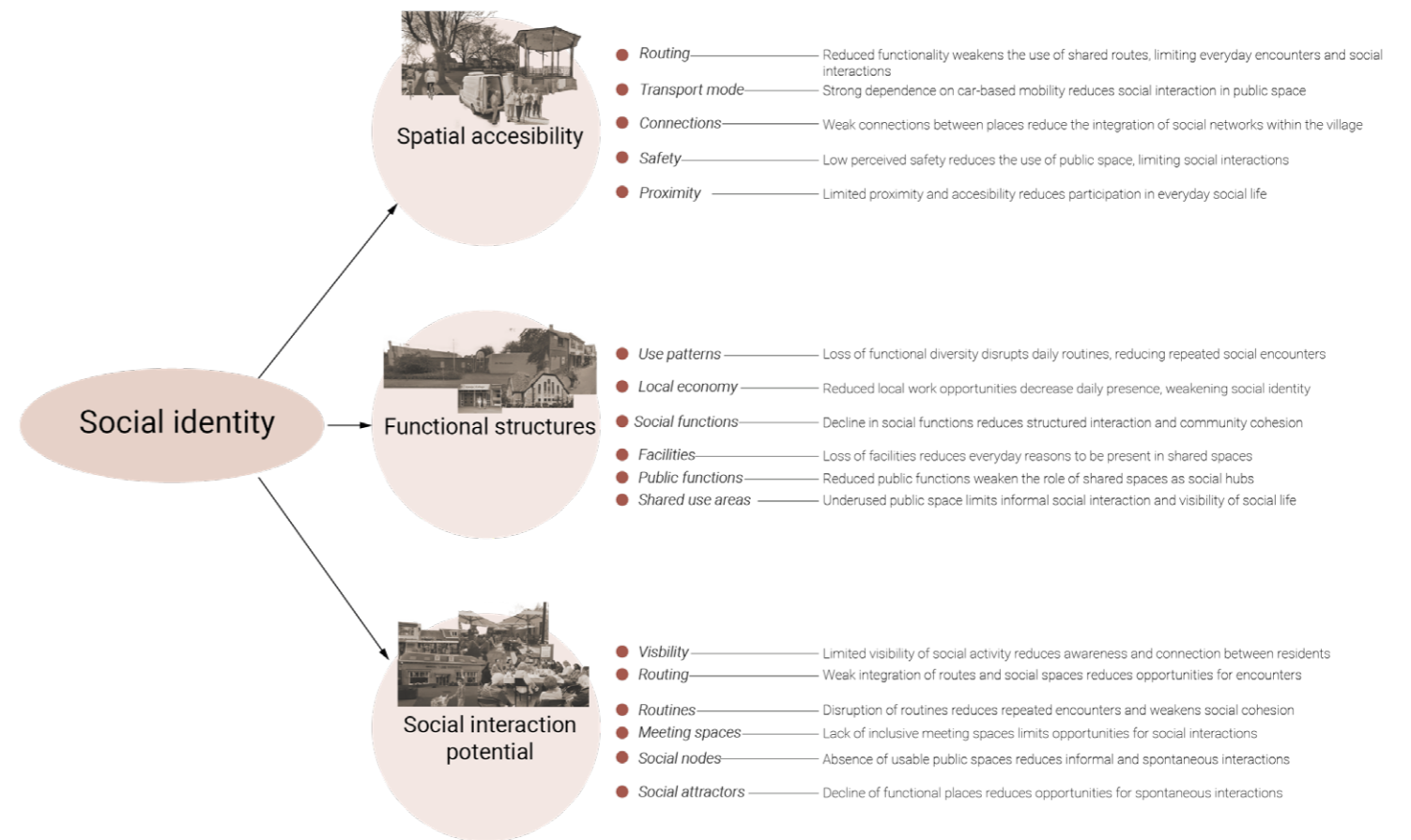


Figure 106. Framework diagram illustrating the themes, effects and spatial applications of social identity within the research.

3.3 Effects of decline

3.3.4 Conclusion

The combined analysis shows that social and symbolic identity in Krabbendijke are both affected by similar underlying changes. These conclusions are not only based on theory, but follow from the full analysis, including spatial mapping, observations and non-structured interviews. Together, these show how everyday use, movement and interaction influence how the village is experienced.

Across the different themes, a set of overlapping effects becomes visible. Changes in spatial accessibility (routing, transport mode, connections, safety and proximity) influence how easily people can move through the village. At the same time, functional structures (facilities, public functions, use patterns, shared spaces and local economy) affect where activities take place and how often places are used. Alongside this, the social interaction potential (visibility, meeting spaces, routines, social nodes and attractors) determines whether interaction can actually happen.

What becomes clear is that similar effects appear across these themes. Car-oriented accessibility increases movement, but often reduces safety and the quality of staying in certain places. At the same time, the decline of facilities lowers diversity and frequency of use, and reduces the shared use of spaces. This results in more fragmented routines and a stronger spread of activities across different locations, as also described by Christiaanse (2020).

Within social identity, this is visible in reduced overlap between different groups and fewer opportunities for spontaneous encounters. As described by Latham & Layton (2019), these overlaps are essential for everyday interaction. When they decrease, social contact becomes more incidental and less embedded in daily routines, which can weaken social cohesion.

At the same time, similar effects can be recognised within symbolic identity. As shown by Thissen & Loopmans (2013), meaning is shaped through repeated use and familiarity. When places are used less often or become less visible in everyday life, their symbolic value can weaken. Even when physical elements remain, their role in daily routines becomes less clear. This also affects place attachment, as the connection between people and place becomes less grounded in everyday experience.

Across both identities, several overarching effects can be identified. Reduced frequency of use, declining visibility of places, fragmentation of routines, and decreasing shared use of spaces all point towards a weakening of everyday village life. These effects are also recognised in rural studies, where the loss of facilities leads not only to functional decline, but to a broader weakening of social cohesion and place attachment (Gieling, Haartsen & Vermeij, 2018; Christiaanse & Haartsen, 2017).

These developments do not follow a single linear process, but occur alongside each other and reinforce the overall transformation of the village. As a result, a cycle can emerge in which reduced use, declining interaction and weakening meaning continue to influence how the village is used and experienced over time.

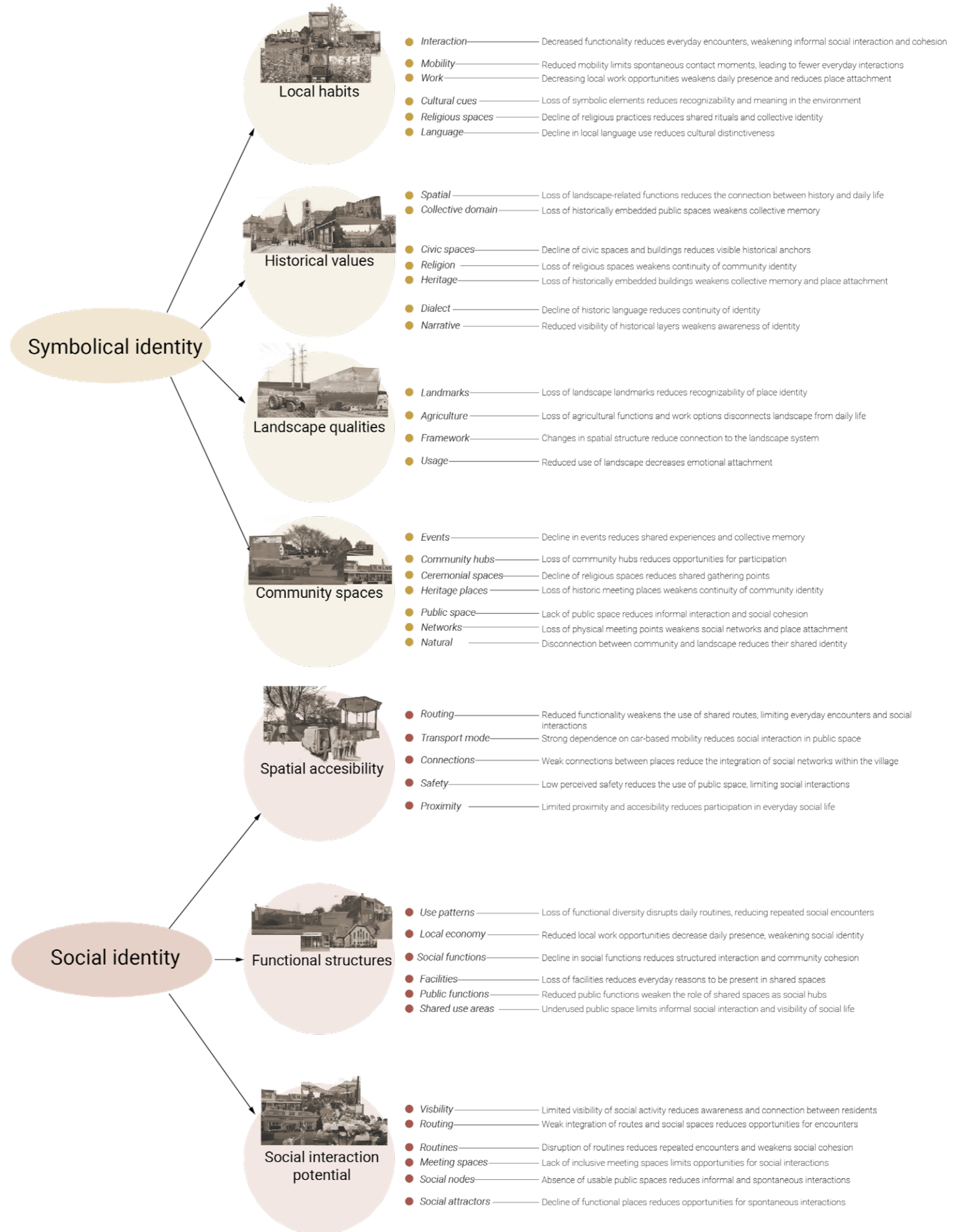


Figure 107. Integrated framework of social and symbolic identity.

3.4 Conclusion



3.4 Conclusion

The analysis shows that the decline of essential village facilities in Zeeland is not an isolated process, but part of a broader spatial transformation that directly affects how villages function and are experienced in everyday life. Over the past decade, facilities have increasingly concentrated in larger centres, while smaller and intermediate villages face growing distances to essential services (CBS, 2025; CBS & PBL, 2010). This has led to a structural increase in dependence on mobility, particularly the car, confirming that accessibility in Zeeland is not neutral but strongly shapes daily life (Provincie Zeeland, 2023).

From the analysis, it becomes clear that the functionality of villages is primarily determined by two conditions: the availability of local facilities and the degree of dependence on external centres. As facilities disappear, accessibility becomes more mobility-dependent, and everyday routines shift away from the village. This aligns with earlier research showing that facility decline is part of broader processes such as scale enlargement and increasing mobility (Christiaanse, 2020).

These changes directly affect how villages are used and experienced. The research shows that identity is not sustained by the presence of elements alone, but by their continuous use in everyday life. When spaces are no longer actively used, they gradually lose their meaning. Reduced spatial and functional activity leads to fewer encounters, while the disruption of spatial and functional systems causes routines to fragment. This reflects findings that everyday environments and routines are essential for maintaining local social networks (Latham & Layton, 2019).

At the same time, the analysis highlights that social interaction depends not only on proximity, but on the overlap of activities. When functions and users are separated in time and space, opportunities for everyday encounters decrease. Facilities such as shops, cafés and community spaces normally act as key meeting points in this process (Gieling, Haartsen & Vermeij, 2018; Christiaanse & Haartsen, 2017). When these disappear, both interaction and the meaning attached to these places weaken.

As a result, both place attachment and sense of belonging come under pressure. Research shows that attachment to place is strongly shaped through repeated interaction and everyday use (Altman & Low, 1992; Scannell & Gifford, 2010; Thissen & Loopmans, 2013). When spatial, social and functional structures become disconnected from daily life, this attachment gradually weakens. In the context of Zeeland, where social cohesion and local identity are closely linked to everyday practices and meeting places, this effect becomes even more visible (Zeeuwse Vereniging voor Kleine Kernen, 2023; Provincie Zeeland, 2023).

The main conclusion is therefore that accessibility and facility loss weaken place attachment not only by increasing distance, but by reshaping everyday routines and reducing the conditions for interaction. Reduced spatial and functional activity leads to lower social interaction, while fragmented routines and declining use weaken the connection between people and place. At the same time, the loss of local functions increases dependence and reduces autonomy, reinforcing this process over time.

At the same time, the analysis shows that this process is not fixed. Differences between villages indicate that spatial structure, remaining functions and local organisation can influence how decline manifests. This suggests that spatial interventions have the potential to guide this transition, not by restoring all functions, but by strengthening the conditions for use, interaction and everyday presence.

Building on these findings, it becomes clear that spatial interventions should not only focus on restoring facilities, but on strengthening the conditions that support everyday use, interaction and local presence. This means creating places where routines can overlap, where different groups can meet, and where accessibility is not only efficient, but also supports staying and interaction. Interventions should therefore focus on reconnecting spatial accessibility with social use, reinforcing local nodes, and reducing the fragmentation of daily routines. Rather than designing isolated functions, the focus should be on creating systems that support continuous use and interaction in everyday life.

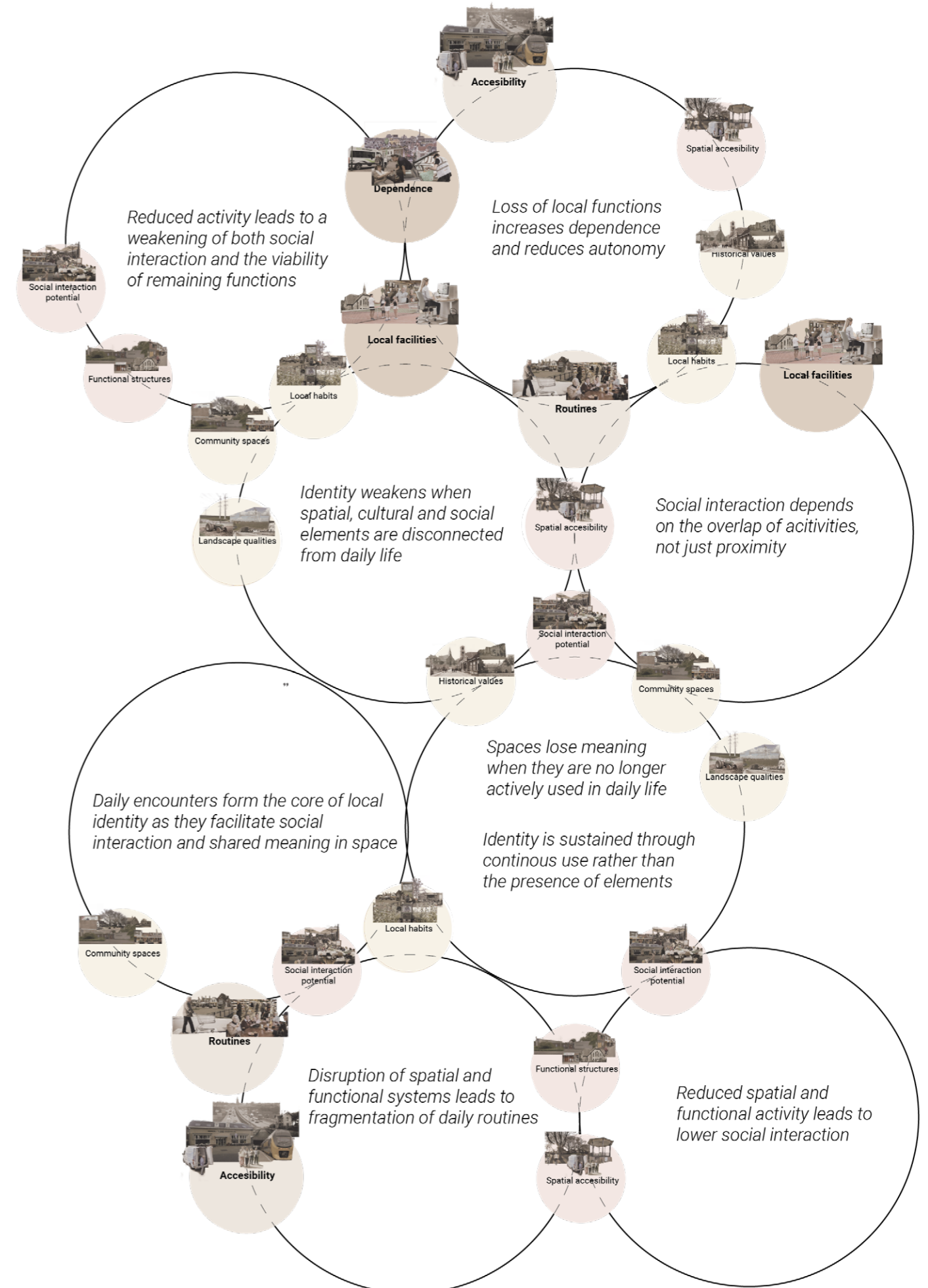


Figure 108. Cluster diagram of the identified effects and spatial applications within the research.

3.4 Conclusion

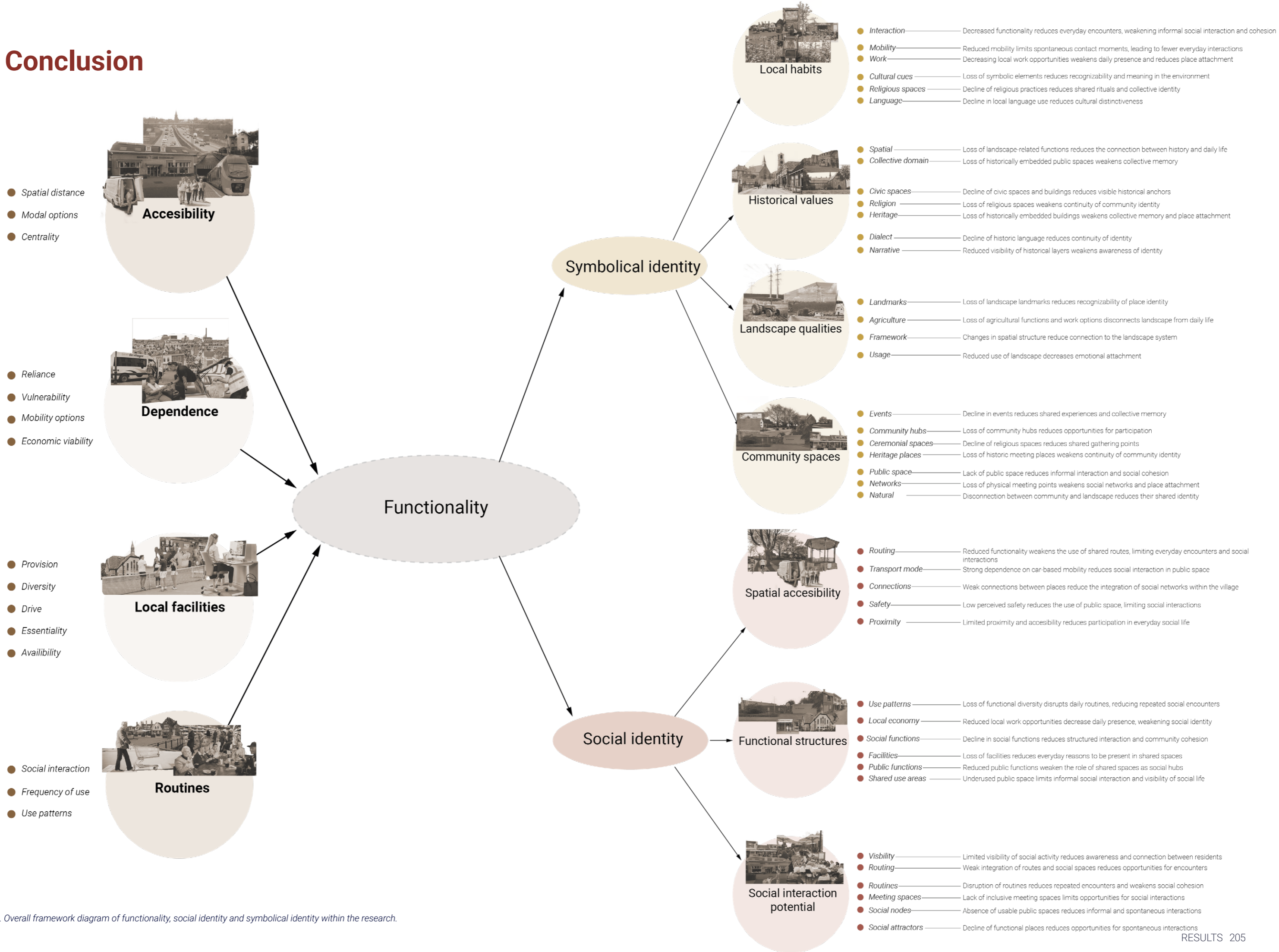


Figure 109. Overall framework diagram of functionality, social identity and symbolical identity within the research.



IV. Design proposal

- Symbolical identity
- Social identity
- T Dörp bie Mekare Houwe

Design proposal

IV.

Inter-Antiquariaat Mefferd & De Jonge (n.d.) Zeelandic Abraham Ortelius, 1592 Antique map. Inter-Antiquariaat

4.1 Symbolical identity

Introduction
Strategies
Vision



4.1 Symbolical Identity

4.1.1 Introduction

The following chapter translates the previously identified effects on symbolic identity into spatial strategies on the scale of the village. As discussed by Gieling, Haartsen and Vermeij (2018), shrinking rural villages experience multiple forms of pressure on their symbolic identity, ranging from the disappearance of facilities and historical functions to the weakening of everyday interaction, collective memory and local cultural structures. Rather than approaching these effects separately, this chapter explores how they can be addressed through broader spatial visions and strategies for the future development of Krabbendijke.

Through a vision on the village scale, the project investigates how these processes of fragmentation and identity loss can be guided, strengthened or partially prevented through spatial design. For each identified theme, one or multiple strategies have been developed that aim to respond to several of the identified effects simultaneously. These strategies function as scenario studies on the vision scale, exploring different possibilities for strengthening the symbolic identity of the village and translating research outcomes into spatial directions for future development.

In addition to the strategies themselves, a series of spatial possibilities and conceptual interventions have been developed and sketched for each strategy. These function as a toolbox of potential interventions that can later be translated into more detailed spatial designs on smaller scales. The toolbox therefore acts as a first exploration of how the identified themes and strategies could become spatially visible and usable within the village structure of Krabbendijke.

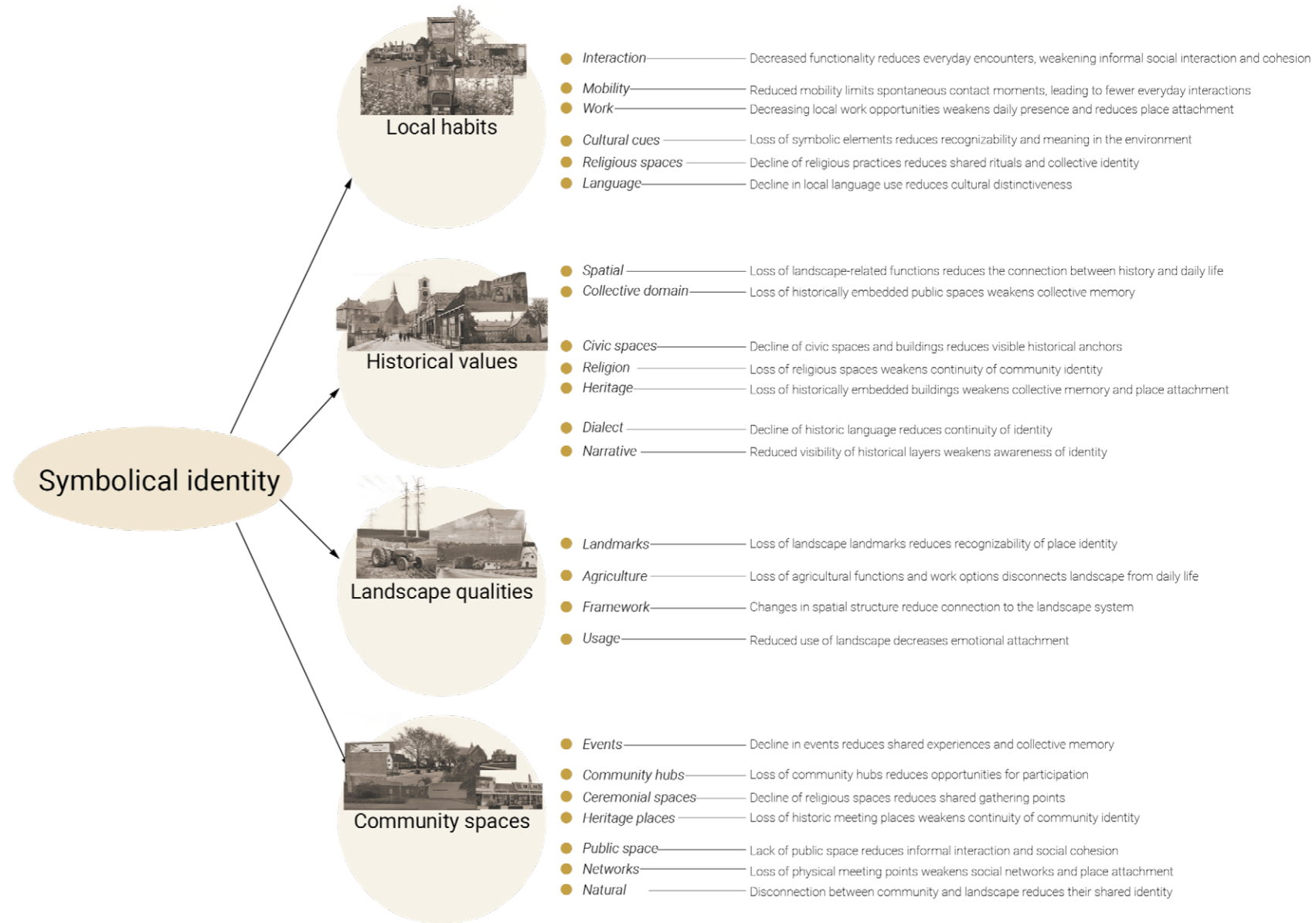


Figure 110. Framework diagram of the effects and themes of symbolical identity within the research.

4.1 Symbolical Identity

4.1.2 Strategies

The first theme, local habits, strongly relates to the cultural carriers of the village on a social level. The corresponding strategy, anchoring culture in the spatial fabric of the village, aims to strengthen the relationship between people and their environment. This especially concerns interaction, language, religion and symbolic elements, which often function as collective carriers of identity and livability within the village. The strategy therefore focuses on making these cultural qualities more visible, accessible and usable for the future.

Anchoring culture in the spatial fabric of the village

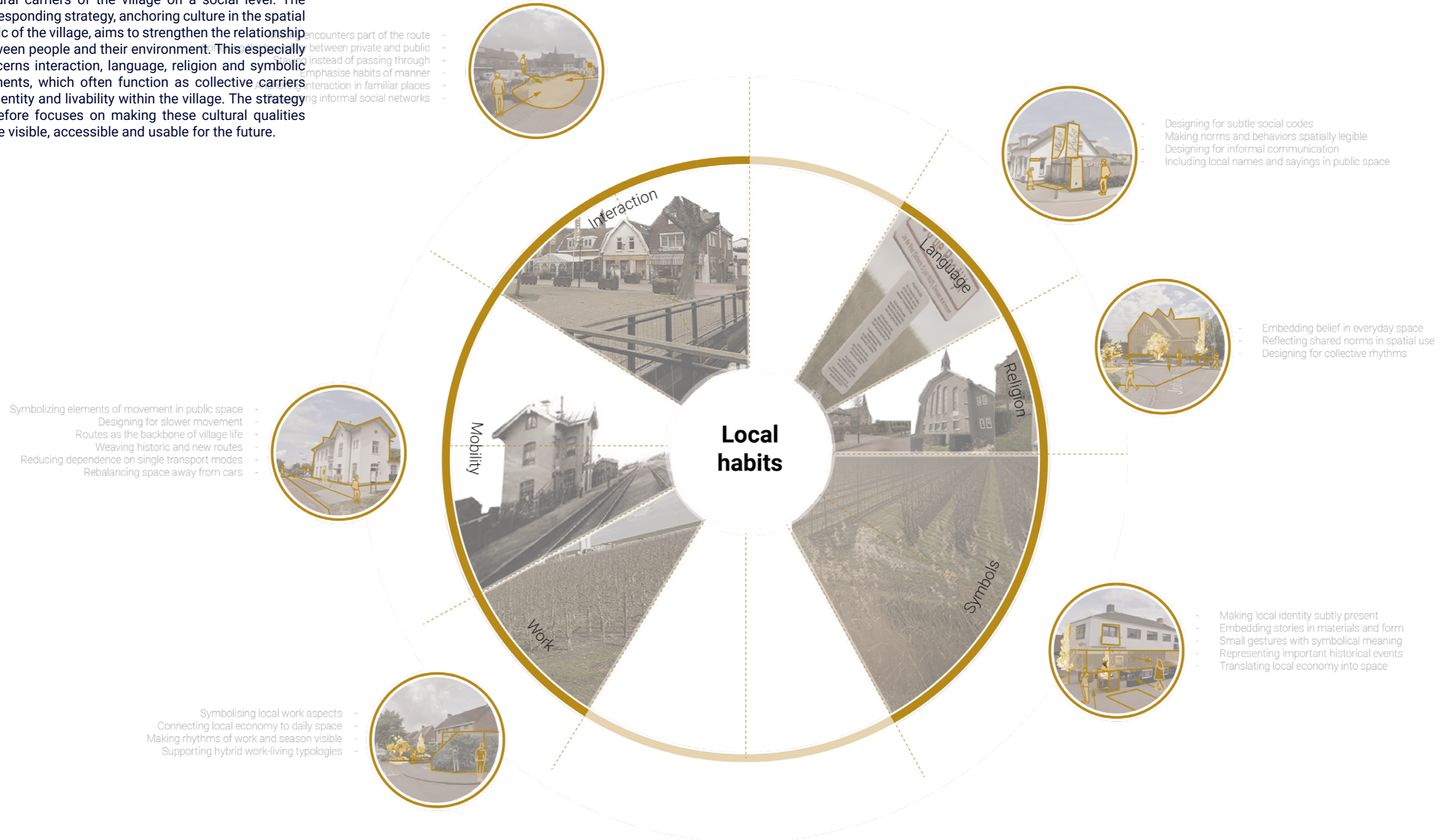


Figure 111. Strategy diagram and toolbox for anchoring culture in the spatial fabric of the village.

4.1 Symbolical Identity

4.1.2 Strategies

The second theme relates to historical values and mainly concerns the built environment and landscape structures. Because Zeeland contains a strong and recognizable village culture (Gieling, Haartsen en Vermeij, 2018), this is also clearly visible within Krabbendijke. In order to strengthen these qualities, the strategy focuses on revealing and reintegrating historical structures and functions, allowing them not only to maintain historical value, but also to stimulate new forms of use and activity. In this way, historical structures remain relevant within contemporary village life and continue to contribute to the identity of the village.

Revealing and re-integrating historical structures and functions

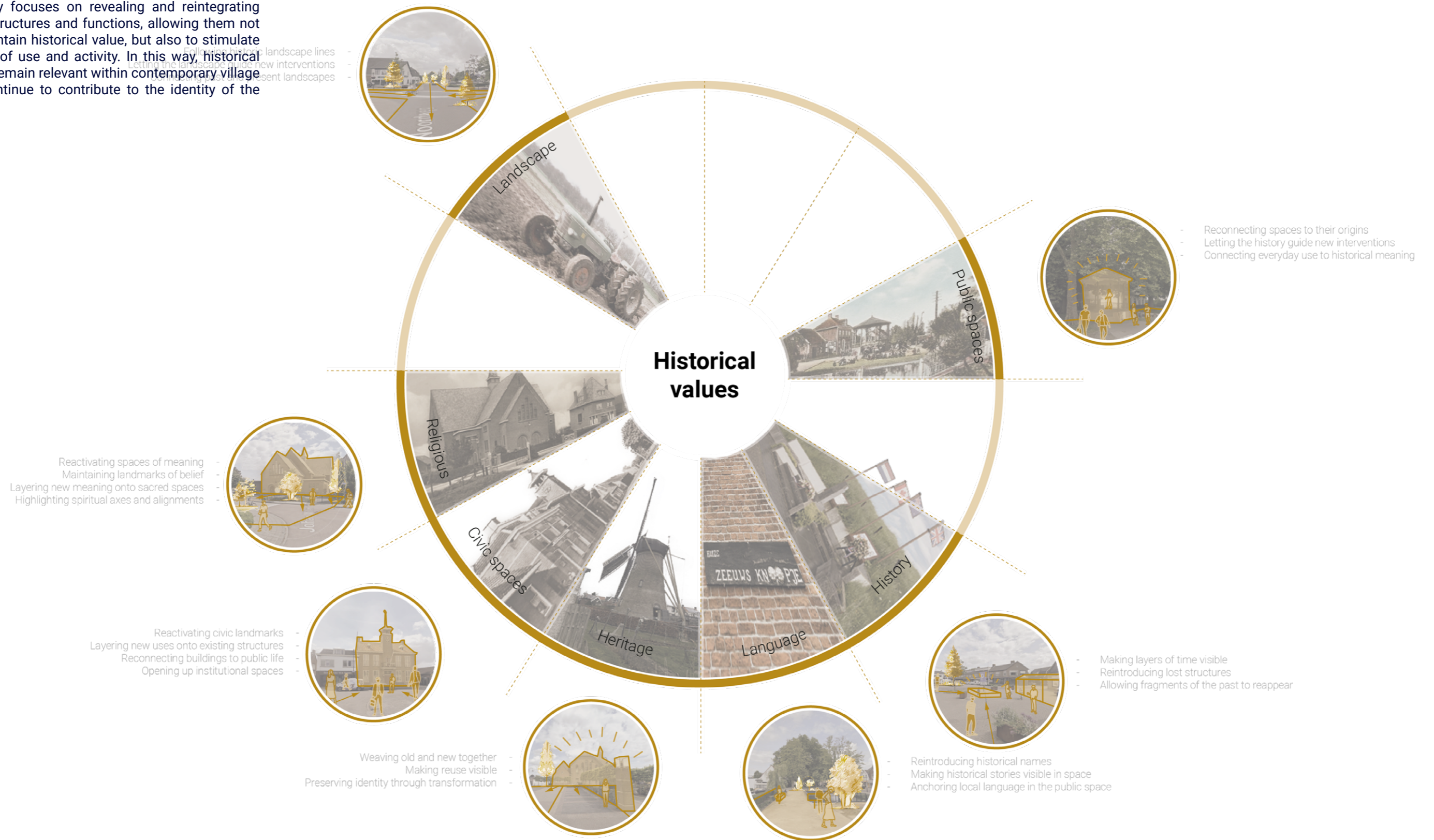


Figure 112. Strategy diagram and toolbox for revealing and reintegrating historical structures and functions.

4.1 Symbolical Identity

4.1.2 Strategies

For the third theme, landscape qualities, Krabbendijke provides a unique opportunity due to its strong relationship with agriculture and fruit cultivation. The surrounding landscape and its productive use already play an important role within the identity of the village, although this is currently not reflected strongly enough within the village core itself. The strategy therefore aims to strengthen the landscape as a connecting element in daily life, making both residents and newcomers more aware of and connected to the qualities of the surrounding landscape and agricultural environment.

Strengthening landscape as a connecting element in daily life

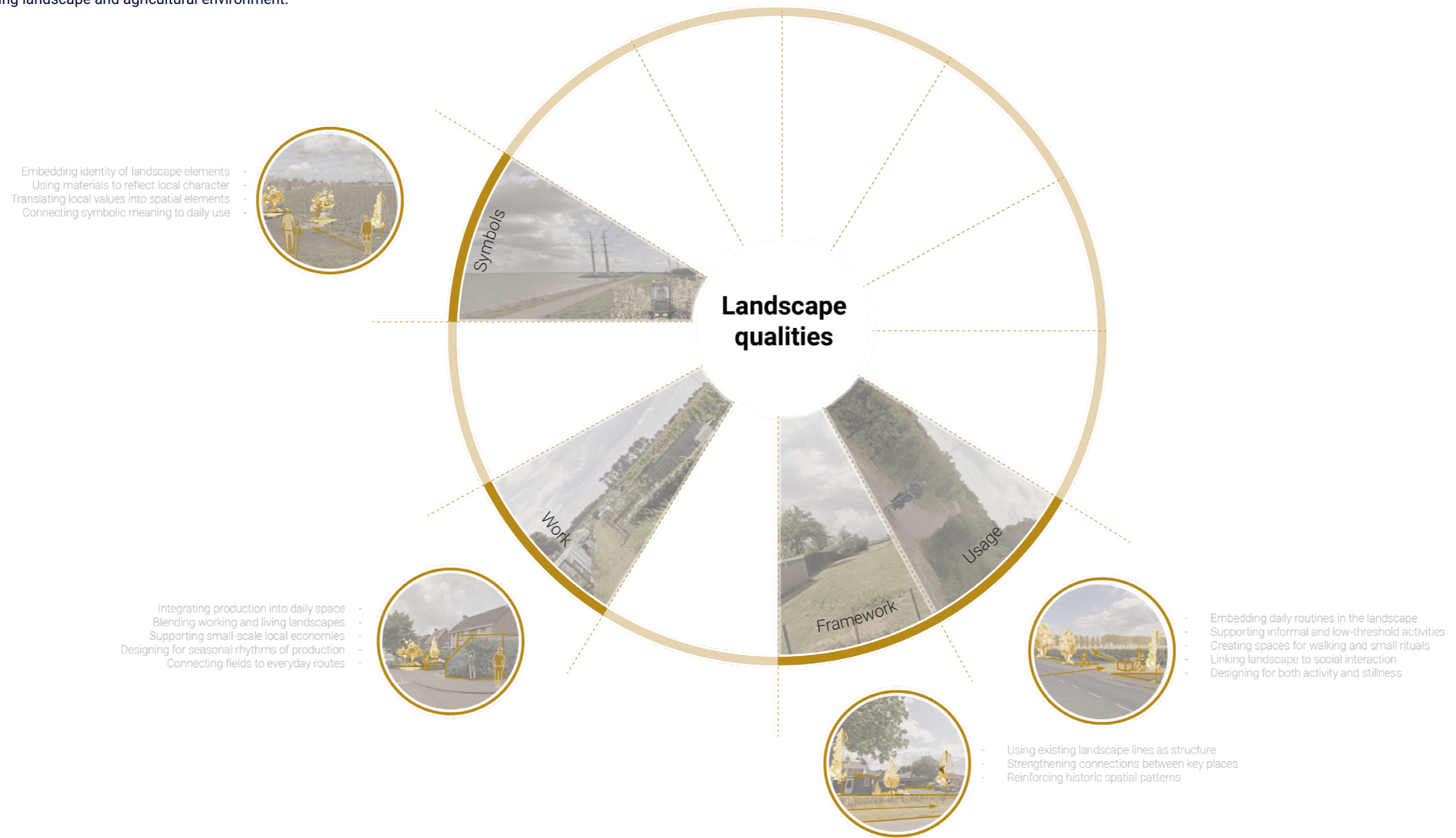


Figure 113. Strategy diagram and toolbox for strengthening landscape as a connecting element in daily life.

4.1 Symbolical Identity

4.1.2 Strategies

The final theme, community spaces, strongly relates to the social use of the village and has a major influence on how people experience the village itself. This also affects collective perception, belonging and local identity. Community spaces include many different types of places where people can meet and interact for different reasons throughout everyday life. The goal of the strategy is therefore to reinforce community spaces as social and spatial anchors, allowing them to maintain their value and function into the future, while simultaneously strengthening their role as recognizable gathering places and landmarks within the village structure.

Reinforcing community spaces as social and spatial anchors

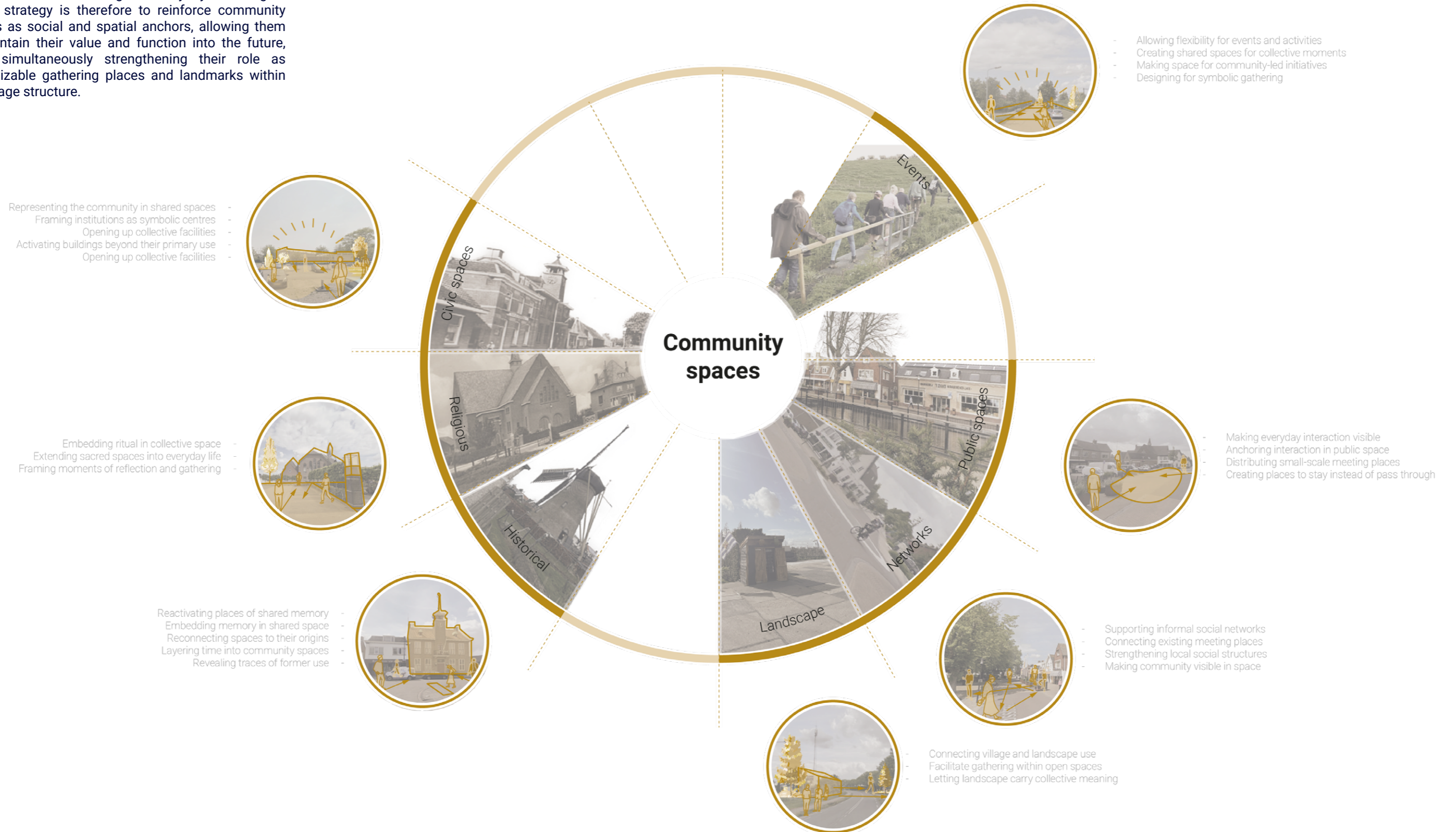


Figure 114. Strategy diagram and toolbox for reinforcing community spaces as social and spatial anchors.

4.1 Symbolical Identity

4.1.3 Vision

The themes related to symbolical identity come together within the following vision map. This map illustrates how Krabbendijke can strengthen its symbolic identity through the four strategies and their different spatial applications. The vision shows how the identified themes and effects from the research have been translated into spatial strategies specifically developed for the context of Krabbendijke.

Legend

Local habits	Historical values	Landscape qualities	Community spaces
Weaving work and daily life	Telling on the story of the past	Revealing the rhythms of cultivation	Embedding shared memory in space
Letting the place speak its own language	Embedding ritual in spatial sequences	Letting landscape carry meaning	Revealing invisible social structures
Visualizing movement	Connecting past and present landscapes	Connecting fragmented landscapes	Stimulating contact in public space
Making local identity present	Showing change over time	Activating landscape through use	Grounding community in landscape
Embedding ritual in space	Extending existing character		Framing collective experience
	Strengthening collective anchors		Representing communities in public space
	Reactivating historical places		



Figure 115. Combined vision map of the symbolical identity strategies for Krabbendijke.

4.2 Social identity

Introduction
Strategies
Vision



4.2 Social Identity

4.2.1 Introduction

The following chapter translates the previously identified effects on social identity into spatial strategies on the scale of the village. As discussed by Christiaanse and Haartsen (2017), shrinking rural villages experience multiple pressures on their social identity, affecting everyday interaction, accessibility, meeting structures and collective village life. The disappearance of facilities, fragmentation of routines and increasing mobility dependency all influence how people interact with one another and how the village is socially experienced in daily life.

Through a vision on the village scale, the project explores how these processes of social fragmentation can be guided, strengthened or partially prevented through spatial design. For each identified theme, one or multiple strategies have been developed that aim to respond to several of the identified effects simultaneously. These strategies function as scenario studies on the vision scale, exploring different possibilities for strengthening the social identity of Krabbendijke and translating research outcomes into spatial directions for future village development.

For each strategy, a series of spatial possibilities and conceptual interventions have been developed and sketched as part of a toolbox of potential applications. These interventions can later be translated into more detailed spatial designs on smaller scales. The toolbox therefore functions as a first exploration of how the identified themes and strategies could become spatially visible and active within the public space and daily life of Krabbendijke.

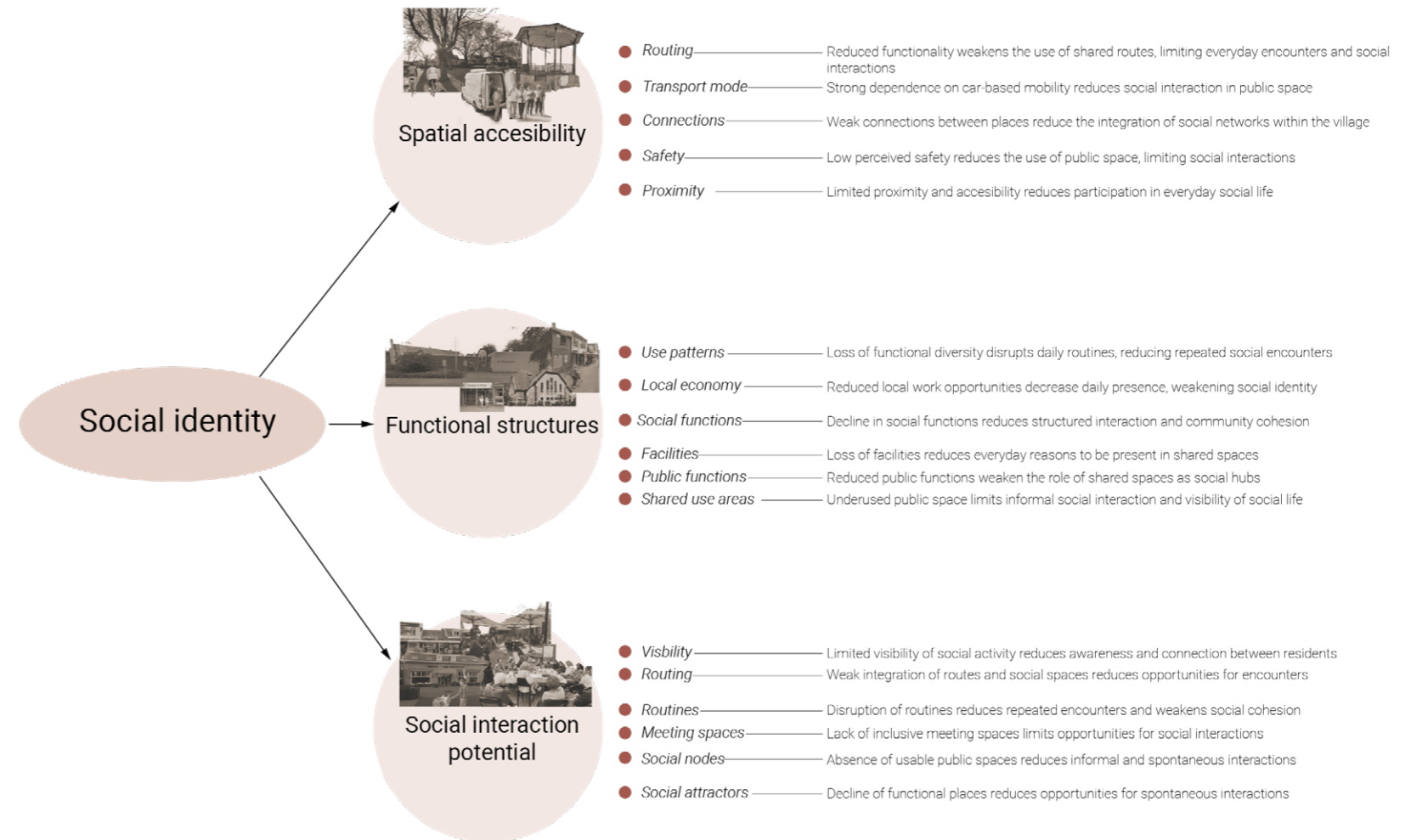


Figure 116. Framework diagram of the effects and themes of social identity within the research.

4.2 Social Identity

4.2.2 Strategies

The first theme, functional structures, strongly relates to the role that facilities and everyday functions play within the social life of the village. The corresponding strategy, strengthening a multifunctional and integrated system of local facilities, focuses on reinforcing the relationship between facilities, public life and everyday use. Within shrinking villages, facilities often function as important carriers of interaction, routines and collective activity. The strategy therefore aims to strengthen and combine these structures in order to maintain their social role and future relevance within village life.

Strengthening a multifunctional and integrated system of local facilities

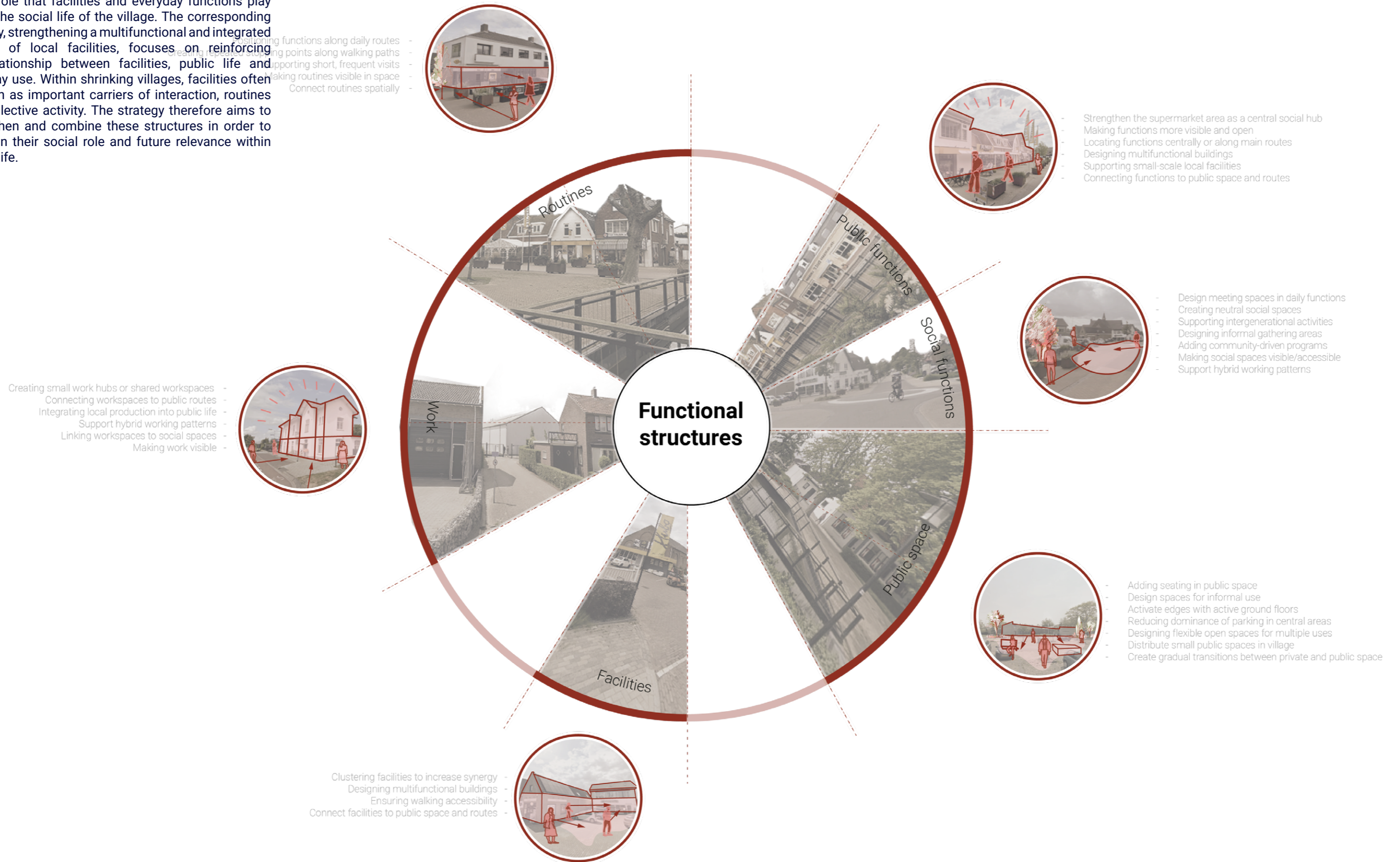


Figure 117. Strategy diagram and toolbox for strengthening a multifunctional and integrated system of local facilities.

4.2 Social Identity

4.2.2 Strategies

The second theme, spatial accessibility, concerns the influence accessibility has on everyday life within the village. For this theme, the strategy reinforcing proximity and accessibility in and to the village was developed. This strategy focuses on strengthening and improving the different conditions related to movement, routing and accessibility for residents. By improving accessibility and visibility within the village, the strategy aims to activate public life and ensure that different groups of people can continue to reach facilities and participate within village life.

Reinforcing proximity and accessibility in and to the village

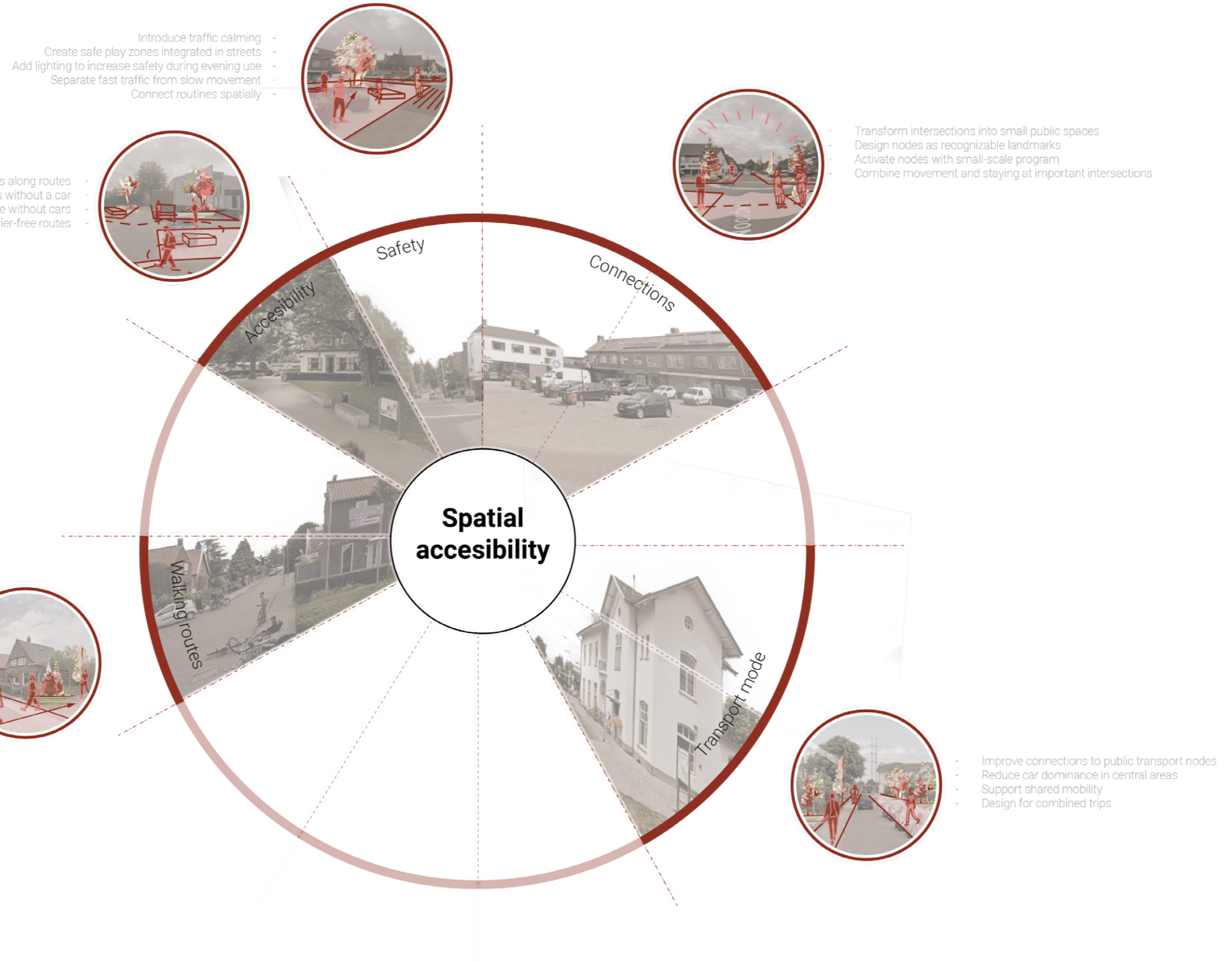


Figure 118. Strategy diagram and toolbox for reinforcing proximity and accessibility in and to the village.

4.2 Social Identity

4.2.2 Strategies

The final theme, social interaction potential, is strongly connected to the social identity of the village. Through the strategy activating everyday networks as drivers of social interaction, the conditions for social life and interaction are strengthened and stimulated. By reinforcing the role of routing structures, public functions, visibility, public space, routines and meeting places, the strategy aims to accommodate social interaction not only inside buildings, but also within the public space of the village itself.

Activating everyday networks as drivers of social interaction

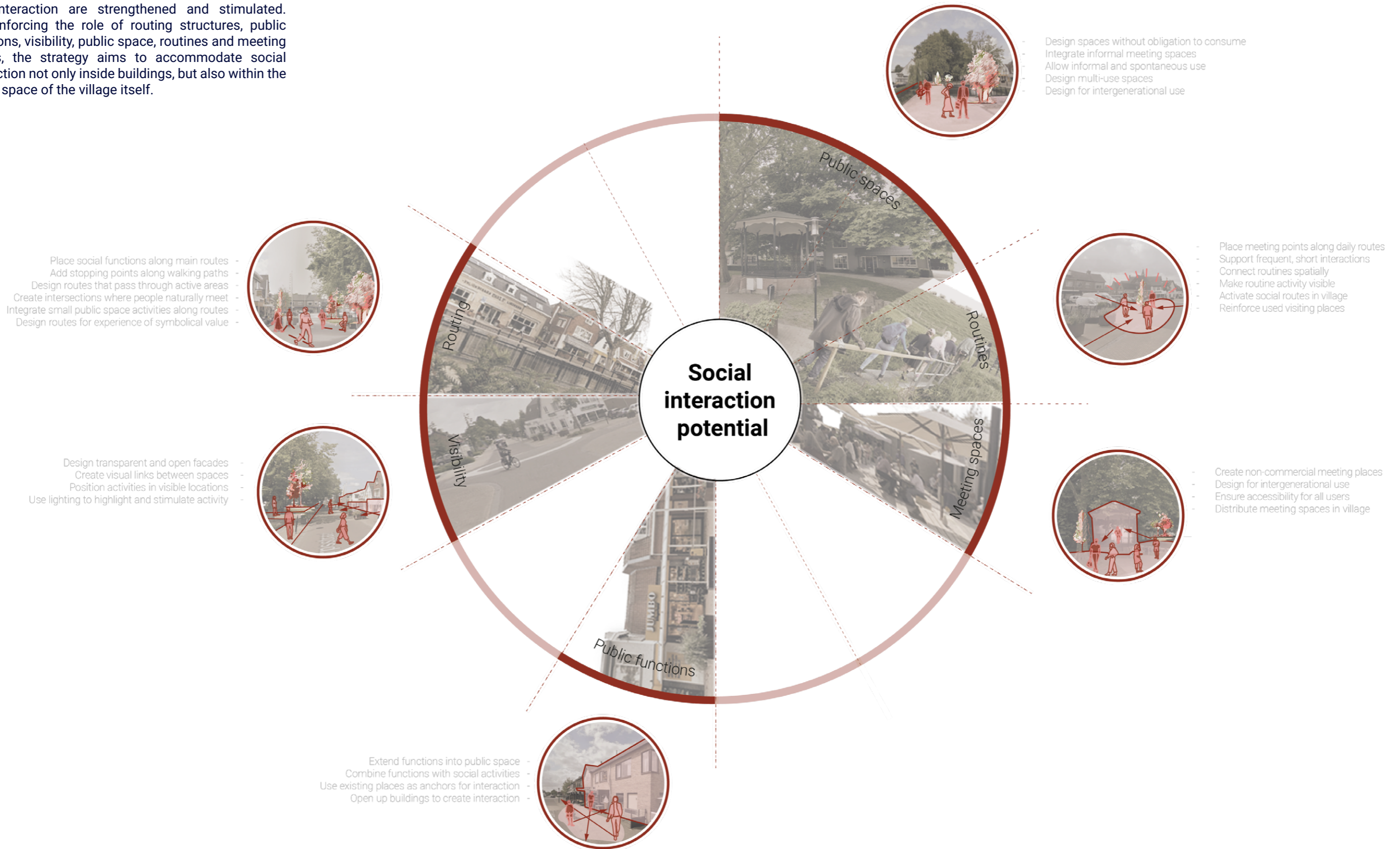
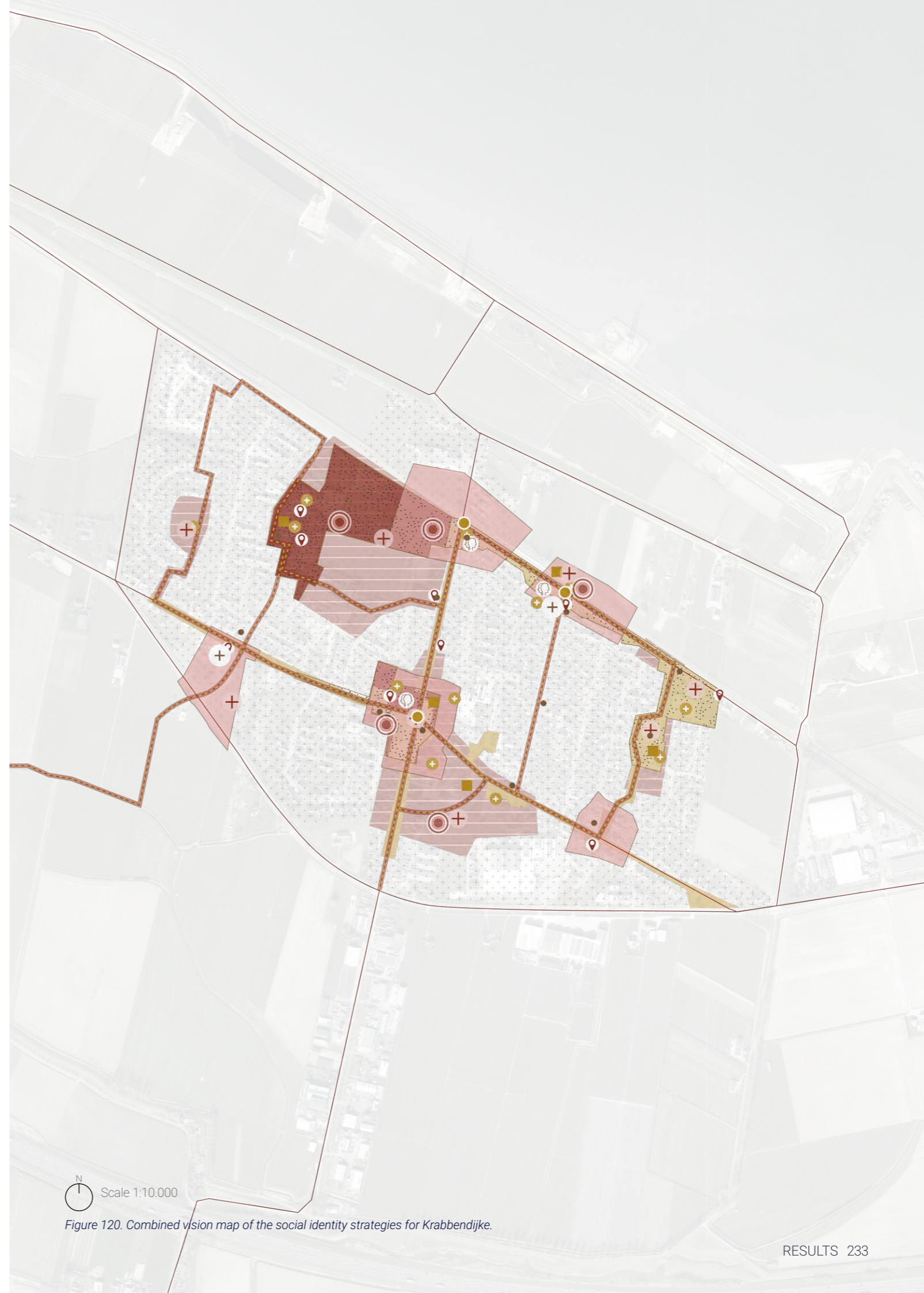
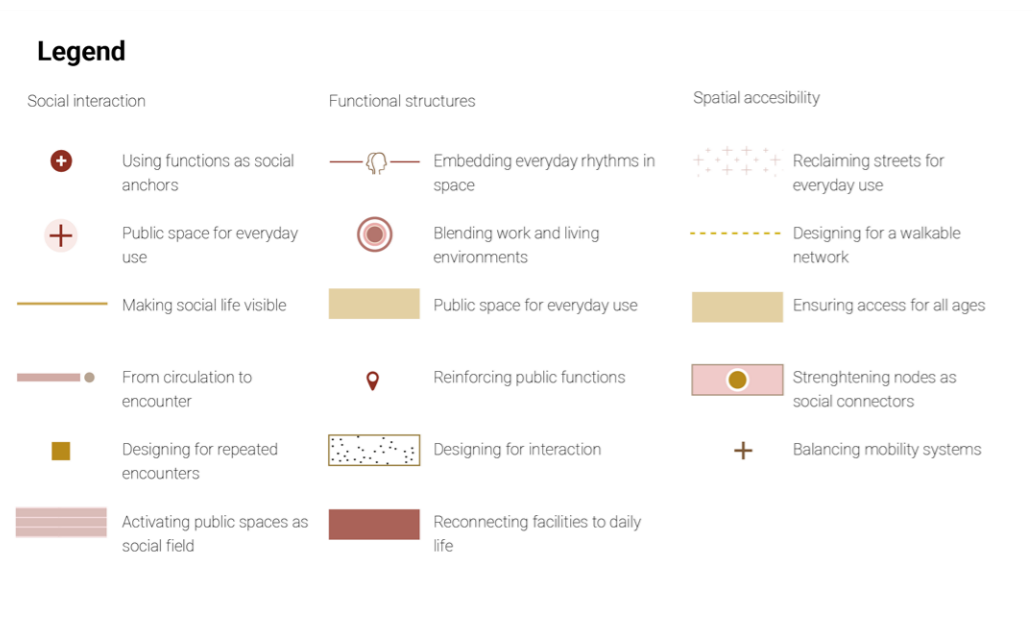


Figure 119. Strategy diagram and toolbox for activating everyday networks as drivers of social interaction.

4.2 Social Identity

4.2.2 Vision

The themes related to social identity come together within the following vision map. This map illustrates how Krabbendijke can strengthen its social identity through the three strategies and their different spatial applications. The vision shows how the identified themes and effects from the research have been translated into spatial strategies specifically developed for the context of Krabbendijke.



Scale 1:10.000
 Figure 120. Combined vision map of the social identity strategies for Krabbendijke.

4.3 'T Dörp bie Mekare houwe

- Introduction
- Clustering strategies
- Municipal strategy exploration
- Synthesised vision for Krabbendijke
- Spatial interpretation of the vision
- De nieuwe Dorpskamer
- Het Knooppunt aan het Spoor1
- Tussen Dorp en Boomgaard



4.3 'T Dörp bie Mekare Houwe

4.3.1 Introduction

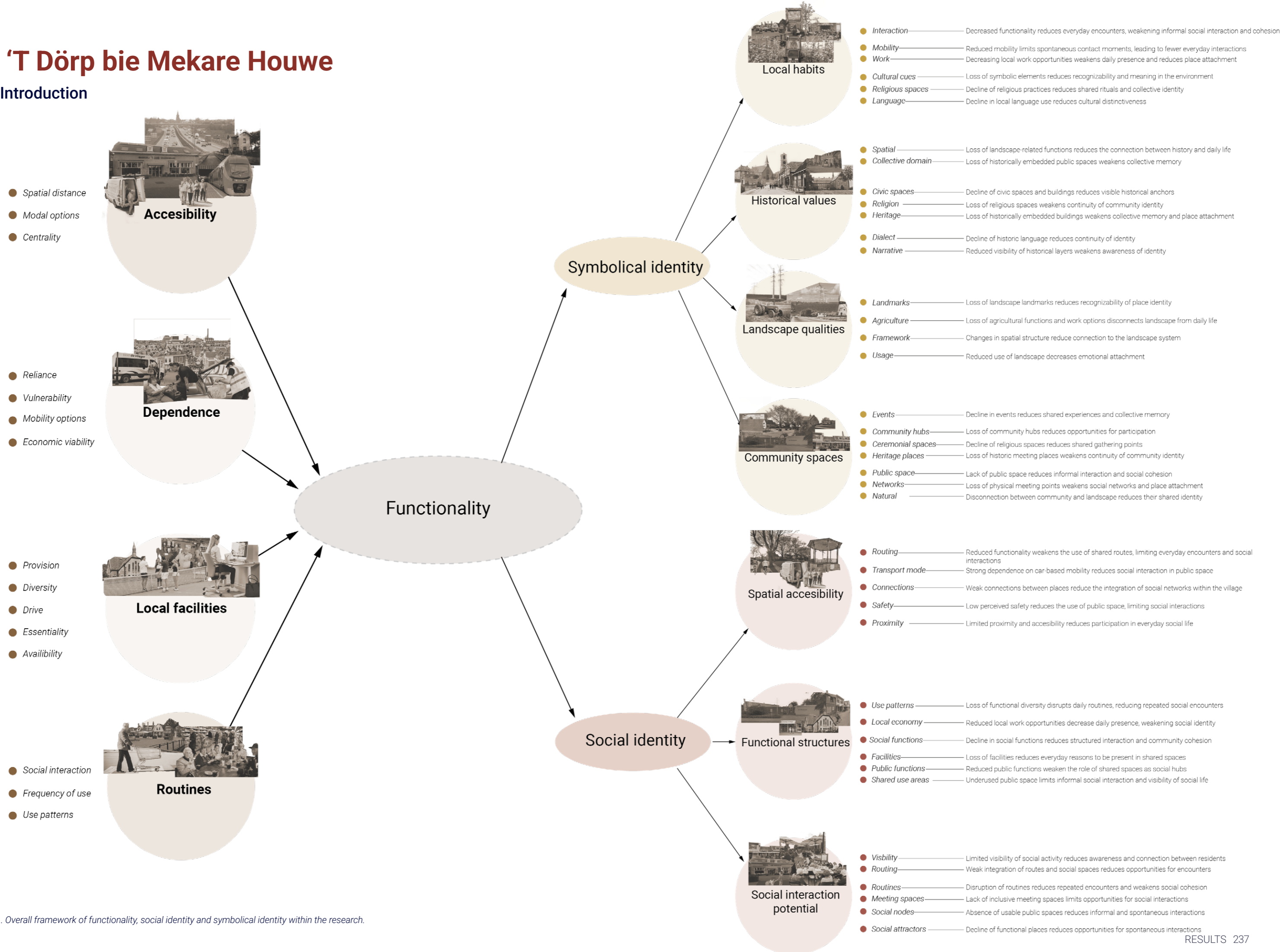


Figure 121. Overall framework of functionality, social identity and symbolical identity within the research.

4.3 'T Dörp bie Mekare Houwe

4.3.2 Clustering strategies

The analysis demonstrates that the decline of facilities and increasing dependence on mobility are not isolated developments, but part of a broader transformation affecting everyday life, social interaction and place attachment within villages. As local functions disappear and daily routines shift away from the village, opportunities for interaction decrease and the connection between people, place and local identity gradually weakens. At the same time, the research shows that identity is not maintained solely through physical elements, but through their active use within everyday life and collective routines.

Building on these conclusions, two complementary design perspectives were developed throughout the research process: a social approach, focused on accessibility, interaction and everyday use, and a symbolic approach, focused on cultural continuity, historical identity and landscape structures. The accompanying diagram visualises how themes such as accessibility, local facilities, landscape qualities, routines and community spaces relate to one another and together influence social and symbolic identity within the village.

From these relationships and research outcomes, four overarching spatial strategies were formulated. These strategies aim not only to strengthen the functional structure of the village, but also to reinforce the social interaction, cultural continuity and everyday presence that together shape local identity:

Consolidating and integrating facilities into a multifunctional village core

Based on findings showing that local facilities act as important meeting places and support everyday interaction and village vitality (Gieling, Haartsen & Vermeij, 2018).

Activating the daily network as a driver of social interaction

Emerging from the conclusion that accessibility, routines and overlapping activities are essential for maintaining social contact and reducing fragmentation within everyday life (Latham & Layton, 2019).

Supporting a resilient and intergenerational community

Responding to the need for flexible and shared spaces that support different generations and forms of use within changing rural conditions (Christiaanse & Haartsen, 2017).

Activating and strengthening landscape and cultural structures as carriers of identity

Based on the finding that historical structures, landscape qualities and local habits play an important role in maintaining place attachment and symbolic identity through everyday use (Scannell & Gifford, 2010).

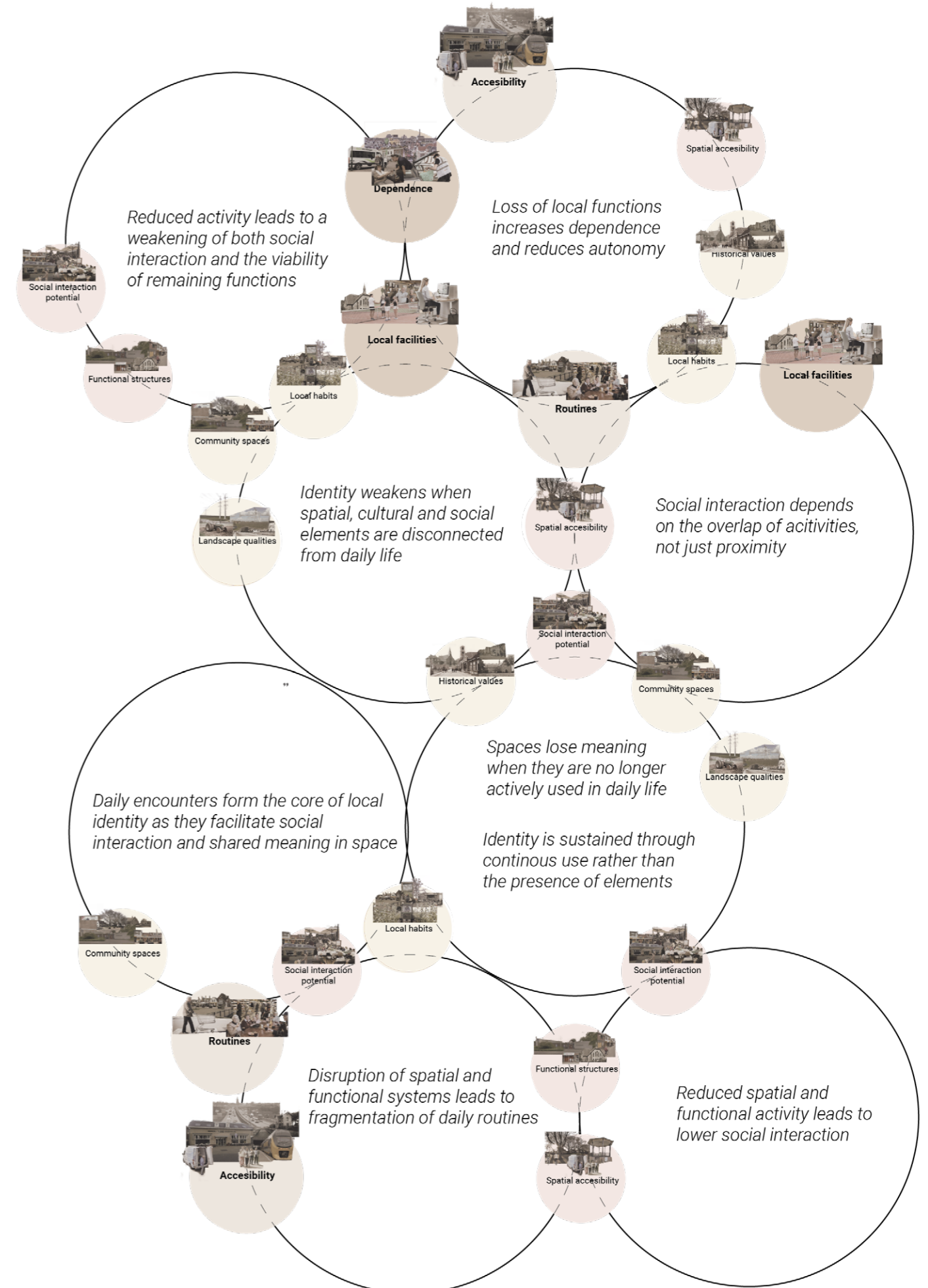


Figure 122. Cluster diagram of the identified effects and spatial applications within the research.

4.3 'T Dörp bie Mekare Houwe

4.3.3 Municipal strategy exploration

The strategy of **consolidating and integrating facilities into a multifunctional village core** has possibilities beyond the village of Krabbendijke alone. In order to understand and regulate these possibilities within the wider context of the municipality of Reimerswaal, a vision map was developed for the entire municipal scale, including the connections between the different villages. Especially within this municipality, the consolidation and integration of facilities plays an important role. Due to population decline and the disappearance of local facilities, many villages within Reimerswaal are facing similar challenges, not only Krabbendijke.

Therefore, the strategy focuses on creating multifunctional village cores in which the thresholds for facilities become lower and a more liveable environment can be stimulated and maintained. As shown on the map, different sub-strategies are important for different types of villages within the municipality. Larger and more populated villages may have less direct need for multifunctional buildings as a response to economic decline, but they still benefit strongly from these interventions because the resilience of existing facilities is strengthened.

Themes such as stimulating multifunctionality and adaptability play an important role in this process. In addition, clustering facilities contributes to the economic vitality and long-term liveability of villages. Research shows that local facilities and community spaces are important carriers of everyday interaction and social cohesion within rural communities (Gieling, Haartsen & Vermeij, 2018). By stimulating social interaction in and around facilities, their role within village life becomes stronger, not only functionally, but also socially and symbolically.

At the same time, attention should be given to the symbolic value of facilities and the creation of meaningful experiences that strengthen people's attachment to place. This becomes increasingly important within villages where traditional public functions such as libraries and community centres are disappearing in their original form, weakening both public life and symbolic identity.

In addition, the growing number of remote workers and people working from home creates new opportunities for villages such as those within Reimerswaal. Flexible workplaces and new working environments can strengthen both the vitality and identity of these villages and should therefore be stimulated more actively. Finally, the relationship between facilities and public life is essential for maintaining their long-term relevance. Through relatively small spatial interventions that increase visibility, accessibility and public use, facilities can become more integrated within everyday village life and contribute to the transformation towards a multifunctional village core.

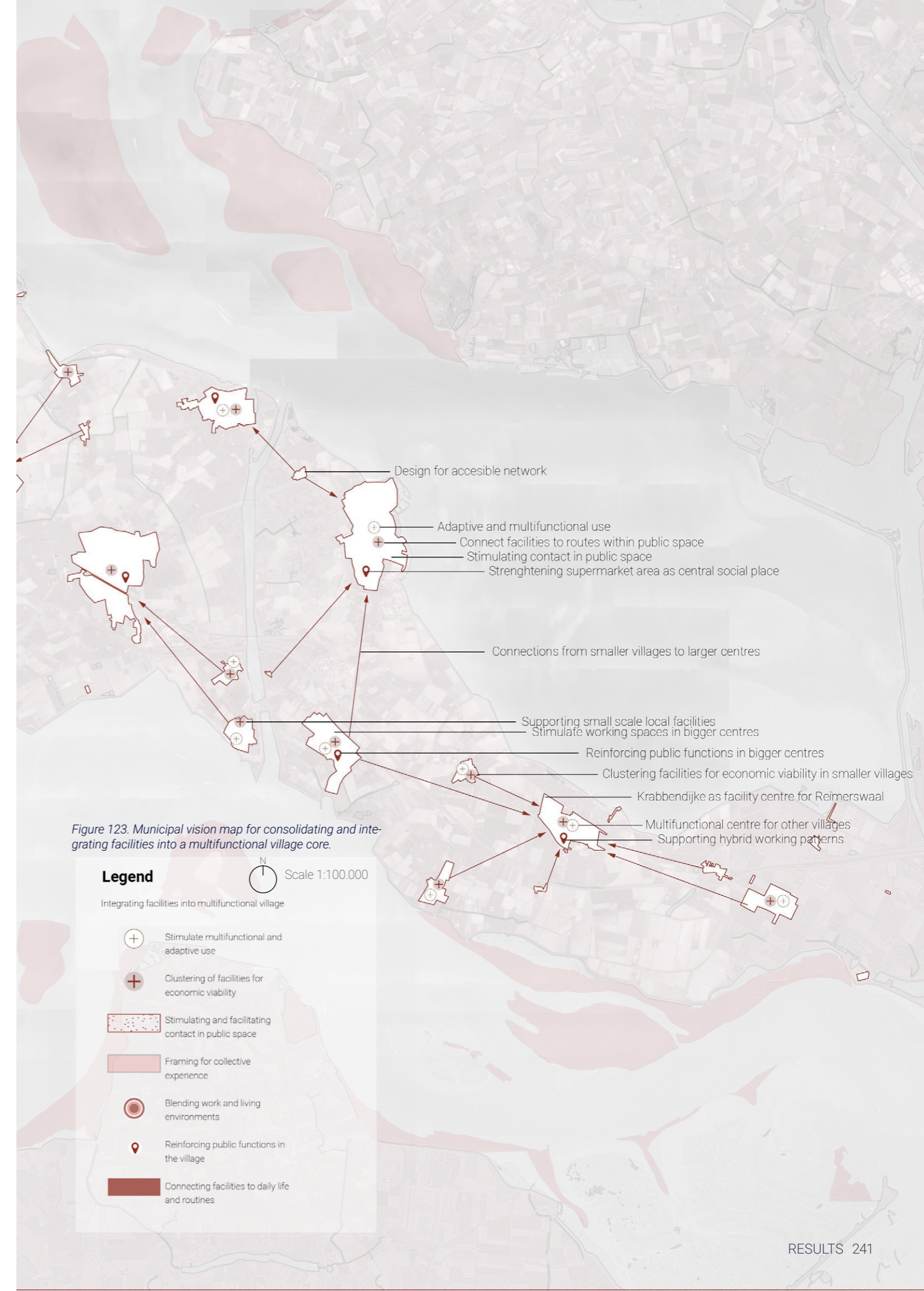


Figure 123. Municipal vision map for consolidating and integrating facilities into a multifunctional village core.

4.3 'T Dörp bie Mekare Houwe

4.3.3 Municipal strategy exploration

The strategy of **activating the daily network as a driver of social interaction** has possibilities beyond only the village of Krabbendijke. In order to understand these opportunities within the wider context of the municipality of Reimerswaal, a vision map was developed on the municipal scale in which village connections, daily routes and local facilities are included. Especially within this municipality, the strengthening of everyday networks and social structures is important because many villages are increasingly affected by fragmentation of routines, dependence on mobility and the disappearance of local meeting places.

Because facilities and activities are becoming more spread out, daily routines are also becoming more fragmented. As a result, opportunities for informal encounters and social interaction decrease. Therefore, the strategy focuses on reconnecting fragmented routines and structures, while strengthening important nodes and routes within village life. As shown on the map, different sub-strategies are important depending on the type and scale of the village. Larger villages already contain stronger networks of facilities and routes, while smaller villages benefit more strongly from interventions that activate public space and connect isolated structures.

Themes such as strengthening nodes as social connectors and using village facilities as social anchors play an important role in maintaining everyday interaction within villages. Research shows that facilities and public spaces are not only functional places, but also important locations for repeated encounters and everyday social contact (Latham & Layton, 2019; Gieling, Haartsen & Vermeij, 2018). By improving accessibility and strengthening the relationship between routes, facilities and public spaces, these everyday interactions can become more visible and active within village life.

In addition, activating village public space through use is important for strengthening the role of the public realm within everyday routines. Public spaces should not only function as traffic spaces, but also as places for staying, meeting and collective use. Through relatively small interventions, such as improving pedestrian routes, creating opportunities for staying and connecting facilities more directly to the public realm, the social value of these spaces can be strengthened.

At the same time, revealing and stimulating social structures is important in maintaining social cohesion and place attachment within villages. Everyday routines, local habits and recurring encounters all contribute to the social identity of a place. Therefore, the strategy focuses not only on improving movement and accessibility, but also on creating opportunities for interaction, visibility and collective use within the daily networks of the municipality.



Figure 124. Municipal vision map for activating the daily network as a driver of social interaction.

4.3 'T Dörp bie Mekare Houwe

4.3.3 Municipal strategy exploration

The strategy of **supporting a resilient and intergenerational community** has possibilities beyond only the village of Krabbendijke. In order to understand these opportunities within the wider context of the municipality of Reimerswaal, a vision map was developed on the municipal scale in which village structures, public spaces and everyday networks are included. Especially within this municipality, strengthening resilience and interaction between generations is important because many villages are dealing with ageing populations, changing social structures and the disappearance of traditional meeting places.

Because daily life and routines are changing, villages need public environments and facilities that can adapt to different forms of use over time. Therefore, this strategy focuses on creating spaces that support multiple generations, changing activities and everyday interaction. As shown on the map, different sub-strategies are important depending on the type and scale of the village. Larger villages already contain stronger social structures and facilities, while smaller villages benefit more strongly from interventions that embed everyday life and community use into public space.

Themes such as designing for a walkable network and embedding everyday rhythms in space play an important role in strengthening social resilience within villages. By improving walkability and accessibility between facilities, public spaces and residential areas, opportunities for everyday encounters and interaction between generations are strengthened. Research shows that repeated everyday interaction and accessible meeting spaces are important conditions for maintaining social cohesion and place attachment within villages (Altman & Low, 1992; Scannell & Gifford, 2010). Public spaces should therefore not only function as movement spaces, but also as places where people can stay, meet and participate in village life.

At the same time, representing community in public space becomes important in maintaining social cohesion and collective identity. Public spaces and facilities should reflect the people and routines connected to the village, while also supporting new forms of use and activity. In addition, showing change over time and revealing the rhythms of cultivation strengthen the relationship between everyday life and the agricultural identity of the municipality. Seasonal changes, local routines and productive landscapes all play an important role in how villages are experienced and remembered. Research within Zeeland also shows that local identity and social cohesion are strongly connected to everyday practices and shared meeting places (Zeeuwse Vereniging voor Kleine Kernen, 2023).

Finally, telling the story of the past is important in maintaining symbolic value and place attachment within the municipality. Historical structures, local traditions and collective memories should remain visible within everyday public life, not only through preservation, but also through new forms of use and interaction. In this way, villages can become more resilient socially, spatially and symbolically, while continuing to support different generations and changing forms of village life.



4.3 'T Dörp bie Mekare Houwe

4.3.3 Municipal strategy exploration

The strategy of **activating and strengthening landscape and cultural structures as carriers of identity** has possibilities beyond only the village of Krabbendijke. In order to understand these opportunities within the wider context of the municipality of Reimerswaal, a vision map was developed on the municipal scale in which historical structures, landscape systems and village connections are included. Especially within this municipality, the relationship between landscape, culture and identity is important because many villages are strongly shaped by agricultural history, local traditions and historical spatial structures. At the same time, these qualities are increasingly under pressure due to changing routines, the disappearance of functions and the fragmentation of everyday life.

Therefore, this strategy focuses on strengthening collective anchors, reactivating historical places and reconnecting cultural and landscape structures with everyday use. As shown on the map, different sub-strategies are important depending on the type and scale of the village. Larger villages often still contain strong collective structures and recognisable landmarks, while smaller villages benefit more strongly from interventions that make local identity and landscape qualities more visible within public life.

Themes such as reactivating historical places and letting the place speak its own language play an important role in maintaining symbolic identity and place attachment. Research shows that attachment to place is strongly connected to everyday use, collective memory and recognisable spatial structures (Altman & Low, 1992; Scannell & Gifford, 2010). Therefore, historical buildings, local landmarks and older spatial patterns should not only be preserved, but also reactivated through new forms of use and public interaction. By reconnecting these places to everyday village life, their symbolic and social value can be strengthened again.

In addition, connecting past and present landscapes is important within a municipality such as Reimerswaal, where agricultural structures and cultivation rhythms strongly influence the identity of the villages. Landscape elements such as orchard structures, field patterns, blossom trees and agricultural routes can become active parts of public space and daily routines again. Research within Zeeland also shows that local identity and social cohesion are strongly connected to shared meeting places, landscape qualities and everyday practices (Zeeuwse Vereniging voor Kleine Kernen, 2023; Christiaanse & Haartsen, 2017).

Finally, strengthening collective anchors is important in maintaining recognisable places within village life. Public spaces, facilities and landscape structures should function not only as functional elements, but also as places where collective identity and local culture become visible in everyday use. Through relatively small spatial interventions, such as improving visibility, activating historical landmarks and strengthening the relationship between landscape and public space, villages can reinforce both their symbolic identity and their connection to everyday life.



Figure 126. Municipal vision map for activating and strengthening landscape and cultural structures as carriers of identity.

4.3 'T Dörp bie Mekare Houwe

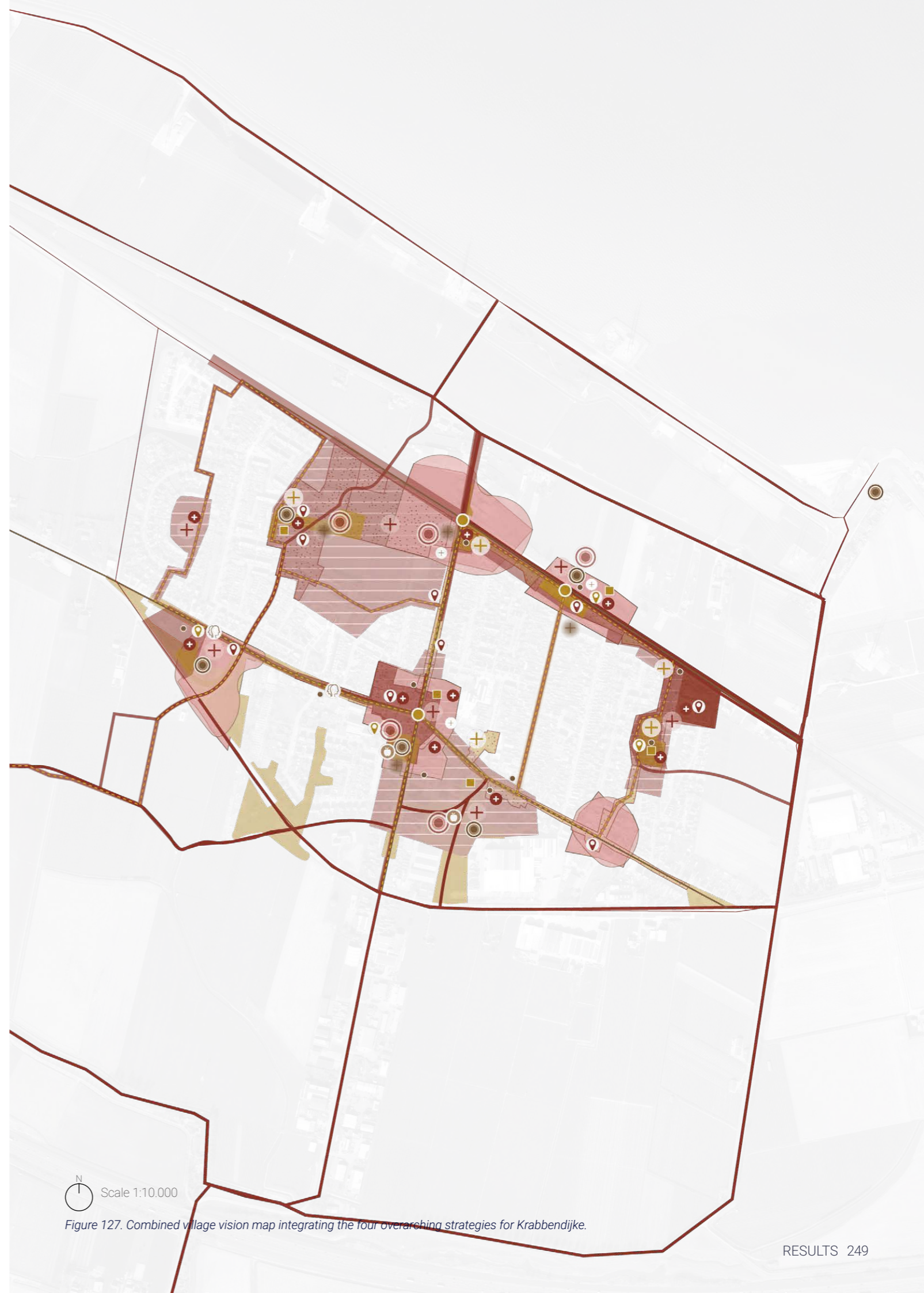
4.3.4 Synthesised vision for Krabbendijke

Within this combined vision map, the four overarching strategies developed from the research are brought together into one spatial framework for Krabbendijke. Through the combination of these strategies, several important hotspots and opportunities within the village become directly visible. Examples of these are the station area, the central square and crossroads, but also a potential new connection between the schools, sports facilities and the surrounding landscape. Together, these locations form important nodes within the daily life and identity of the village.

At this smaller and more local scale, new possibilities emerge that were less visible on the larger municipal scale. Here, the relationship between public space, everyday routines and social interaction becomes more direct and spatially tangible. Themes such as stimulating contact in public space, connecting facilities to daily life and creating a framework for collective experience become increasingly important in strengthening the social role of the village. Public space is therefore approached not only as a movement space, but also as a place for staying, meeting and collective use.

In addition, the vision map focuses on connecting fragmented routines and revealing and stimulating social structures within everyday village life. Through activating village public space through use, routes and facilities become more strongly connected to one another and to the daily rhythms of residents. Designing for a walkable network and embedding rhythms in space strengthens the relationship between movement, accessibility and social interaction, while also making seasonal and everyday changes within the village more visible over time.

Finally, the map also focuses on the symbolic and cultural identity of the village through themes such as embedding ritual in space and connecting past and present landscapes. Historical structures, agricultural patterns and local habits are connected to new public uses and contemporary spatial interventions, allowing the identity of the village to remain visible and active within everyday life.



Legend

Strengthening multifunctional village	Activating daily network for social interaction	Supporting intergenerational community	Activating landscape and cultural structures
Stimulate multifunctional and adaptive use	Strengthening nodes as social connectors	Showing change over time	Strengthening collective anchors
Clustering of facilities for economic viability	Using village facilities as social anchors	Revealing the rhythms of cultivation	Reactivating historical places
Stimulating and facilitating contact in public space	Connecting fragmented routines and structures	Telling on the story of the past	Letting the place speak its own language
Framing for collective experience	Activating village public space through use	Representing communities in public space	Embedding ritual in space
Blending work and living environments	Revealing and stimulating social structures	Embedding everyday rhythms in space	Connecting past and present landscapes
Reinforcing public functions in the village		Designing for a walkable network	
Connecting facilities to daily life and routines			

N Scale 1:10.000

Figure 127. Combined village vision map integrating the four overarching strategies for Krabbendijke.

4.3 'T Dörp bie Mekare Houwe

4.3.5 Spatial interpretation of the vision

In the bird's-eye view, the most important spatial interpretations of the vision are brought together into one overall image of Krabbendijke. The drawing shows the main hotspots and interventions within the village and how the different strategies and themes come together on the village scale.

The central square and station area are represented as important social and symbolic hotspots within the village. In addition, the new connections between the schools, sports facilities and surrounding landscape strengthen the relationship between everyday life, public space and the agricultural identity of Krabbendijke.

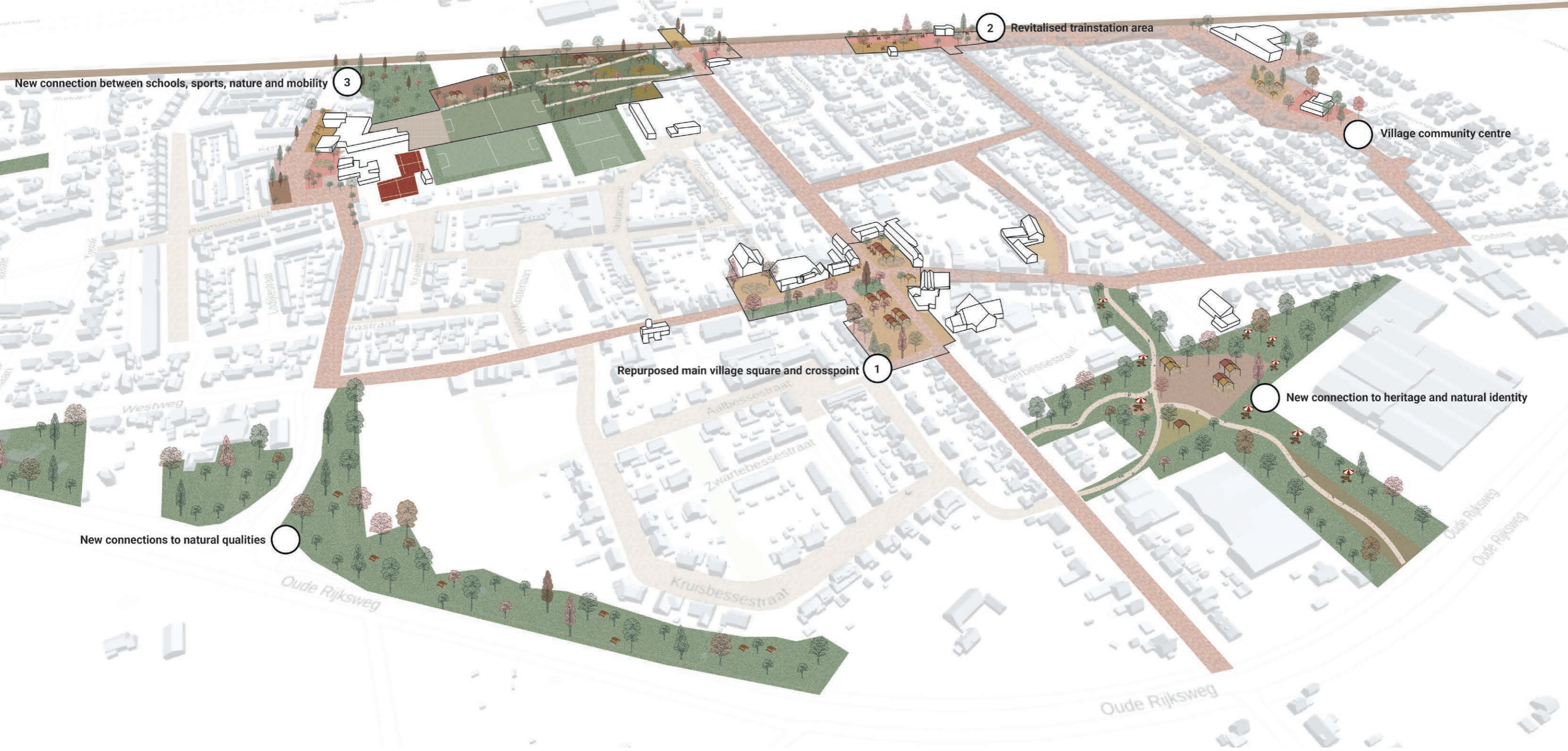


Figure 128. Bird's-eye view illustrating the main spatial interpretations of the vision for Krabbendijke.



Figure 129. Bird's-eye view focusing on the central square and village core interventions.

De nieuwe Dorpskamer



Figure 130. Axonometric representation of the redesigned central square in Krabbendijke.

4.3 'T Dörp bie Mekare Houwe

4.3.6 De nieuwe Dorpskamer

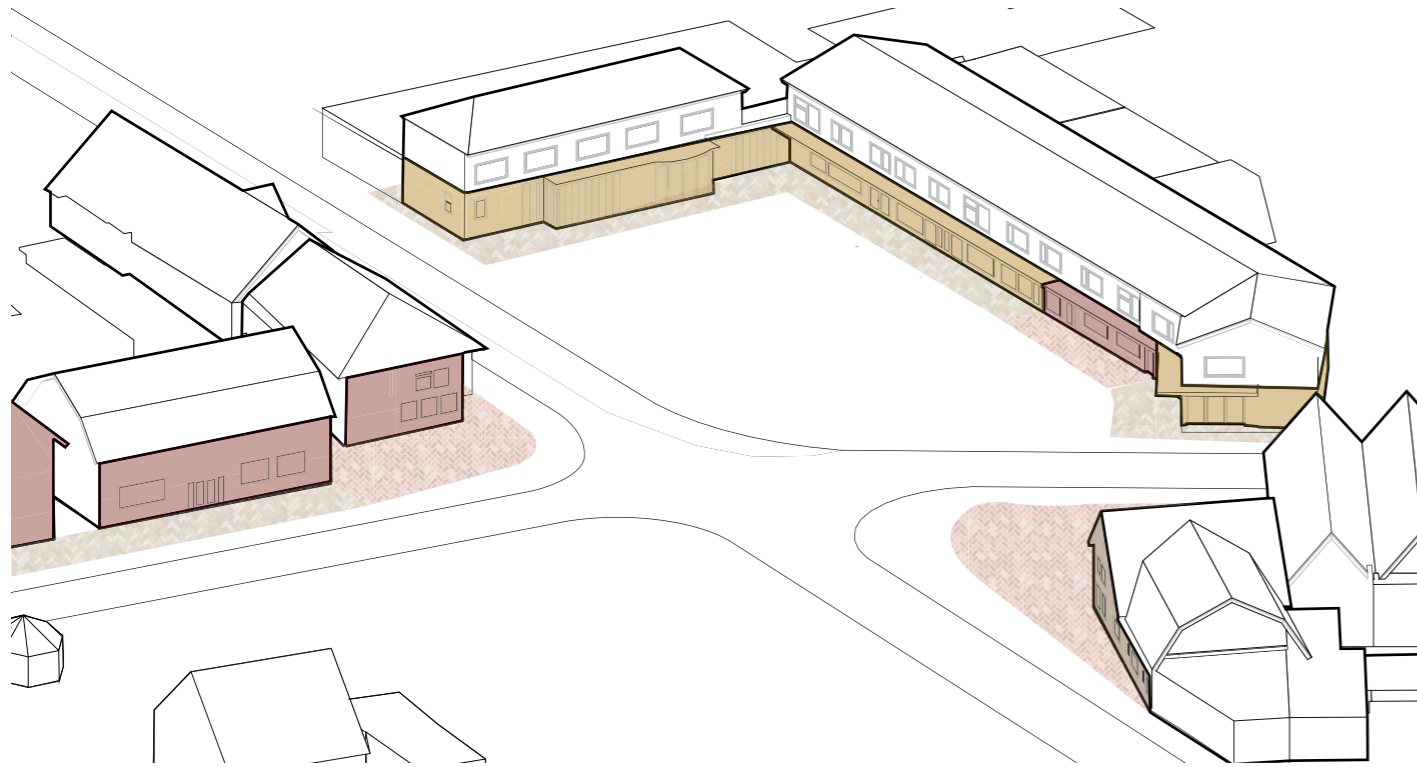


Figure 131. Consolidating and integrating facilities into a multifunctional village core – Concept 1

Activating facades and community spaces

To maintain an active and attractive village square, and to ensure the long-term viability of the multifunctional village centre despite possible population decline, the surrounding façades are reactivated and given a stronger identity. Closed façades are opened up and redesigned to reflect the functions located behind them, creating a more transparent and inviting relationship between buildings and public space. By strengthening the character of the street edge and introducing more visible community-oriented functions, the centre gains greater potential for everyday social interaction and public activity. In this way, the village core becomes a more recognisable and socially active meeting place that continues to support local identity and community life.

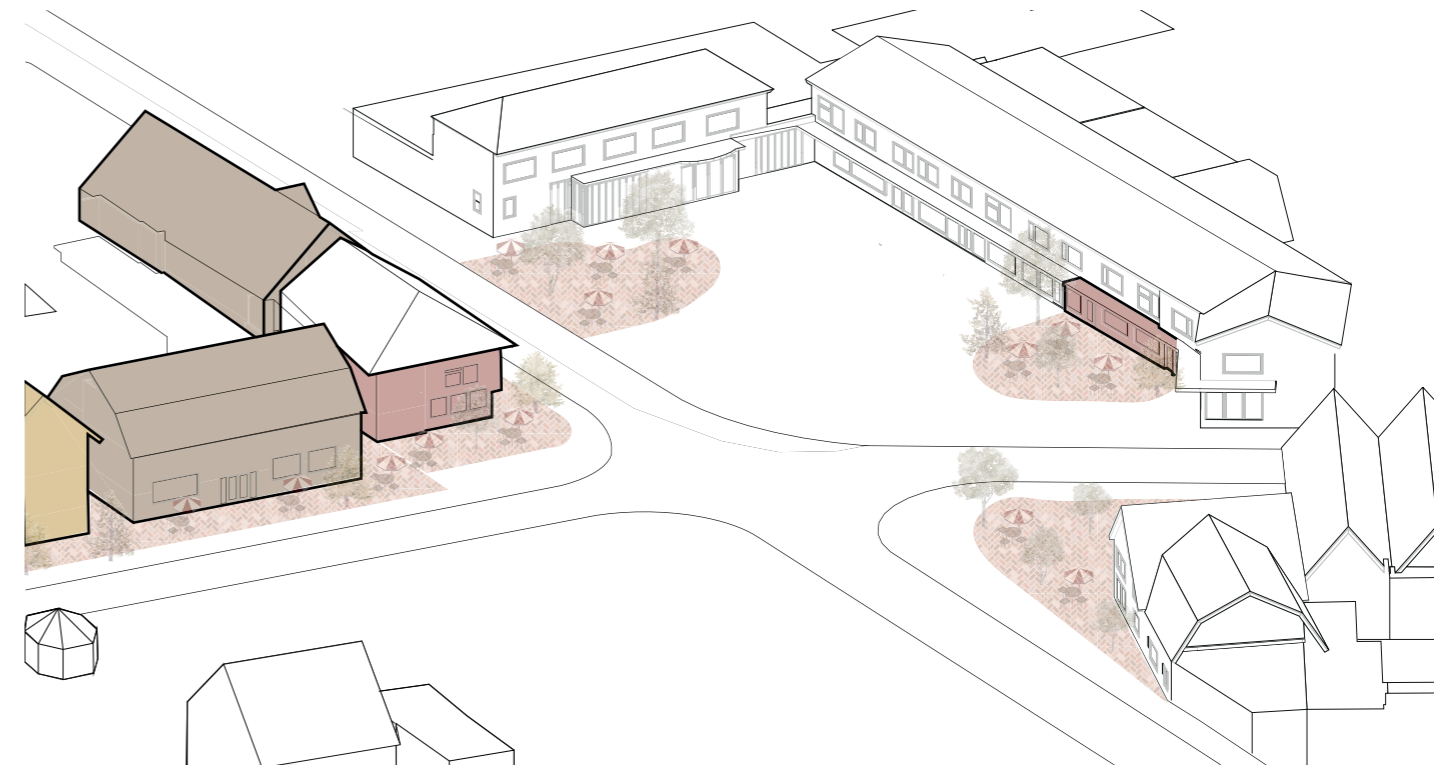


Figure 132. Consolidating and integrating facilities into a multifunctional village core – Concept 2

Strengthening local functions and village identity

Existing local functions play an important role in the identity, habits and everyday life of Krabbendijke and are therefore strengthened within the public realm. Places such as the local café De Krab are extended towards the square through expanded terraces and activated façades, while vacant buildings are reused for new hospitality functions and local shops. At the same time, important everyday facilities such as the butcher and bakery remain embedded within the village core, supported by safer and more accessible pedestrian routes. By reinforcing local businesses, historical functions and community spaces, the intervention increases opportunities for informal encounters and strengthens the social and cultural identity of the village centre.

4.3 'T Dörp bie Mekare Houwe

4.3.6 De nieuwe Dorpskamer



Figure 133. Activating the daily network as a driver of social interaction – Concept 1

Flexible public space for working and meeting

The value of the village centre is not limited to the square itself, but also includes the surrounding public spaces that structure everyday movement and activity. Within this concept, these spaces are transformed into flexible community areas for staying, working and meeting. A multifunctional seating element is introduced that can function as a bench, workspace or market stall, with the possibility of folding and temporary covering. This intervention responds both to the growing demand for flexible workplaces and to the historical market culture of the village. By combining functional structures with opportunities for informal use and interaction, the public space strengthens everyday social life and contributes to the long-term vitality of the village centre.

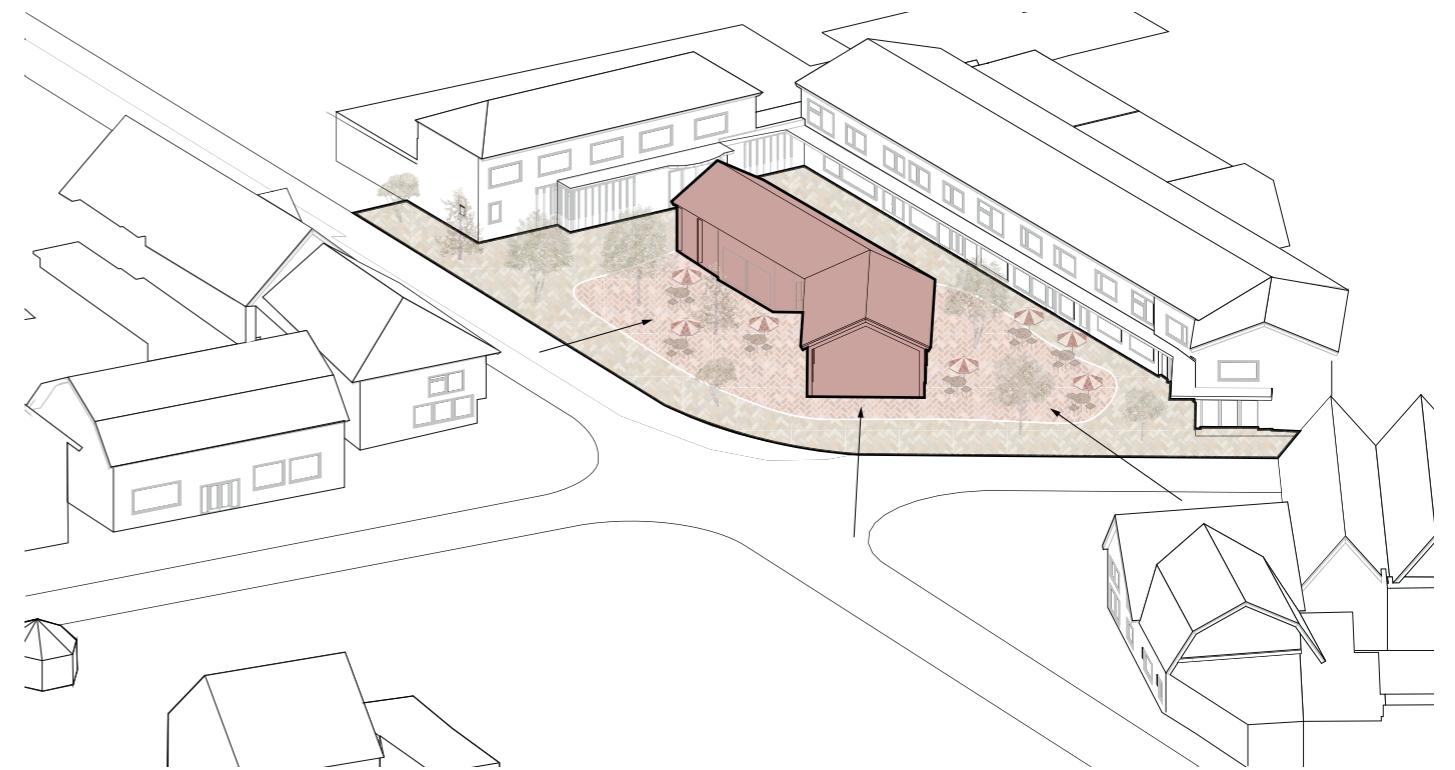


Figure 134. Activating the daily network as a driver of social interaction – Concept 2

A new social anchor for the square

To reactivate the square as a social meeting place, a new building volume is introduced that accommodates the needs of multiple user groups and generations. Existing parking spaces in the middle of the square are relocated, opening the public space for new social and community-oriented functions. The intervention reintroduces lost facilities, such as a village library combined with workspaces, terraces and exhibition areas, responding to contemporary community needs while reconnecting to the historical identity of the village. Through its central position and integration with covered outdoor spaces, the building acts as a new functional and social anchor that strengthens public life, encourages interaction and supports the daily network of the village centre.

4.3 'T Dörp bie Mekare Houwe

4.3.6 De nieuwe Dorpskamer

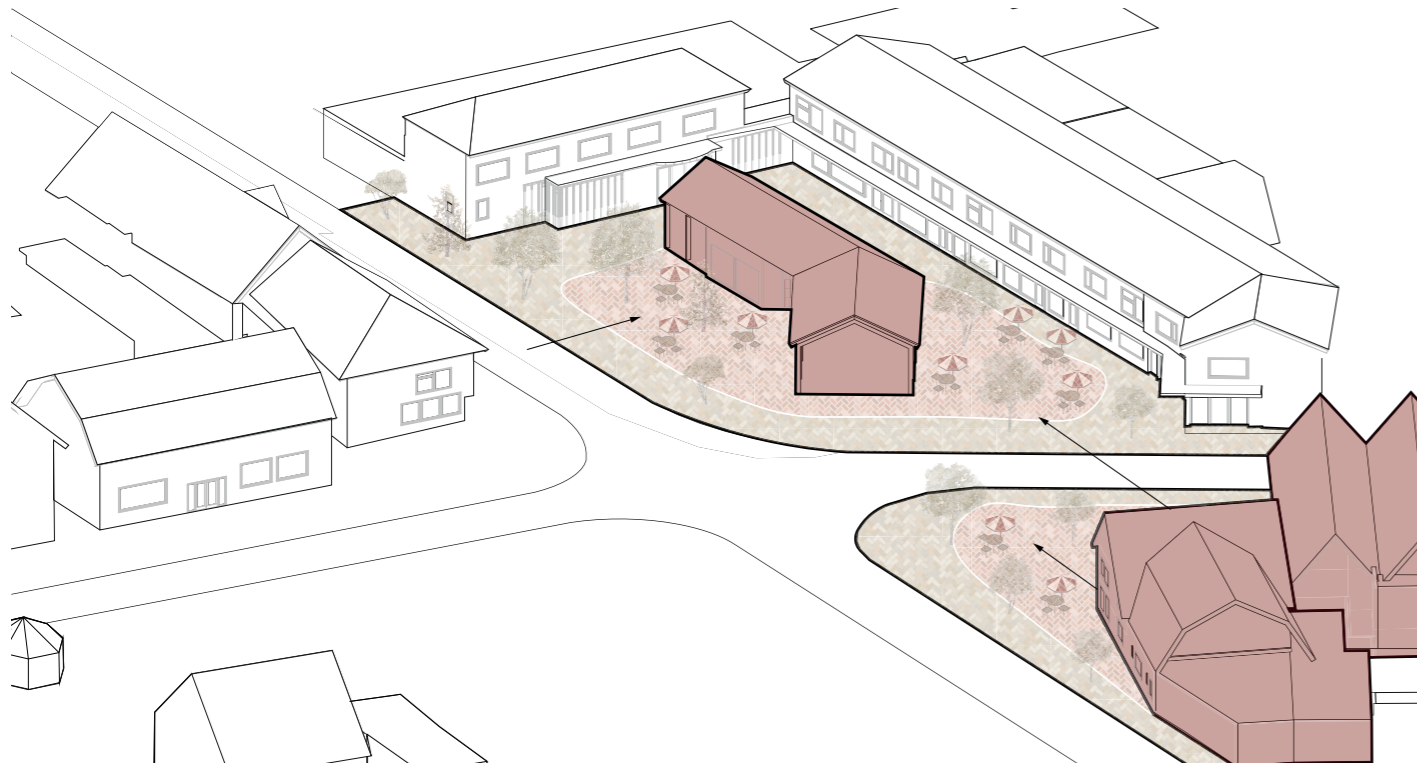


Figure 135. Supporting a resilient and intergenerational community – Concept 1

Multifunctional facilities for multiple generations

To attract different user groups and strengthen the use of both the public space and surrounding buildings, the existing drugstore building is expanded into a multifunctional healthcare centre. The intervention combines functions such as a pharmacy, physiotherapy practice, general practitioner and gym, bringing together healthcare, recreation and everyday activity within a single community-oriented structure. Together with the new pavilion on the square, which combines library functions, flexible workspaces, terraces and exhibition opportunities, the intervention creates spaces that support multiple generations and forms of use. By reintroducing lost functions and strengthening opportunities for social interaction, the proposal reinforces both the functional resilience and social identity of the village centre.

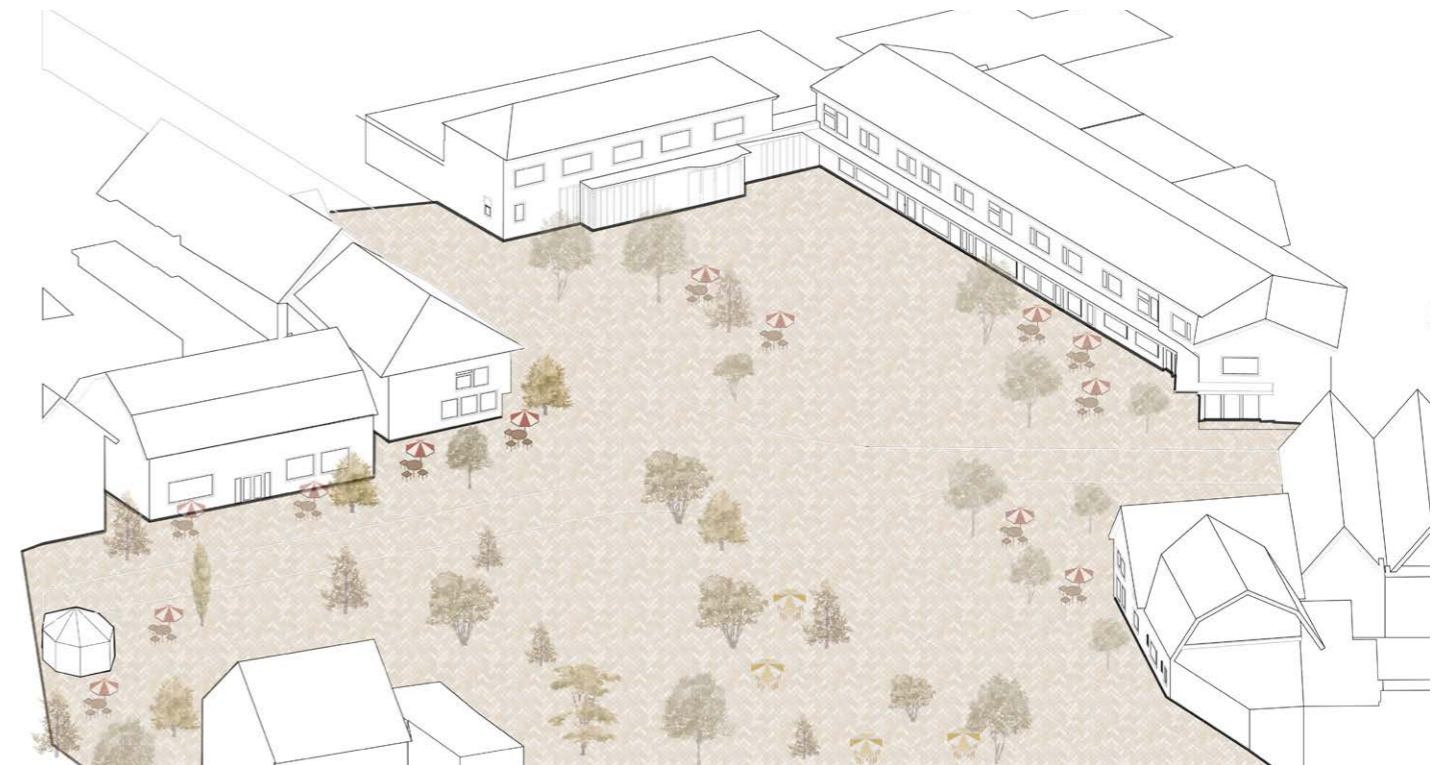


Figure 136. Supporting a resilient and intergenerational community – Concept 2

Transforming the crossroads into a shared village space

In its current condition, the crossroads is strongly dominated by cars due to its central role within the village structure. Large areas of parking and unsafe crossing situations reduce the quality of the public space and limit its use as a place for staying and meeting. Historically, however, the crossroads has always played an important role in the identity and structure of Krabbendijke. This concept therefore transforms the intersection into a safer and more integrated public environment through the use of continuous paving materials, clearer pedestrian crossings and improved accessibility. By visually connecting the street profile with the surrounding public space, the area gains the character of a shared village square that supports everyday interaction, accessibility and social use for different generations and user groups.

4.3 'T Dörp bie Mekare Houwe

4.3.6 De nieuwe Dorpskamer

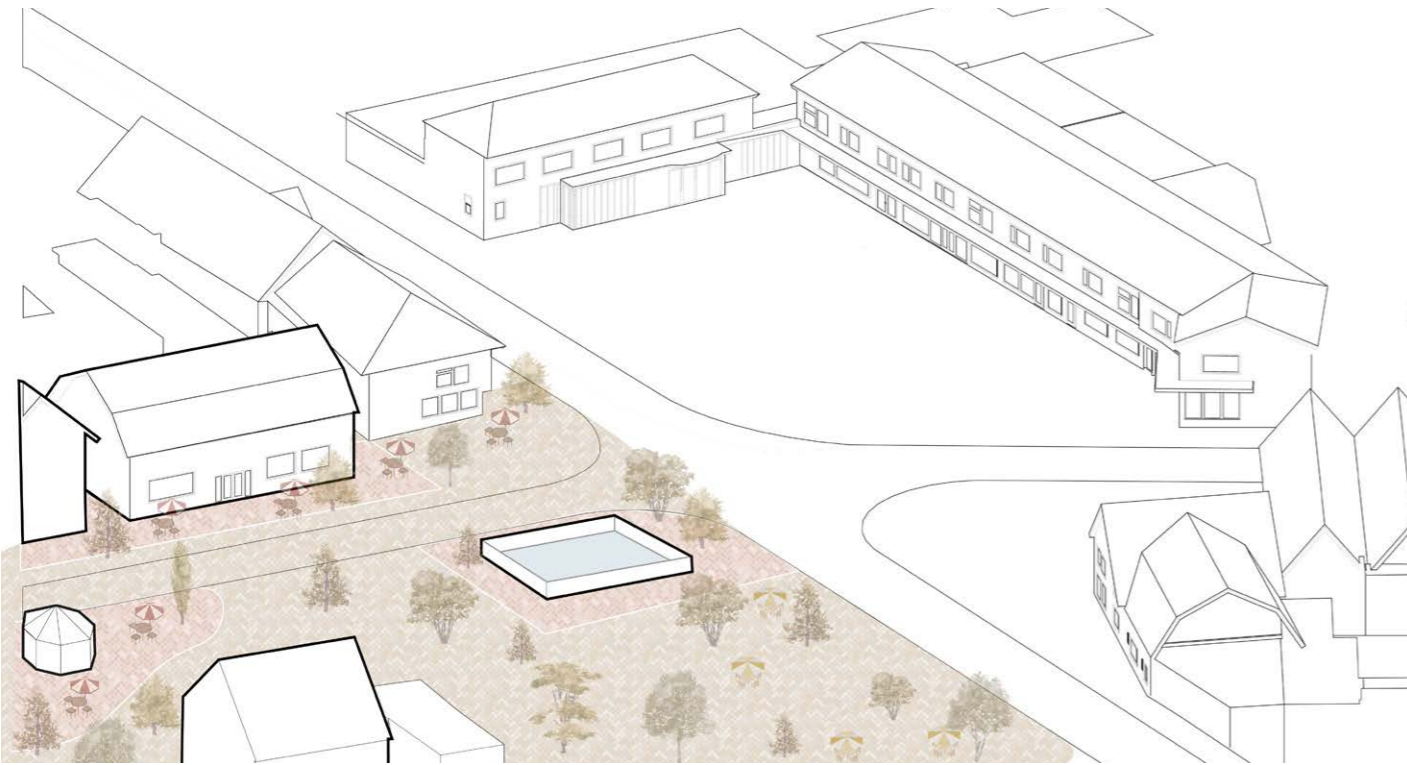


Figure 137. Activating and strengthening landscape and cultural structures as carriers of identity – Concept 1

Strengthening historical structures and seasonal identity

The public spaces surrounding the crossroads contain several important village functions, including the supermarket, churches, butcher and bakery, some of which are located within historically significant buildings. Their role is important not only functionally, but also as carriers of local identity and collective memory. Within this concept, these functions are strengthened through the redesign of the surrounding public space, where seating areas are positioned towards historically important locations and everyday meeting places. The historical market function is also reintroduced more strongly into the public realm, allowing local products, seasonal activities and the agricultural identity of the region to become more visible within daily village life. Carefully selected planting and flower species further reinforce the seasonal character and rural identity of Krabbendijke while supporting opportunities for social interaction and public use.



Figure 138. Activating and strengthening landscape and cultural structures as carriers of identity – Concept 2

Reusing vacant buildings to strengthen local identity

The regeneration of the square also includes the reactivation of vacant buildings that currently weaken the vitality and appearance of the village centre. New functions are introduced that reconnect to local habits, historical identity and everyday village life. On the corner of the square, vacant spaces can be transformed into local shops focused on regional products, strengthening the connection between the village and its agricultural surroundings. At the same time, the return of the library function and the addition of a new café and terrace reactivate the historical role of the square as a place for meeting and exchange. Through these interventions, the village centre gains new social value while reinforcing its cultural and historical identity.

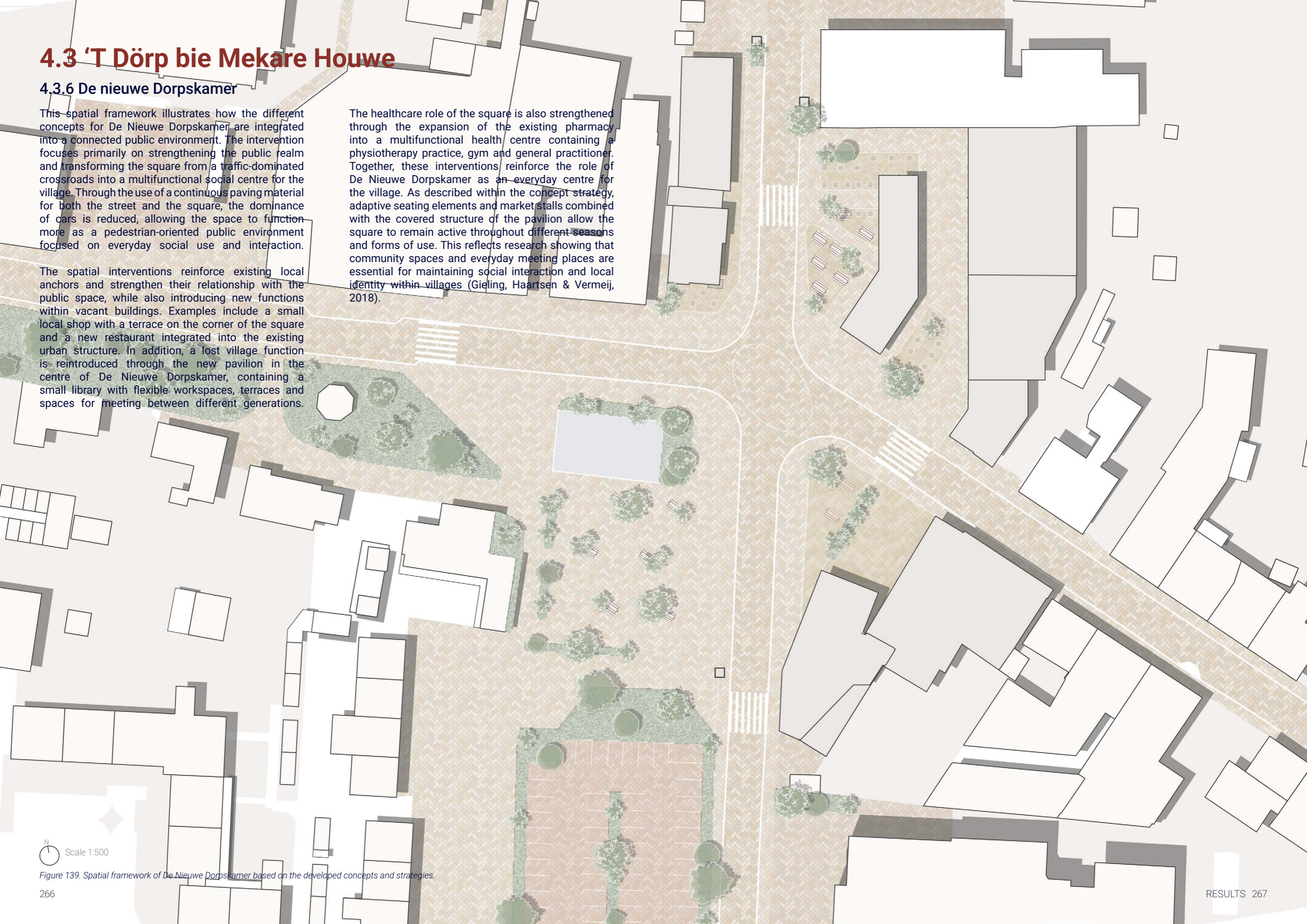
4.3 'T Dörp bie Mekare Houwe

4.3.6 De nieuwe Dorpskamer

This spatial framework illustrates how the different concepts for De Nieuwe Dorpskamer are integrated into a connected public environment. The intervention focuses primarily on strengthening the public realm and transforming the square from a traffic-dominated crossroads into a multifunctional social centre for the village. Through the use of a continuous paving material for both the street and the square, the dominance of cars is reduced, allowing the space to function more as a pedestrian-oriented public environment focused on everyday social use and interaction.

The spatial interventions reinforce existing local anchors and strengthen their relationship with the public space, while also introducing new functions within vacant buildings. Examples include a small local shop with a terrace on the corner of the square and a new restaurant integrated into the existing urban structure. In addition, a lost village function is reintroduced through the new pavilion in the centre of De Nieuwe Dorpskamer, containing a small library with flexible workspaces, terraces and spaces for meeting between different generations.

The healthcare role of the square is also strengthened through the expansion of the existing pharmacy into a multifunctional health centre containing a physiotherapy practice, gym and general practitioner. Together, these interventions reinforce the role of De Nieuwe Dorpskamer as an everyday centre for the village. As described within the concept strategy, adaptive seating elements and market stalls combined with the covered structure of the pavilion allow the square to remain active throughout different seasons and forms of use. This reflects research showing that community spaces and everyday meeting places are essential for maintaining social interaction and local identity within villages (Gieling, Haartsen & Vermeij, 2018).



N Scale 1:500

Figure 139. Spatial framework of De Nieuwe Dorpskamer based on the developed concepts and strategies.

4.3 'T Dörp bie Mekare Houwe

4.3.6 De nieuwe Dorpskamer

In the section on figure 140, the redesigned square of De Nieuwe Dorpskamer is represented as an active public space used by different groups throughout the day. The section illustrates how the market function can once again become part of everyday village life through the use of adaptable market stalls and seating spaces distributed across the square. During market moments, the square can transform into a place for local products, social interaction and seasonal activities connected to the identity of Krabbendijke.

In addition, the new functions within the central building, such as the small library, workspaces and terrace, strengthen the role of the square as a multifunctional village centre where different generations can meet, work and stay.

In the detailed section on figure 141, the adaptable seating and market elements are represented beneath the canopy structure of the new building. These adjustable benches can function both as seating spaces and as market stalls, allowing the square to change depending on different activities and seasons. The canopy structure provides shelter and creates opportunities for exhibitions, markets and temporary public use throughout the year.

Through this flexible framework, the public space becomes more active and multifunctional, while simultaneously strengthening the social and symbolical identity of the square and its historical market function.

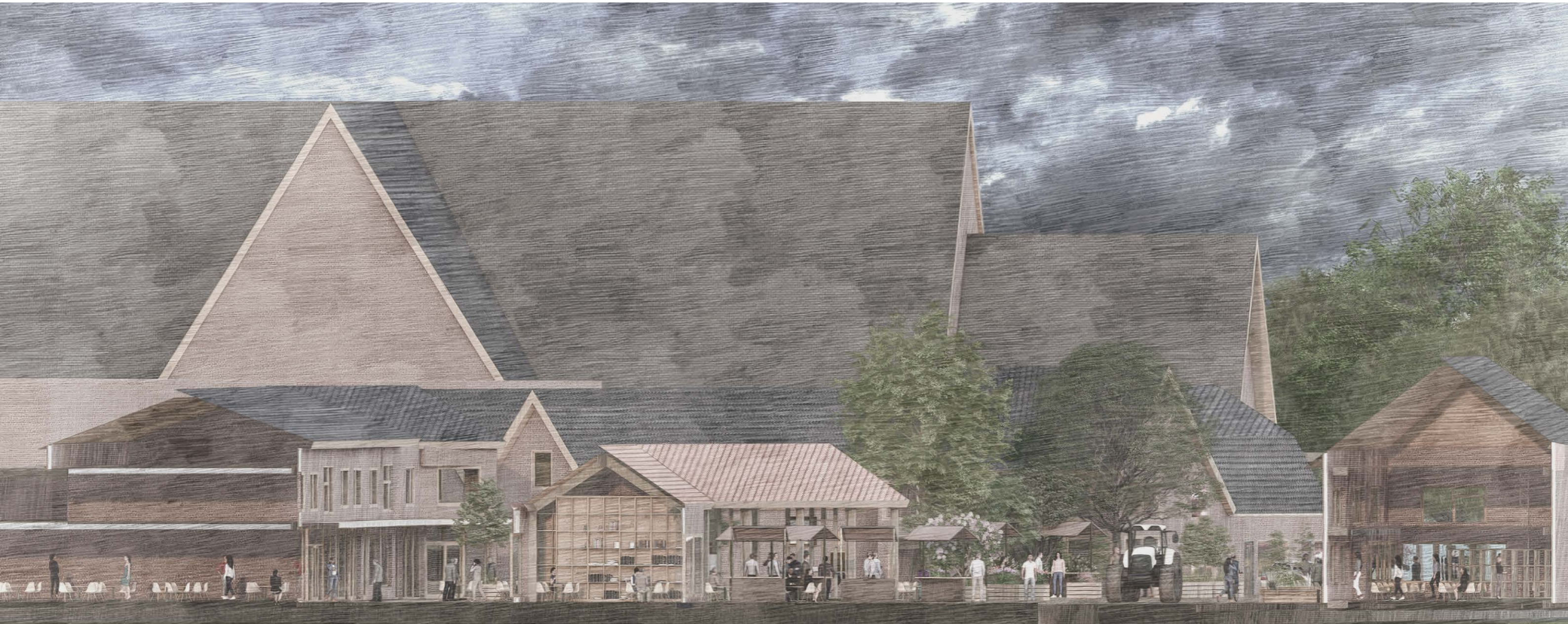
Scale 1:150

Figure 140. Section illustrating the use and activation of the redesigned village square.



Scale 1:100

Figure 141. Detailed section illustrating the new multifunctional mass within De Nieuwe Dorpskamer.



4.3 'T Dörp bie Mekare Houwe

4.3.6 De nieuwe Dorpskamer

This figure illustrates the interior workspace of the pavilion within De Nieuwe Dorpskamer. Small tables and flexible seating areas are positioned both inside and outside the building, creating opportunities for working, reading and informal social interaction. Through the open façade design and large windows, the pavilion becomes visually accessible and inviting for different user groups and generations.

The use of wooden columns, visible roof structures and recycled brick materials creates a warm and recognisable atmosphere connected to the identity of Krabbendijke and its rural context. By combining public functions with flexible workspaces, the pavilion responds to changing patterns of everyday life and the increasing importance of local working environments within villages. Research has shown that multifunctional public spaces and informal meeting places play an important role in supporting social cohesion and everyday interaction in rural communities (Christiaanse & Haartsen, 2017).



Figure 142. Interior render of the new library and workspace within De Nieuwe Dorpskamer.

4.3 'T Dörp bie Mekare Houwe

4.3.6 De nieuwe Dorpskamer

The section shown in Figure 143 illustrates how De Nieuwe Dorpskamer can be used by different groups and generations through the introduction of new seating elements and covered public spaces. New terraces, blossom trees, poplars and planted flower elements contribute to a more pleasant and accessible atmosphere within the village centre. By using one continuous paving material across both the roadway and the square, the dominance of the car is reduced, improving accessibility and safety for children, pedestrians and less mobile residents.

The zoomed section further shows how the new restaurant on the right side of the square extends into the public realm through outdoor terraces and open ground-floor facades, strengthening its relationship with everyday public life. The exhibition spaces underneath the pavilion structure are used for displaying local art and historical imagery related to Krabbendijke and its landscape. These installations are intended to encourage conversation, memory and interaction between residents, reinforcing the symbolic and social value of De Nieuwe Dorpskamer as a collective village space.

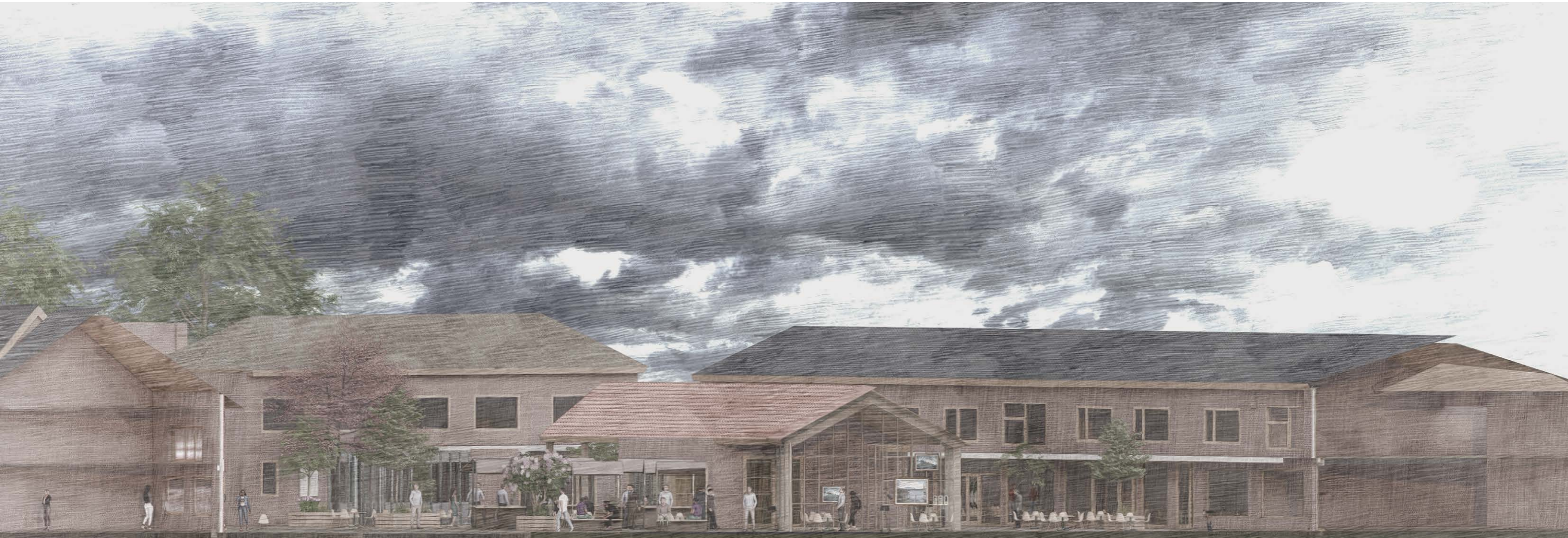
Scale 1:150

Figure 143. Section illustrating the use of the new seating spaces and public square.



Scale 1:100

Figure 144. Detailed section illustrating the exhibition space beneath the canopy structure.



4.3 'T Dörp bie Mekare Houwe

4.3.6 De nieuwe Dorpskamer

This figure illustrates how De Nieuwe Dorpskamer can function as a social meeting place through the introduction of new seating areas, exhibition spaces and covered public environments. The covered structure surrounding the pavilion creates sheltered spaces that encourage people to stay, meet and interact throughout the year. In the background, café De Krab is visible with terraces positioned both directly in front of the building and across the street, partially integrated beneath the covered structure to strengthen the connection between the café and the public square.

The materialisation of the canopy plays an important role within the identity of the intervention. The wooden structure is designed to weather naturally over time, reflecting the appearance of the older agricultural barns found throughout the village and surrounding landscape. Through this material expression, the intervention reinforces the historical atmosphere and rural identity of De Nieuwe Dorpskamer while creating a recognisable and welcoming public environment.

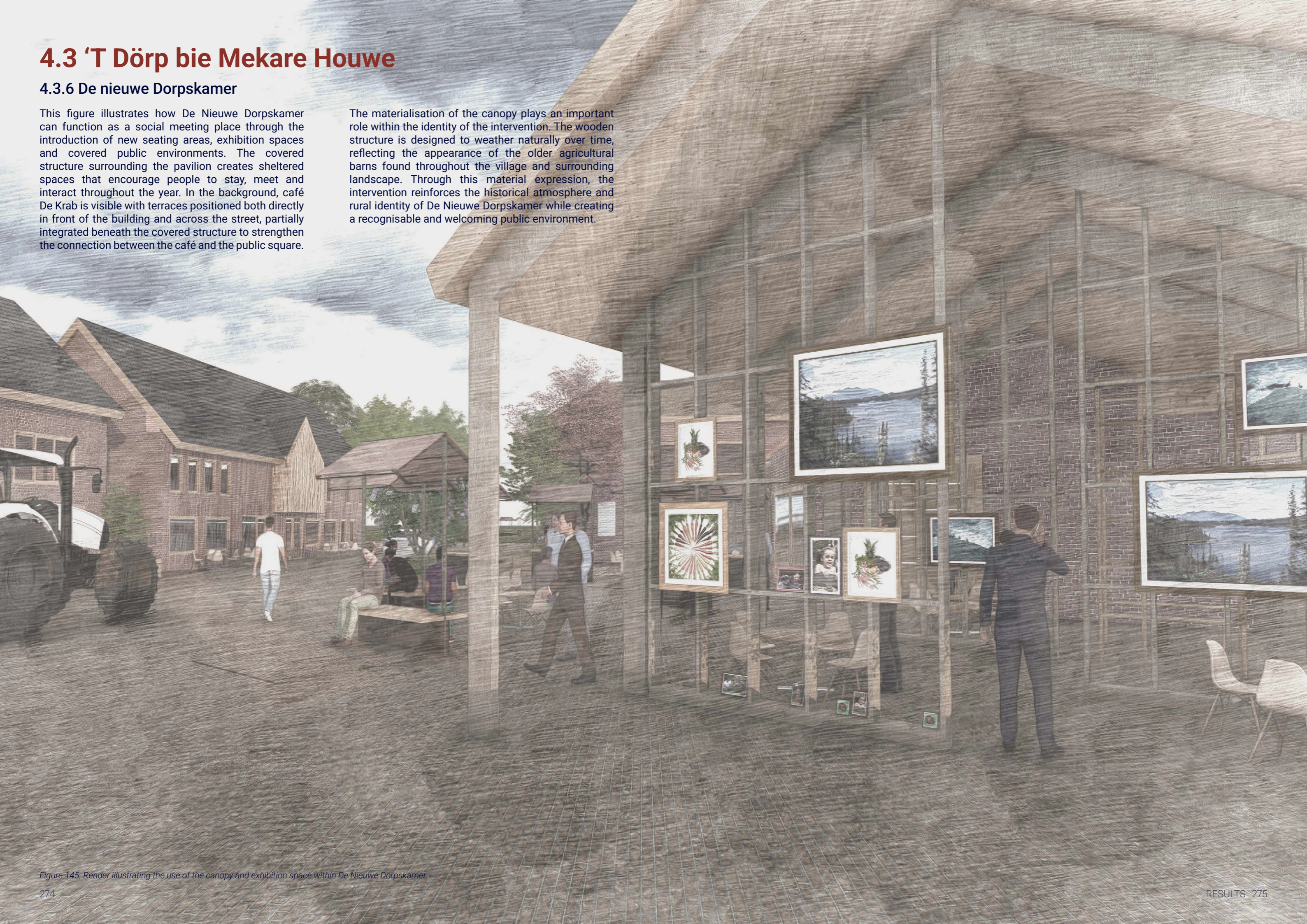


Figure 145. Render illustrating the use of the canopy and exhibition space within De Nieuwe Dorpskamer.

4.3 'T Dörp bie Mekare Houwe

4.3.6 De nieuwe Dorpskamer

This figure illustrates how the market function extends beyond a single location and activates the entirety of De Nieuwe Dorpskamer as a flexible public environment. During market days, parts of the surrounding roads can be temporarily closed for cars, allowing the square to function fully as a pedestrian-oriented village space. The movable seating and market elements can be rearranged by the village council into different configurations depending on the event or season, supporting both everyday use and larger collective activities.

Through the introduction of local products, temporary market stalls and seasonal activities, De Nieuwe Dorpskamer gains a stronger role as a social and cultural centre within the village. The intervention creates opportunities for new visitors and small-scale tourism while reinforcing local identity, social interaction and the visibility of rural traditions within everyday public life. Research on public gathering spaces highlights the importance of adaptable public environments in supporting social cohesion and strengthening local identity within smaller communities (Klinenberg, 2018).



Figure 146. Render illustrating the market stall function within the redesigned village square.

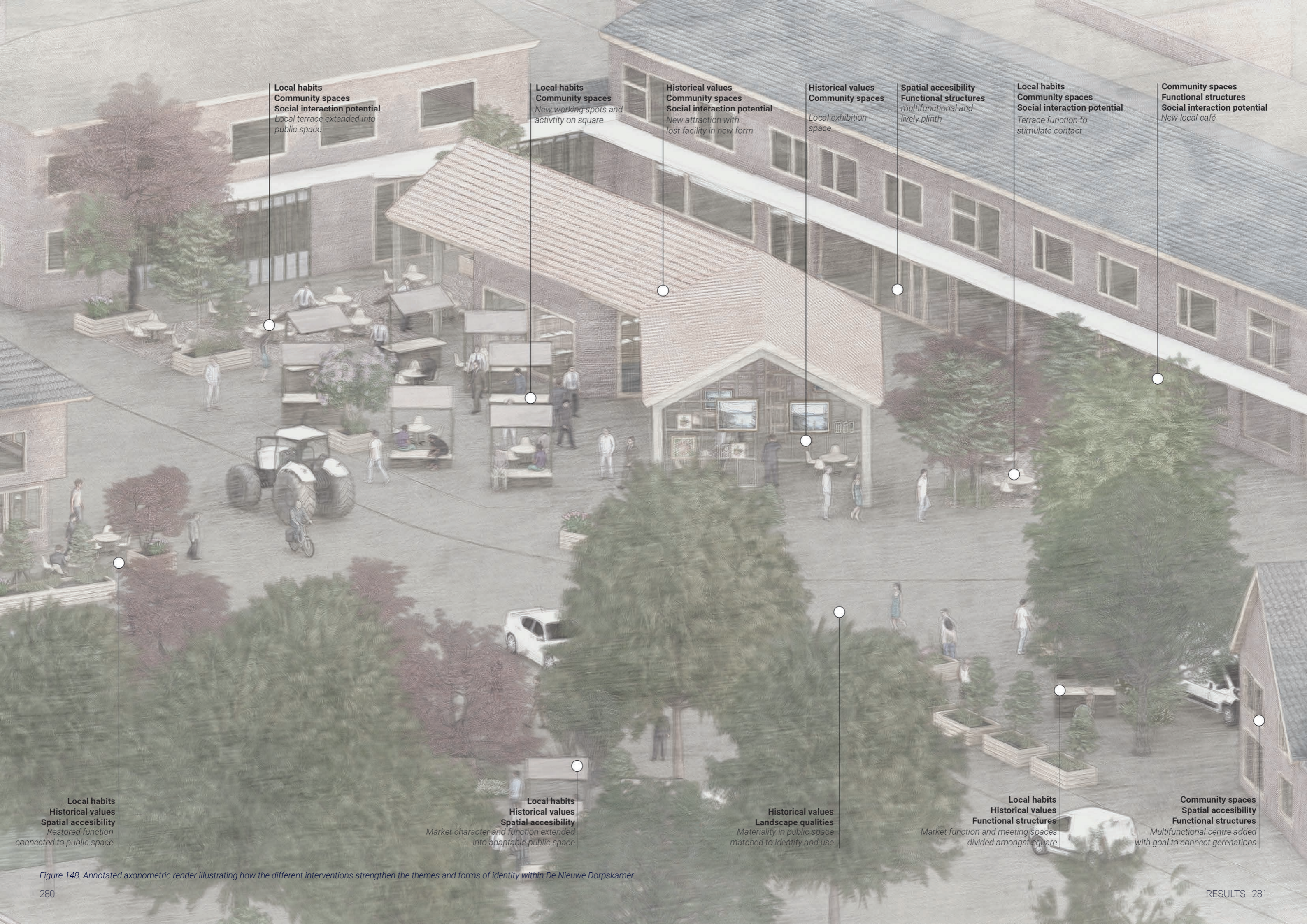
4.3 'T Dörp bie Mekare Houwe

4.3.6 De nieuwe Dorpskamer

This axonometric drawing illustrates the spatial framework of the intervention and shows how the different routes, programmes, public spaces and landscape structures together form a connected environment. The drawing highlights the spatial relationships between the different interventions and how they contribute to the overall identity and functioning of the area. The following page presents the same axonometric drawing with the most important interventions highlighted and connected to the social and symbolic identity themes, showing how specific spatial strategies contribute to the strengthening of identity within the project area.



Figure 147. Axonometric render illustrating the overall spatial framework of De Nieuwe Dorpskamer.



Local habits
Community spaces
Social interaction potential
Local terrace extended into public space

Local habits
Community spaces
New working spots and activity on square

Historical values
Community spaces
Social interaction potential
New attraction with lost facility in new form

Historical values
Community spaces
Local exhibition space

Spatial accessibility
Functional structures
multifunctional and lively plinth

Local habits
Community spaces
Social interaction potential
Terrace function to stimulate contact

Community spaces
Functional structures
Social interaction potential
New local café

Local habits
Historical values
Spatial accessibility
Restored function connected to public space

Local habits
Historical values
Spatial accessibility
Market character and function extended into adaptable public space

Historical values
Landscape qualities
Materiality in public space matched to identity and use

Local habits
Historical values
Functional structures
Market function and meeting spaces divided amongst square

Community spaces
Spatial accessibility
Functional structures
Multifunctional centre added with goal to connect generations

Figure 148. Annotated axonometric render illustrating how the different interventions strengthen the themes and forms of identity within De Nieuwe Dorpskamer.



Figure 149. Bird's-eye view focusing on the station area and interventions of Het Knooppunt aan het Spoor.

Het Knooppunt aan het Spoor

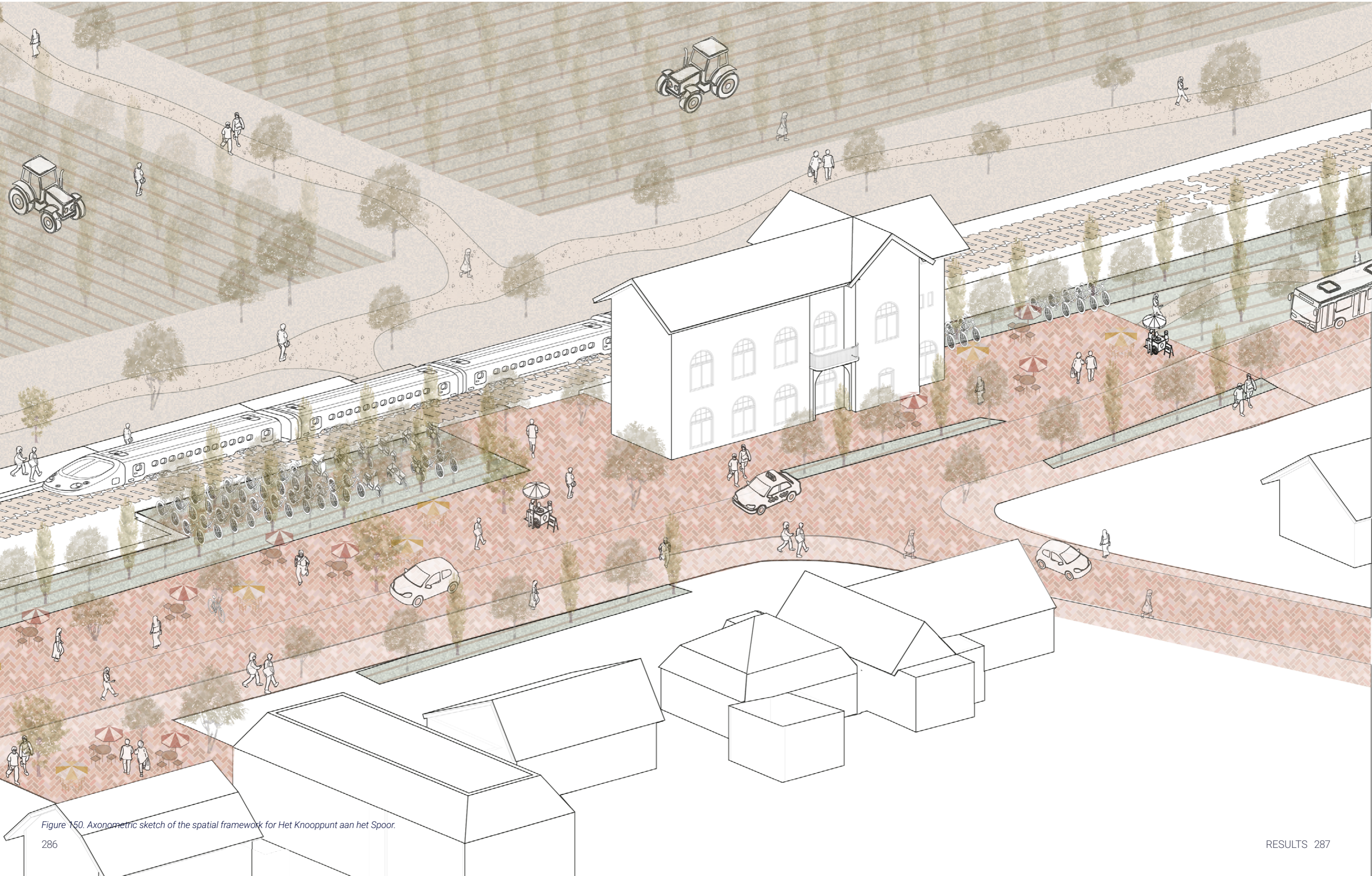


Figure 150. Axonometric sketch of the spatial framework for Het Knooppunt aan het Spoor.

4.3 'T Dörp bie Mekare Houwe

4.3.7 Het Knooppunt aan het Spoor

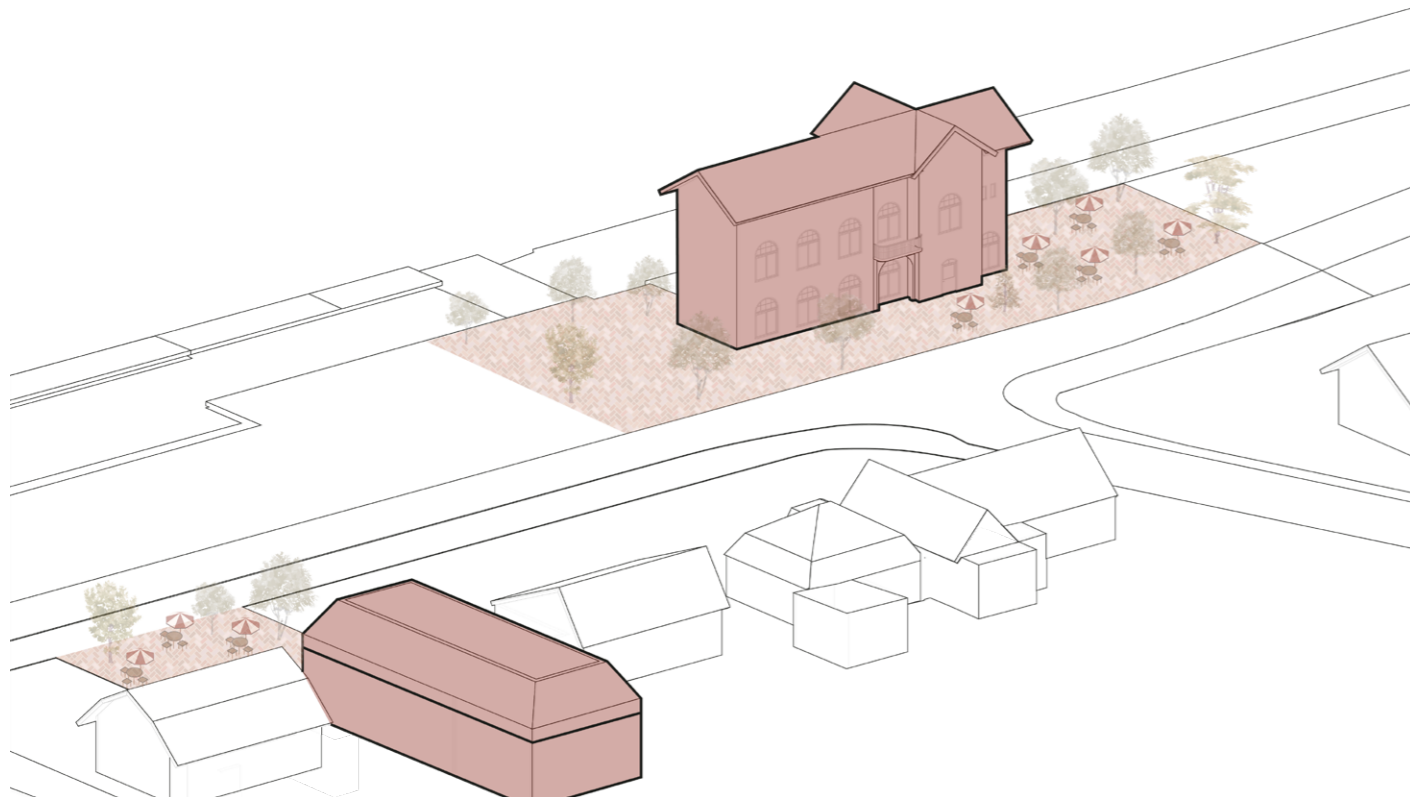


Figure 151. Consolidating and integrating facilities into a multifunctional village core – Concept 1

Strengthening landmarks and social activity

The social role stimulated through these renewed functions is important for activating the station area and maintaining the vitality of its surrounding facilities. By strengthening existing landmarks in their functional and symbolic role, the station environment gains a stronger identity and becomes more future-proof. These interventions reinforce historical values and local habits while creating new community-oriented spaces that encourage everyday use and social interaction. In this way, the station zone develops from a purely transitional area into a recognisable place for meeting, staying and local activity.

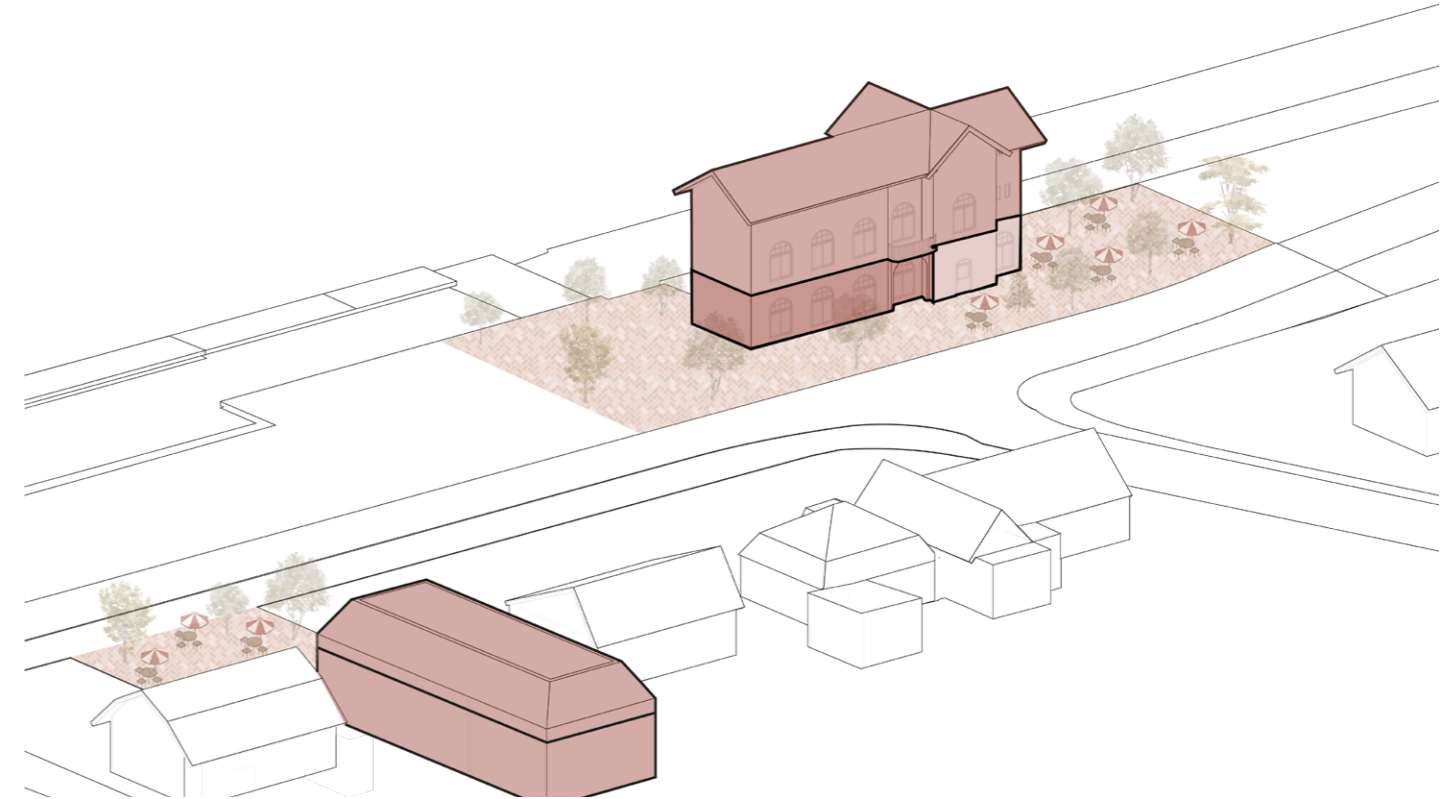


Figure 152. Consolidating and integrating facilities into a multifunctional village core – Concept 2

Reprogramming historical buildings for everyday use

Because the historical station building and nearby café are currently underused, both buildings are transformed into multifunctional spaces that support new forms of activity and everyday use. The historic station building accommodates a small art studio, flexible workspaces and a waiting area combined with an unmanned café, allowing the building to gain a renewed role within daily village life. The café retains its original hospitality function but is expanded with flexible workspaces and new areas for staying, supported by new façade openings and stronger connections to the public space. Through these interventions, the station zone gains improved spatial accessibility and creates new opportunities for social interaction while strengthening the use and visibility of its historical structures.

4.3 'T Dörp bie Mekare Houwe

4.3.7 Het Knooppunt aan het Spoor

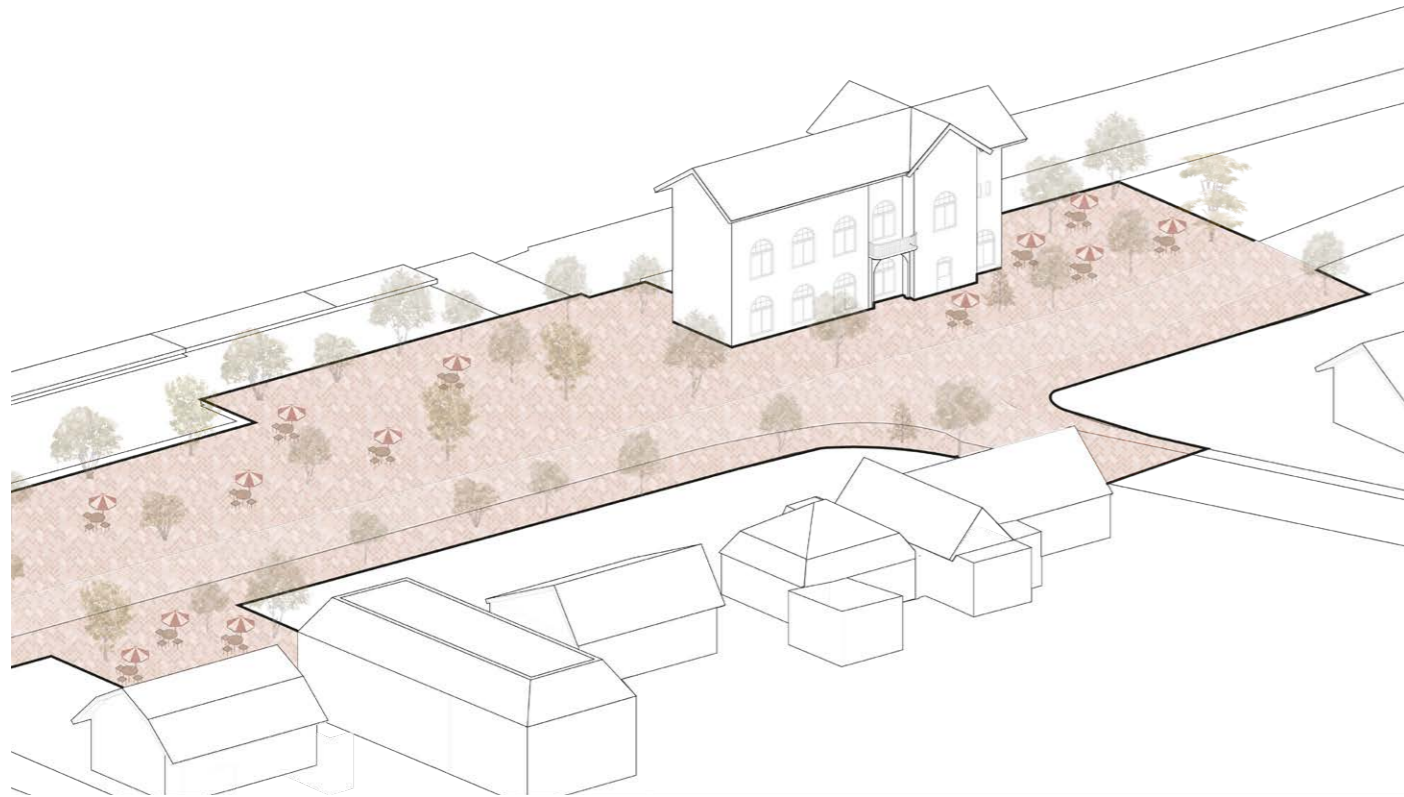


Figure 153. Activating the daily network as a driver of social interaction – Concept 1

Transforming traffic space into public space

Similar to the village centre, the station area is currently dominated by car infrastructure, with large amounts of parking, unclear crossings and limited space for pedestrians and cyclists. By relocating parking areas, narrowing the road profile and redesigning the bicycle parking facilities, new opportunities emerge for a more social and accessible public environment. Through the use of continuous paving materials and clear crossing points, the area gains the spatial character of a square rather than a traffic corridor. This transformation strengthens spatial accessibility, improves safety and creates new opportunities for social interaction and connections between the surrounding functions.

4.3 'T Dörp bie Mekare Houwe

4.3.7 Het Knooppunt aan het Spoor



Figure 155. Supporting a resilient and intergenerational community – Concept 1

Connecting buildings and public life

The newly created space for staying and meeting introduces opportunities to better connect the surrounding buildings and public functions. The concept shows how different programmes extend into the public realm through outdoor workspaces, exhibition areas and integrated greenery, encouraging longer stays and informal use of the station environment. By attracting both younger and older generations, the intervention strengthens the station area as a community-oriented place rather than solely a space for movement and transit. In this way, the public space becomes an active social environment that supports interaction, identity and everyday use.

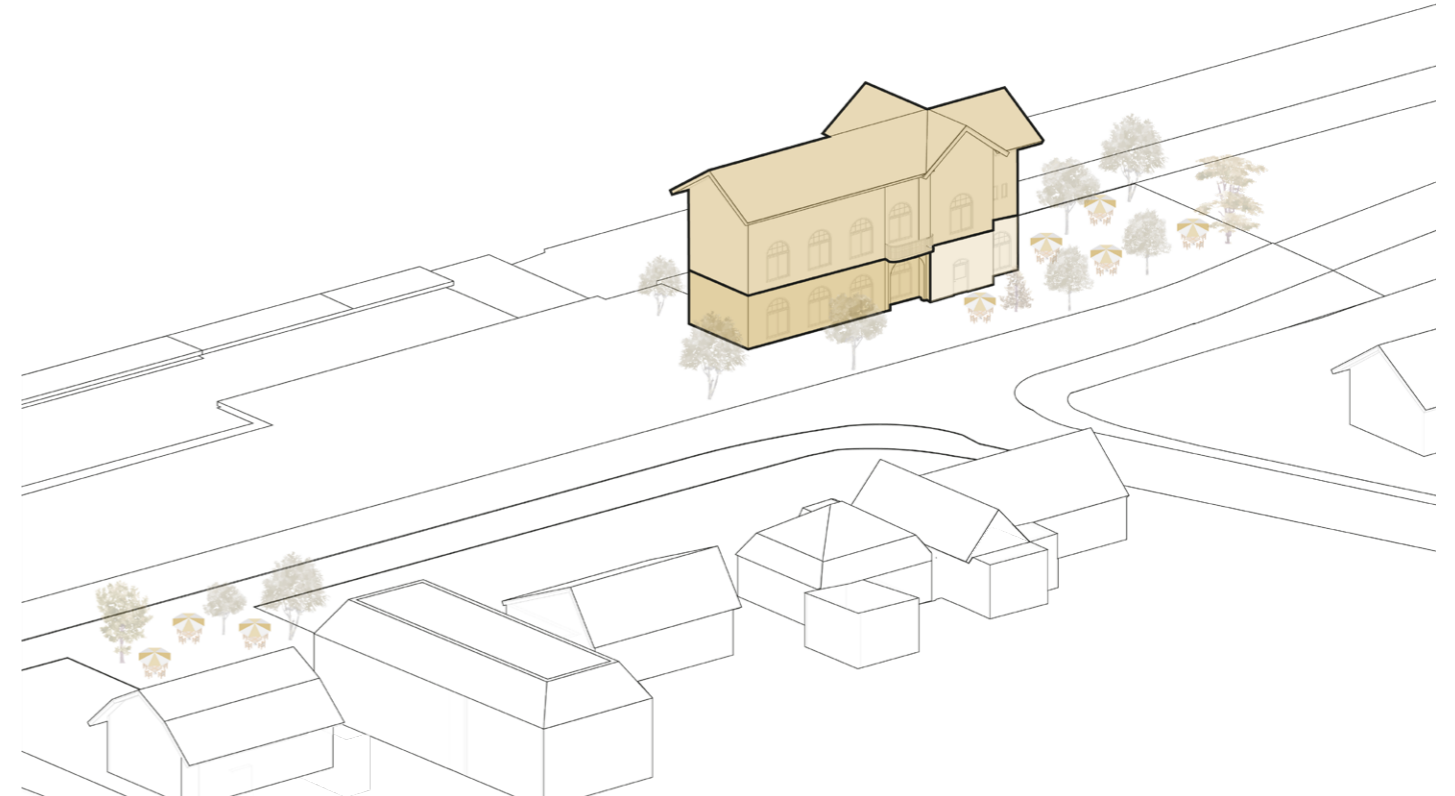


Figure 156. Supporting a resilient and intergenerational community – Concept 2

Reimagining the station landmark as a shared community space

The historical station building gains several new functions that attract different generations and user groups to the station area. The traditional image of the station as purely a space for movement and traffic is transformed into a place for staying, working and social activity. Within the historical landmark, functions such as a café, waiting area, flexible workspace and art studio are combined into a multifunctional community space. By introducing new social and cultural programmes into the existing structure, the intervention strengthens the historical value of the station while creating new opportunities for interaction and collective use.

4.3 'T Dörp bie Mekare Houwe

4.3.7 Het Knooppunt aan het Spoor

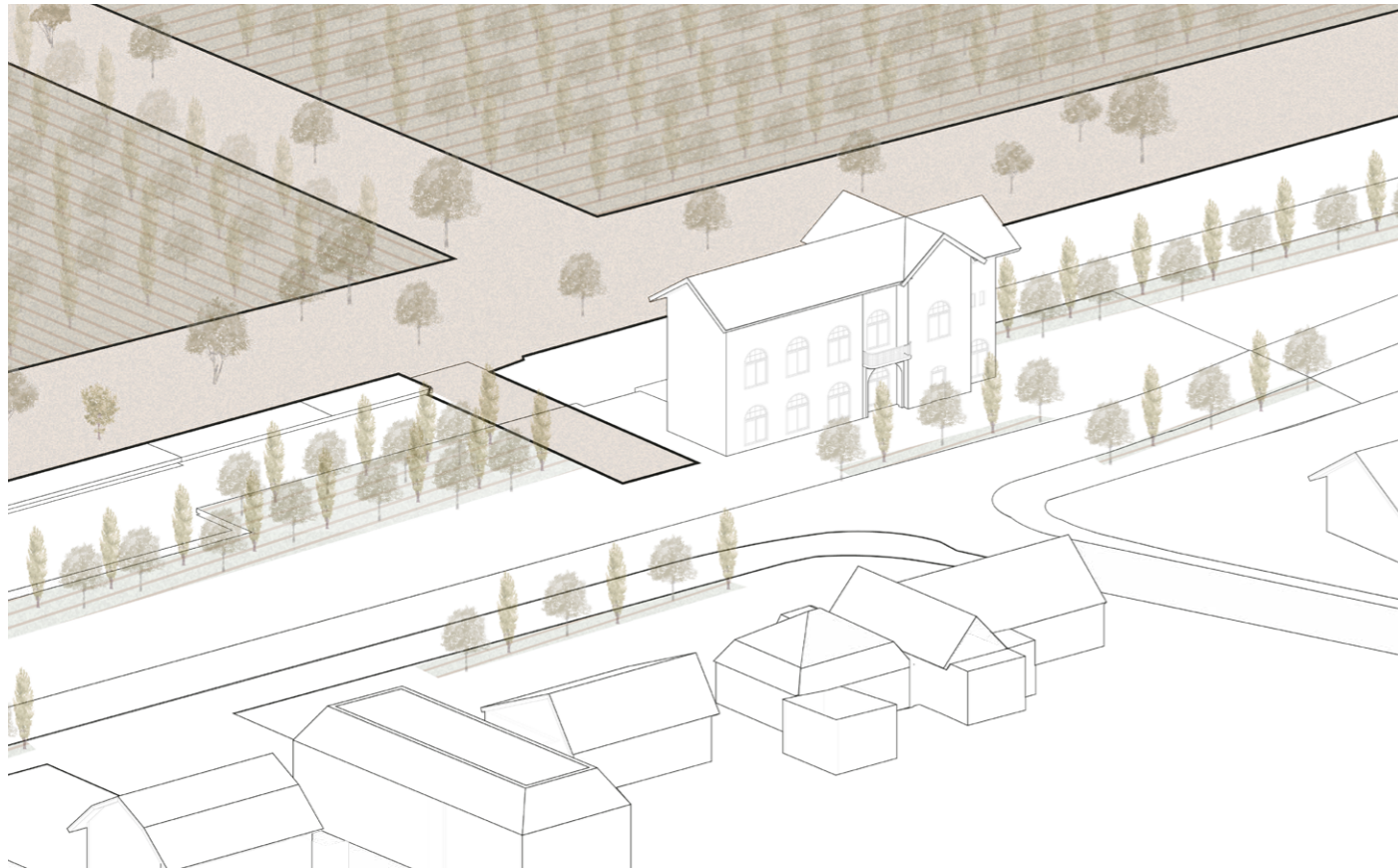


Figure 156. Activating and strengthening landscape and cultural structures as carriers of identity – Concept 1

Connecting the station to the surrounding landscape

Activating and reconnecting the surrounding landscape creates new opportunities for strengthening the identity of the station area. On one side of the station, the open agricultural fields form an important landscape quality that can be visually and spatially connected to the platform and public space. By extending natural structures and greenery towards the station area, the transition between infrastructure and landscape becomes softer and more integrated. A linear espalier tree structure is introduced to reinforce the historical agricultural identity of the village while creating shaded public spaces and recognisable spatial character. Together, these interventions strengthen local identity, encourage social use of the outdoor space and reconnect the station environment to the surrounding rural landscape.

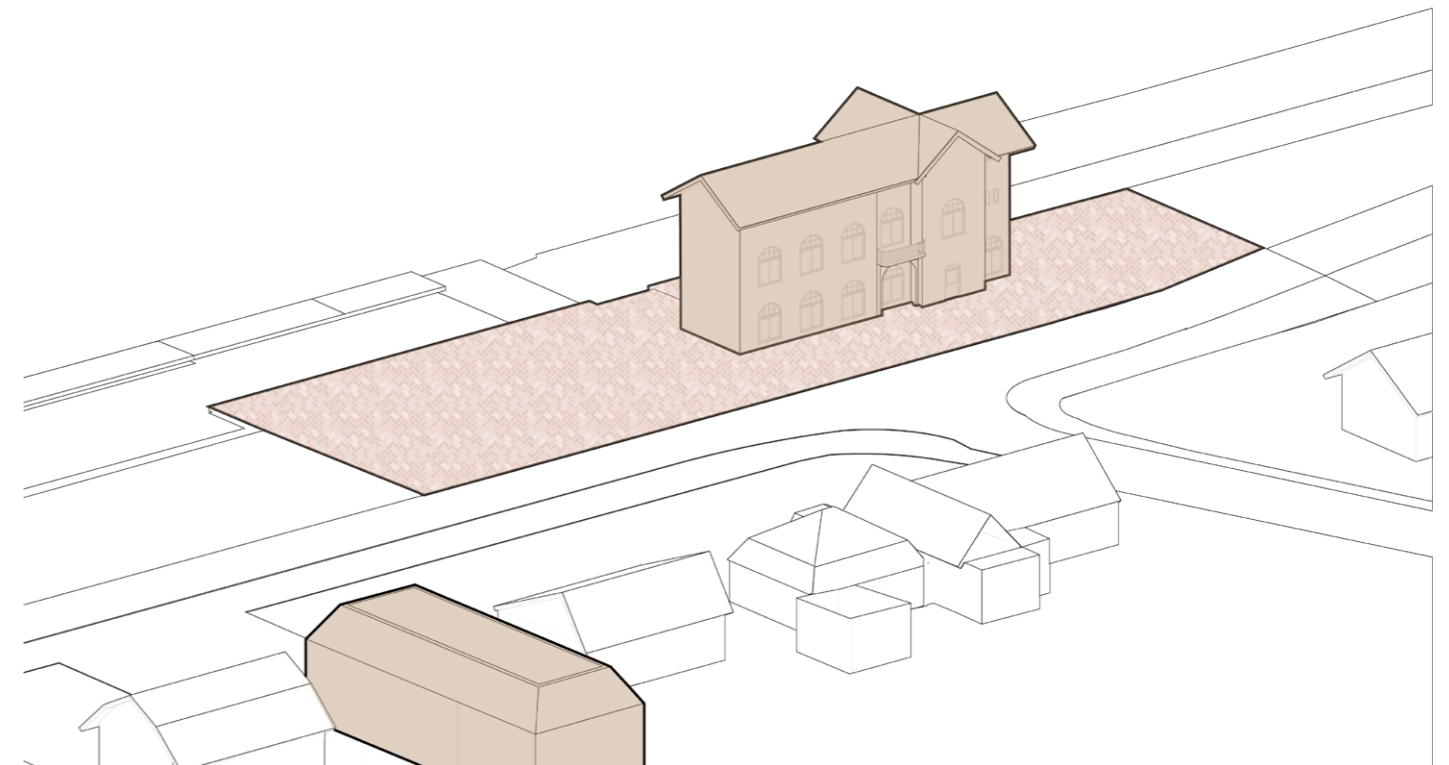


Figure 157. Activating and strengthening landscape and cultural structures as carriers of identity – Concept 2

Strengthening the symbolic role of the station landmarks

By restoring and activating the historical landmarks within the station area, both the identity and everyday use of the station zone are strengthened. These interventions give the area renewed functional value while also reinforcing its symbolic and historical significance within the village structure. Through the introduction of new public and community-oriented functions, the landmarks once again become recognisable places within daily life instead of underused transitional spaces. In this way, the station area develops into a stronger functional structure that supports activity, recognisability and long-term spatial identity.

4.3 'T Dörp bie Mekare Houwe

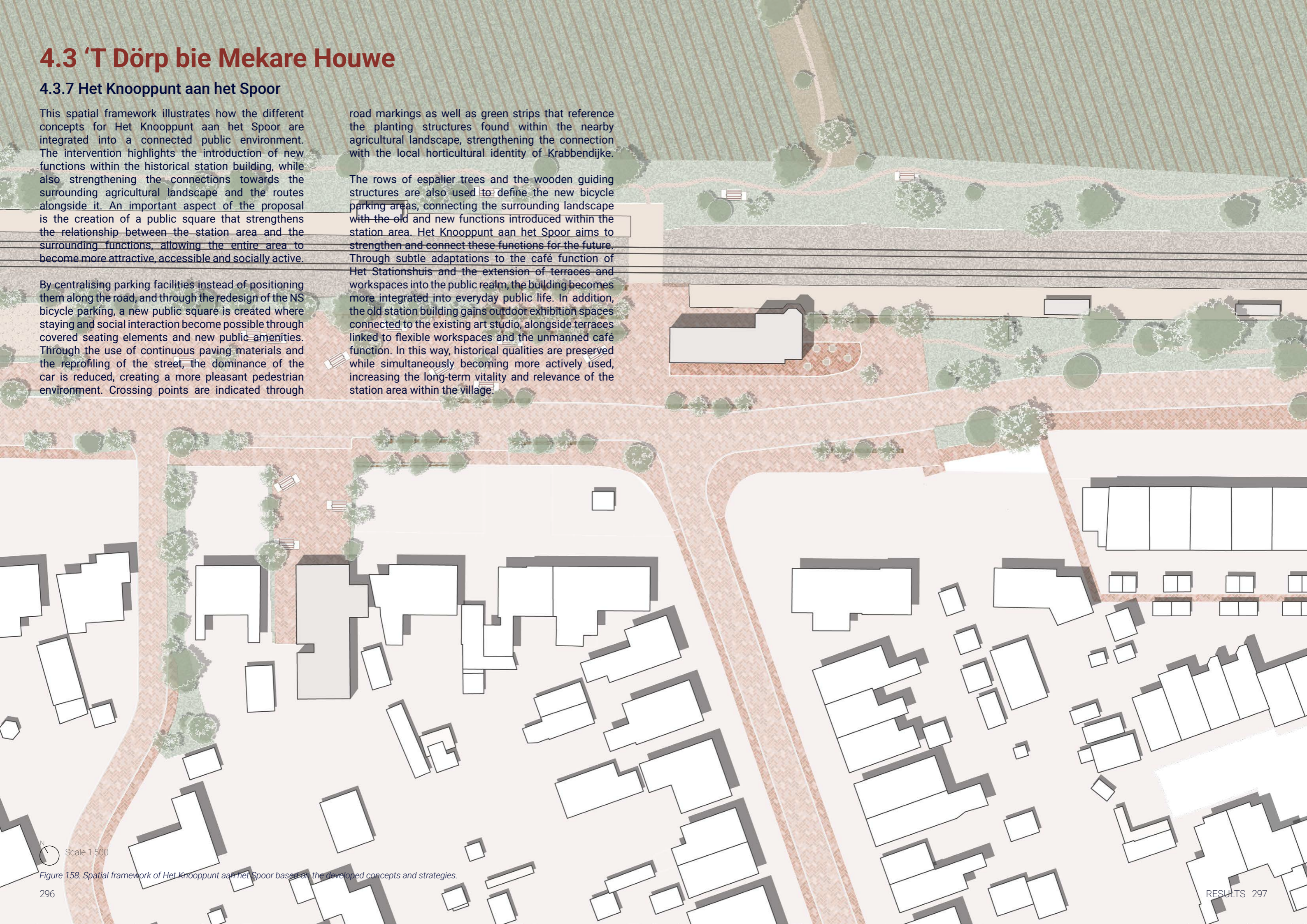
4.3.7 Het Knooppunt aan het Spoor

This spatial framework illustrates how the different concepts for Het Knooppunt aan het Spoor are integrated into a connected public environment. The intervention highlights the introduction of new functions within the historical station building, while also strengthening the connections towards the surrounding agricultural landscape and the routes alongside it. An important aspect of the proposal is the creation of a public square that strengthens the relationship between the station area and the surrounding functions, allowing the entire area to become more attractive, accessible and socially active.

By centralising parking facilities instead of positioning them along the road, and through the redesign of the NS bicycle parking, a new public square is created where staying and social interaction become possible through covered seating elements and new public amenities. Through the use of continuous paving materials and the reprofiling of the street, the dominance of the car is reduced, creating a more pleasant pedestrian environment. Crossing points are indicated through

road markings as well as green strips that reference the planting structures found within the nearby agricultural landscape, strengthening the connection with the local horticultural identity of Krabbendijke.

The rows of espalier trees and the wooden guiding structures are also used to define the new bicycle parking areas, connecting the surrounding landscape with the old and new functions introduced within the station area. Het Knooppunt aan het Spoor aims to strengthen and connect these functions for the future. Through subtle adaptations to the café function of Het Stationshuis and the extension of terraces and workspaces into the public realm, the building becomes more integrated into everyday public life. In addition, the old station building gains outdoor exhibition spaces connected to the existing art studio, alongside terraces linked to flexible workspaces and the unmanned café function. In this way, historical qualities are preserved while simultaneously becoming more actively used, increasing the long-term vitality and relevance of the station area within the village.



Scale 1:500

Figure 158. Spatial framework of Het Knooppunt aan het Spoor based on the developed concepts and strategies.

4.3 'T Dörp bie Mekare Houwe

4.3.7 Het Knooppunt aan het Spoor

This figure illustrates the relationship between the historical station building and the newly created public square within Het Knooppunt aan het Spoor. The passage towards the village centre and the station platform remains open and accessible, as this route naturally functions as the primary movement corridor within the area. The redesigned bicycle parking, characterised by the tree structure, provides the same number of bicycle parking spaces as before while integrating more carefully into the public landscape.

Through the new connection from the platform towards the surrounding landscape, local agricultural traditions and landscape qualities become more visible and accessible within everyday movement patterns. The blossom tree, an important symbol within the identity of Krabbendijke, is positioned at strategic locations throughout the public space and important crossings. During specific moments of the year, these blossom trees strengthen the recognisable and seasonal character of Het Knooppunt aan het Spoor, reinforcing the relationship between the station area and the surrounding rural landscape.



Figure 159. Axonometric render illustrating Het Knooppunt aan het Spoor from the agricultural landscape side.

4.3 'T Dörp bie Mekare Houwe

4.3.7 Het Knooppunt aan het Spoor

The large section shown in figure 160 illustrates how the station area and the newly introduced functions create new opportunities for the village. The surrounding historical architecture plays an important role in the spatial experience of the public realm, while the historical character of the buildings strengthens the contextual and historically sensitive approach of the intervention. Subtle landscape elements integrated into the public space reinforce this atmosphere and contribute to a more pleasant and socially active environment. The section also illustrates how the passage alongside the station building and towards the village centre remains open, while the newly created square introduces opportunities for staying and meeting.

The zoomed section further shows how the old station building is restored and reactivated through the addition of new functions that strengthen its role within everyday village life. By combining flexible workspaces with the existing art studio, the project responds to the strategic position of the station as a connection point between the village and surrounding towns and cities. The building becomes a place where historical identity and contemporary forms of use coexist. Outdoor terraces and exhibition spaces positioned directly alongside the building strengthen the relationship between the indoor functions and the surrounding public realm, encouraging social interaction and everyday use.

Scale 1:200

Figure 160. Section illustrating the use and activation of the redesigned station square.



Scale 1:200

Figure 161. Detailed section illustrating the new functions within the historical station building.



4.3 'T Dörp bie Mekare Houwe

4.3.7 Het Knooppunt aan het Spoor

This figure illustrates how the crossing points and movement routes within Het Knooppunt aan het Spoor are shaped through openings in the landscape structure. The blossom trees, used as symbolic references to the identity and agricultural history of Krabbendijke, are positioned strategically throughout the public space and at important intersections. The redesigned bicycle parking is conceived as an extension of the surrounding landscape, while the access routes towards the parking remain visually open in order to improve safety and reduce the likelihood of conflicts between users.

In front of the old station building, the espalier tree structure and wooden guiding system create a subtle transition between the roadway and the public square, reinforcing both the spatial identity and the landscape character of the intervention.



Figure 162. Render illustrating the redesigned station square and public space.

4.3 'T Dörp bie Mekare Houwe

4.3.7 Het Knooppunt aan het Spoor

The large section shown in figure 163 illustrates how the adapted café function of Het Stationshuis is connected to the surrounding public space. Through the introduction of new façade openings and larger windows, the relationship between inside and outside is strengthened, while terraces and outdoor workspaces extend the hospitality function into the public realm. Additional functions such as workspaces, pool tables and dart areas respond to the changing role of the station area and support the long-term vitality and resilience of the café.

The zoomed section further illustrates how the new windows, designed in a historically sensitive architectural language, strengthen the accessibility and visibility of the café. Through the integration of public amenities, landscape elements and continuous paving materials, the café becomes more strongly connected to the overall spatial identity of Het Knooppunt aan het Spoor and plays a larger role within everyday public life.



Scale 1:150

Figure 164. Detailed section illustrating the café terrace and its relationship to the street and public space.

Scale 1:150

Figure 163. Section illustrating the relationship between the café and the redesigned public square.



4.3 'T Dörp bie Mekare Houwe

4.3.7 Het Knooppunt aan het Spoor

This figure illustrates how the covered outdoor terrace and the newly created square within Het Knooppunt aan het Spoor function as spaces that encourage social use and interaction. The intervention creates opportunities for people to gather, stay and enjoy both the landscape qualities and the historical atmosphere of the station area. At the same time, the public space strengthens the surrounding functions by extending their activities outward into the square and facilitating everyday use within the public realm.



Figure 165. Render illustrating the redesigned café and surrounding street space.

4.3 'T Dörp bie Mekare Houwe

4.3.7 Het Knooppunt aan het Spoor

This figure once again illustrates how different user groups are able to meet and interact within the public space of Het Knooppunt aan het Spoor. Through the new façade openings and stronger relationship with the public realm, Het Stationshuis gains a more active role within the daily life of the station area. The redesigned street profile and the arrangement of the public space subtly guide movement towards the café and public square, encouraging people to walk through the area, encounter one another and make use of the new public amenities.



Figure 166. Render illustrating the redesigned station square and seating spaces.

4.3 'T Dörp bie Mekare Houwe

4.3.7 Het Knooppunt aan het Spoor

This axonometric drawing illustrates the spatial framework of the intervention and shows how the different routes, programmes, public spaces and landscape structures together form a connected environment. The drawing highlights the spatial relationships between the different interventions and how they contribute to the overall identity and functioning of the area. The following page presents the same axonometric drawing with the most important interventions highlighted and connected to the social and symbolical identity themes, showing how specific spatial strategies contribute to the strengthening of identity within the project area.



Figure 167. Axonometric render illustrating the overall spatial framework of Het Knooppunt aan het Spoor from the village side.



Community spaces
Social interaction potential
New seating and working spaces throughout season

Historical values
Spatial accessibility
Square materiality and identity

Historical values
Landscape qualities
Local blossom tree introduced in public space as symbol

Landscape qualities
Spatial accessibility
Functional structures
Bike storage adapted and symbolised

Spatial accessibility
Social interaction potential
Redesigned pathway

Historical values
Functional structures
Social interaction potential
Multiple new function in heritage

Historical values
Landscape qualities
Spatial accessibility
New pathways through nature

Spatial accessibility
Functional structures
Social interaction potential
Terrace and exposition space

Local habits
Social interaction potential
New terrace in public space

Local habits
Historical values
Community spaces
Social interaction potential
Local café adapted to facilitate new usages

Local habits
Historical values
Landscape qualities
Fruit cultivation reflected in public space

Spatial accessibility
Social interaction potential
Accessibility improved with redesign of roads

Figure 168. Annotated axonometric render illustrating how the different interventions strengthen the themes and forms of identity within Het Knooppunt aan het Spoor.

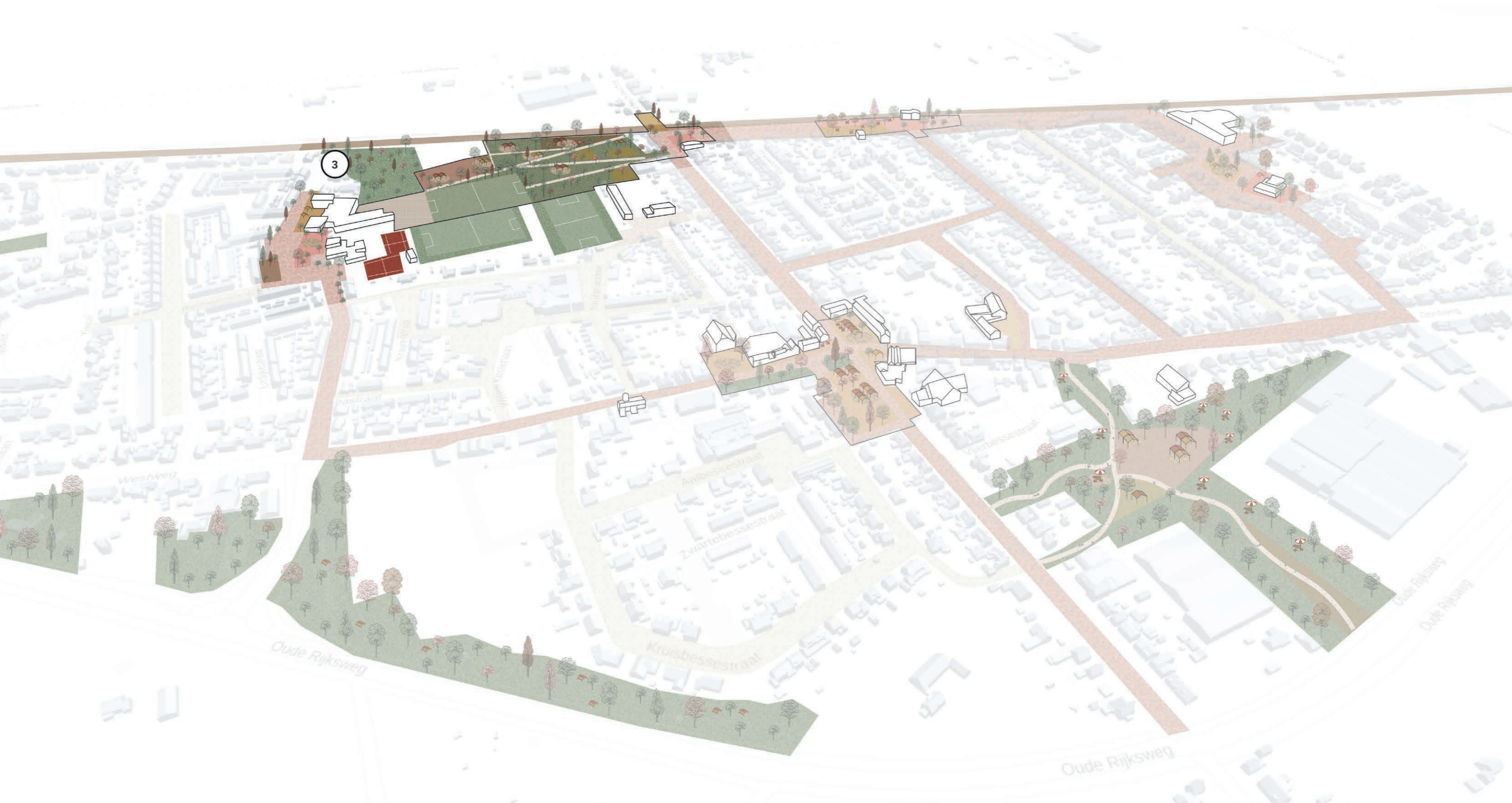


Figure 169. Bird's-eye view focusing on the landscape connections and interventions of Tussen Dorp en Boomgaard.

Tussen Dorp en Boomgaard



Figure 170. Axonometric sketch of the spatial framework for Tussen Dorp en Boomgaard.

4.3 'T Dörp bie Mekare Houwe

4.3.8 Tussen Dorp en Boomgaard

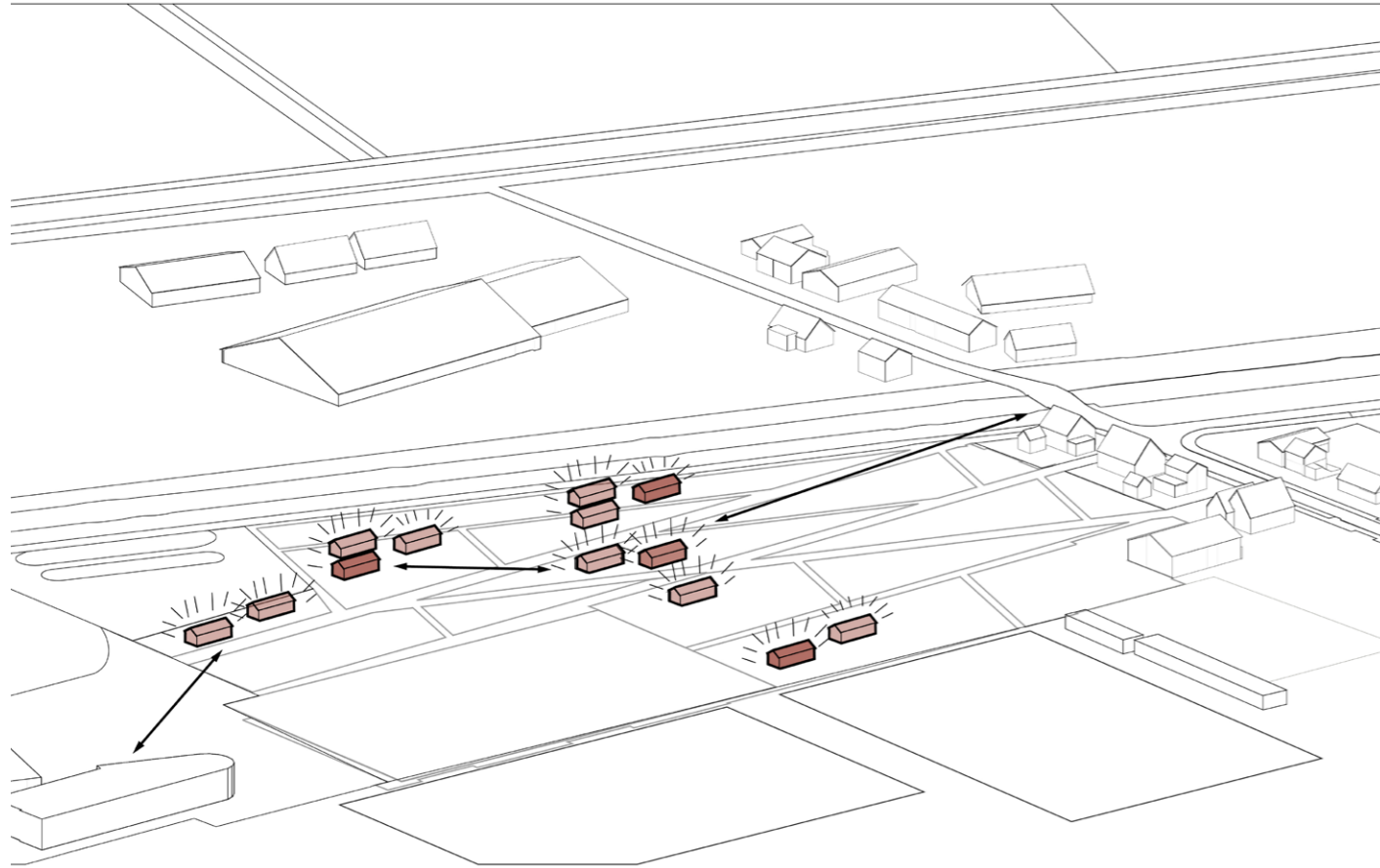


Figure 171. Consolidating and integrating facilities into a multifunctional village core – Concept 1

Introducing new programmes within the public space

The introduction of several new building volumes within the large public space helps activate the area while strengthening the connection between the schools and the village in a multifunctional way. By adding new programmes and community-oriented functions throughout the site, the area gains a stronger everyday use and becomes more than a transitional zone. The intervention creates opportunities for social interaction between different user groups while reinforcing the functional structure of the area through a combination of learning, working, recreation and public activity.

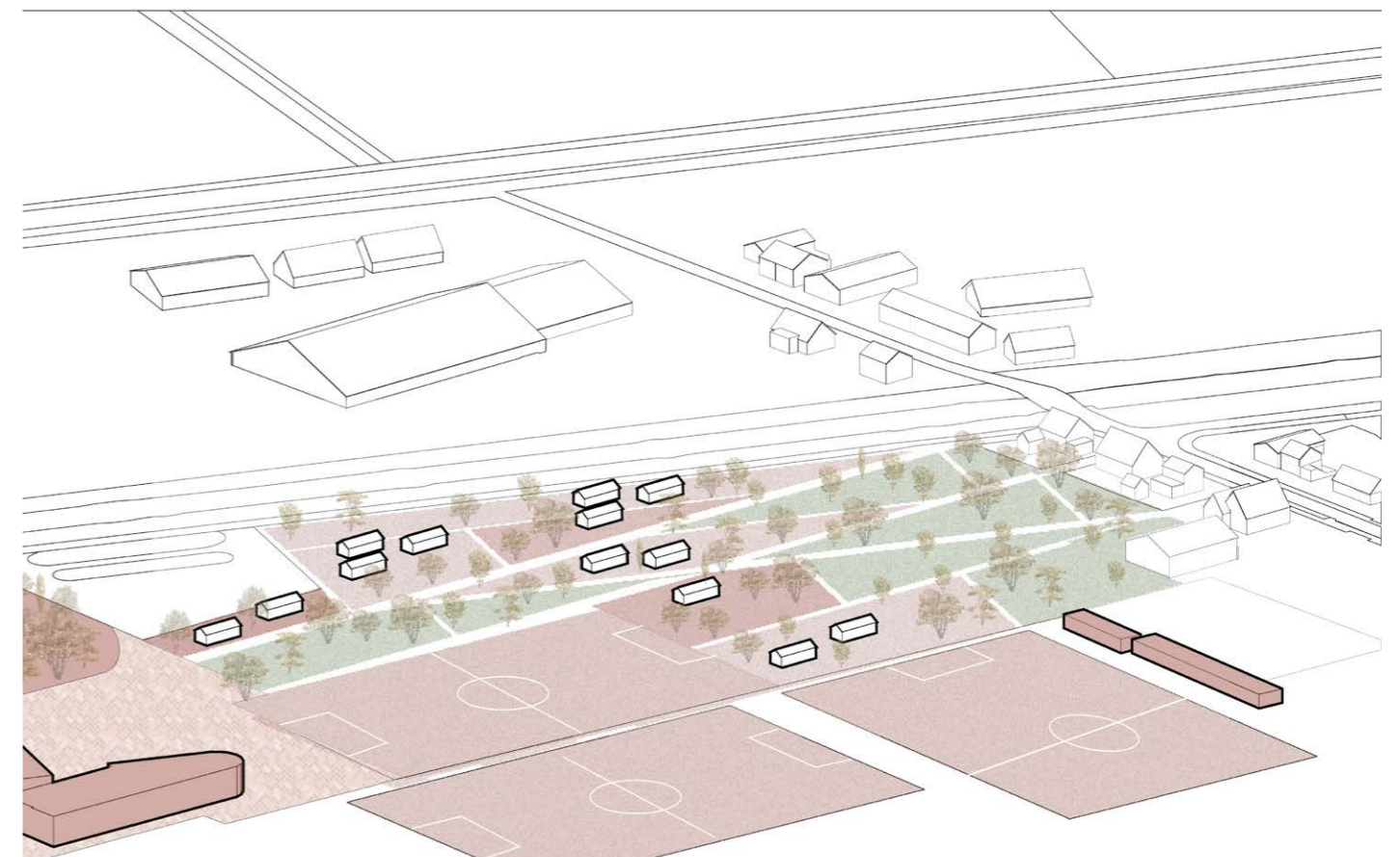


Figure 172. Consolidating and integrating facilities into a multifunctional village core – Concept 2

Transforming movement space into places for staying

Through the redesign and activation of several zones within the public space, new places for activity and interaction are introduced throughout the area. Instead of functioning primarily as a corridor for movement and traffic, the site becomes a public environment with opportunities for staying, meeting and recreation. By improving spatial accessibility and introducing community-oriented spaces with different activities, the intervention creates a more attractive and socially active environment that supports everyday use and strengthens the connection between surrounding neighbourhoods and facilities.

4.3 'T Dörp bie Mekare Houwe

4.3.8 Tussen Dorp en Boomgaard



Figure 173. Activating the daily network as a driver of social interaction – Concept 1

Strengthening accessible landscape connections

Accessibility plays an important role within the area. By designing new connections towards the surrounding landscape, through the site and along its edges, the project strengthens both movement and social interaction within the daily network. These routes are designed as safe and accessible public connections that encourage walking, cycling and informal encounters between residents and visitors. Through the integration of landscape qualities, community spaces and functional structures, the intervention transforms mobility routes into active social environments connected to nature and everyday village life.

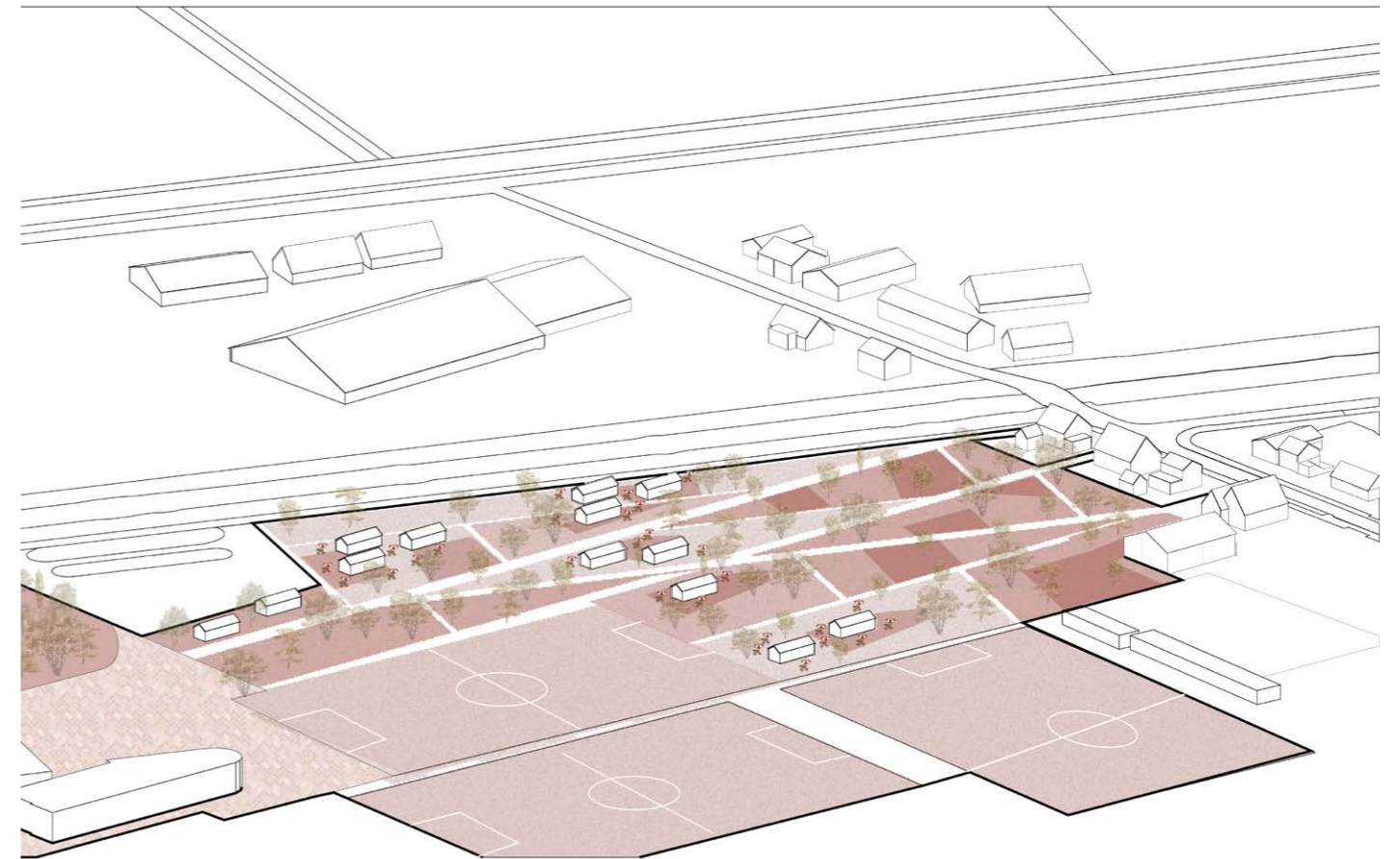


Figure 174. Activating the daily network as a driver of social interaction – Concept 2

Creating diverse places for everyday activity

Different types of spaces are introduced throughout the area, including playgrounds, sports spaces, learning environments and outdoor workspaces. Each programme receives its own expression within the public realm, creating recognisable places with distinct atmospheres and functions. Because the area forms an important connection between different parts of the village, this creates an opportunity to transform a movement corridor into an attractive and active public environment. By combining multiple forms of use and activity, the intervention strengthens social interaction and encourages everyday use by different generations and user groups.

4.3 'T Dörp bie Mekare Houwe

4.3.8 Tussen Dorp en Boomgaard

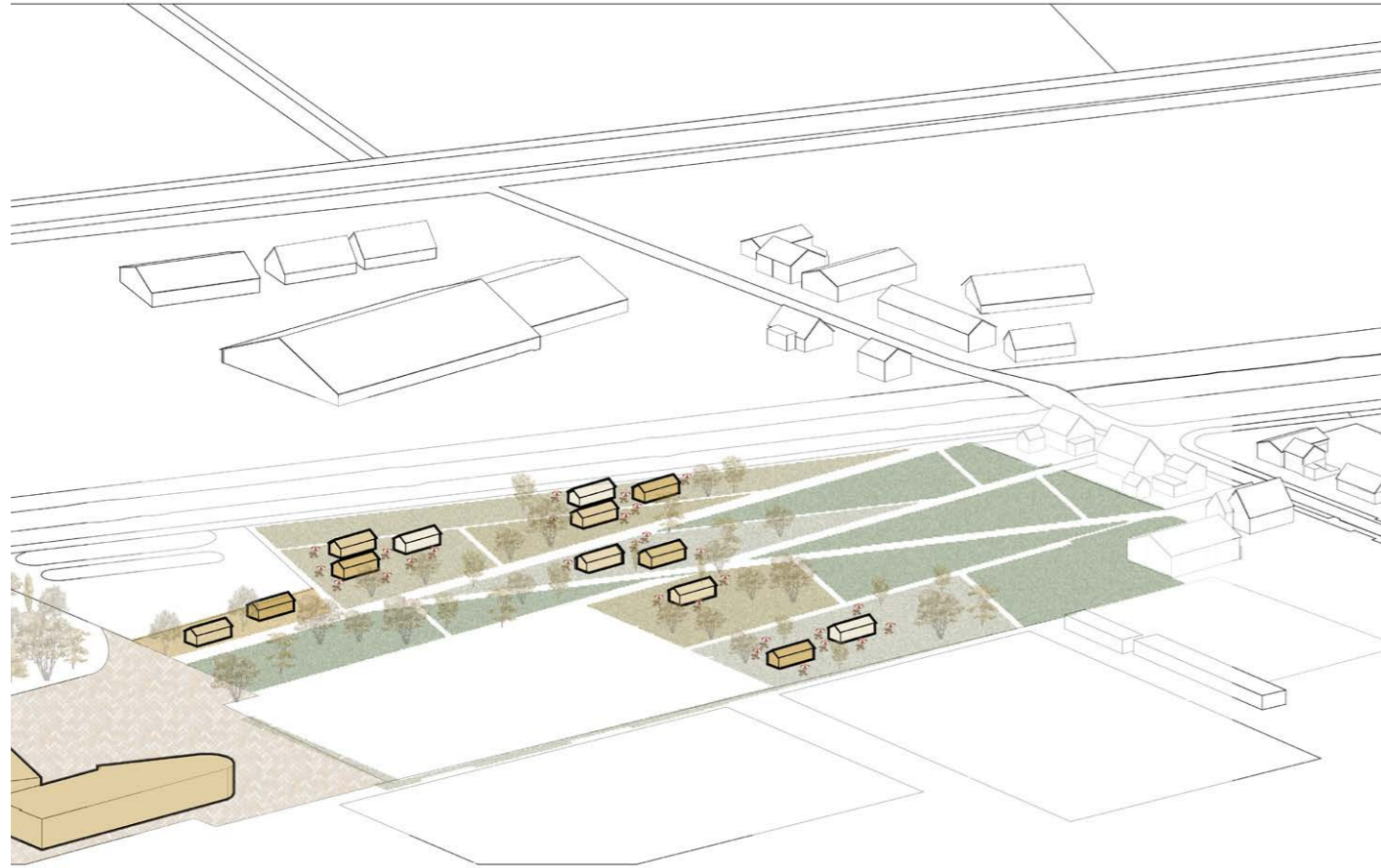


Figure 175. Supporting a resilient and intergenerational community – Concept 1

Distributing functions across the landscape

Several different types of buildings are introduced throughout the area, functioning as spaces for working, learning, sports and play. These structures are carefully distributed across the landscape to encourage encounters between different generations and user groups within everyday movement patterns. By combining functional structures with accessible landscape routes and public activity, the intervention creates opportunities for social interaction throughout the entire site. The buildings strengthen the usability and identity of the area while supporting a more connected and intergenerational public environment.

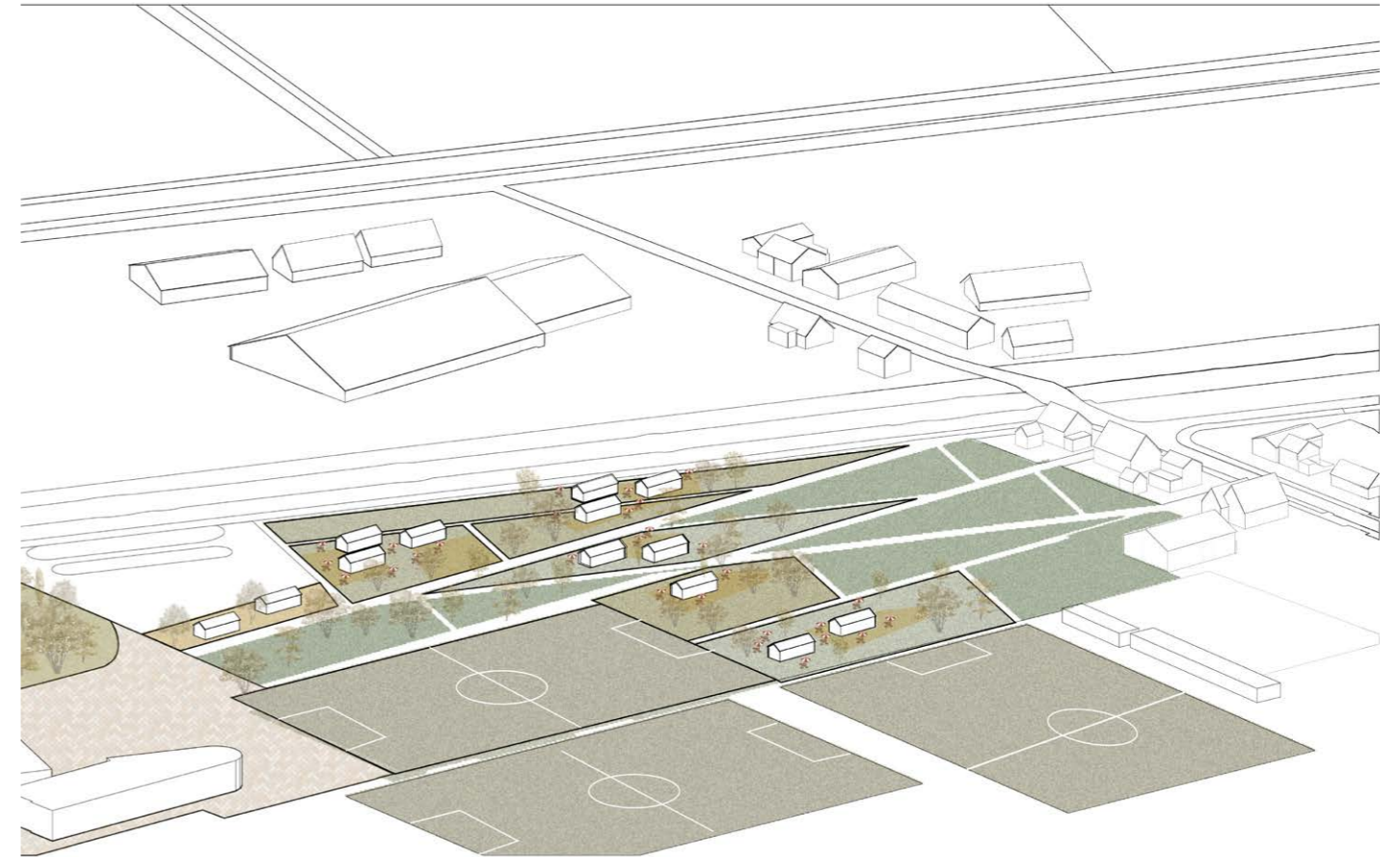


Figure 176. Supporting a resilient and intergenerational community – Concept 2

Extending functions into the public realm

The identity and function of the buildings are reflected within the surrounding public space. Areas directly connected to the different programmes are designed specifically for the use and activities related to those functions, strengthening their attraction and visibility within the landscape. Through this relationship between buildings and outdoor space, the public realm becomes more active and accessible, encouraging longer stays and more frequent use. In this way, the intervention strengthens both spatial accessibility and opportunities for social interaction throughout the area.

4.3 'T Dörp bie Mekare Houwe

4.3.8 Tussen Dorp en Boomgaard

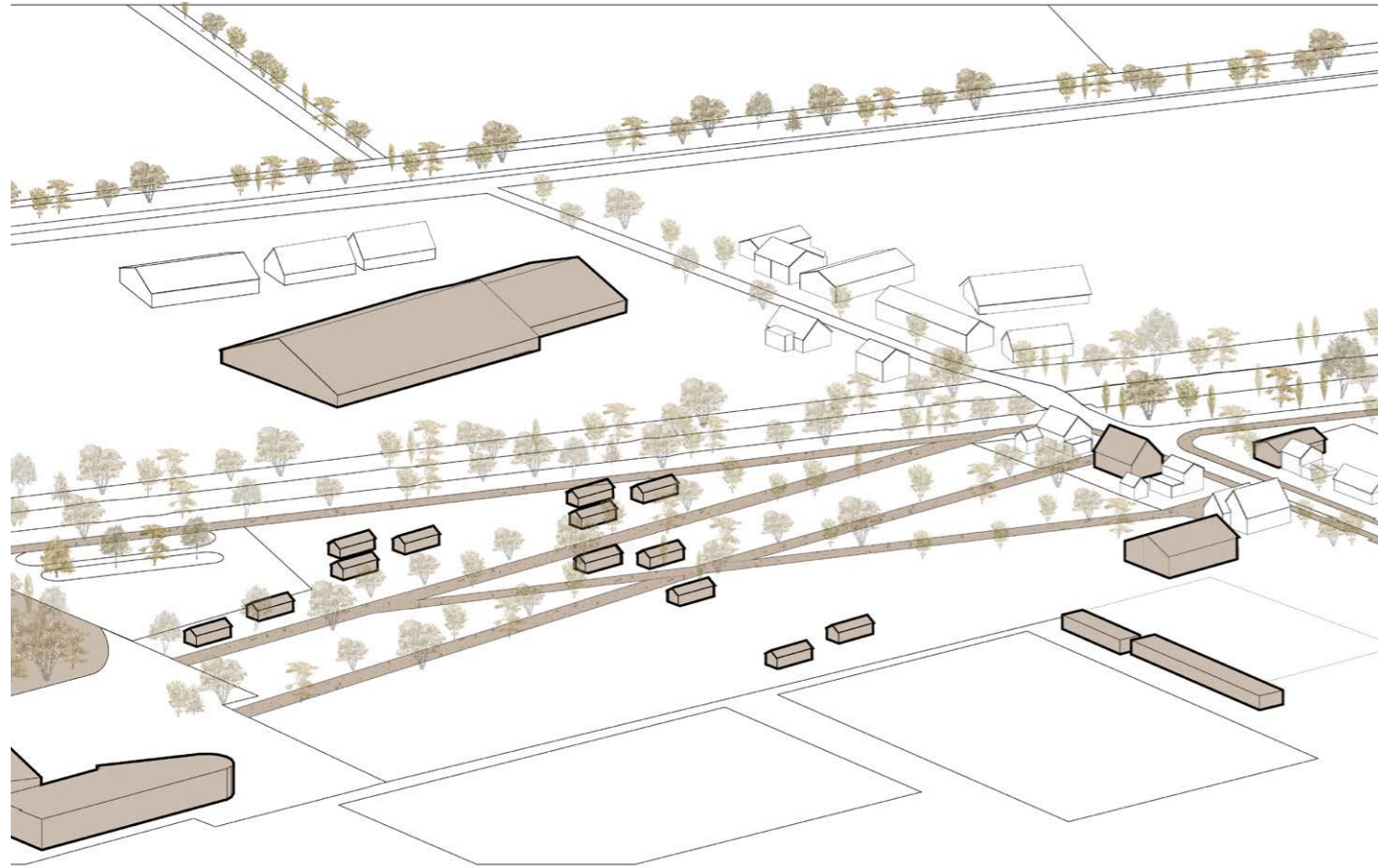


Figure 177. Activating and strengthening landscape and cultural structures as carriers of identity – Concept 1

Reflecting local identity within the landscape

The surroundings of the area contain several important carriers of identity, both historical and functional. The school, which forms the main destination and connection within the project area, plays an important role in the everyday functioning of the village, while the sports facilities located along the edge of the site contribute strongly to local social life. In addition, the agricultural character and historical buildings surrounding the area are reflected within the design of the public space and the new building volumes. The new structures are inspired by the proportions and forms of the agricultural barns in the landscape, reinterpreted through contemporary materials that vary depending on their function. In this way, the intervention strengthens the relationship between the new development and the historical and functional identity of the village.

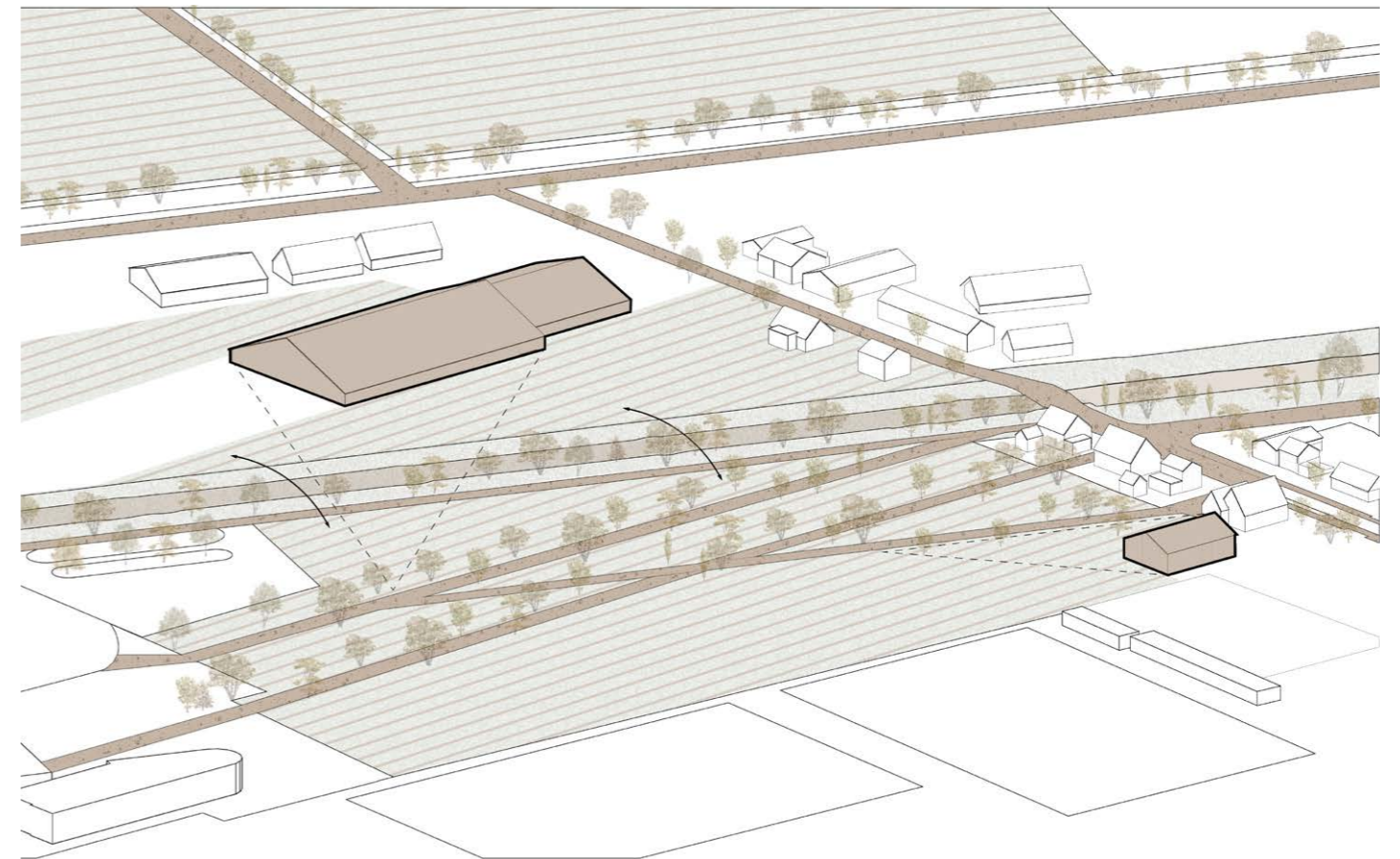


Figure 178. Activating and strengthening landscape and cultural structures as carriers of identity – Concept 2

Translating agricultural structures into public space

Although the railway partially separates the upper edge of the area from its surroundings, the local identity can still be reflected strongly within the public realm. The historical agricultural field structure is used as the main spatial framework for the design, creating a recognisable organisation within the landscape. In addition, espalier tree structures and agricultural guiding systems are introduced at important locations throughout the area, referring to the productive landscape and orchard culture surrounding the village. Through these interventions, the landscape qualities and historical identity of the area remain visible and integrated within the new public environment.

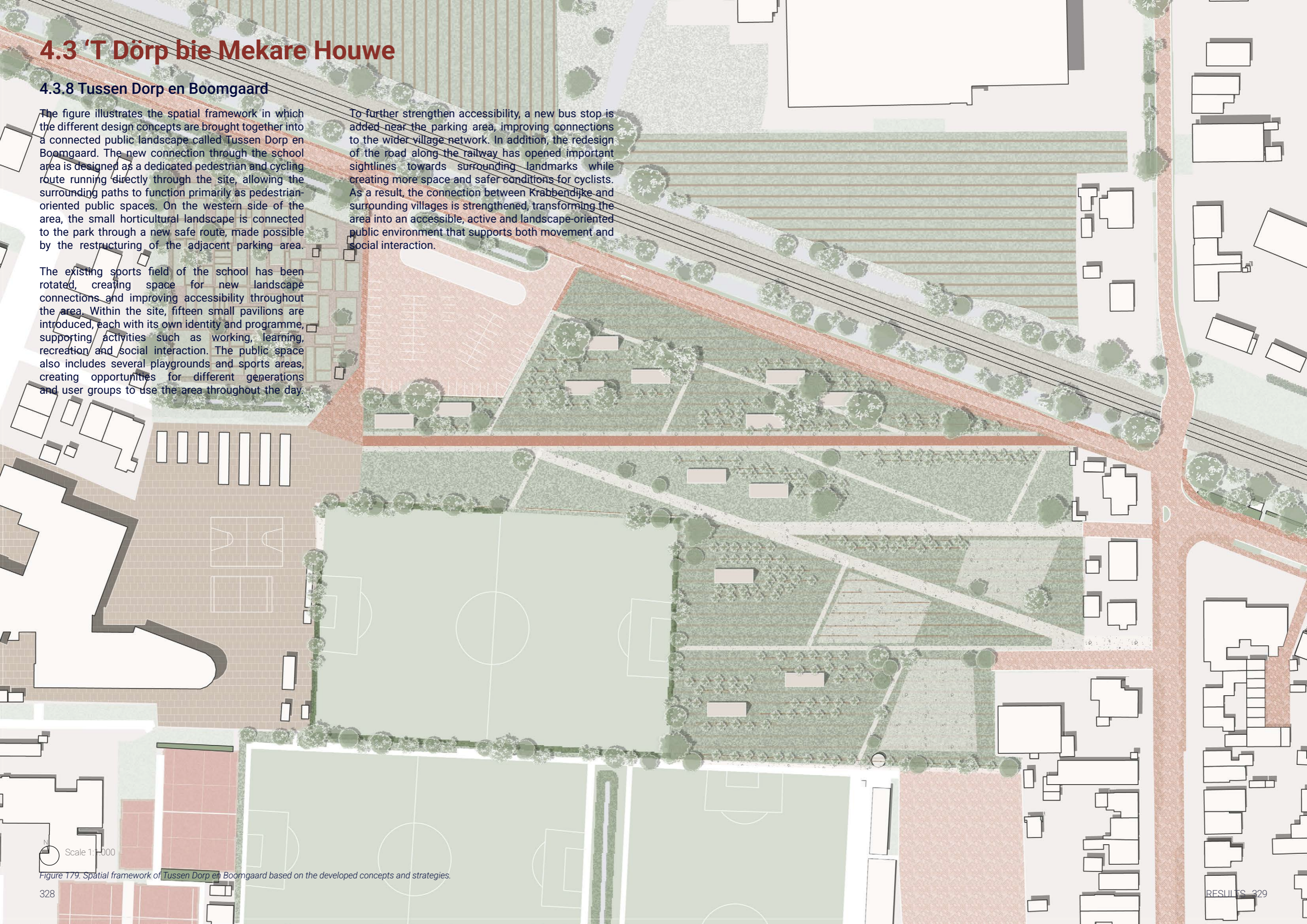
4.3 'T Dörp bie Mekare Houwe

4.3.8 Tussen Dorp en Boomgaard

The figure illustrates the spatial framework in which the different design concepts are brought together into a connected public landscape called Tussen Dorp en Boomgaard. The new connection through the school area is designed as a dedicated pedestrian and cycling route running directly through the site, allowing the surrounding paths to function primarily as pedestrian-oriented public spaces. On the western side of the area, the small horticultural landscape is connected to the park through a new safe route, made possible by the restructuring of the adjacent parking area.

The existing sports field of the school has been rotated, creating space for new landscape connections and improving accessibility throughout the area. Within the site, fifteen small pavilions are introduced, each with its own identity and programme, supporting activities such as working, learning, recreation and social interaction. The public space also includes several playgrounds and sports areas, creating opportunities for different generations and user groups to use the area throughout the day.

To further strengthen accessibility, a new bus stop is added near the parking area, improving connections to the wider village network. In addition, the redesign of the road along the railway has opened important sightlines towards surrounding landmarks while creating more space and safer conditions for cyclists. As a result, the connection between Krabbendijke and surrounding villages is strengthened, transforming the area into an accessible, active and landscape-oriented public environment that supports both movement and social interaction.



Scale 1:1000

Figure 179. Spatial framework of Tussen Dorp en Boomgaard based on the developed concepts and strategies.

4.3 'T Dörp bie Mekare Houwe

4.3.8 Tussen Dorp en Boomgaard

This figure illustrates how new spatial connections are created between the project area, the surrounding landscape and the Stationsweg. By strengthening these connections, the area becomes better integrated within the wider village structure while improving accessibility for pedestrians and cyclists. The intervention transforms the site from a fragmented transitional space into a connected public landscape that encourages movement, recreation and everyday social interaction.



Figure 180. Render illustrating the redesigned public space, new activities and landscape connections

4.3 'T Dörp bie Mekare Houwe

4.3.8 Tussen Dorp en Boomgaard

This figure shows how the parallel road alongside the railway has been redesigned to create more space for cyclists and pedestrians. The espalier tree structure gradually opens up at specific locations, allowing important sightlines towards the surrounding landscape and landmarks to emerge. The tree structure and supporting framework also create opportunities for children to play and for users to find shelter and shaded spaces within the public realm. In the background, the new connection between the school and the station is visible, illustrating how the route is actively used by cyclists and students travelling through the area.



Figure 181. Render illustrating the redesigned road and public space along the edge of the area.

4.3 'T Dörp bie Mekare Houwe

4.3.8 Tussen Dorp en Boomgaard

This figure illustrates how the sightline towards the agricultural landscape has been reopened and how different spatial systems are integrated into the public space of the area. Through the combination of planting structures, routes and activity zones, the site avoids becoming a large undefined open field. Instead, smaller semi-enclosed spaces are created that provide opportunities for activity, staying and informal interaction. This layered spatial structure creates a sense of partial privacy and comfort within the open landscape environment, supporting both social use and spatial quality.



Figure 182. Orthogonal render illustrating the connection between the site and its surroundings.

4.3 'T Dörp bie Mekare Houwe

4.3.8 Tussen Dorp en Boomgaard

This figure shows the visual relationship between the project area and the agricultural barn located behind the site. The open sightline towards this landmark reinforces the connection between the intervention and the surrounding productive landscape. The spaces created between the pathways and planting structures subtly suggest different forms of use and activity within the public realm, allowing the landscape itself to guide movement, staying and interaction throughout the area.



Figure 183. Render illustrating the connection between the public space and the surrounding agricultural landscape.

4.3 'T Dörp bie Mekare Houwe

4.3.8 Tussen Dorp en Boomgaard

The new connection between the school and the station is primarily designed to facilitate cycling. Through the use of a strong linear route, it becomes clear that cycling is concentrated on one main path, while the surrounding smaller paths are designed exclusively for pedestrians. As visible in this figure, the tree structure partially conceals the new building volumes, allowing nature and landscape to play a dominant role within the area. In this way, references to the agricultural landscape and historical structures are combined with new functional interventions, creating a synthesis between landscape identity and contemporary public use. This approach aligns with research showing that landscape structures and public routes can strengthen everyday social interaction and place attachment within rural environments (Gieling, Haartsen & Vermeij, 2018).



Figure 184. Render illustrating the new central connection through the area

4.3 'T Dörp bie Mekare Houwe

4.3.8 Tussen Dorp en Boomgaard

This figure presents one of the material expressions used for the pavilions within the area. The use of wood symbolises the relationship with nature while also referencing the agricultural barns that characterise the surrounding landscape through the shape and rhythm of the façade and roof structure. Through the use of natural materials and subdued architectural forms, the pavilion blends into its environment and strengthens the connection between the built intervention and the rural identity of the area. This reflects the importance of recognisable local identity and landscape continuity within rural public space design (Christiaanse & Haartsen, 2017).



Figure 185. Bird's-eye render illustrating one of the pavilions and the surrounding public activities.

4.3 'T Dörp bie Mekare Houwe

4.3.8 Tussen Dorp en Boomgaard

This figure illustrates how one of the pavilions can function as an outdoor classroom connected to the school, while simultaneously offering opportunities for flexible workspaces and remote working. By combining educational and productive functions within the same structure, the pavilion supports multiple forms of everyday use throughout the day. This multifunctional approach strengthens the vitality of the area and reflects changing patterns of working and learning within contemporary village life.



Figure 186. Interior render illustrating the use of one of the pavilions.

4.3 'T Dörp bie Mekare Houwe

4.3.8 Tussen Dorp en Boomgaard

Throughout the park and around the pavilions, several seating areas are introduced to strengthen the relationship between the indoor programmes and the surrounding public space. By extending the functions outward into the landscape, the intervention activates the public realm and encourages longer stays and informal social interaction. Different types of seating and resting places are positioned along the route to support use by multiple generations and user groups. Research on public life and rural meeting places highlights the importance of such everyday spaces for maintaining social cohesion and spontaneous interaction within villages (Klinenberg, 2018; Gieling, Haartsen & Vermeij, 2018).

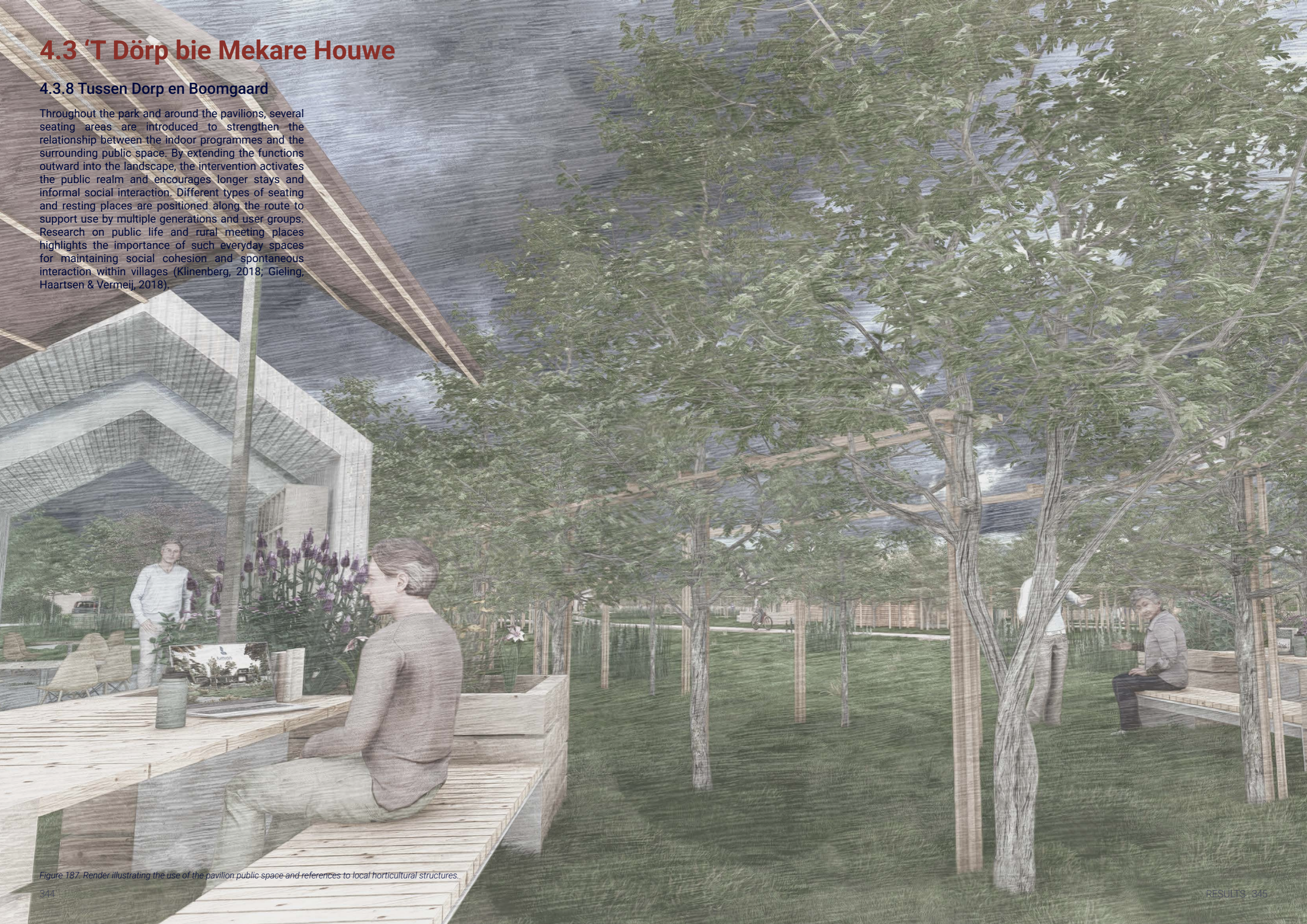


Figure 187. Render illustrating the use of the pavilion public space and references to local horticultural structures.

4.3 'T Dörp bie Mekare Houwe

4.3.8 Tussen Dorp en Boomgaard

This axonometric drawing illustrates the spatial framework of the intervention and shows how the different routes, programmes, public spaces and landscape structures together form a connected environment. The drawing highlights the spatial relationships between the different interventions and how they contribute to the overall identity and functioning of the area. The following page presents the same axonometric drawing with the most important interventions highlighted and connected to the social and symbolical identity themes, showing how specific spatial strategies contribute to the strengthening of identity within the project area.



Figure 188. Axonometric render illustrating the overall spatial framework of Tussen Dorp en Boomgaard.



Spatial accesibility
Functional structures
New bus stop

Spatial accesibility
Functional structures
Central parking with additional green

Local habits
Spatial accesibility
Social interaction potential
Multi use spaces added throughout parc

Local habits
Historical values
Landscape qualities
Local blossom tree introduced in parc as symbol

Spatial accesibility
Road with additional space for walking and biking

Local habits
Landscape qualities
Sightlines on local fruit cultivation area

Historical values
Landscape qualities
Local fruit cultivation reflected in parc

Spatial accesibility
Connection for accesibility to heritage and mobility

Spatial accesibility
Social interaction potential
New bike and walk connection from school to station and nature

Community spaces
Functional structures
Social interaction potential
Added activity in open spaces

Local habits
Community spaces
Spatial accesibility
Sportsfield turned for the new connection

Local habits
Community spaces
Functional structures
Social interaction potential
Playing fields for kids and elderly

Local habits
Functional structures
Social interaction potential
New connections to local sports clubs

Spatial accesibility
Social interaction potential
New connection to village centre

Figure 189. Annotated axonometric render illustrating how the different interventions strengthen the themes and forms of identity within Tussen Dorp en Boomgaard.

5.1 Conclusion

This thesis investigated how the decline of village facilities influences local identity within shrinking rural villages in Zeeland, focusing specifically on the relationship between accessibility, everyday life and public space. Through a combination of literature research, spatial analysis and research-by-design, the project explored how social, symbolical and functional identity are shaped through facilities, routines and spatial implementations. Rather than arguing against shrinkage itself, the research focused on how villages can remain socially, symbolically and functionally meaningful within a shift of spatial conditions. In this way, the project contributes to broader discussions about rural livability, accessibility and identity within shrinking regions.

The research has shown that the decline of essential village facilities in Zeeland is not an isolated process, but part of a broader spatial transformation that also affects how villages function and are experienced in everyday life. Over the past decades, facilities have increasingly concentrated within larger centres, while smaller and intermediate villages have become more dependent on mobility and external services (CBS, 2025; CBS & PBL, 2010). Accessibility within Zeeland is therefore not neutral, but strongly shapes everyday routines, opportunities for interaction and the relationship between people and place (Provincie Zeeland, 2023).

The research demonstrates that the weakening of village identity is not caused only by the functional and physical loss of facilities themselves, but mainly by the fragmentation of the routines, encounters and everyday structures connected to them. When facilities disappear, opportunities for repeated interaction decrease, while public life and local presence become increasingly fragmented. This confirms findings that everyday environments, routines and meeting places are essential in maintaining local social networks and place attachment (Latham & Layton, 2019; Altman & Low, 1992; Scannell & Gifford, 2010). Identity is therefore not sustained through physicality and functionality alone, but through their continuous use and meaning within everyday life.

Within this process, functional identity appears to form the base of the broader spiral of decline within villages. The disappearance of facilities directly affects the functioning of everyday life, causing routines to shift away from the village and reducing opportunities for interaction and collective use. As these functions disappear, social interaction weakens, while symbolical meaning and attachment to place gradually decline as well. This demonstrates that social, symbolical and functional identity cannot be separated from one another, but continuously overlap and reinforce each other within village life. Functions such as shops, cafés, libraries, markets and community spaces are therefore not only practical facilities, but also carriers of social interaction, collective memory and symbolic meaning (Gielsing, Haartsen & Vermeij, 2018; Christiaanse & Haartsen, 2017).

Building on these findings, the design research explored how spatial interventions could contribute to guiding and strengthening local identity within villages in Zeeland. Throughout the design process, the social, symbolical and functional dimensions of identity were translated into spatial strategies and interventions on multiple scales. Themes such as local habits, historical values, landscape qualities, community spaces, spatial accessibility, functional structures and social interaction potential formed a framework for understanding local identity in a spatial and context-specific way. Rather than approaching identity as a fixed theme, the project treated identity as something shaped through use, interaction and adaptation over time.

One of the main conclusions of the design research is that public space forms the most important spatial factor in strengthening and maintaining local identity. Public space operates simultaneously on functional, social and symbolical levels and therefore plays a triple role within village life. It supports functional identity through accessibility and everyday use, facilitates social identity through opportunities for encounter and collective use, and strengthens symbolical identity by making historical structures, landscape qualities and collective memories visible within daily life. Through this overlap, public space becomes the spatial framework in which identity can continuously develop and remain active, making it resilient for the future.

The design research further demonstrates that relatively small spatial interventions can significantly strengthen social interaction, visibility and collective use within villages. Interventions such as opening facades, improving walkability, integrating landscape structures and extending functions into public space contribute to activating everyday village life. Public space becomes more than a traffic environment, it becomes a framework for collective experience, interaction and local presence. By pulling facilities into public life through terraces, outdoor working spaces, markets and flexible public programs, facilities become more visible, socially active and with that economically resilient. In this way, public space functions not only as a social carrier, but also as an economic and functional support structure for the village of the future.

At the same time, the design process revealed that multifunctionality is important not only for economic resilience, but also for maintaining social and symbolical identity. Functions that may no longer be viable independently can continue to exist through new combinations and forms of collective use. Examples such as the transformation of the station building, the reinterpretation of the market and the return of the library function demonstrate that the function itself is often part of local identity, not only the original form or symbolic image connected to it. This suggests that when facilities disappear, it is important not only to consider what is physically lost, but also which social, symbolical and functional roles disappear with them, and whether these qualities should be reintroduced in new forms. The project therefore argues that design should not only aim to restore lost village facilities and conditions exactly as they were, but rather guide their shift towards new forms of use, interaction and collective meaning.

The project also demonstrates that landscape structures should not be approached merely as passive surroundings, but as active parts of everyday village life. Agricultural rhythms, blossom structures, historical routes and productive landscapes can function as important carriers of identity when they are reconnected to public life and daily routines, especially in the context of Krabbendijke. Through movement, visibility and interaction, the landscape becomes embedded within everyday experience and strengthens both symbolical attachment and social use. This demonstrates that historical and cultural structures gain value not simply through preservation, but through continued relevance and use within village life.

An important nuance that emerged from both the research and the design process concerns the importance of the car within Zeeland. While increasing car dependency contributes to fragmentation and the concentration of facilities within larger centres, the car itself remains an essential part of accessibility and everyday life within the context. In this situation, the car is also part of the functional identity of the region. The project therefore does not argue removing the car from village life completely, but for reducing its dominance within public space and spatial decision-making. Facilities should remain accessible by car, particularly within less connected rural areas, but on this scale, accessibility should not become an argument for making public space car dominant. If this process continues, smaller and more vulnerable villages risk becoming increasingly dependent, fragmented and socially weakened over time.

Ultimately, this thesis demonstrates that spatial design can contribute to guiding and strengthening local identity by reconnecting facilities, public space, landscape and everyday routines into systems that support continuous use, interaction and collective meaning. Rather than focusing solely on restoring facilities themselves, the project demonstrates the importance of strengthening the conditions that allow villages to remain socially, symbolically and functionally active over time. Although the outcomes of this research are strongly context-specific, the project shows how design research can reveal relationships between accessibility, identity and everyday life, and translate these into spatial strategies that support more resilient and socially active rural environments.

5.2 Implications

Although the spatial outcomes of this research are context-specific, the broader analytical framework and identified relationships between accessibility, facility decline, public space and local identity are applicable within comparable shrinking rural contexts. The processes that were identified within Krabbendijke, such as fragmented routines, mobility dependency and the weakening of local facilities, also occur in other parts of Zeeland and comparable shrinking rural regions.

The research demonstrates that the decline of facilities should not only be approached as a functional or economic issue, but also as a social and symbolic transformation that affects how villages function and are experienced in everyday life. Through the combination of literature research, spatial analysis and research-by-design, the project developed a framework in which social, symbolic and functional identity are understood through themes such as local habits, historical values, landscape qualities, community spaces, spatial accessibility, functional structures and social interaction potential. These themes can be used as analytical framework and scope within comparable rural contexts to help understand how identity is shaped through everyday life, routines and spatial structures.

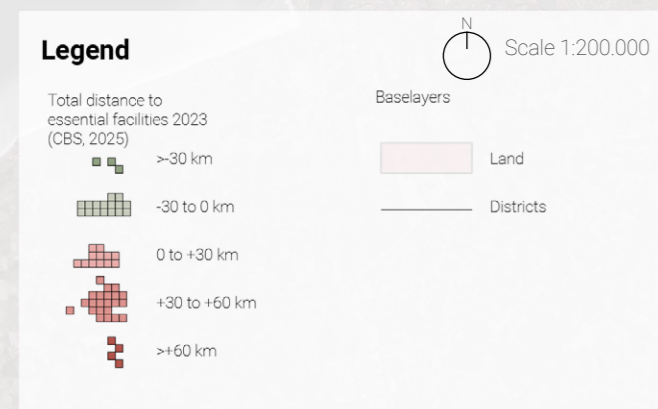
At the same time, the research highlights that the translation of these themes into spatial interventions remains highly dependent on local context and stakeholders. The design proposals should therefore not be understood as universal solutions, but as examples of how context-specific design can contribute to identity, resilience and place attachment. The methodology and thematic framework are more broadly transferable than the final spatial design outcomes themselves.

This is especially relevant within the region of Zeeland, where many villages share similarities in mobility dependency, agricultural landscapes, ageing populations and the gradual disappearance of facilities, like shown on the map based on CBS(2025) data in figure 190. While the exact spatial conditions differ, the relationships between accessibility, public life and local identity are often comparable within this context. The research therefore demonstrates how similar methods and thematic approaches can help reveal local qualities in other villages throughout the region.

In addition to that, the design research illustrates how public space, multifunctionality and landscape structures can contribute to strengthening the future role of village facilities. Interventions such as integrating facilities into public space, strengthening walkable everyday networks and reconnecting landscape structures to daily routines can serve as inspiration for other villages within the municipality of Reimerswaal and beyond. However, these interventions should always emerge from local identities, routines and spatial structures rather than being directly replicated.

Ultimately, this research argues that shrinking villages should not only be approached through efficiency, concentration and economic logic, but also through the everyday lives, identities and collective experiences of the people affected by these transformations. In this sense, the project contributes to a broader discussion within urbanism and spatial planning, where growth-oriented perspectives often dominate while shrinking and mobility-dependent rural regions receive significantly less attention. By focusing on accessibility, public life and identity within everyday village contexts, the research highlights the importance of developing spatial approaches that are better aligned with the realities and qualities of rural life, making them ready for the village of the future.

Figure 190. Map illustrating the total distance to essential facilities within the municipality of Reimerswaal. Own analysis based on CBS data (CBS, 2025a).



5.3 Recommendations

Approach to shrinkage

Contemporary literature and spatial planning often devote limited attention to shrinkage and facility decline, despite the major impact these processes have on the everyday lives of people living within these regions. Although this research focused specifically on Zeeland, the identified processes are not unique to this province alone, but can also be recognised within other shrinking rural regions. The loss of facilities should therefore not only be approached as a functional or economic issue, but as a broader social and symbolic transformation that affects everyday routines, interaction and local identity.

Through this research, it became clear that addressing the vicious cycle of decline requires more than purely functional solutions. Functional accessibility forms only one part of the larger spatial and social system. In order to design in a context-specific and meaningful way, it is important to also consider the social and symbolic conditions of a place. Within this research, social and symbolic identity proved to be strongly connected to functional identity and the long-term functioning of facilities and spatial interventions. The way people experience, use and attach meaning to places directly influences how successful new interventions and facilities can become over time.

This also relates to the relationship between top-down planning and local realities. While broader regional visions and policies remain important, this research demonstrates the importance of translating these visions into context-specific spatial interventions. Initiatives such as Zeeland 2050 already illustrate the value of involving experts and initiating broader conversations about the future of the region. In addition to that, throughout the design process of this research, it became clear that local input and everyday knowledge can significantly influence the direction and outcome of spatial interventions.

The recommendation that emerges from this research is therefore that larger-scale visions and strategies should always be translated and reconsidered on the local scale. Rather than applying general solutions universally, spatial interventions should emerge from the specific social, symbolical and functional conditions of each place. In this way, future interventions can become not only functionally and spatially appropriate, but also socially meaningful and rooted within local identity and everyday life.

Planning

Based on the outcomes of this research, several broader planning principles can be identified for shrinking rural regions. Rather than focusing primarily on efficiency and concentration, future planning approaches should strengthen the relationship between facilities, public space and everyday life. Public space should be approached not only as traffic infrastructure, but as a social and symbolic framework that supports interaction, collective use and local identity.

In addition, multifunctionality and gradual transformation should play a larger role within future rural development strategies. Existing buildings, landscape structures and facilities should be reused and adapted where possible, allowing new forms of village life and identity to emerge alongside historical structures and routines. Finally, planning approaches within shrinking regions should remain context-specific and rooted in local realities, rather than relying on universal spatial solutions.

Further research

Possibilities for further research could involve a broader comparison between multiple villages within Zeeland and other shrinking rural regions. While this research focused specifically on Krabbendijke, comparing different villages could help strengthen and refine the understanding of how identity is shaped within varying spatial, social and cultural contexts. Such comparative research could reveal which relationships between accessibility, facilities, landscape and public life are more universal, and which remain strongly context-specific. This could contribute to a more nuanced and complete understanding of social, symbolic and functional identity within shrinking rural environments.

In addition, future research could focus more extensively on participation and collective input within both the research and design process. Since identity is strongly connected to lived experience, everyday routines and collective memory, involving residents, local organisations and village councils could contribute to a more grounded and representative understanding of local identity. Integrating participatory methods into research-by-design could also help translate local knowledge and experiences into spatial interventions more effectively, while simultaneously strengthening support and local engagement throughout the design process.

Another opportunity for further research lies in analysing the different social, symbolic and functional values of facilities within village life. Within this research, facilities were largely approached equally as part of broader systems of decline and accessibility. However, different facilities may have very different forms of impact on everyday life, social interaction and place attachment. Future research could therefore investigate how certain functions, such as cafés, libraries, supermarkets, churches or sports facilities, contribute differently to village identity and collective routines. This could help create more targeted and meaningful spatial strategies for maintaining or transforming facilities within shrinking regions.

Future studies could also focus more extensively on demographic developments such as ageing populations, changing household structures and increasing mobility dependency. These processes strongly influence how villages function socially and spatially, particularly within rural regions such as Zeeland. Further research into ageing, accessibility and changing mobility patterns could therefore contribute to more inclusive and future-oriented spatial strategies, especially regarding less mobile residents and the continuing role of the car within rural life.

In addition to social and spatial research, economic feasibility and long-term implementation could form important directions for future investigation. Economic and market-based research into new functions, multifunctional buildings and public space activation was not included extensively within this project, despite the major role economics plays in determining whether facilities can continue to exist over time. Future research could therefore explore how multifunctional models perform economically, which combinations of functions are most resilient and how public-private cooperation could support long-term viability within shrinking villages.

Finally, future research could further investigate how gradual transformation and phased implementation strategies could contribute to more resilient village development over time. Rather than approaching shrinking villages through large-scale and fixed masterplans, future studies could explore adaptive and long-term design strategies that allow villages to evolve gradually alongside changing demographic, social and economic conditions. This could help create more flexible spatial frameworks capable of responding to future uncertainties while still strengthening local identity, public life and everyday use.

5.4 Reflection

Research and Design

The methodology used throughout this research proved valuable for understanding the relationship between facility decline, accessibility and local identity within the rural context of Zeeland. Through literature research, spatial analysis and research-by-design, different scales and forms of identity could be connected and translated into spatial interventions. The research-by-design approach especially helped to test how theoretical outcomes could become spatially visible within everyday public space and village structures.

Although the three theoretical identity themes formed an important starting point within the research, they were not always used directly as separated categories throughout the entire process. During the research, many additional sources and themes became relevant that did not always fit fully within these predefined groups. However, the themes still functioned as a strong framework throughout the process and helped structure the relationship between social, symbolic and functional identity. As visible in the annotated source list, a broad range of literature informed the research. Especially Dutch writers and studies related to shrinking rural contexts within the Netherlands proved valuable, since this specific rural condition is still relatively underrepresented within international academic literature.

The integration between research and design was strongly embedded throughout the process. The outcomes of the research directly informed the design phase, in which the identified themes were used to analyse the specific effects of facility decline within Krabbendijke. From this analysis, visions, strategies and spatial interventions were developed that directly related back to the research outcomes. Through the use of final drawings with annotations on the next pages, the relationship between spatial interventions and different forms of identity is made visible and understandable throughout the final design process.

The design process itself developed gradually throughout the project. In the earlier stages, the broader visions and scenarios remained relatively abstract, but through working on smaller scales and specific locations, clearer opportunities and stronger spatial relationships started to emerge. This helped clarify which interventions had the strongest impact on everyday life, public space and identity within the village. As a result, the final design is strongly connected to the research outcomes and focused specifically on strengthening the livability and future role of the village of Krabbendijke.

Spatial translation

One of the strengths of the spatial translation is the way in which the identified research themes became directly visible within the final interventions and public space strategies. While some interventions are ambitious for the context of a shrinking village, these interventions can also be understood as strategic investments that create opportunities for the long-term future of the village. By focusing only on a number of carefully selected hotspots within Krabbendijke, rather than redesigning the entire village, the project attempts to connect local interventions to broader regional ambitions such as Zeeland 2050 and other long-term spatial visions.

Another important reflection is that the project did not yet fully address phasing and implementation over time. While the research and design focused primarily on spatial relationships and identity, a future step would be to investigate how these interventions could gradually develop over longer periods of time. For example, the transformation of facilities and multifunctional buildings could happen first, followed by smaller public space interventions such as seating, greenery and identity carriers, before larger spatial changes take place. Such phased development strategies could help create more realistic transitions between design proposals and actual implementation.

Although the project was not fully participatory in its methodology, several conversations and non-structured interviews provided valuable local insights throughout the process. Discussions with the Zeeuwse Vereniging voor Kleine Kernen, indirect conversations with the village council and discussions related to Zeeland 2050 and the province helped provide perspectives on different spatial scales and stakeholder interests. These conversations influenced the understanding of local identity and helped guide several design decisions throughout the process. At the same time, more extensive participation could further strengthen both the research outcomes and the spatial proposals in future research.

One of the strengths of the design process was the clear relationship between the research outcomes and the final spatial interventions. Rather than functioning as separate design proposals, the interventions were directly informed by the identified themes related to social, symbolic and functional identity. This created a coherent spatial framework in which public space, facilities and landscape structures continuously support one another throughout

Limitations and opportunities

Due to the use of Krabbendijke as a case study, many of the spatial outcomes remain strongly place-specific. While the identified relationships and thematic framework may also apply to other shrinking rural contexts, the final spatial design itself is mainly applicable to this specific location. As discussed earlier within the implications section, the methodology and thematic framework are therefore more transferable than the exact spatial outcomes.

The chosen themes proved valuable in creating a clear narrative structure throughout both the research and design phases. They helped connect spatial interventions directly back to the identified forms of identity. However, future research could investigate whether all themes have equal influence within public space and whether they should be represented spatially in similar ways. In addition, while this research strongly focused on identity and spatial quality, future studies could also include themes such as economic feasibility, user behaviour and demographic developments more extensively.

The project mainly focuses on activating and transforming spatial structures through new interventions and reactivated functions. While this creates opportunities for strengthening village life, future research could focus more strongly on analysing existing buildings and facilities, questioning whether certain functions still operate effectively within village life and exploring how they could be adapted, merged or transformed for future use. This could create a more gradual and realistic approach towards village transformation and long-term resilience.

5.4 Reflection



Local habits
Community spaces
Social interaction potential
Local terrace extended into public space

Local habits
Community spaces
New working spots and activity on square

Historical values
Community spaces
Social interaction potential
New attraction with lost facility in new form

Historical values
Community spaces
Local exhibition space

Spatial accessibility
Functional structures
multifunctional and lively plinth

Local habits
Community spaces
Social interaction potential
Terrace function to stimulate contact

Community spaces
Functional structures
Social interaction potential
New local café

Local habits
Historical values
Spatial accessibility
Restored function connected to public space

Local habits
Historical values
Spatial accessibility
Market character and function extended into adaptable public space

Historical values
Landscape qualities
Materiality in public space matched to identity and use

Local habits
Historical values
Functional structures
Market function and meeting spaces divided amongst square

Community spaces
Spatial accessibility
Functional structures
Multifunctional centre added with goal to connect generations

Figure 191. Annotated axonometric render illustrating the identity-related interventions within De Nieuwe Dorpskamer.

5.4 Reflection



Community spaces
Social interaction potential
New seating and working spaces throughout season

Historical values
Spatial accesibility
Square materiality and identity

Historical values
Landscape qualities
Local blossom tree introduced in public space as symbol

Landscape qualities
Spatial accesibility
Functional structures
Bike storage adapted and symbolised

Spatial accesibility
Social inaction potential
Redesigned pathway

Historical values
Functional structures
Social interaction potential
Multiple new function in heritage

Historical values
Landscape qualities
Spatial accesibility
New pathways through nature

Spatial accesibility
Functional structures
Social interaction potential
Terrace and exposition space

Local habits
Social interaction potential
New terrace in public space

Local habits
Historical values
Community spaces
Social interaction potential
Local café adapted to facilitate new usages

Local habits
Historical values
Landscape qualities
Fruit cultivation reflected in public space

Spatial accesibility
Social interaction potential
Accesibility improved with redesign of roads

Figure 192. Annotated axonometric render illustrating the identity-related interventions within Het Knooppunt aan het Spoor.

5.4 Reflection



Figure 193. Annotated axonometric render illustrating the identity-related interventions within Tussen Dorp en Boomgaard.



V. References and Resources

- From loss and decline to experience
- Symbolical Identity anchors
- Social Identity anchors
- Conclusion

VI. References and Resources

Antique map. Inter-Antiquaanaat

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6.2 Annotated source list

Place attachment, identity & sense of place

Anton & Lawrence (2014) – Home is where the heart is

Written within environmental psychology, this article empirically examines the relationship between place of residence, place attachment, and community participation.

In the thesis, Anton and Lawrence are used to support the claim that rural communities are often characterised by strong local bonds and social stability. Their findings help explain why the loss of village facilities has consequences beyond functionality, as it disrupts social participation and emotional attachment.

Barreira et al. (2019) – Place attachment and staying intentions in shrinking regions

This study was developed within rural and regional studies and investigates why residents choose to remain in shrinking or declining regions despite structural disadvantages.

The thesis uses this work to support the argument that strong place attachment plays a key role in residents' decisions to stay in Zeeland's villages, even as facilities disappear and accessibility declines.

Inalhan, Yang & Weber (2021) – Place Attachment Theory (Handbook of Theories)

Written as part of a multidisciplinary handbook, this chapter brings together insights from architecture, urbanism, and environmental psychology to clarify how place attachment is understood across spatial disciplines.

In the thesis, this work helps structure the concept of place attachment through the Person–Process–Place model. That framework is used to explain how attachment in Zeeland's villages develops through everyday routines, social interaction, and physical places such as facilities, making emotional responses to facility loss more understandable.

Peng, Strijker & Wu (2020) – Place identity: how far have we come in exploring its meanings?

This article was developed as a reflective review within human geography and rural studies, written by scholars specialising in regional development, rural change, and identity-related processes.

The study draws on Peng et al. to support the idea that village identity is dynamic and continuously reshaped. This perspective fits with the argument that Zeeland's villages are not simply declining, but are transitioning as facilities, routines, and meanings change over time.

Wester-Herber (2004) – Underlying concerns in land-use conflicts

Coming from environmental psychology, this paper examines why spatial interventions often provoke resistance by focusing on the role of place identity in shaping perceptions of risk and change.

In the thesis, Wester-Herber's work is used to interpret emotional responses to facility closures as reactions to identity disruption rather than purely functional loss. It supports the idea that facilities carry symbolic meaning for residents.

Hauge (2007) – Identity and Place: A Critical Comparison of Three Approaches

This conceptual paper compares psychological, social, and environmental approaches to place identity and was written to clarify differences between these often overlapping perspectives.

Hauge's distinctions are used in the thesis to justify an integrated view of village identity, where physical space, social interaction, and personal experience are considered together when analysing facility decline.

Cross (2001) – What is Sense of Place?

Written from a sociological and community-studies perspective, this text aims to clarify how the concept of sense of place is used across different strands of social research.

The thesis refers to Cross to underline that sense of place grows through familiarity and everyday use. This supports the argument that facility loss weakens sense of place by disrupting daily routines and informal encounters.

Altman & Low (1992) – Place Attachment

This edited volume was one of the first comprehensive academic works to conceptualise place attachment, bringing together perspectives from environmental psychology, anthropology, and cultural studies.

Within the thesis, Altman and Low provide the foundational understanding of attachment as an emotional bond shaped through social and cultural interaction with place, forming the background for later theories used.

Scannell & Gifford (2010) – Defining Place Attachment

Developed within environmental psychology, this article responds to conceptual confusion around place attachment by proposing a clear and structured analytical model.

Their Person–Process–Place framework is explicitly applied throughout the thesis to analyse how village facilities contribute to attachment and how their loss affects identity and belonging.

Brown & Perkins (1992) – Disruptions in Place Attachment

Focusing on moments of change, loss, and displacement, this chapter examines how place attachment becomes visible when everyday environments are threatened.

The thesis uses this idea to interpret facility decline as a moment that reveals existing emotional bonds, particularly when familiar village places disappear.

Giuliani (1991) – Psychological theories for environmental issues

Written within the field of environmental psychology, this chapter discusses how meaning and attachment develop through memory, routine, and repeated interaction with everyday environments.

Giuliani's work is used to support the argument that attachment to village facilities forms gradually over time, reinforcing the importance of everyday use rather than symbolic meaning alone.

van Tussenbroek, van Drunen & Orsel (2012) – Bouwhistorische waardenkaarten

This article was written by architectural historians and heritage specialists and introduces a method for mapping built heritage values at an area scale.

The thesis uses this approach to recognise the spatial and historical qualities of village structures. It supports a careful design attitude that considers existing cultural and spatial values rather than replacement.

Westin (2016) – Place attachment and mobility

Written from a housing and mobility perspective, this article explores the relationship between place attachment and residential mobility.

In the thesis, Westin's work supports the argument that attachment to place does not disappear when mobility increases. Instead, strong emotional bonds can coexist with functional dependence on external centres, reinforcing the concept of woondorpen.

Sens (1994) – Monumenten Inventarisatie Project Zeeland: Gemeente Reimerswaal

Produced by the former Rijksdienst voor de Monumentenzorg, this inventory documents built heritage and historically valuable structures in Reimerswaal.

In the thesis, this source is used to understand the historical layers of villages and the spatial anchors that contribute to identity. It supports sensitivity toward existing structures when proposing spatial interventions.

Proshansky, Fabian & Kaminoff (1983) – Place-identity: Physical world socialization of the self

This foundational article was written by environmental psychologists and introduced the concept of place identity as part of individual and collective self-formation.

The thesis refers to this work to explain how identity develops through interaction with the physical environment. It supports the idea that changes to everyday places, such as facilities, can affect how people relate to their village.

Steele (1981) – The Sense of Place

Steele approaches sense of place from an architectural and psychological perspective, focusing on how environments gain meaning through lived experience.

In the thesis, Steele's work helps frame sense of place as an interaction between physical setting, social life, and personal perception, aligning with the way facilities are analysed.

Klinenberg (2018) – Palaces for the People

Written from an urban sociology perspective, this book introduces the concept of social infrastructure as a foundation for social cohesion.

The thesis uses Klinenberg to frame village facilities as social infrastructure that supports interaction, trust, and collective life.

Latham & Layton (2019) – Social infrastructure and the public life of cities

This article extends the concept of social infrastructure to everyday spaces of encounter.

In the thesis, it supports the argument that even small-scale village facilities play a critical role in sustaining public life.

Lofland (1998) – The Public Realm

This sociological work examines how public spaces structure social interaction.

The thesis refers to Lofland to interpret village facilities as everyday public realms where informal encounters reinforce belonging.

This foundational article was written by environmental psychologists and introduced the concept of place identity as part of individual and collective self-formation.

The thesis refers to this work to explain how identity develops through interaction with the physical environment. It supports the idea that changes to everyday places, such as facilities, can affect how people relate to their village.

6.2 Annotated source list

Facility decline, accessibility & rural change

Brereton, Bullock, Clinch & Scott (2011) – Rural change and individual well-being

Written within rural geography and regional studies, this paper examines how structural rural change affects subjective well-being beyond economic indicators. In the thesis, this work is used to support the argument that facility loss has consequences that extend beyond functional accessibility, influencing emotional well-being and everyday satisfaction in rural villages.

Christiaanse (2020) – Rural Facility Decline: A Longitudinal Accessibility Analysis

This empirical study was written by a Dutch social geographer specialising in rural liveability and accessibility, responding directly to policy assumptions linking facility decline to shrinkage. The thesis relies on this work to challenge population decline as the main explanation for facility loss. Instead, it uses Christiaanse's findings to emphasise scale enlargement, mobility, and deregulation in Zeeland.

Christiaanse (2021) – Het verlies van voorzieningen

Building on earlier quantitative research, this book adopts a more reflective and socially oriented approach to the consequences of facility decline in rural areas. In the thesis, the book is used to highlight how facility loss affects emotional attachment and village identity, especially among residents with limited mobility.

Christiaanse & Haartsen (2017) – Symbolic and emotional meanings of rural facilities

Written by rural geographers, this article explores how facilities function as symbolic places beyond their practical role. The thesis uses this work to argue that accessibility alone does not replace the meaning of lost facilities, as emotional and symbolic values are tied to specific locations.

Gieling, Haartsen & Vermeij (2018) – Village Facilities and Social Place Attachment

This empirical study examines how different village facilities contribute to social attachment across resident groups and life stages. The findings are used to connect specific facilities, such as supermarkets and community centres, to everyday encounters and belonging in Zeeland's villages.

Haugen et al. (2012) – Proximity, accessibility and choice

This study, grounded in transport geography, explores how accessibility is shaped not only by distance but also by individual conditions and preferences. The thesis draws on this work to nuance accessibility analysis in Zeeland, showing that increased travel distances affect residents differently depending on mobility, age, and daily routines.

Lucas et al. (2018) – Transport poverty

Written within transport policy and social equity research, this article conceptualises transport poverty as a driver of exclusion. The thesis uses this framework to interpret declining public transport and growing car dependency as risks to social inclusion.

Neumeier (2016) – Services of general interest in rural areas

Written from a rural development perspective, this work conceptualises essential facilities as services of general interest that remain socially necessary even when economically unviable. In the thesis, Neumeier's framework supports the argument that facility decline should not be evaluated purely through market logic, but through its social importance for liveability and inclusion.

Pittaluga (2020) – Pioneering urban practices in transition spaces

This work explores bottom-up and experimental spatial practices in areas undergoing structural transition. The thesis uses Pittaluga to frame design interventions in Zeeland as exploratory and adaptive, rather than fixed solutions, reinforcing the idea of guided transition rather than regeneration.

Smoyer-Tomic et al. (2006) – Food deserts in the prairies?

Coming from health geography and spatial analysis, this paper investigates how increasing distances to essential services affect vulnerable populations. The thesis refers to this work to underline how facility decline disproportionately affects less mobile residents in rural Zeeland.

6.2 Annotated source list

Transition, governance & planning

Thissen & Loopmans (2013) – Dorpen in verandering

This book was written by sociologists specialising in rural transformation in the Netherlands and Flanders, critiquing traditional village policy assumptions. The thesis adopts their concept of woondorpen to describe Zeeland's villages as emotionally rooted places that increasingly depend on external centres for services.

Bailey, Fai & Tomlinson (2024) – Beyond levelling up

Written within regional political economy, this paper critiques growth-focused regional policy and argues for place-sensitive development strategies. The thesis uses this work to contextualise Zeeland within broader debates on "left behind" regions and to justify the need for locally grounded interventions.

Bontje (2015) – Dutch national urbanisation policy

Written by an urban geographer specialising in spatial policy, this paper reflects on the long-term dominance of growth-oriented planning in the Netherlands. The thesis uses Bontje's analysis to explain why peripheral regions like Zeeland were poorly equipped to manage long-term decline.

Centraal Bureau voor de Statistiek & Planbureau voor de Leefomgeving (2010) – Regionale krimp en bereikbaarheid

This joint report by CBS and PBL examines the relationship between demographic shrinkage and accessibility in Dutch regions. The thesis uses this report to frame facility decline and accessibility as linked but not identical processes. It helps support the argument that accessibility problems can emerge even without strong population decline.

Dammers et al. (2003) – Krimp en ruimte

This Dutch policy-oriented study analyses demographic decline and its spatial consequences. In the thesis, Dammers et al. provide historical grounding for understanding how shrinkage and spatial restructuring have long shaped Dutch rural regions, including Zeeland.

Gemeente Reimerswaal (2024) – Structuurvisie kernen en bedrijventerreinen

This municipal policy document outlines spatial development strategies for villages and business areas within the municipality of Reimerswaal. The thesis uses this document to understand local policy ambitions and constraints regarding facilities, accessibility, and spatial structure. It provides institutional context for the case study and helps position the design within existing municipal frameworks.

MacKinnon et al. (2021) – 'Left behind' places

Written by regional development scholars, this article critiques growth-centred development policy and highlights emotional and social dimensions of inequality. The thesis draws on this work to frame facility decline as both a material and experiential issue linked to feelings of neglect.

Morgan et al. (2023) – Local government's roles in community health and wellbeing

Written by public health and governance scholars, this article examines how local governments influence community wellbeing beyond formal healthcare provision. The thesis uses this study to link facility availability and local governance to broader wellbeing outcomes. It supports the argument that municipalities play a role in maintaining liveability, not only through services but also through social infrastructure.

Nabielek, Kronberger-Nabielek & Hamers (2013) – The rural-urban fringe in the Netherlands

This report was written for the Planbureau voor de Leefomgeving and analyses spatial, demographic, and functional changes in the Dutch rural-urban fringe. In the thesis, this source helps frame Zeeland as a region shaped by overlapping rural and urban logics. It supports the interpretation of villages as places in transition rather than strictly rural or urban.

Nefs et al. (2013) – Shrinking cities as retirement cities?

This article was written by urban and regional researchers examining demographic ageing and shrinkage in European cities. In the thesis, this work is used to highlight how demographic change reshapes service needs. It supports the focus on older and less mobile residents as particularly affected by facility decline.

Nota Ruimte (2025) – Nationale visie op de fysieke leefomgeving

This national spatial policy document outlines a shift toward regional balance and spatial equality. In the thesis, the Nota Ruimte is used to position the research within current policy ambitions to strengthen regions such as Zeeland. Planbureau voor de Leefomgeving & Centraal Bureau voor de Statistiek – Van bestrijden naar begeleiden This policy report was written by the Dutch national planning and statistical agencies and focuses on demographic shrinkage and appropriate governance strategies for shrinking regions. In the thesis, this report supports the shift from "fighting" shrinkage to guiding it. It helps frame the research objective of a guided transition, aligning spatial design with long-term demographic realities rather than short-term growth ambitions.

Provincie Zeeland (2023) – Opgave slimme mobiliteit: Reizen door Zeeland

This provincial policy document outlines current mobility challenges and ambitions in Zeeland, with a focus on accessibility and smart mobility solutions. In the thesis, this document is used to contextualise reductions in public transport and increasing car dependency. It supports the analysis of accessibility as a growing concern in smaller villages.

Rauws & de Roo (2011) – Exploring transitions in the peri-urban area

Drawing from planning theory and complexity thinking, this article conceptualises spatial change as non-linear and adaptive. Their transition perspective is used to justify flexible and open-ended spatial strategies rather than growth-oriented solutions.

Rérat (2014) – The selective migration of young graduates

Written by a human geographer specialising in migration and regional inequality, this article analyses why young graduates leave or remain in certain regions. The thesis uses this source to contextualise selective migration patterns in rural regions. It helps explain long-term demographic imbalances that indirectly affect facility viability.

Rijksoverheid (2014) – Grenzen aan de krimp

This policy document was produced by the Dutch Ministry of Infrastructure and the Environment and reflects national thinking on demographic shrinkage and regional decline in the early 2010s. In the thesis, this document is used to contextualise how Dutch policy shifted from growth-oriented thinking toward recognising shrinkage as a long-term condition. It helps frame Zeeland's challenges within national debates on managing, rather than reversing, decline.

Sieverts (2003) – Cities without cities

Written from an urban theory perspective, this book introduces the concept of Zwischenstadt to describe hybrid landscapes between urban and rural conditions. The thesis uses Sieverts to interpret Zeeland's villages as spaces with overlapping rural and urban logics, reinforcing the idea of transition rather than decline.

United Nations Development Programme (2000) – Human Development Report 2000

This global policy report introduces a rights-based approach to development, focusing on access, inclusion, and equality. In the thesis, the UNDP report provides normative support for framing accessibility and facility provision as matters of social equity rather than economic efficiency.

Van Oosten (2018) – Active land policy in small municipalities

This study analyses Dutch municipal land policy from a governance and planning perspective, particularly in small municipalities. It is used in the thesis to contextualise institutional vulnerability in regions facing stagnation or demographic change.

Van der Star & Hochstenbach (2022) – Continuity among stayers

Written within rural sociology, this study examines why residents remain in shrinking regions despite decline. The thesis uses this work to explain why strong place attachment persists in Zeeland's villages even as facilities disappear.

Vázquez-Barquero & Rodríguez-Cohard (2016) – Endogenous development and institutions

This article focuses on how local institutions and resources shape regional development trajectories. In the thesis, it supports the argument that rural resilience should be built from local identity, governance capacity, and community initiative rather than external growth models.

Zondag & Arcadis (2016) – Accessibility impacts of alternative urbanisation strategies in the Netherlands

Written as a policy-oriented research report for the Netherlands Environmental Assessment Agency, this study analyses how different urbanisation strategies affect accessibility at the national and regional scale. The thesis draws on this report to support discussions on accessibility as a spatial outcome of planning choices. It is used to underline how centralisation and scale enlargement influence everyday access to services, particularly in peripheral regions such as Zeeland.

6.2 Annotated source list

Methods & design theory

Alexander (1964) – Notes on the Synthesis of Form

This book was written within architectural theory to explain design as a structured response to contextual forces and constraints.

Alexander's ideas support the analysis-led design approach adopted in the thesis.

Lawson (2006) – How Designers Think

Based on research into design cognition, this book examines how designers move between analysing problems and generating solutions.

The thesis uses Lawson to explain the problem-focused structure of the design process.

Healey (1997) – Collaborative Planning

Written from planning theory, this book emphasises governance, participation, and local knowledge in spatial decision-making.

The thesis refers to Healey to justify involving residents as active contributors in the research and design process.

Creswell & Plano Clark (2018) – Mixed Methods Research

This methodological handbook provides guidance on combining qualitative and quantitative research strategies.

It is used to structure the mixed-methods approach linking spatial analysis, interviews, and design research.

Lynch (1960) – The Image of the City

This classic work focuses on perception, legibility, and spatial experience.

The thesis uses Lynch to support a multi-scalar approach, moving from regional patterns to village and facility levels.

Manzini (2015) – Design, when everybody designs

Written within design theory, this book argues for participatory and socially driven design practices.

The thesis draws on Manzini to support collaborative design as a means of empowering communities in Zeeland's villages.

Giuliani (1991) – Psychological theories for environmental issues

This chapter explores how environmental meaning develops through repeated interaction.

In the thesis, Giuliani reinforces the argument that attachment to village facilities develops through routine use over time.

Wiechmann (2008) – Aligning urban strategy with demographic uncertainty

This planning theory article critiques rigid growth-oriented strategies in contexts of uncertainty.

The thesis uses Wiechmann to justify adaptive and open-ended spatial strategies for shrinking villages.



VII. Appendix

- Data management checklist
- Search terms
- Materials and detail sketches
- Additional analysis
- Design sketches

VII.

Appendix

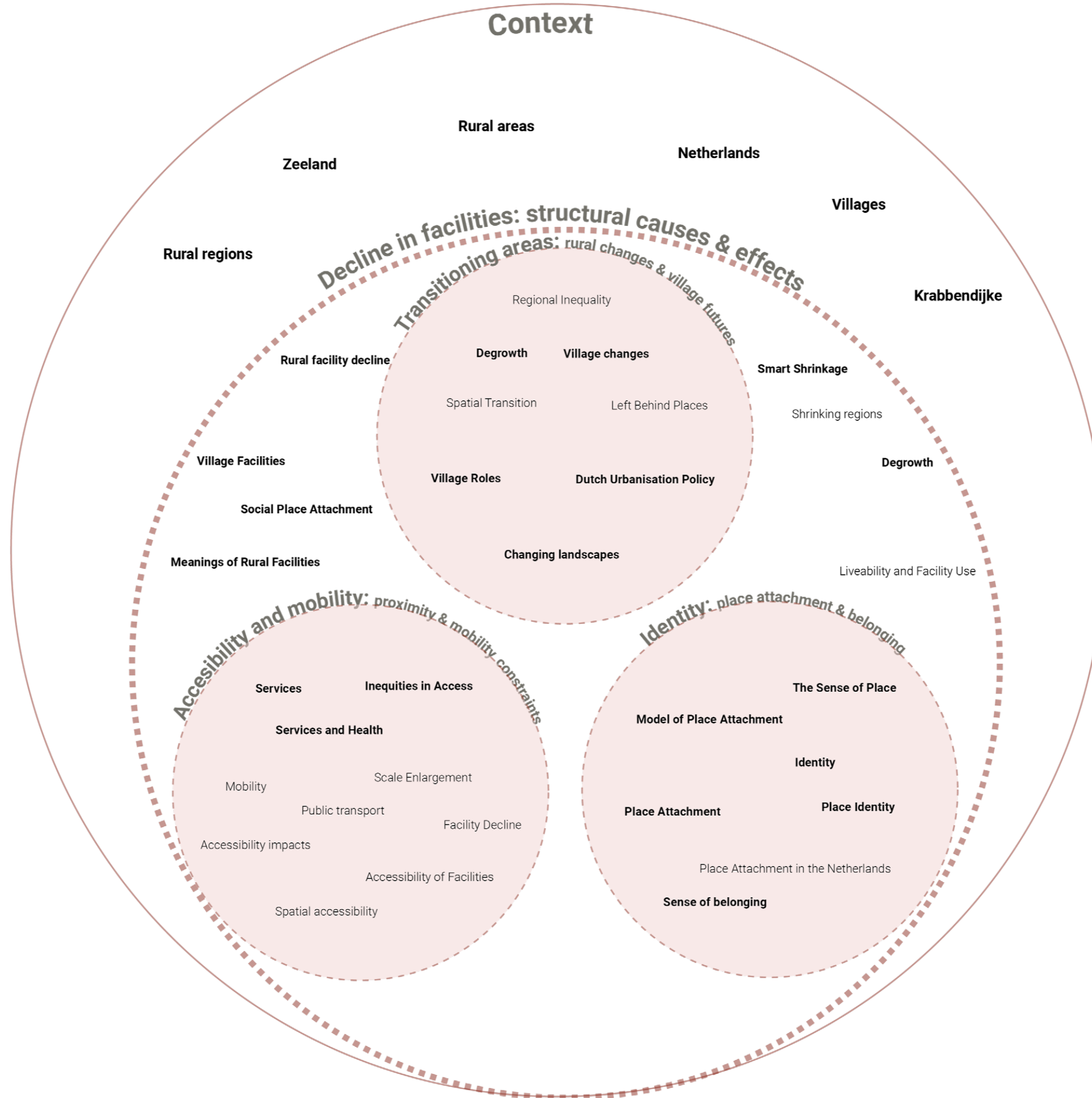
7.1 Data management checklist

Data management checklist

Section A. General considerations	yes	no
<p>1. Is the graduation project conducted as part of an internship (at a company), or as part of a research project at TU Delft?</p> <p>If a student's graduation project is conducted at a company or as part of a research project at the university, questions of data ownership and intellectual property rights need to be addressed in a written graduation or internship agreement before the project begins. Students and their supervisor should consult the Intellectual Property Rights of Students webpage. Additional information can also be found in the Extended Personal Research Data Workflow.</p>		✓
<p>2. Does the project involve conducting (part of) the research outside the Netherlands?</p> <p>Students who intend to travel abroad (even to other EU countries) for study, exchange, research, internship, or graduation project purposes need to follow the Travel Safety Protocol. This includes attending a mandatory Travel Safety Training Session: see the Disclaimer.</p>		✓
<p>3. Will the research involve processing data from humans, such as running a survey, conducting interviews or workshops, collecting data through social media or internet forums, or re-using existing datasets about humans provided by a third party? (If 'yes', see follow-up questions 4 to 13 in Checklist B.)</p> <p>Students who work with data from human participants must complete the next section and apply for and receive ethical approval from the Human Research Ethics Committee (HREC) before conducting the research.</p>		✓

7.2 Search terms

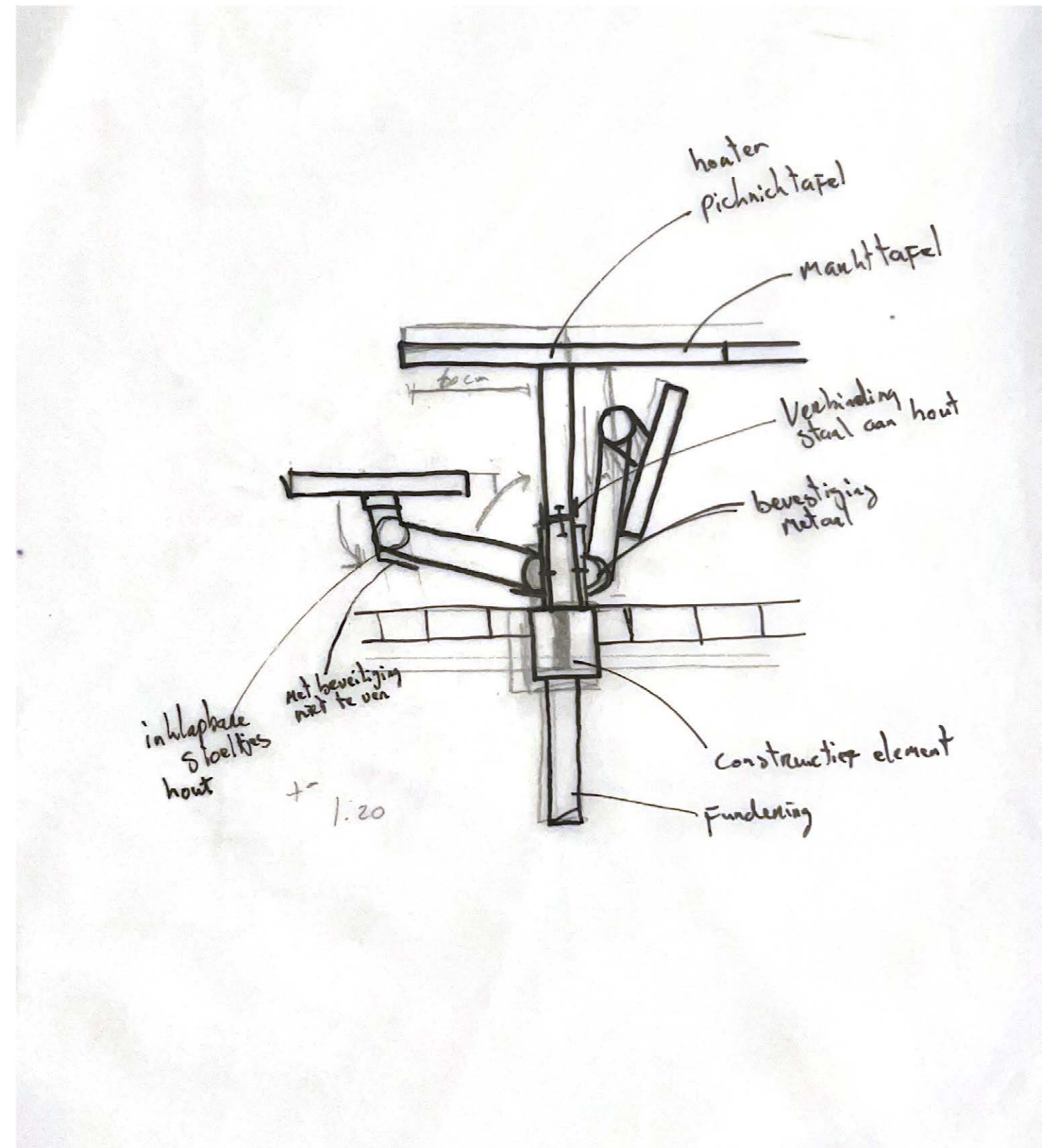
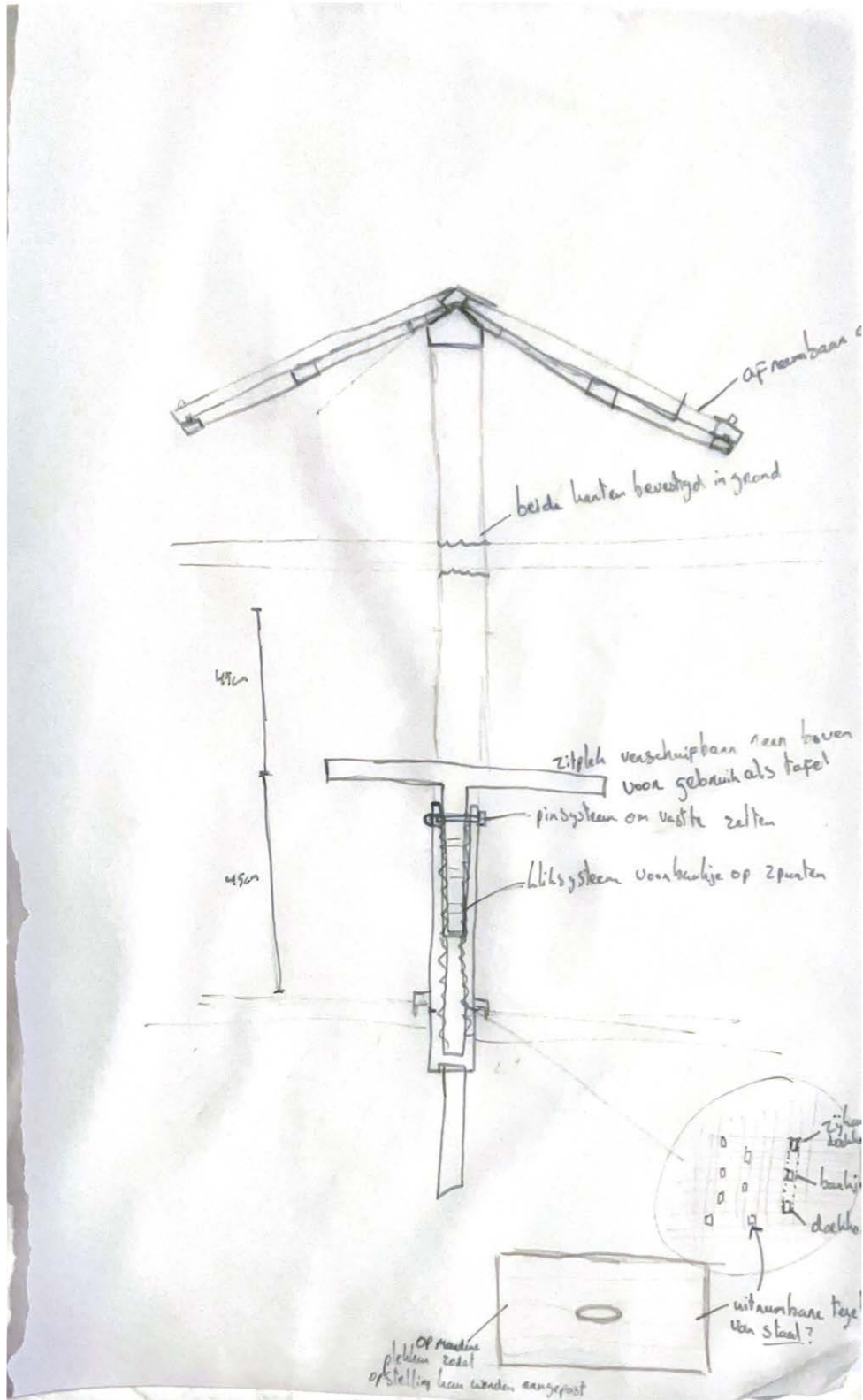
Search terms



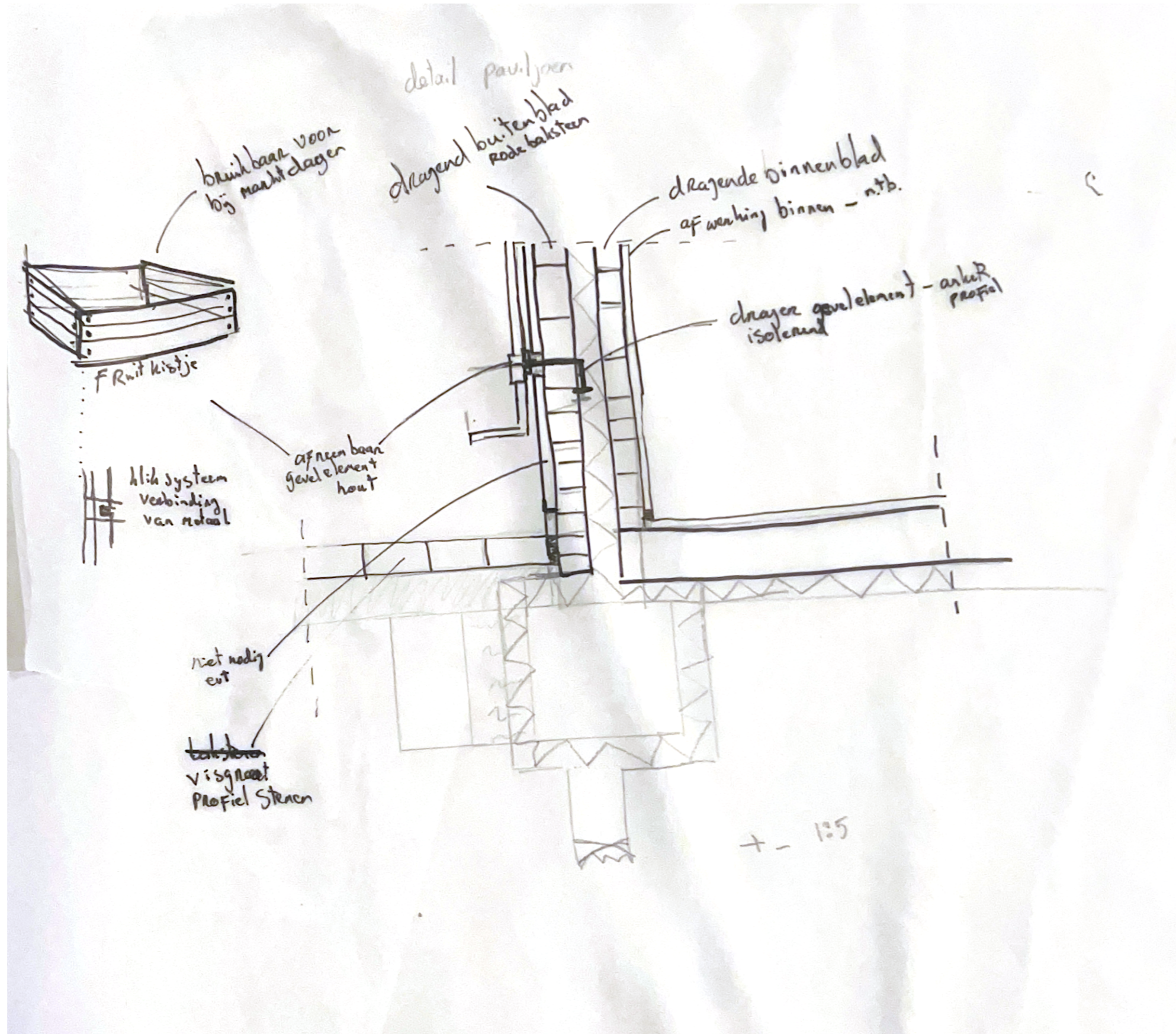
7.3 Materials and detail sketches



7.3 Materials and detail sketches



7.3 Materials and detail sketches



7.4 Additional analysis

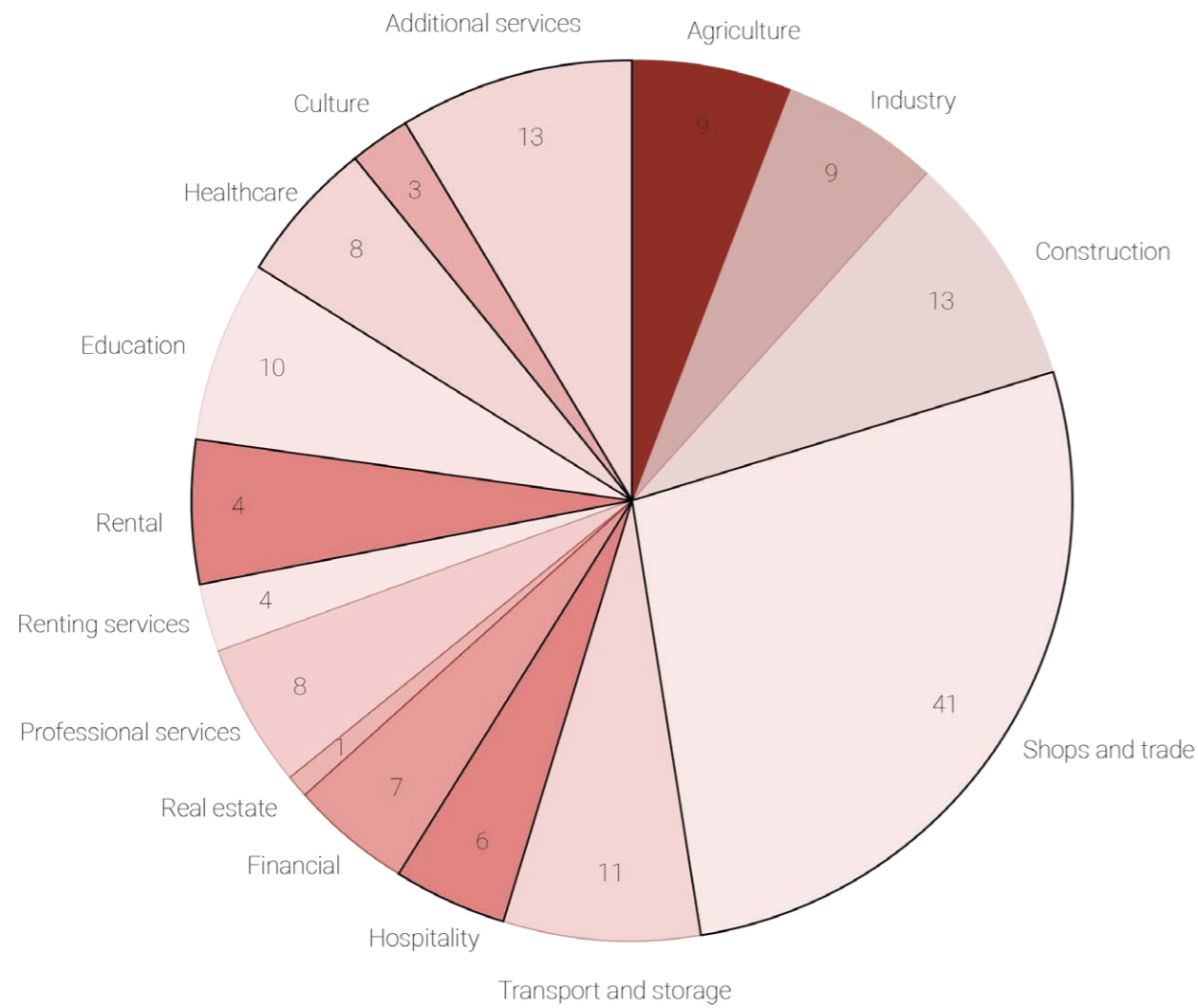
Krabbendijkes' paradox

Within the broader focus on Reimerswaal, this research further zooms in on the village of Krabbendijke, where the decline of essential facilities is particularly pronounced (CBS, 2025). Despite its relatively urbanised structure and the presence of a railway station with direct national connections, Krabbendijke has experienced a steady withdrawal of everyday services in the past decade. This makes the village an interesting case, as accessibility at the regional scale does not automatically translate into local liveability or facility retention, making Krabbendijke a paradox.

The city-scaled map provides a detailed overview of Krabbendijkes' urbanized areas and non-residential functions, while facility-related data illustrates the decline with the squares. They highlight the increased distance to everyday functions (CBS, 2025).

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7.4 Additional analysis

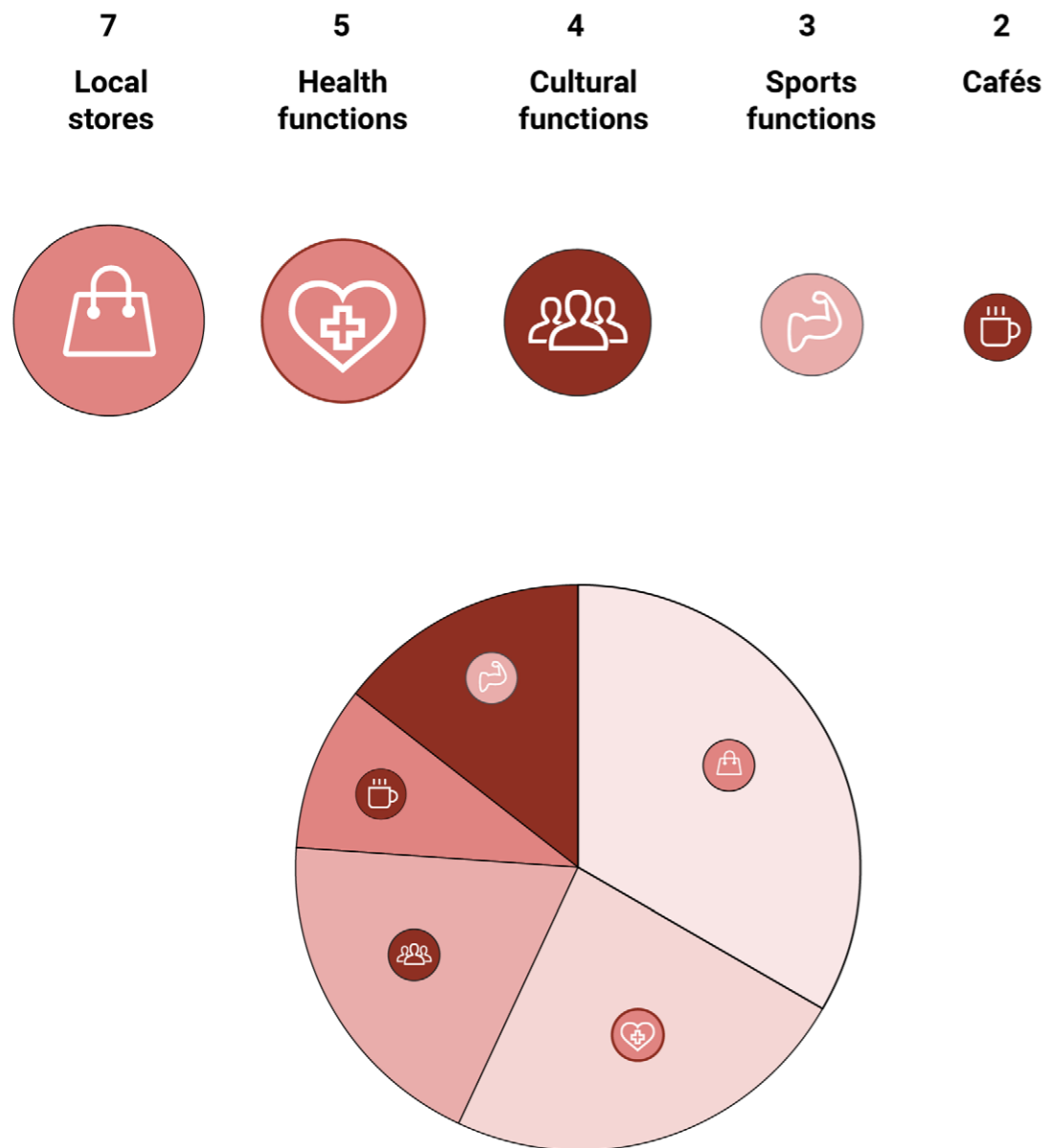
Krabbendijkjes' paradox

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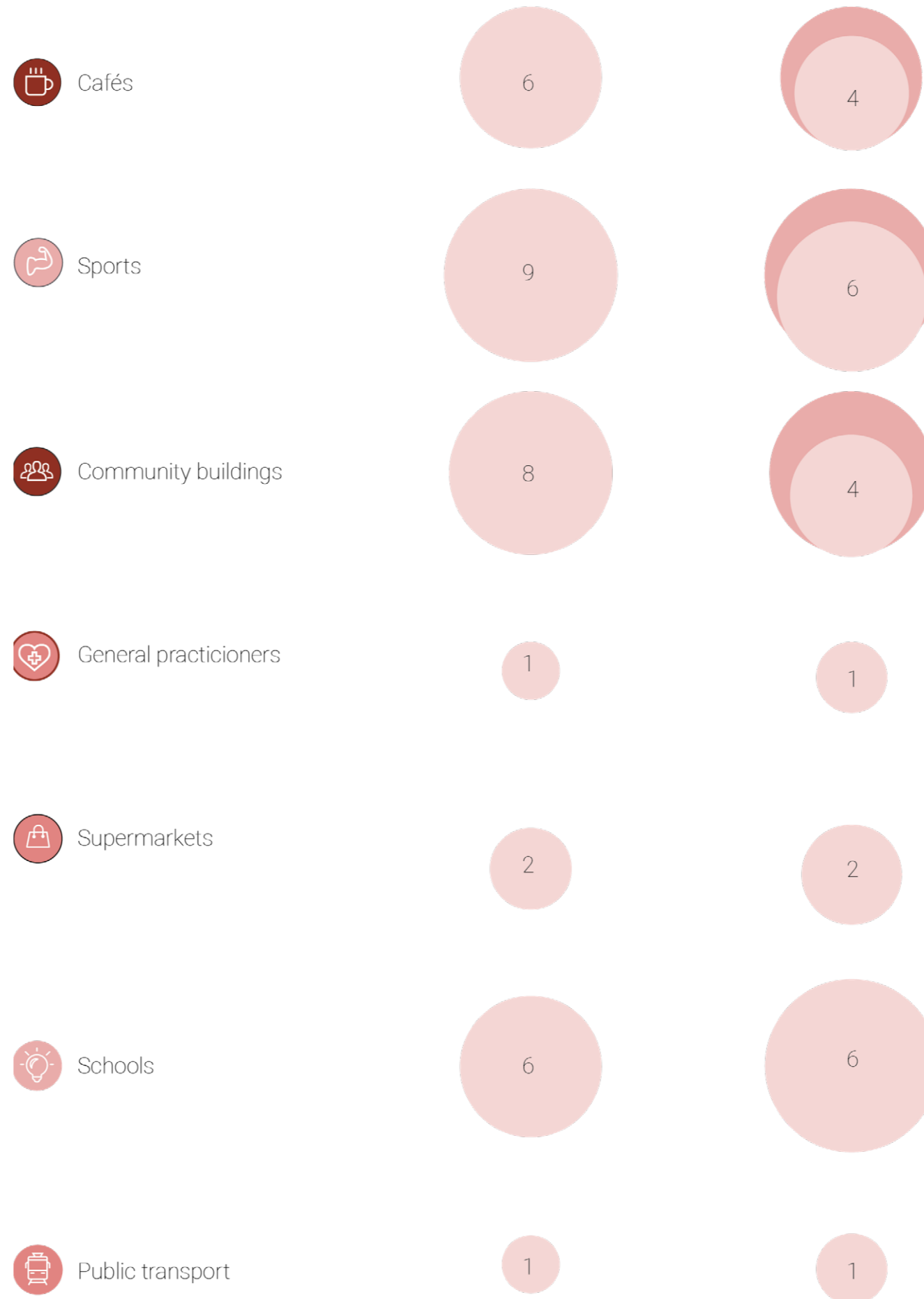
7.4 Additional analysis

Krabbendijkjes' loss

Zeeland's demographic and spatial development shows a gradual but persistent shift. While the province as a whole still maintains modest population growth, many of its smaller villages have experienced the long-term withdrawal of everyday services. Patterns of local living have been reshaped by broader structural processes such as increasing mobility, scale enlargement and the centralisation of facilities (Christiaanse, 2020; 2021). As a result, villages in Noord-Beveland, Tholen, Hulst and Reimerswaal have seen the closure of shops, banks, schools, post offices and bus lines, a trend that is regularly documented in Zeeuws regional news (PZC, 2023).

These changes have not only physical but also social consequences. Rural communities are traditionally characterised by stable populations and strong interpersonal ties (Anton & Lawrence, 2014; Rérat, 2014). The disappearance of social and practical services gradually weakens these bonds, as facilities often serve as anchors for everyday encounters and collective memory (Christiaanse & Haartsen, 2017; Gieling et al., 2018). When such places disappear, feelings of disconnection and uncertainty about the village's identity can grow (van der Star & Hochstenbach, 2022). Local reporting shows that residents often associate the loss of such facilities with declining social interaction and uncertainty about the future of their village, reinforcing these broader social effects (PZC, 2025).

At the same time, mobility patterns have changed. Growing car ownership has made it easier to access regional centres, which in turn reduces local dependency and undermines the viability of small-scale services (Pittaluga, 2020). Public transport has become increasingly limited, especially for groups with reduced mobility, making daily travel more difficult (Smoyer-Tomic et al., 2006; Lucas et al., 2016). In Zeeland, this is intensified by ongoing reductions in public transport services, particularly affecting smaller villages with limited alternatives (Provincie Zeeland, 2023).



7.4 Additional analysis

"People follow the same routes every day."

"Most interaction happens while people are on their way somewhere."

"Older people walk around for social contact."

"You always run into someone there."

Routines

"Daily life depends on being able to move easily."

"Getting somewhere is often more important than staying there."

Accessibility

"Most places are reachable, but not always easily."

Functionality

"The supermarket is where people meet."

Functionality

"Sport brings people together."

"The community center is an important meeting place."

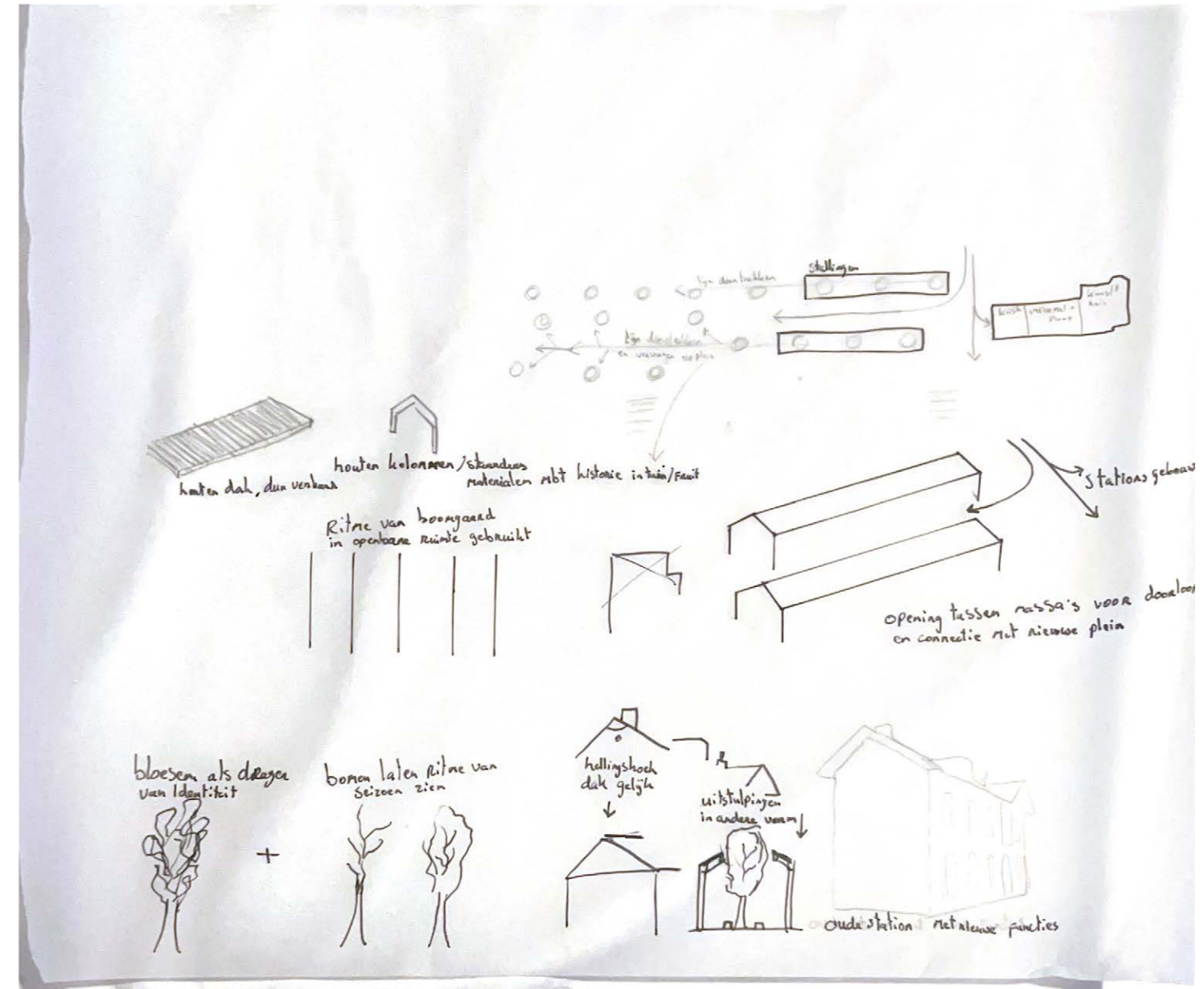
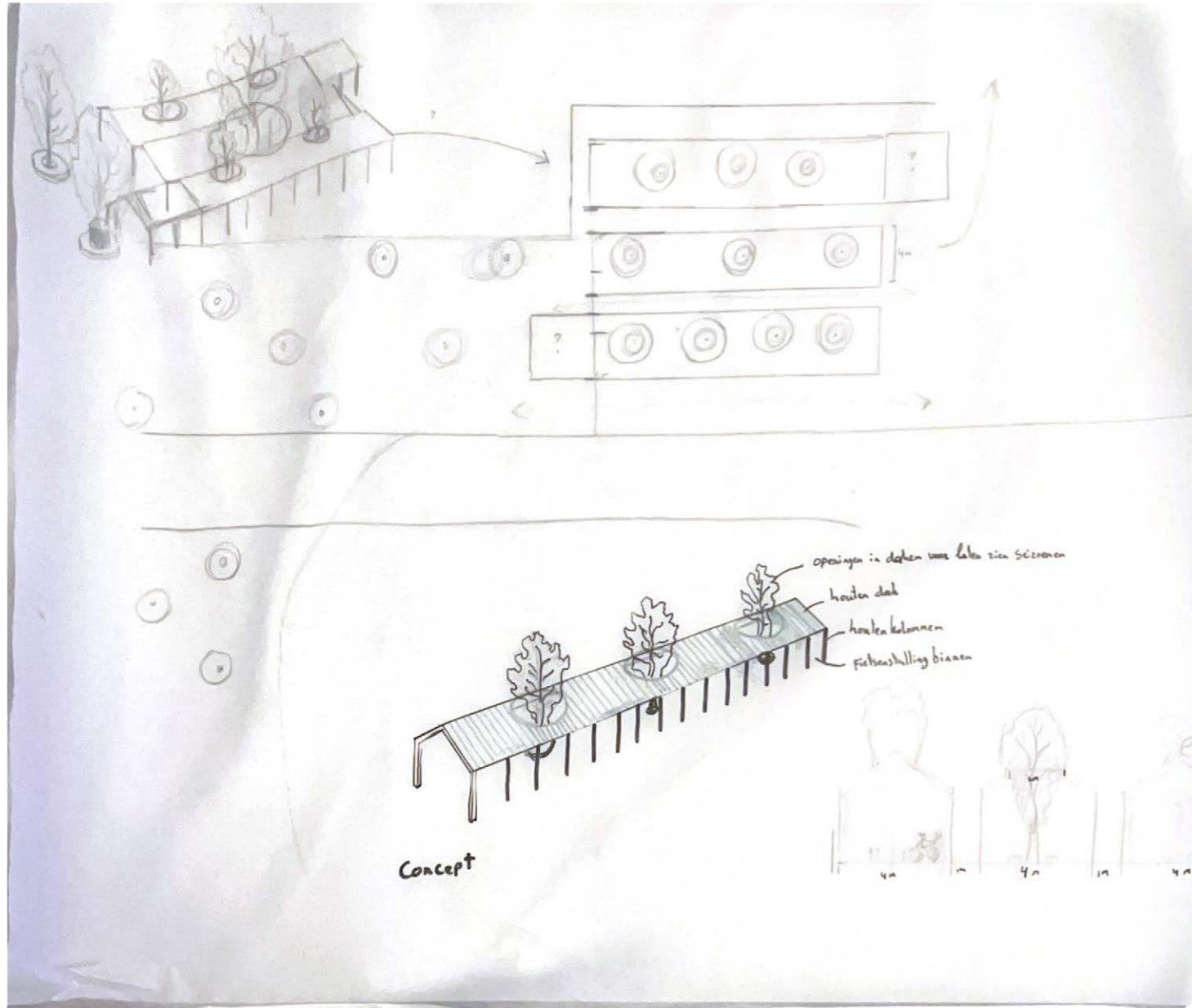
Dependence

"There are no other places to stay."

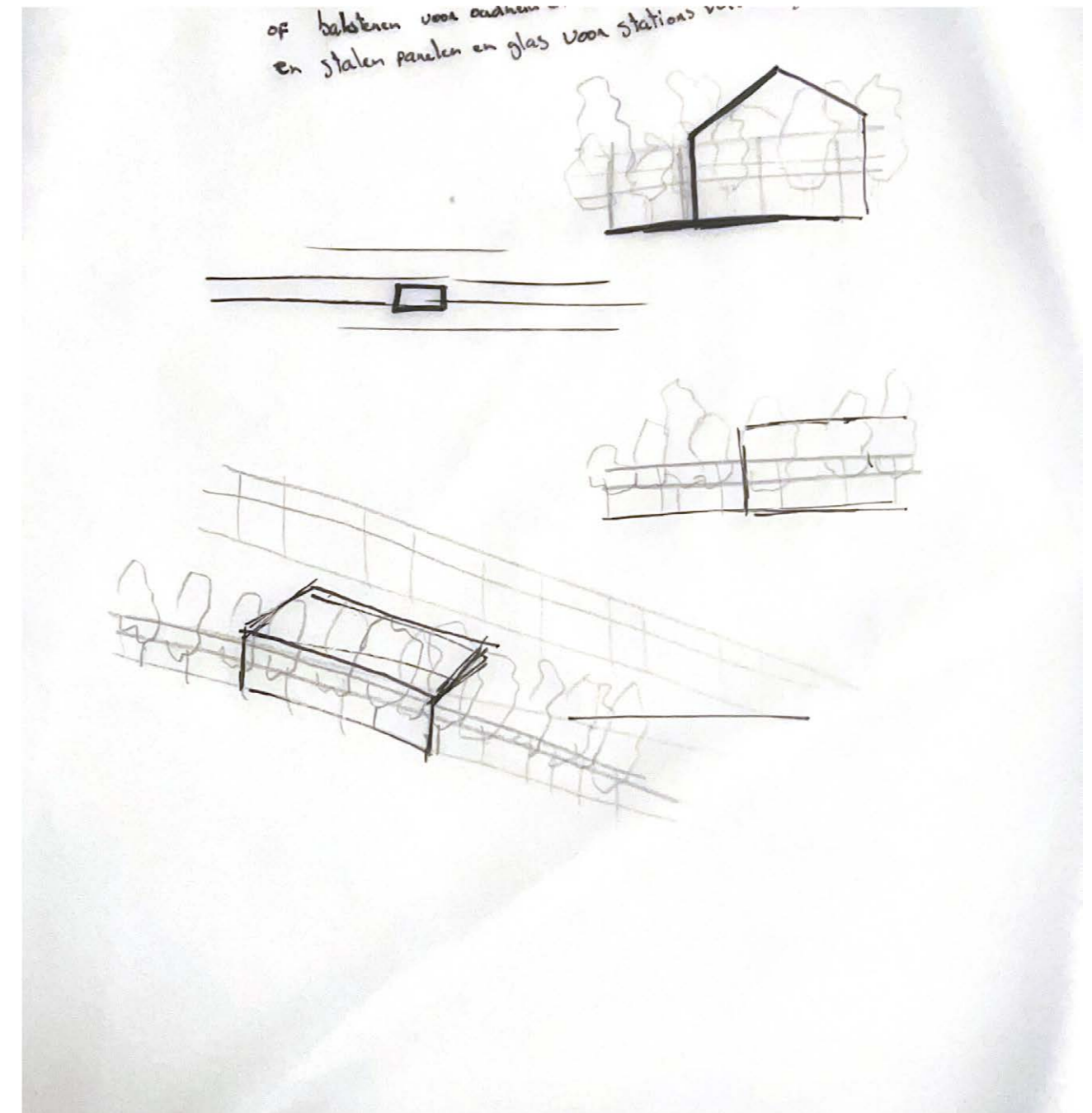
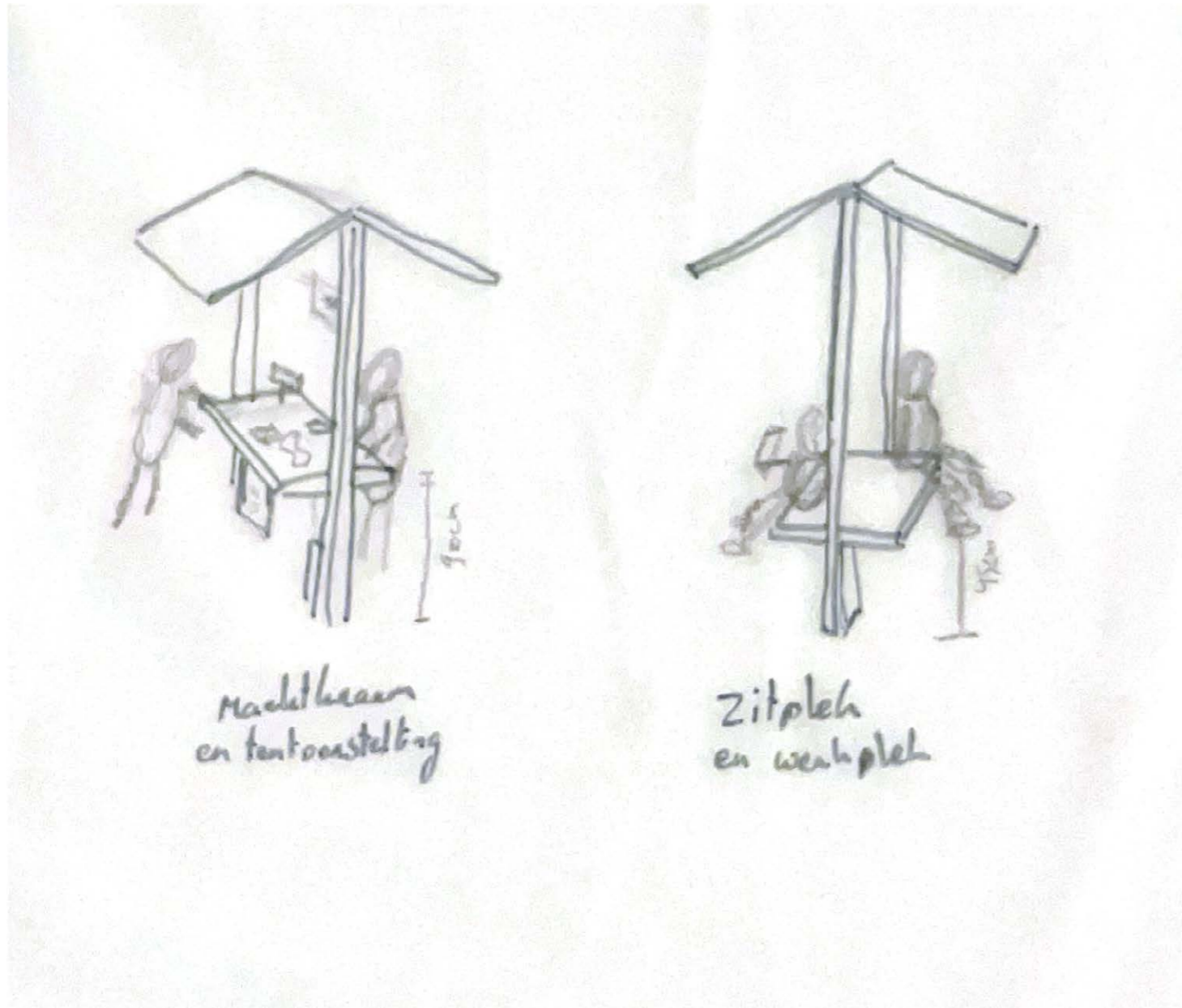
"You have to go outside the village for many things."

"If you don't have a car, it becomes difficult to get around."

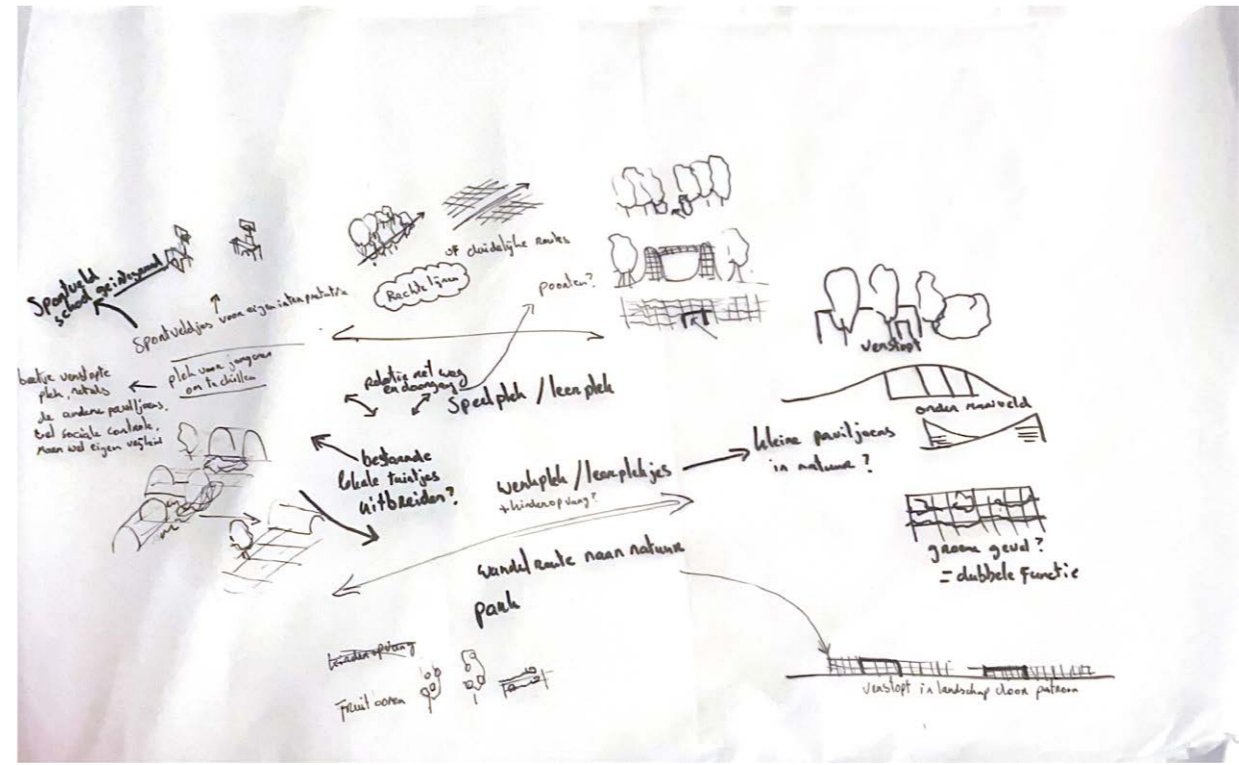
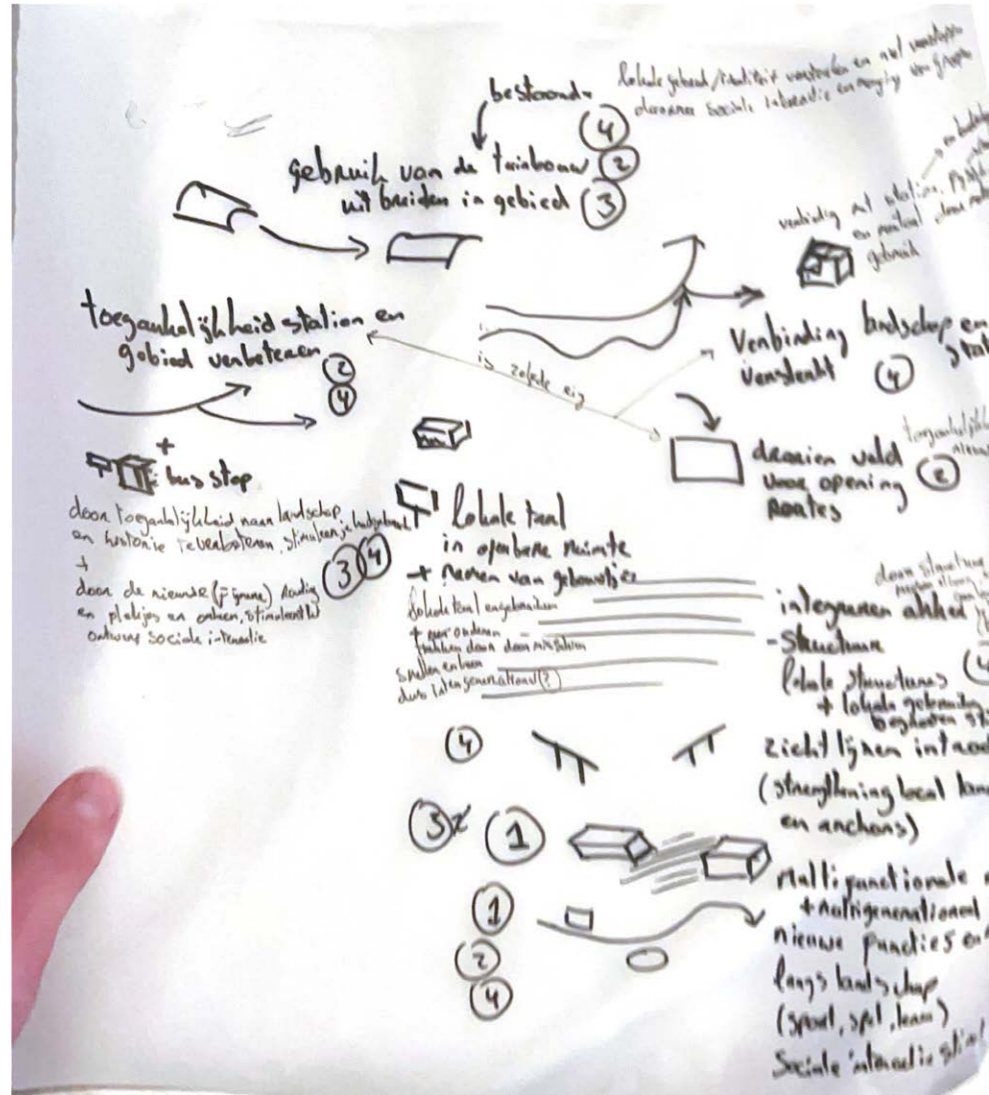
7.5 Design sketches



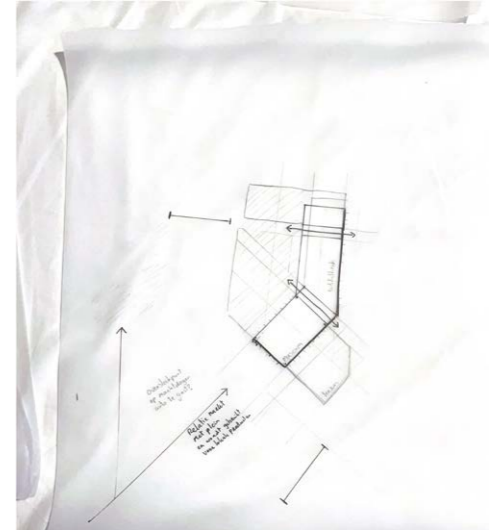
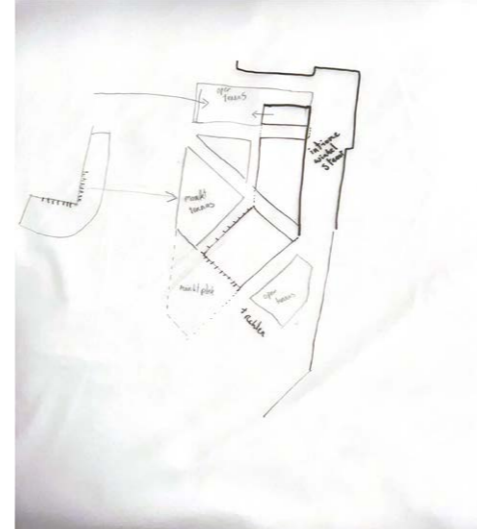
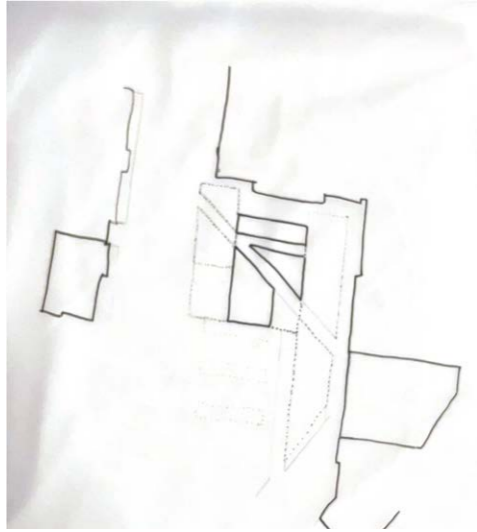
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ZELANDICARVM
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DESCRIP TIO, AVC-
TORE D. IACOBO
A DAVENTRIA

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