



COMMON_ACCESS PROJECT

D 1.1 – Flowers of Proximity Co-creation Workshops

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1. Introduction

Work package 1 (WP1) serves as the initial engagement point with communities across the various testbeds. Its objectives are twofold: first, to establish contact with municipalities, associations, community organizations, and individuals through workshops, enabling an initial assessment of their interest in participating in the project. Second, WP1 aims to collect insights into location-specific constraints and opportunities and behavioral responses to these challenges within the context of 15-minute city (15mC) development in urban outskirts. The findings will be shared with interested partners throughout the project in various formats.

1.1 Objectives stated in the funded Common_Access proposal

WP1 aims at developing a framework to generate insights into location-specific constraints and opportunities for applying the 15mC concept in the outskirts by:

- **Mapping** transport and land use conditions for implementing CA practices on the urban outskirts.
- **Understanding** the reasoning behind the citizens' choices through the implementation of workshops.
- **Exploring** citizens' perspectives and group dynamics to gather insights into community potential work.
- **Developing** a GIS-based tool to identify different typologies of neighborhoods in the outskirts and beyond based on local accessibility conditions.
- **Assessing** how accessible local destinations are for different population groups.

1.2 Tasks

Task 1.1: Local accessibility community needs (Lead: TUM)

The task seeks to implement co-creation workshops to identify the community's preferences for different types of services in suburban neighborhoods for each testbed.

- The pilot workshop will be implemented in person in one area on the outskirts of the Munich metropolitan region. This workshop will provide insights and learnings to adjust the workshop format and objective so that the final version can be applied later in the other test beds.
- The rest of the workshops will be held online or in person in the outskirts of Amsterdam, Bergamo, Ghent, and Oxfordshire metropolitan regions.

- The workshop is about the "Flowers of Proximity" aimed at identifying suburban communities' local accessibility needs in different typologies of neighborhoods for various population groups. TUM will provide the workshop protocols and support running the workshops.

Task 1.2 X-min-neighborhood score in the outskirts and beyond (Lead: TUM)

The task will gather insights based on the workshop results to develop a GIS-based local accessibility tool for different transport modes to different local services.

- The tool will be implemented at the metropolitan scale in all test beds and tested with practitioners in Munich via participatory workshops.
- TUM will collect the data and run the analysis using open-access data. Besides, it will provide data collection protocols and analysis methods.

2. Theoretical Framework

2.1 The 15-Minute Concept and its challenges in urban peripheries

In alignment with the project's proposal, this study centers on the 15-minute city (15mC) concept, which has emerged as a strategic response to two significant urban challenges: reducing car traffic and CO₂ emissions while enhancing the health and well-being of residents (Moreno et al., 2021; Büttner et al., 2022). The 15mC concept critiques car-centric planning and its consequences in the current urban structure (Marchigiani & Bonfantini, 2022). Therefore, it calls for reducing travel needs while demanding higher population density, diverse land use, and activities, and it involves four main aspects to consider: proximity, diversity, density, and digitalization (Allam et al., 2022). Based on the four aspects mentioned above, Büttner et al. (2022) have suggested the following major planning principles that will support the achievement of the 15mC concept:

- **Proximity to essential services and PuT:** Destinations should be close to one's home, ideally within 15 minutes by foot or bicycle. It is necessary to consider that streets should be walkable and cyclable in terms of connection, free of barriers, and comfortable.
- **Population density:** It plays a significant role in the potential to implement the 15mC concept because density can support local businesses and services that depend on a certain number of customers or visitors.
- **Diversity of land use and diversity of people:** It is essential because people's daily accessibility needs vary, reflecting different services and locations that they rely on. Recognizing that diverse individuals have diverse needs highlights the importance of varied land uses, particularly those related to basic services tailored to community-

specific needs. This approach ensures that essential destinations are within easy reach for everyone.

- **Ubiquity:** The diversity of essential services, housing, and land use should be widespread and reach all residents.

It is justifiable to assert that the 15mC focuses on a neighborhood scale. It aims to create diverse and inclusive communities by incorporating a variety of housing types to accommodate different household profiles, seeking to enable more people to live closer to where they work while ensuring that each neighborhood provides convenient access to essential goods and services, particularly daily necessities such as groceries and healthcare. (Marchigiani & Bonfantini, 2022). By the 15mC, the Proximity-Centered Accessibility concept has gained traction to improve local access to basic needs for all (Silva et al., 2023; Barquero, 2024), fostering more inclusive urban environments. Besides, one of the objectives of planning by proximity is to minimize traffic and foster active mobility.

However, critiques on this idea, on the one hand, have arisen that its practical implementation depends on local circumstances such as social habits, existing administrative and spatial frameworks, and, of course, urban policies (Marchigiani E. , 2021; TUMI, 2021; Marchigiani & Bonfantini, 2022), reflecting its realization of the need for more complex interdisciplinary and intersectoral work where different stakeholders' willingness plays a considerable role. On the other hand, another critique is that the 15mC concept emphasis on travel time and land-use integration often overlooks the inherently social dimensions of mobility and accessibility. Mobility and accessibility are not merely functional constructs but are deeply embedded in social practices, interdependencies, and relational dynamics (Manzini, 2022). In support of this perspective, Silva et al. (2023) highlighted the importance of addressing the diverse needs of citizens to gain a deeper understanding of how proximity-centered accessibility influences equity.

These critiques are evident in the observation that while the 15mC concept has shown better potential in densely connected urban areas, questions remain about its applicability in less connected, car-dependent suburban neighborhoods, particularly those in low- and mid-density zones on urban peripheries. These areas often experience limited access to local services and diverse destinations, fostering high levels of car dependency and necessitating longer travel distances for people and goods. In other words, and from a simplistic point of view, access to destinations could not be limited to a range of 15 by walking and cycling.

So, the question remains: how can we improve accessibility with active transport and shared modes in the urban peripheries? One hint to answer this question is to consider the morphological implications; for example, a single-family housing structure is not ideal for the 15mC and proximity because residents are spread out. Besides, urban outskirts' transport and land-use patterns exhibit substantial internal heterogeneity, presenting a complex mix of location-specific constraints and opportunities for implementing the 15mC model and planning for proximity. In the section below, we will discuss how “commoning accessibility” can be an opportunity to overcome this proximity issue in the urban peripheries.

2.2 Commoning Accessibility in the 15mC

Building on the discussion above, this project investigates the relational dimensions of accessibility, exploring their potential to shape and enhance the application of the 15mC framework in urban peripheries and beyond by incorporating the concept of "commoning accessibility."

To begin with, it is important to understand the concept of “commons” as an emerging perspective and its potential connection to the 15mC. Nikolaeva et al. (2018) initiated the discussion by proposing a reconceptualization of mobility as “commons” to facilitate mobility transitions. This perspective enables a critical interrogation of mobility-related scarcities, often prominent and reflected in the urban peripheries, and brings these challenges into focus on national and local political agendas and nuance criticism of emerging sharing practices (Nikolaeva et al., 2018).

The theoretical development of this concept has evolved towards “commoning,” which emphasizes the active and collective processes involved in creating and sustaining commons (Bresnihan, 2013; Linebaugh, 2008; Nikolaeva et al., 2018). The process of “Commoning” is therefore conceptualized as an action-oriented process. According to Nikolaeva et al. (2018), “commoning” lies under the logic of communal decision-making practices embracing social production of mobility and the commitment to creating equity, while “commoning mobility” further extends this notion by advocating for governance transitions towards more communal and democratic forms.

Based on the discussion and theories outlined above, this project integrates the concept of "commoning accessibility" into exploring relational dimensions of accessibility within the 15mC framework. To bridge these concepts, POLIMI introduced “commoning accessibility,” which means accessing needed facilities and amenities as a common good. This social and material

resource is collectively produced and shared among all community members. As detailed in POLIMI deliverable D.2.1, accessibility is the capacity and opportunity for individuals to participate in community life and as a process shaped by collaboration, shared actions, and mutual agreements. This approach emphasizes the critical role of communities in sharing services, place-based resources, and abilities, fostering inclusivity in accessibility practices, and clearing the path towards mobility transitions in urban peripheries. Therefore, WP1 acts as the foundational step in the project, aiming to explore, on the one hand, community accessibility needs while uncovering and understanding the reason behind these needs.

3. Methodology

Through a series of workshops held across the different testbeds in five different regions (Amsterdam, Bergamo, Ghent, Munich, Oxfordshire), WP1 gathers insights directly from residents. It assesses their potential for a community organization. To capture people's accessibility needs about nearby amenities, we developed the Flowers of Proximity (FoP) Workshop as an interactive and participatory methodology. Traditional approaches often rely on quantitative data, while valuable, which may overlook lived experiences and daily mobility experiences. Recognizing the need for a more participatory approach, the FoP Workshop was designed to facilitate a deeper understanding of accessibility, perceptions, and preferences.

In some cases, the workshop also serves as the community's first introduction to the project, fostering engagement and collaboration. Beyond data collection, it functions as a platform for dialogue and co-creation, integrating individual and community perspectives to ensure accessibility discussions reflect diverse needs. This participatory method helps identify key patterns, barriers, and opportunities, informing strategies to enhance local accessibility within suburban contexts.

3.1 Flowers of Proximity (FoP) Workshop

The Flower of Proximity is a creative methodology that helps capture people's ideal locations for services and amenities based on the proximity to their home (Büttner, et al., 2022). Originally created as an illustrative model (Gil Solá & Vilhelmson, 2019), this methodology was designed to enable participants to express their accessibility needs through a structured yet flexible process that reflects real-life decision-making regarding mobility and access to amenities. Participants actively discuss their proximity requirements by visually mapping their preferred destinations, travel modes, and travel time. Additionally, the workshop fosters

collective reflection, allowing individuals to compare their accessibility challenges and opportunities with others in their community.

The Flower of Proximity is structured using concentric circles, each representing a specific travel duration, ranging from 5 to 30 minutes (Baquero & Lamíquiz, 2024). These circles help participants indicate when they are willing to travel to access their preferred places. As illustrated in *Figure 1*, each “petal” corresponds to a specific urban function in line with the 15-minute City concept developed by Moreno (2016), providing a visual categorization of the

Flower of Proximity

Personal experience

The 'Flower of Proximity' helps to map people's preferred services/locations in relation to the distance to their homes. How does the flower for your ideal city look like?

Create your ideal Flower for your hometown by writing the name of amenities inside each flower petal according to the distance to home.

Location suggestions (feel free to add more that you think are missing or ignore locations that are not relevant in your context):

EDUCATION

- Primary School
- Secondary School
- Kindergarten
- Nursery
- Library

ENTERTAINMENT

- Theatre
- Cinema
- Bar
- Cafe
- Gym
- Restaurant
- Swimming Pool

WORKING

- Office/workplace
- Co-working space

COMMERCE

- Post Office
- Bakery
- Bank/ATM
- Supermarket
- Hardware

LIVING

- Park
- Place of worship
- Public Transport Stop
- Playground
- Friends' house
- Family's house
- Public meeting place

HEALTHCARE

- Hospital
- Retirement home
- Specialist doctor
- Dentist
- General practitioner
- Pharmacy

Your name: _____

Your hometown: _____

30 min. (ca. 2400m)

15 min. (ca. 1200m)

5 min. (ca. 400m)

EDUCATION

ENTERTAINMENT

LIVING

WORKING

COMMERCE

HEALTHCARE

What was your thought process behind your Proximity Flower?

Figure 1. Flowers of Proximity initial workshop template. Source: own elaboration.

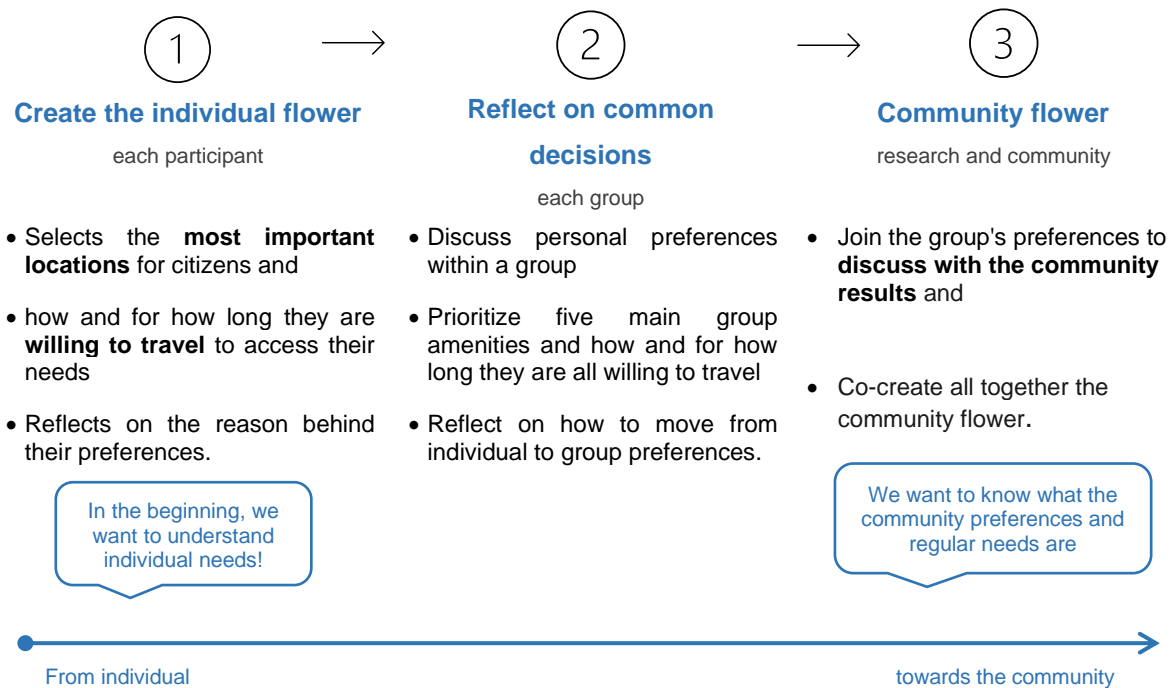
places.

For the Common_Access project, the FoP Workshop was further developed from individual activities towards groups and community decision-making activities. The process will be explained in the following two sections. However, it is important to clarify from the beginning that the focus of the FoP workshop relies on the needs and willingness of people rather than on the actual accessibility situation.

3.1.1 FoP Workshop and Commoning Accessibility

The original version of the FoP Workshop is designed to gather individual accessibility preferences based on preferred ideal travel times to places based on needs. However, to align

with the objectives of the Common_Access project, we developed a new version that includes additional steps to provide insights into common activities. This updated workshop format uses co-design activities to identify individual needs and then explore how these needs might be transformed into shared group preferences through group activities, ultimately revealing insights about broader community needs. Additionally, the workshop aims to examine group dynamics, initiating an exploration of commoning practices. The steps of the FoP Workshop are as follows:



The FoP Workshop per se does not dig into “commoning accessibility”; however, it aims to give insights into the potential areas where these practices could be implemented.

3.1.2 FoP Workshop Development

Building on the three steps outlined above, we have developed and refined the FoP Workshop to incorporate progression from individual to group activities and ultimately to community-level engagement. Besides, socio-demographic data will be gathered before the workshop to ensure a comprehensive understanding of participants' preferences and could provide us with insights into their mobility behavior. This data will allow us to know more about the participants and explore meaningful relationships between their characteristics and choices. The following sections provide a detailed explanation of the three steps and their interconnections.

3.1.2.1 Individual Flower

This exercise is designed to introduce the FoP method and collect individual participants' accessibility needs and travel time preferences. Notably, it emphasizes the needs, referring to access to places, willingness, travel mode, and time. The data asked focuses on needs and required access rather than their current conditions. *Figure 2* illustrates the individual exercise, which is divided into four steps.

INDIVIDUAL FLOWER EXERCISE

The 'Flower of Proximity' helps to map people's preferred places (based on your needs) in relation to the distance in time to their homes.

Create your flower

The exercise focus on:

- Your needs and willingness - what you would like and need to have access to in your proximity.
- NOT on what you actually have
- Include all places important to you, even if you do not walk or cycle.
- Unless you are completely unwilling or unable, you can specify places in point 2

Instructions:

1.1 Write down on inside each flower petal the most important places you would like to have access to from your home according to the time you are willing to travel.

Mark with a 'black dot' the reference of the time

1.2 Write down the travel mode, between walking or cycling, that you would prefer to use to access each place.

Please use:

- W = walking
- C = cycling
- W/C = walking or cycling

1.3 If you travel accompanied by a kid(s), an older person, a career or someone who requires care, please write down a "+" next to the travel mode.

Petal categories explanation:

Note: the following places are just examples, please add your own important ones to fulfill your own individual needs.

EDUCATION	ENTERTAINMENT	WORKING
Includes all institutions involved in education, from kindergartens to libraries and adult education centers.	Encompasses all destinations related to leisure activities. It can grow from cinemas, to cafes and clubs.	Considers all locations related to work. This can include the workplace as well as co working spaces.
LIVING	COMMERCE	HEALTHCARE
Encompasses places fostering social interaction, for example friends/family's houses and parks.	Allude to the activity of buying goods and services. It can include from supermarket to hairdressers as well as post offices and banks/ATMs.	Healthcare refers to the maintenance of health. It can include facilities such as pharmacies and hospitals.

1.4 Draw a circle around the five places that you find most important to fulfill your needs.

2 Specific accessibility requirements: please answer the following question for each specific case if you have specific mobility requirements.

Do you need a specific travel mode to access a certain place?

Instructions:

- Write down the travel mode and the place in the boxes below.
- Please answer briefly the three questions.

example:

Car	Supermarket
Why do you use this travel mode? I use the car to make it easy to carry the bags and to bring my two children with me.	Why do you use this travel mode? I use the supermarket once per week. Specialty on Saturday.
Do you share the journey with somebody else? If yes, why?	Do you share the journey with somebody else? If yes, why?
How often do you go to this place?	How often do you go to this place?

travel mode

place

Why do you use this travel mode?

Do you share the journey with somebody else? If yes, why?

How often do you go to this place?

Why do you use this travel mode?

Do you share the journey with somebody else? If yes, why?

How often do you go to this place?

Why do you use this travel mode?

Do you share the journey with somebody else? If yes, why?

How often do you go to this place?

Why do you use this travel mode?

Do you share the journey with somebody else? If yes, why?

How often do you go to this place?

3 Please answer the following question for the five places selected in 1.4.

Your opinion is the core of this workshop! It will help us to understand the reasoning behind your needs. Therefore please answer the following questions as detailed as possible.

Why are the selected five places important to you?

example:

1. Playground

This is important to me because I have two children, ages 6 and 9, and we visit the playground almost daily. Having it nearby is essential, ideally within a 10-minute bike ride, so that's how we usually get there. They are also in the process of learning to ride their bikes.

1

2

3

4

5

We would like to know about your preferences in accessing different travel modes stations.

4 Access to different travel modes: how much time are you willing to travel by foot or bike to access transport stations?

Instructions:

- Write down W = walking and/or C = cycling in the corresponding time you are willing to travel to access each transport station (answer if applicable).
- Please answer the question below about shared services.

Home 5 10 15 20 25 30+ Bus stop/station

Home 5 10 15 20 25 30+ Light rail/Tram/ Metro

Home 5 10 15 20 25 30+ Regional train/Bahn

Home 5 10 15 20 25 30+ Car sharing

Home 5 10 15 20 25 30+ (o)bbike/cooter sharing

Home 5 10 15 20 25 30+ Car pooling

Shared services

Would you use a shared services to travel to your desired places? If yes, which ones? (for example: car pooling - car sharing - bike sharing)

Figure 2. Individual exercise - FoP Workshop material. Source: own elaboration.

Step 1

It details the process of creating the individual “flower” using the following subsequent steps:

- 1.1: Each participant begins by identifying their accessibility needs for places they consider essential.
- 1.2: Each participant selects their preferred travel mode, choosing between walking and cycling, and reflects on the time they are willing to travel to access those places. It is important to note that the option for wheelchair users is also included, acknowledging this is a condition rather than a choice. After, participants record their responses by writing down their decisions in flower within the corresponding categories (petal).
- 1.3: Participants indicate whether they travel accompanied to any specific places.
- 1.4: Each participant is asked to prioritize their top five most important places, which will be the basis for the following steps.

The first three sub-steps typically occur holistically, with participants simultaneously considering places, travel mode, and travel time while completing the exercise.

Step 2

It allows participants to specify any accessibility needs that cannot be met or that they are unwilling to meet through walking or cycling. Participants are asked to write down the travel mode they would use to access a specific place and answer questions about their choice. These questions address the reasons behind their travel mode preference, the frequency of their trips, and whether they travel accompanied. The idea is to explore whether they could potentially be addressed through commoning practices.

Step 3


This step is one of the most critical parts of the workshop, and it could give potential triggers for commoning practices. Participants are asked to explain why they selected the top five places. This provides valuable insight into why specific locations are considered essential, whether due to their functionality, role in meeting daily needs, connection to caregiving responsibilities, pleasure, or importance in extraordinary situations, such as addressing a health issue.

3.1.2.2 Group Activities and the Community Flower

The next part of the FoP Workshop focuses on group activities, culminating in co-creating a “community flower.” The primary objective is to explore how individual accessibility needs and preferences can be collectively discussed and integrated into shared, group-oriented, and

community-level needs. Participants are divided into groups to identify a common ground that will guide the collective selection of the places, travel times, and travel modes. In addition, this phase also opens the floor to check group dynamics, including challenges and influencing factors that arise during the activities. These insights help understand the mechanisms and barriers to co-creating the community flower, shedding light on the practical aspects of translating individual preferences into collective outcomes. *Figure 3* shows the steps in this phase.

GROUP FLOWER EXERCISE

Co-create your group flower  **Group number:** _____

Participants ID: _____

The Common Access project focuses on understanding "Commoning Accessibility Practices (CA)", and their potential to support the 15-Minute City concept in urban peripheries.

What are Commoning Accessibility Practices?
Community collaboration: the community can create and manage ways to provide access to the needed resources by finding common solutions and practices.



For this group exercise, we want you to discuss how the group can combine individual needs and desires. Work together to identify a common ground that can guide the selection of five locations.

Activities

📄 There is one sheet per group 🗣️ Please choose a writer

5 Please discuss and choose five most important places (TOP 5) and the related travel mode, which **you as a group** want to have access to fulfill your common needs.

Instructions:

- Write down the each place, together with the travel mode (walking or cycling) and the travel time in the postnotes.
- Please use:
 - W = walking C = cycling
 -  
- If you travel accompanied please write down a '+':

example:

Café
 W
 10Mmin

Note: Each group has an specific post-it notes colour.

use next sheet! →

5

6

6 Please answer the following questions **as a group**:

Which places did you as a group choose? and why did you choose those?

1 Place _____ Walking or cycling _____ Time _____

2 Place _____ Walking or cycling _____ Time _____

3 Place _____ Walking or cycling _____ Time _____

4 Place _____ Walking or cycling _____ Time _____

5 Place _____ Walking or cycling _____ Time _____

What were the key factors that influenced your decisions on selecting the TOP 5 places?

• _____

• _____

• _____

What mobility or connectivity services would be helpful to have to reach places that you currently cannot go to in the time and with the means you would like?

• _____

• _____

• _____

7 Shape the Community Flowers

Please paste your postnotes in the corresponding community flower:
one for walking and one for cycling.

What challenges did your group face when deciding on only five places?

• _____

• _____

• _____

Figure 3. Group exercise - FoP Workshop material. Source: own elaboration.

7

8

Step 5

This step starts with a group discussion in which participants collaboratively decide and deliberate on the top five places and the corresponding travel modes and travel times selected.

This step is similar to step 1. The group decision should be written in post notes to later use them for the co-creation of the community flower.

Step 6

Building on the objectives of Step 3, this step seeks to deep dive into the reasoning behind the group's collective decisions. The focus is understanding how a group selects specific locations while excluding others. Participants are encouraged to explain the dynamics and challenges of their decision-making process, shedding light on whether the choices were made through consensus or influenced by specific circumstances or factors. Besides, to dig deeper into accessibility, it looks to know their option and preferences about which mobility or connectivity services would help them reach the selected locations.

Step 7

This step is the last activity of the workshop, where participants consolidate their group work into a visual representation. Using the post-it notes created in step 5, participants place them onto one of the community “flowers” designated for walking or cycling. This collective exercise creates an overarching visualization of the group's decisions, offering the chance to compare the accessibility needs and preferences of travel modes. The main goal is to start a collective discussion. Moderators guide participants in telling the story behind their decisions and reflecting on whether locations have been overlooked or if the flowers capture the community's needs. Additionally, participants are invited to provide feedback or share any further comments.

3.1.3 FoP Workshop Implementation

The FoP Workshop is conducted in the five testbed areas of the project. It was suggested that each partner oversee the implementation of the workshop due to their area knowledge and easy access to the different stakeholders. To support the implementation process, TUM has developed a document with suggested implementation guidelines outlining the sequence of steps. It includes editable communication, informational, and workshop materials for partners to adapt to their context and utilize as needed.

3.1.3.1 Connection with local partners

Engaging with local partners to ensure effective communication and meaningful participation is relevant to the workshop implementation. To facilitate this process, we have identified two types of local partners, allowing us to tailor the communication strategies and language accordingly:

- **Project partners** are organizations or institutions included in the original project proposal, meaning that an existing connection has already been established. They play a pivotal role in facilitating community engagement, as they often have prior experience working in selected areas, have a deep understanding of the community, and can support connecting with citizens and associations to reach the target audience. Besides, they should support logistics by helping to secure workshop venues and coordinating outreach efforts.
- **Area partners** include local government representatives, community & social organizations, NGOs, and similar entities directly in the selected areas. They could act as a direct connection or representation of the community. In some cases, they may overlap with project partners, particularly when local governments are already involved in the project. These partners are critical as they directly link to the community and help us map community initiatives already placed in the area.

One of the workshop's main objectives is to engage with project and area partners to ensure that the workshops are inclusive, participatory, and responsive to the real accessibility needs, especially in the challenges that the outskirts environment may experience regarding mobility. Besides, it could help ensure that the workshop insights are locally grounded. On the other hand, it can build long-term connections, fostering a foundation for continued dialogue and action beyond.

3.1.4 FoP Workshop Results Analysis

The FoP Workshop analyzes preferred accessibility based on proximity by identifying individual and group needs (represented by places) and the time participants are willing to travel to reach them. The flower provides insights into demographic preferences for proximity, while the group exercise offers an opportunity for collaborative activities, fostering group decision-making practices. The aim is to gather insights to inform the prioritization of “commoning” practices or services, guiding resource allocation.

The data derived from the "Flowers of Proximity" exercise is digitized to begin the quantitative analysis and provide a broad picture of the results. However, the analysis focuses on qualitative methodologies to understand the reasons behind the participants better. A comprehensive table has been created and organized to fill in the workshop participants' information. This table includes details such as the amenities each participant believes should

be accessible, amenity categories, selected travel modes, ideal travel times, and relevant socio-demographic information.

3.1.4.1 Quantitative analysis

The quantitative analysis utilizes radar charts for each mode of transport (walking and biking). The axes represent different amenities, while the radius reflects travel times. If multiple participants mentioned the same amenities, their responses were averaged for visualization.

A key consideration was to avoid overwhelming the graphic with too many similar yet distinct amenities while maintaining the individuality of personal preferences. To achieve this, specific amenities were aggregated into broader categories:

- Medical practices were grouped into "doctors."
- Various sports-related activities, such as sports fields, gyms, and football matches, were consolidated into "sports places".
- Supermarkets, shopping, groceries, and daily shopping were categorized as "shopping facilities."
- Gastronomy-related mentions were grouped under "restaurants."
- Pre-schools were classified under "schools."
- Work-related destinations, including offices, were grouped as "workplaces."

In addition, specific entries were removed as they were not considered amenities per se, such as bike tours, leisure time, and vacations. Furthermore, amenities that participants did not directly associate with transport modes—such as doctors, exhibitions, duplicate entries of cinemas and concerts, churches, playhouses, and recycling centers—were also excluded from the visualization. Apart from these adjustments, most amenities were translated directly rather than aggregated.

Additionally, socio-demographic factors are incorporated into the analysis. An interactive platform allows users to adjust the radar charts based on various factors, such as gender, age, nationality, and amenity categories. The radar charts visually capture the relationship between participants' willingness to travel and their preferred destinations. This analysis highlights common priorities among participants, offering insights into places and time preferences. By including filters for socio-demographic factors, the data allows for comparisons across different social groups to analyze any more significant differences.

3.1.4.2 Qualitative analysis

Qualitative data collection is a research approach to understanding how actors operate (van Thiel, 2014), focusing on citizens' perspectives in this context. The analysis will start with a deductive research approach by drawing from participants' responses to the open-ended

questions presented during some activities in the workshop. The analysis will continue with an inductive approach to uncover any other aspects that are not obvious in the deductive analysis, underlying the reasoning behind their choices. Visual representations will be generated to facilitate the interpretation and communication of findings.

Quotes will be extracted and systematically classified according to the five categories of the “Accessibility Framework” as illustrated in Figure 4. The framework is adapted from the model developed by Geurs and Van Wee (2004) and further elaborated in the master thesis of Camila Barquero (2024). Given the methodological constraints associated with the FoP Workshops data collection process and the qualitative nature of the analysis, the framework has been simplified to serve as a guiding structure. It facilitates an inductive classification of the data, allowing for identifying themes within the five established categories and their intersections. Additionally, this approach identifies areas of opportunity for “commoning” practices, providing insights into how accessibility can be co-produced and shared within communities. The categories are:

- **Individual:** Personal needs, abilities, and opportunities (immobility is included).
- **Transportation:** Includes factors related to service, infrastructure, and walkability (immobility is included). This component characterizes the transport system in terms of travel (dis)comfort or (in)convenience, including time (travel time, waiting time, and parking time), costs (fixed and variable), comfort-related aspects (service, reliability, design, and accident risk) that hinder accessibility (Lucas et al., 2016).
- **Land Use:** Spatial distribution and accessibility of essential services and amenities. This includes the design of the built environment, diversity of functions, and distance to amenities. It refers to the availability, quality, and spatial distribution of essential services and opportunities such as employment, shopping, healthcare, recreational facilities, and social networks (Lucas et al., 2016).
- **Temporal:** Time-specific constraints and travel time management.

- **Governance:** Policies, regulations, and administrative decisions.

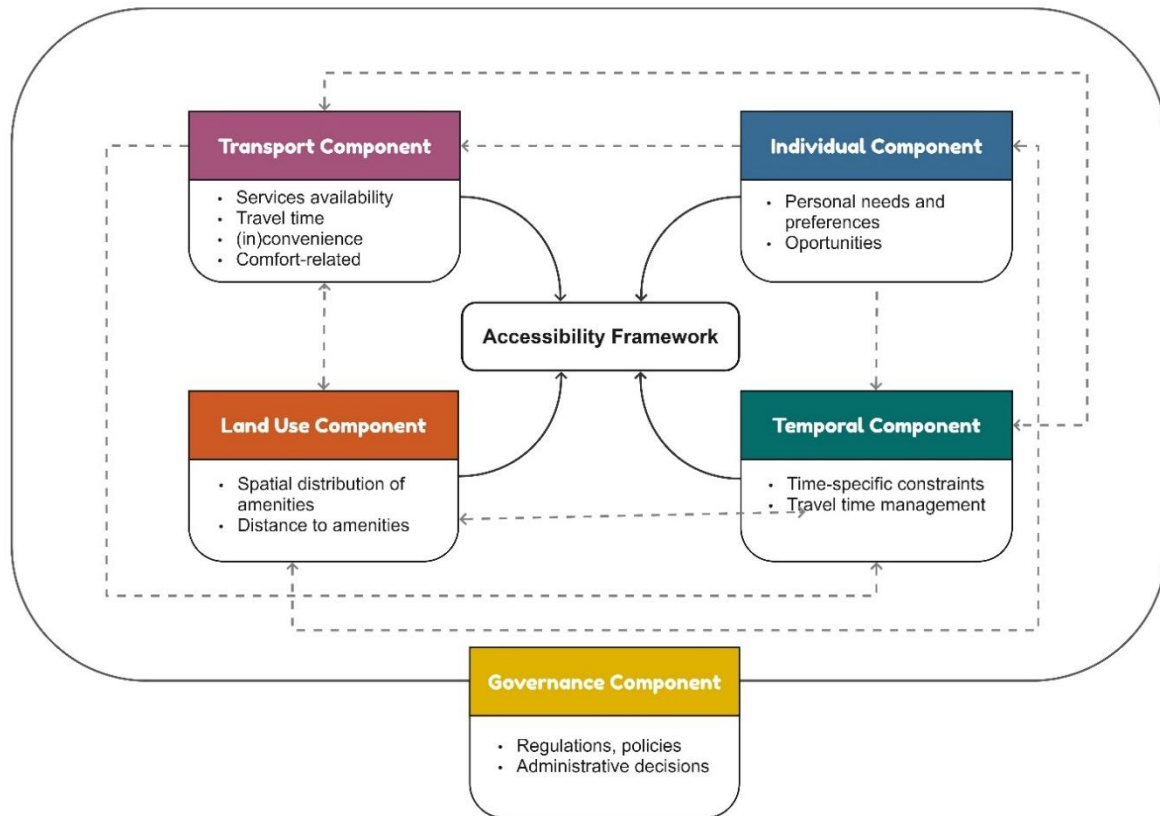


Figure 4. Accessibility framework based on Geurs and Van Wee (2004) and Barquero (2024). Source: own elaboration.

It is essential to mention that for this research, the “Governance” category is considered an overarching dimension that influences the other four categories within the Accessibility Framework. It encompasses policies, regulations, institutional structures, and decision-making processes that may shape accessibility planning. The aim is to explore whether citizens discuss this category within the workshop and how they feel about community participation.

4. Results

This section will present the results of the FoP Workshop implementation gathered across the five project test beds:

- Vaterstetten – Metropolitan Region of Munich, Germany.
- Beinsdorp & Zwaanshoek – Amsterdam Metropolitan Area, the Netherlands.
- Cologno & Urgano – Province of Bergamo, Italy.
- Merelbeke-Melle – Province of Oost-Vlaanderen, Belgium.
- Littlemore & Wallingford – Oxfordshire County Council, England.

4.1 Vaterstetten – Metropolitan Region of Munich: a pilot case

Vaterstetten is a municipality located in the upper Bavarian district of Ebersberg on the east side of the outskirts of Munich. It connects around a 25-minute trip to Munich city center by Sbahn (urban-suburban rail system). Vaterstetten has a population of approximately 25.530 inhabitants (2022) within 24.18 km².



Figure 5. Geographical location of Vaterstetten in comparison to Munich. Source: background image from Google Earth - own elaboration.

The municipality of Vaterstetten, since 2017, has adopted a “Social and Fair” concept to introduce procedural principles for just land use (Vaterstetten, 2025). The goal is to secure housing needs, create socially stable residential structures for families, seniors, young people, and people with disabilities, and strengthen a mixed economic structure. The concept is a fundamental prerequisite for development planning and has strongly fostered the establishment of multiple community initiatives around the area.

The municipality of Vaterstetten presents a unique case characterized by a strong presence of social associations and sharing services that contribute to the area's vitality. These citizens' initiatives are supported by the municipality and engaged citizens who volunteer their time to foster local activities. Given this dynamic context, we explored the area further to better understand how individual accessibility needs might be translated into broader community needs.

4.1.1 FoP Workshop implementation: Participants' recruitment method in Vaterstetten

The first step involved contacting the municipality to request their support in distributing the invitation through their existing networks. Additionally, we established a relationship with OHA! – AWO Open house in Vaterstetten, a welcoming and safe space accessible to all residents, to have their support in reaching citizens. In addition to leveraging existing community associations, we disseminated the invitation through the following channels:

- Sending personal invitations by post.
- Contacting the associations via email.
- Making phone calls, which facilitated direct follow-up.
- Displaying posters in municipal buildings and at the OHA Open House.

Due to time constraints, we had only one month to recruit participants. Following our outreach efforts, 14 individuals registered for the workshop via an online link. Below is an overview of the participant's characteristics.

4.1.2 Overview of the participants in Vaterstetten

The socio-demographic overview of the participants reveals that the sample predominantly consists of highly educated, holding an advanced school-leaving certificate or higher, and older German men without mobility impairments, as shown in *Table 1*.



Figure 6. FoP Workshop in Vaterstetten.

A direct quantitative comparison is limited due to the small, non-representative, and unevenly distributed sample. However, general observations are still possible. Notably, the sample is evenly split by age (7 participants above and 7 below 65) and nearly balanced between retired and working individuals (8 and 6, respectively), enabling comparative insights.

Variable	Categories	N (%)	Mean (SD)
Age			65 (39, 76)
	18-24	2 (14%)	
	25-45	3 (21%)	
	46-64	2 (14%)	
	65+	7 (50%)	
Gender	Men	11 (79%)	
	Women	3 (21%)	
Nationality(ies)	German	13 (93%)	
	Hungary	1 (7.1%)	
Education	Intermediate school-leaving certificate (Realschule)	2 (14%)	
	Advanced school-leaving certificate (Abitur)	1 (7.1%)	
	Bachelor	3 (21%)	
	Master	3 (21%)	
	Diploma	3 (21%)	
	University of Applied Sciences (Fach Hochschule)	1 (7.1%)	
	University (Hochschule)	1 (7.1%)	
Job-status	Full-time	3 (21%)	
	Part-time	2 (14%)	
	Retired	8 (57%)	
	Student job	1 (7.1%)	
Mobility impairment	No	14 (100%)	
Neighborhoods	Neufarn ¹	2 (14%)	
	Frotzhofen ¹	1 (7.1%)	
	Baldham ²	6 (43%)	
	Vaterstetten ²	5 (36%)	

¹satellite municipality ²central municipality

Table 1. Socio-demographics of the sample in Vaterstetten (n=14)

4.1.3 Results of individual exercise in Vaterstetten

4.1.3.1 Individual Flower Creation in Vaterstetten

For both walking and cycling, amenities like doctors, workplaces, and cinemas were not always expected within 15 minutes. However, shopping, sports facilities, and restaurants, especially for cycling, were preferred nearby. As shown in Figure 7, walking was favored for accessing doctors, pharmacies, shops, and restaurants, highlighting a preference for proximity to daily activities. On the other hand, Figure 8 shows that cycling is the preferred travel mode for accessing sports places, workplaces, cinemas, S-Bahn stations, and VHS (adult education centers). This suggests that cycling is primarily chosen for leisure-related activities. A notable exception is commuting to work, where participants expressed a willingness to cycle, particularly because it allows them to travel independently.

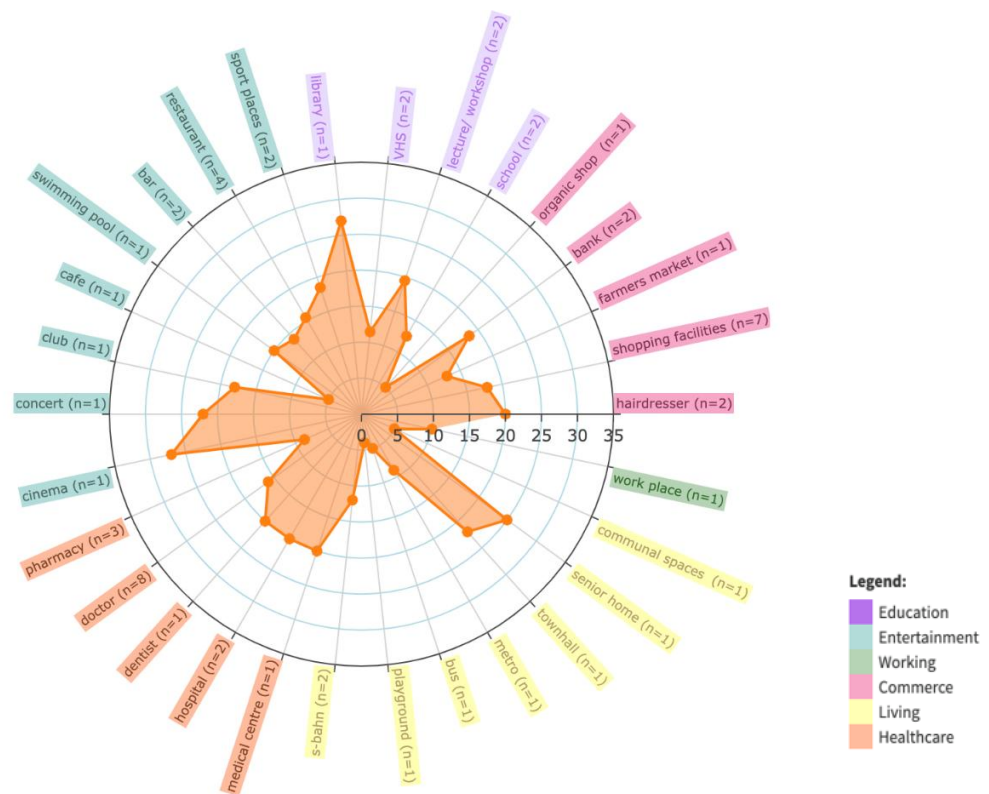


Figure 7. Vaterstetten walking radar chart: Overview of individual places selected. Source: own elaboration.

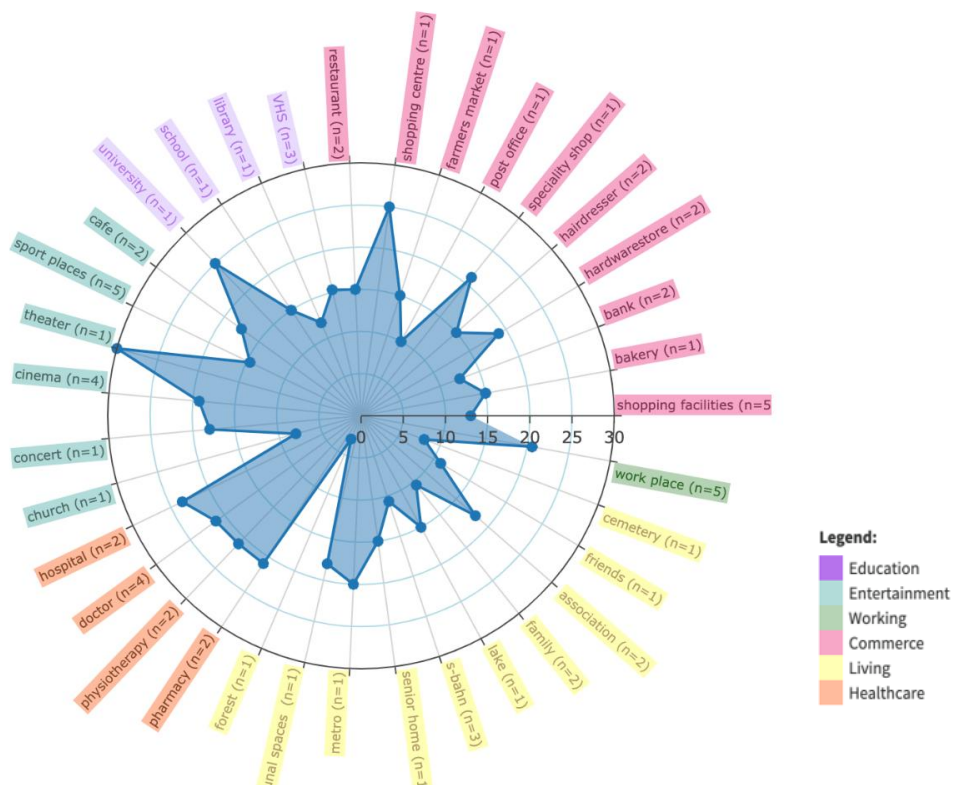


Figure 8. Vaterstetten cycling radar chart: Overview of individual places selected. Source: own elaboration.

As shown in *Table 2*, retired participants prioritize access to doctors more frequently and are willing to travel longer distances than working individuals. Workplaces are, as expected, only prioritized by employed participants, who are also more comfortable with longer cycling commutes. Retired individuals slightly prefer walking to shops but accept longer travel times (25 minutes vs. 12 minutes for employees). Walking and cycling for shopping are less favored by working participants, who prefer shorter travel times. People who walk rarely mention the S-Bahn and are mostly cited by retired participants and cyclists. Overall, travel times under 15 minutes are preferred across most amenities.

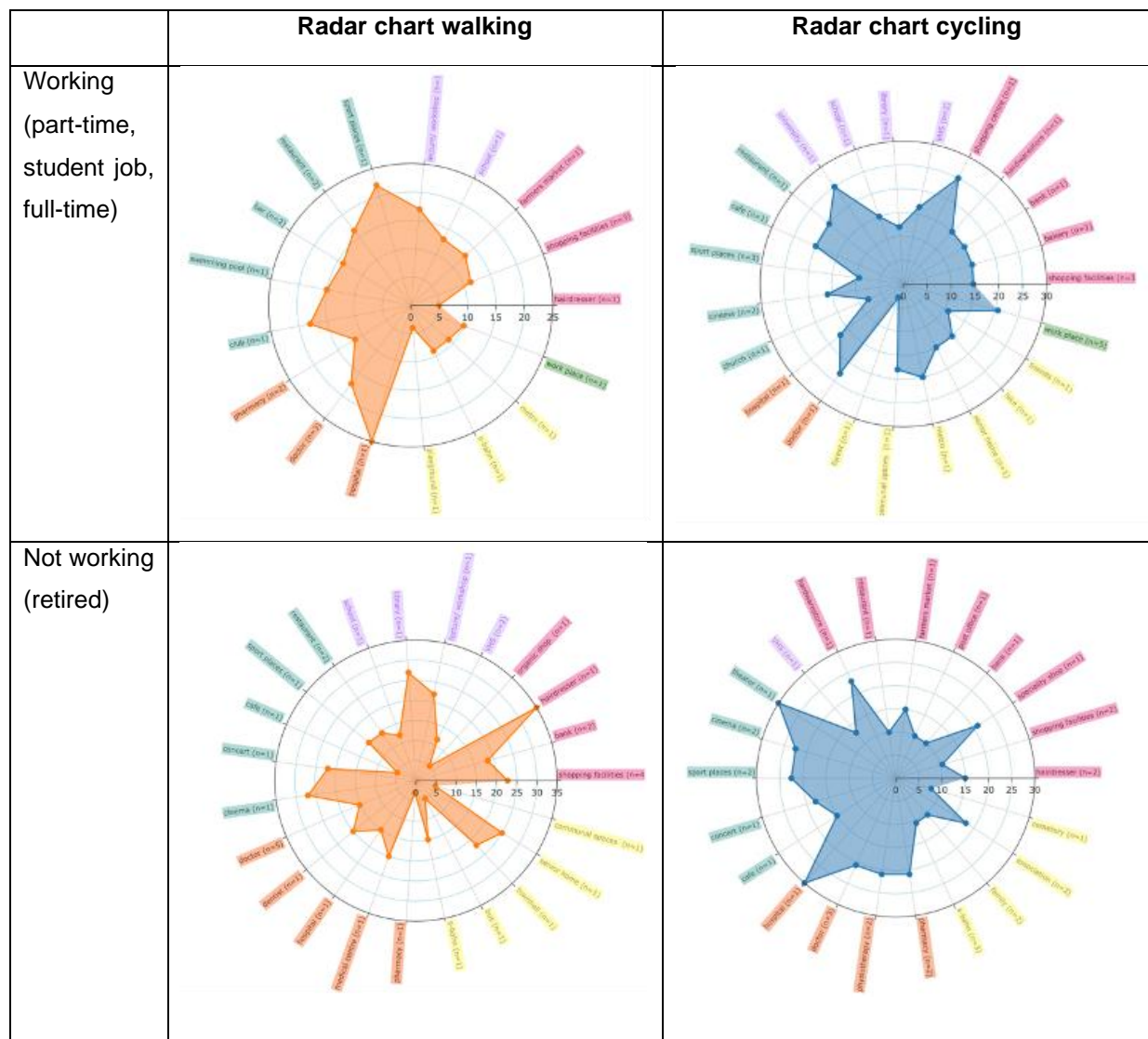


Table 2. Comparison between working and not working groups. Source: own elaboration.

Similarly illustrated in *Table 3*, participants aged 65+ mainly use walking for essential trips like visits to doctors and pharmacies, ideally within 15 minutes. Shopping is an exception, with an average walking time of 24 minutes. While cycling is acceptable for longer trips to the same destinations, shopping and S-Bahn stations are preferred to be closer when cycling than

walking. Among participants below 65, an interesting observation is the preference for walking to the workplace only if it takes less than 10 minutes. Conversely, cycling to the workplace is acceptable for longer travel times, with an average of 20.6 minutes. For shopping facilities, there is little difference in preferences between walking and cycling among this age group, with both modes averaging around 15 minutes of desired travel time.

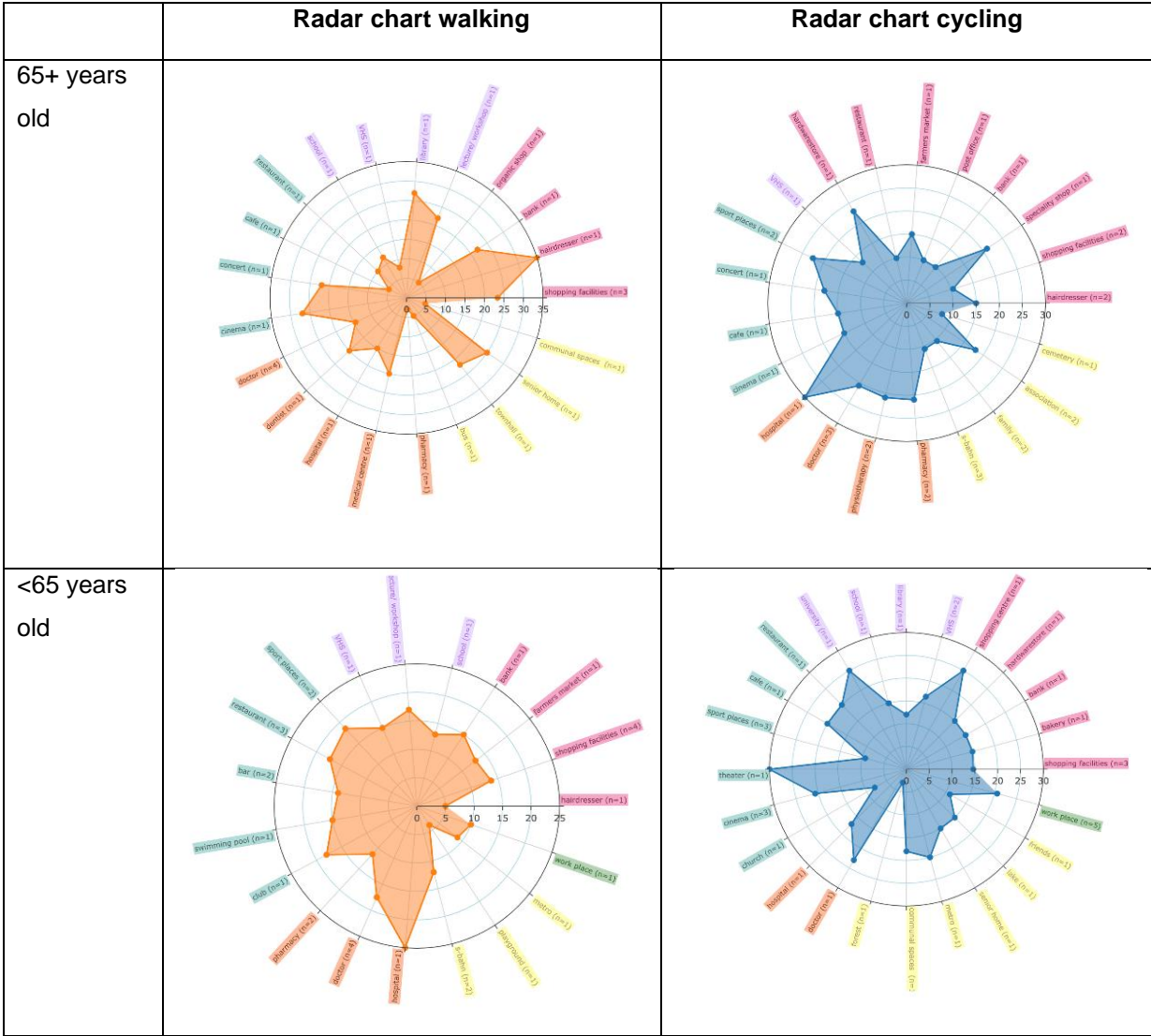


Table 3. Comparison between 65+ and < 65 years old groups. Source: own elaboration.

4.1.3.2 Specific mobility needs across different transport modes

Recognizing the limitations of walking and cycling as sole travel modes, the workshop also sought to identify which specific amenities require the use of different transport modes. Unsurprisingly, participants in Vaterstetten identified the car as their preferred option for certain trips. As illustrated in *Figure 9*, participants emphasized the need for a car to access locations such as recycling centers and supermarkets primarily due to carrying and transporting goods. Additionally, public transport was mentioned as the preferred mode for travelling to Munich.

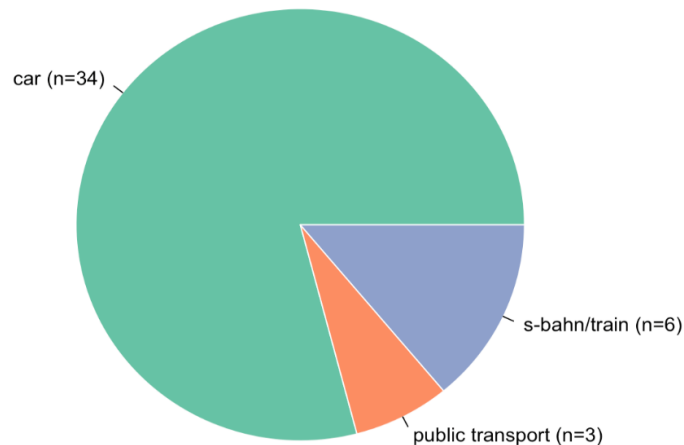


Figure 9. Distribution of other transport modes in the case of Vaterstetten.

4.1.3.3 Accessibility framework Vaterstetten

As outlined in the methodology section, the workshop aimed to explore the reasoning behind individual and collective accessibility choices and uncovered needs that extend beyond specific locations to more fundamental aspects of everyday life by conducting a thematic analysis based on participants' answers. Vaterstetten participants preferred travel times of under 20 minutes by walking and cycling. Their primary accessibility needs were associated with healthcare facilities, markets, restaurants, and sports venues. Besides, family emerged as a key element beyond spatial conditions. While the importance of some places seems self-evident, the thematic analysis provides deeper insight by revealing the underlying narratives and relationships between dimensions and themes.

As illustrated in *Figure 10*, the **individual component** emerged as the most prominent in the case of Vaterstetten. The figure presents the relative importance of each dimension from left to right, starting with the most frequently discussed – the individual component – and ending with the least mentioned – land use. Additionally, the themes within each dimension are displayed from top to bottom and arranged according to how frequently they were mentioned.

At the thematic level, the analysis indicated that participants' decisions are primarily driven by their daily needs, which are exceptional routines that sustain the family. As two participants noted:

“The supermarket is important to cover daily needs of my family”

“Workplace is relevant for me because I need to ensure my income”

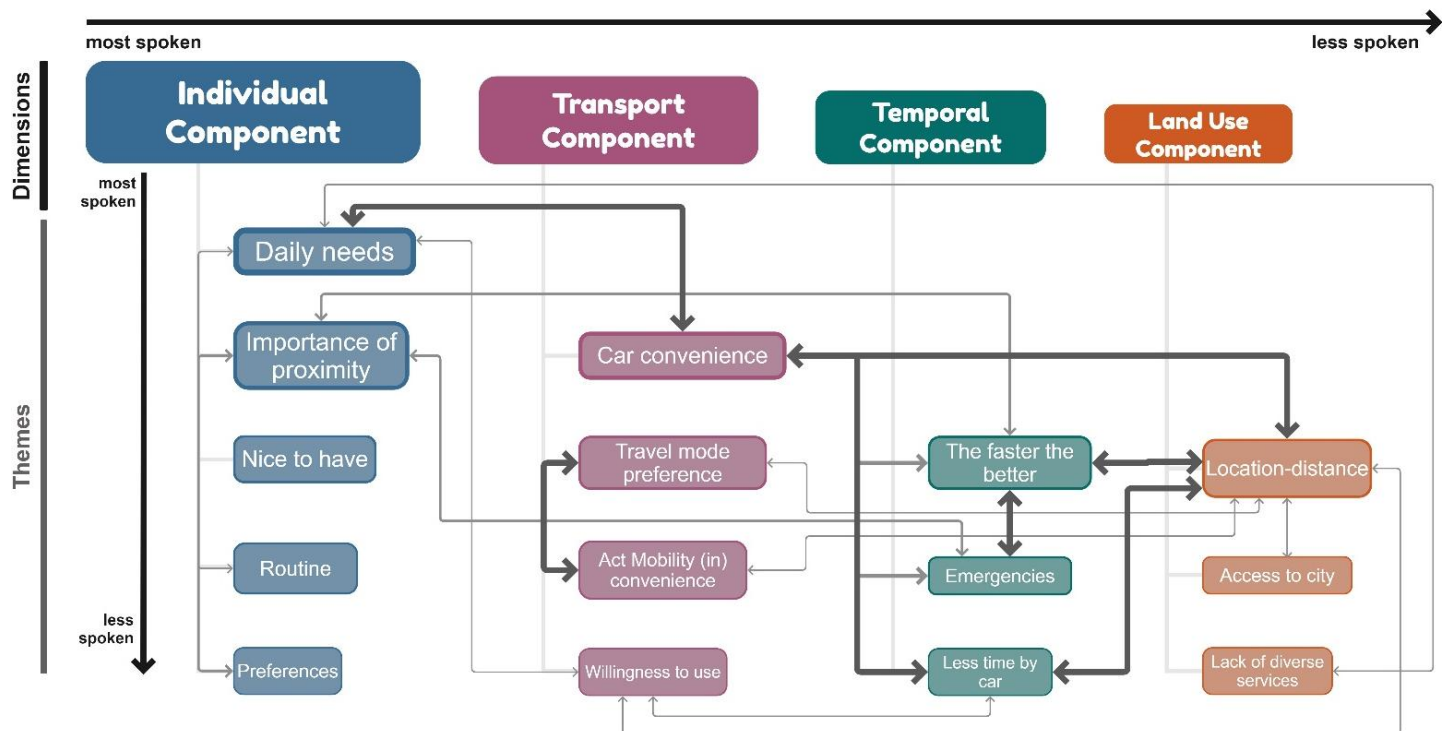


Figure 10. Thematic analysis and themes connection from the flower creation exercise in Vaterstetten.
Source: own elaboration.

On the other hand, the analysis reveals that family is a key driver for residents in Vaterstetten. Being close to family members and having accessible places that enable interaction are important aspects of their daily lives. Grandparents and parents mentioned:

"The grandchildren need us"

"it "is important for me to spend time with my children"

Concerning the **transport component**, participants identified the car as the most convenient and preferred travel mode. Car convenience is strongly linked to the relationship between distance and travel time. Thus, the car is perceived as offering a clear time advantage over other modes of travel, particularly over public transport:

"Car is faster, cheaper, and easier if there is no direct Sbahn" access"

"School and workplace take three times more by PuT than by car"

Additionally, participants highlighted the importance of car availability in emergencies, as it is considered the fastest and most reliable option in such situations. Although the participants mentioned the **land use component** less frequently, it is closely linked to the **temporal component**. Many decisions that favor car use and limit the adoption of active mobility modes stem from the distant location of key amenities.

"Car is critical in emergencies, for example, having quick access to the hospital."

"Cinema, hospital, and schools are too far away, almost everything is only accessible by car"

Nevertheless, there is a noticeable willingness among participants to use bikes when traveling alone and public transport to access Munich.

*"I go to work alone;
I am willing to bike"*

*"I use Sbahn to connect to
the city center"*

4.1.4 Results of group exercise in Vaterstetten

The main objective of the group exercise was to explore how participants collaborate in making collective decisions. The first step focused on identifying key shared places important to the group and meeting most participants' daily needs.



Figure 11. Group exercise during the FoP Workshop in Vaterstetten.

As shown in *Figure 12* and *Figure 13*, within 20-minute travel time by walking and cycling, many of the places initially mentioned by individuals—such as healthcare facilities, markets, sports facilities, and schools—were also prioritized in group decisions. Interestingly, family and friends were also emphasized in the group decision-making process. While these do not correspond to specific physical locations, participants strongly expressed the importance of maintaining social contact and opportunities for interaction.

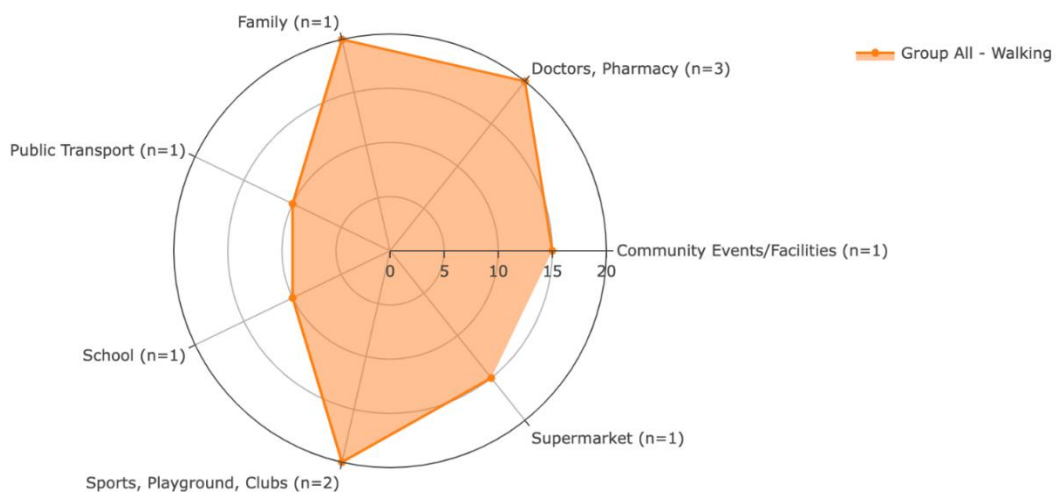


Figure 12. Overview of group-selected most important places accessible by walking. Source: own elaboration.

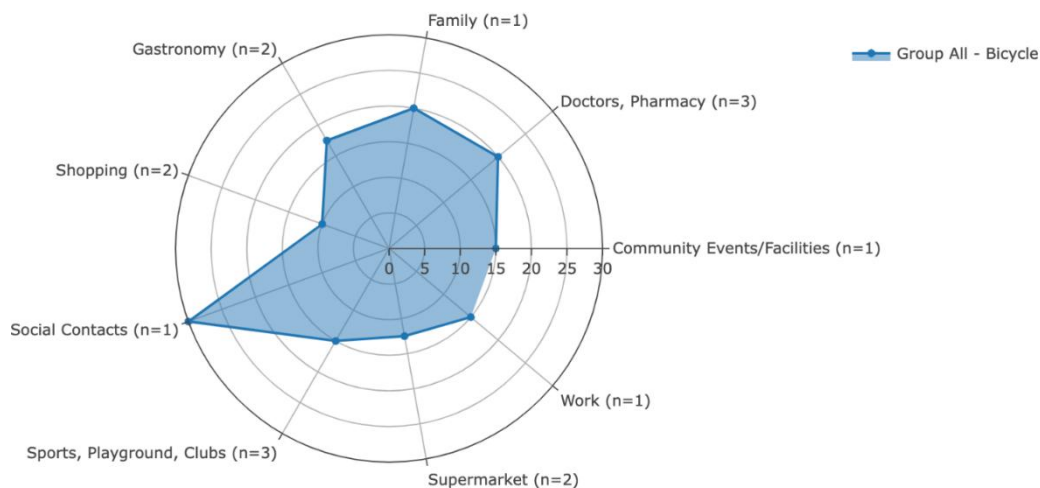


Figure 13. Overview of group-selected most important places accessible by cycling. Source: own elaboration.

4.1.4.1 Group dynamics

The second step of the group exercise involved discussing and reflecting on the reasoning behind selecting the top 5 places. In addition to understanding the factors influencing these choices, the discussion aimed to identify any challenges encountered during the selection process and to explore where there were specific accessibility needs that participants considered non-negotiable. As illustrated in Figure 14, the **selection factors** result suggests that covering daily needs is the most crucial aspect influencing decisions about which places are essential for daily access. On the other hand, the results show that family plays a significant role in the daily lives of participants in Vaterstetten. When reflecting on their choices, several participants emphasized the importance of being close to family, highlighting reasons such as:

"It is crucial for us to be close to family and friends"

"The grandchildren need us." So... "decisions are based on family circumstances"

Well-established and differing habits among participants also played a significant role in the selection of places and in the process of reaching a collective decision:

"I want my individual decision"

"Difficult to find a common opinion"

The challenges found are strongly reflected in the selection factors. Participants have different habits and residential neighborhoods, which seem to be a disagreement that follows as a barrier to making a collective decision. Because family is important to participants, differences in family structure also affect which places they consider relevant to have access to. Participants value their independence when making decisions, shaping their daily habits and preferences.

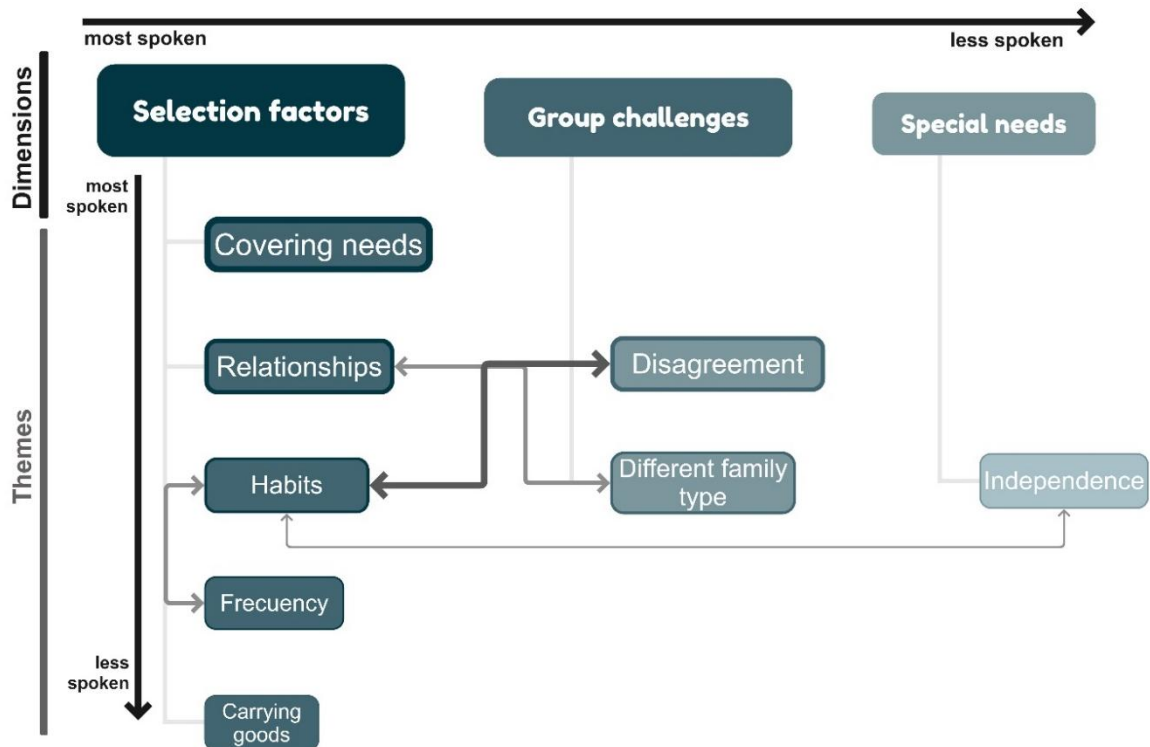


Figure 14. Thematic analysis and themes connection of group. Source: own elaboration.

4.1.5 Insights of the Vaterstetten Community Flower

During the community flower exercise discussion, facilitating a collective conversation proved challenging. Participants tended to engage in smaller group discussions, which made it difficult to conduct a full-group reflection on the outcomes presented in *Figure 15*. Nevertheless, the results indicate a clear preference for cycling over walking as the favored mode of transport. The insights gathered during the discussions highlight how proximity, personal preferences, and specific needs shape accessibility.

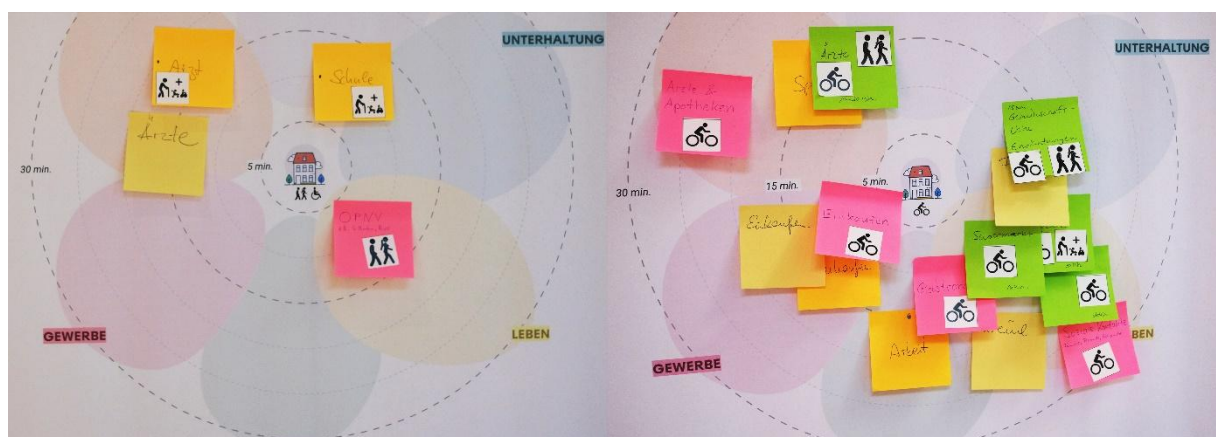


Figure 15. Community flowers results. Left: walking - Right: cycling.

On the other hand, although not previously emphasized, the discussion revealed several additional insights from participants:

- Some participants noted that accessing doctors often requires a car, particularly when transporting people with limited mobility.
- The quality of the services, especially healthcare, can influence travel behavior. Participants expressed a willingness to travel longer distances, even to Munich, to see a preferred doctor.

4.2 Beinsdorp & Zwaanshoek – Amsterdam Metropolitan Area

Beinsdorp and Zwaanshoek are villages within the municipality of Haarlemmermeer, situated in the southwest of Amsterdam.



Figure 16. Geographical location of Beinsdorp and Zwaanshoek in comparison to Amsterdam. Source: background image from Google Earth - own elaboration.

Both are connected to Amsterdam Central Station by a multimodal journey of approximately 120 minutes. Beinsdorp has a population of around 900 residents within an area of 2.40 km², while Zwaanshoek is larger, with approximately 2,160 inhabitants spread across 6.50 km².

4.2.1 Overview of the participants in the two villages in the Amsterdam Region

Beinsdorp participants

Detailed in *Table 4*, the first workshop consisted of 16 participants, predominantly middle-aged and evenly split by gender. Most are employed full-time and reside in the municipality of Haarlemmermeer. Educational attainment is varied, with most having completed intermediate vocational or general secondary education and one-third holding higher professional degrees.

All participants reported no mobility impairments; none were younger than 25, indicating a relatively older, active, and able-bodied population.

Variable	Categories	N (%)	Mean (SD)
Age			52 (35, 53)
	18-24	0 (0%)	
	25-45	6 (40%)	
	46-64	6 (40%)	
	65+	3 (20%)	
Gender	Men	8 (50%)	
	Women	8 (50%)	
Nationality(ies)	Dutch	16(100%)	
Education	Havo – Vwo – Mbo 2-4	9 (56%)	
	Higher professional education	6 (38%)	
	Pre-vocational secondary education (Vmbo), Senior general secondary education (Havo), Pre-university education (Vwo-onderbouw), Secondary vocational education (Mbo)	1 (6%)	
Job-status	Full-time	12 (75%)	
	Retired	4 (25%)	
Mobility impairment	No	16 (100%)	
Neighborhoods	Beinsdorp ²	3 (19%)	
	Haarlemmermeer ¹	13 (81%)	

¹municipality ²village

Table 4. Socio-demographics of the sample in Beinsdorp (n=16).

Zwaanshoek participants

On the other hand, the second workshop gathered 6 Dutch participants, as described in *Table 5*. In this case, participants have a median age of 63, indicating an older demographic. The gender is predominantly men and entirely Dutch in nationality. Educational attainment is relatively diverse: 50% have completed intermediate general secondary or vocational education, 33% hold higher professional degrees, and 17% have a lower secondary education background. Employment status is evenly split between those working full-time (50%) and those retired (50%). All participants reported no mobility impairments.

Variable	Categories	N (%)	Mean (SD)
Age			63 (55, 73)
	18-24	0 (0%)	
	25-45	1 (17%)	
	46-64	2 (33%)	
	65+	3 (50%)	
Gender	Men	5 (83%)	
	Women	1 (17%)	
Nationality(ies)	Dutch	6 (100%)	

Education	Senior general secondary education (Havo) – Pre-university education (Vwo) – Secondary vocational education (Mbo)	3 (50%)
	Higher professional education	2 (33%)
	Pre-vocational secondary education (Vmbo)	1 (17%)
Job-status	Full-time	3 (50%)
	Retired	3 (50%)
Mobility impairment	No	6 (100%)
Neighborhoods	Zwaanshoek ²	5 (83%)
	Haarlemmermeer ¹	1 (17%)

¹municipality ²village

Table 5. Socio-demographics of the sample in Zwaanshoek (n=6).

4.2.2 Results of individual exercise in both locations within the Amsterdam Region

4.2.2.1 Individual Flower Creation Beinsdorp

Participants indicated a preferred walking travel time of approximately 10 minutes to access key places such as playgrounds, schools, and healthcare facilities, which are among the most frequently mentioned. As illustrated in *Figure 17*, an interesting finding is the desire to have walking areas near their homes. Thus, walking emerges as the preferred travel mode and is valued as a spatial feature of the local environment. The routine need for dog walking further reinforces this preference.

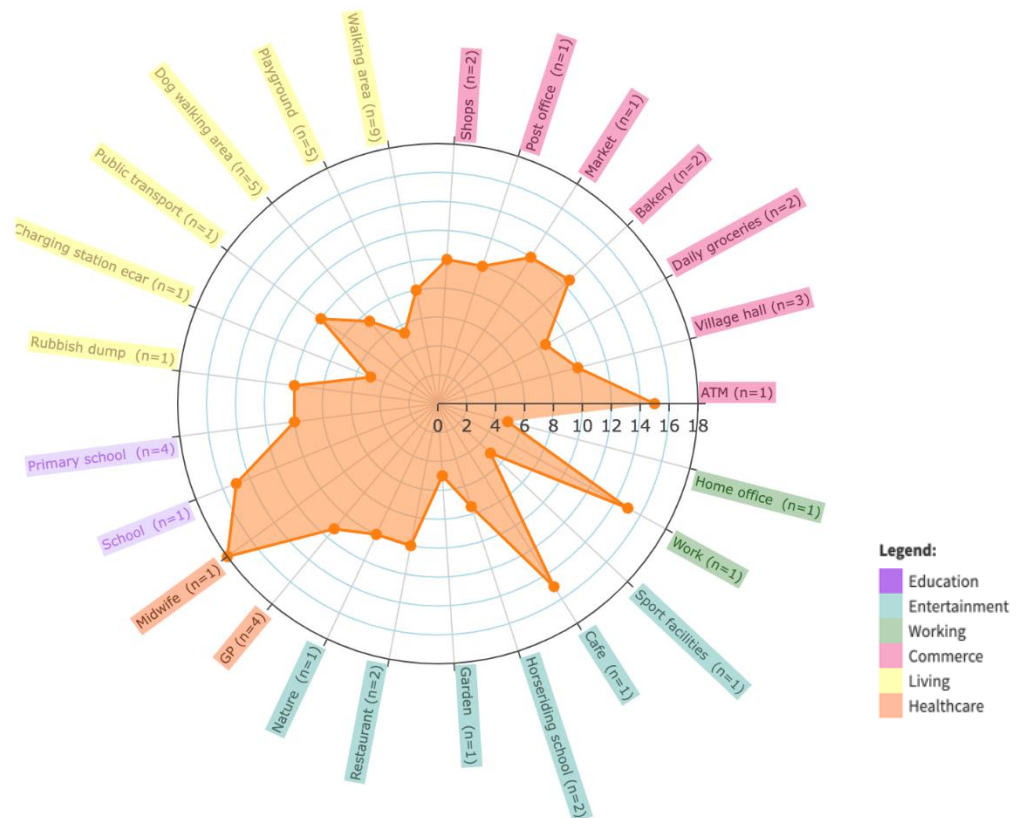


Figure 17. Beinsdorp walking radar chart: Overview of individual places selected. Source: own elaboration

As expected, the preferred mode of transport varies according to the type of amenity. Notably, in Beinsdorp, the number of places mentioned increased when cycling was chosen, accompanied by a greater willingness to travel for up to approximately 15 minutes. As shown in *Figure 18*, cycling is favored for accessing places associated with social interaction, such as sports facilities, cafés, markets, restaurants, and green spaces, as well as for work and educational purposes. Interestingly, the data also indicates that participants are more willing to travel to healthcare facilities by bike rather than on foot, suggesting a higher acceptance of longer distances when cycling.

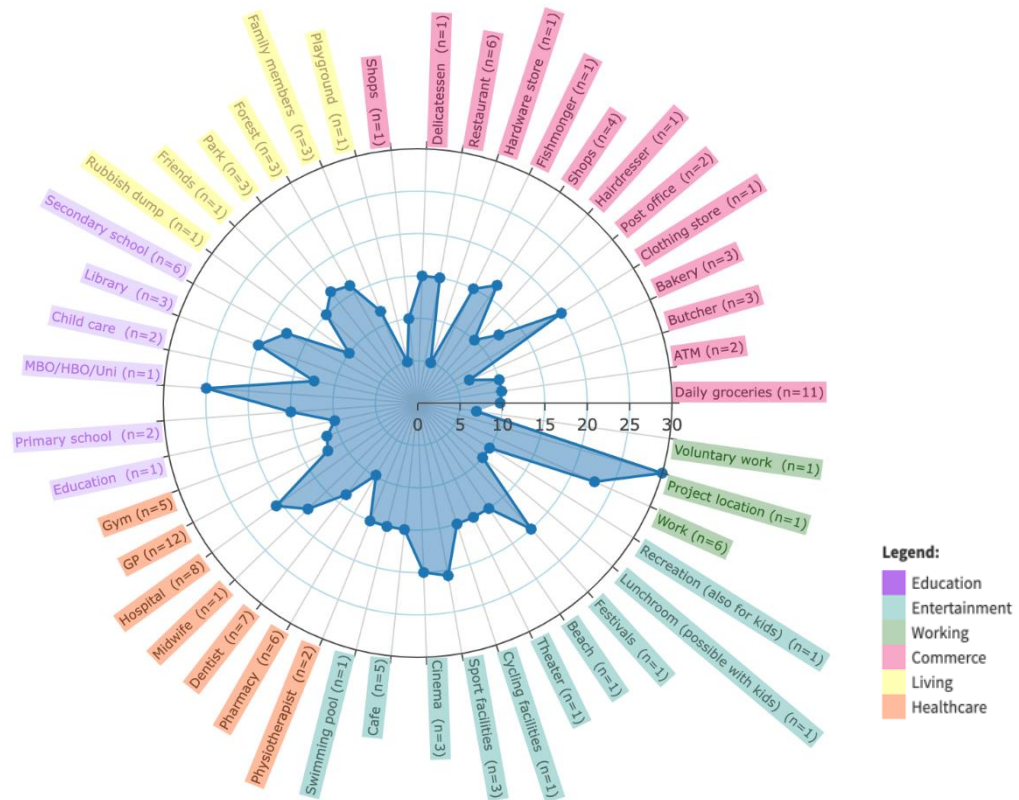


Figure 18. Beinsdorp cycling radar chart: Overview of individual places selected. Source: own elaboration

4.2.2.2 Individual Flower Creation Zwaanshoek

Given the limited number of participants, no specific locations were consistently highlighted. However, as illustrated in *Figure 19*, public transport is the most mentioned place participants would like to access on foot. Like the case of Vaterstetten, social connections, such as family, friends, and neighbors, were also emphasized, underscoring the importance of social contact regardless of location. Besides, a general pattern emerges in which sports and education facilities, shops, and recreational areas are among the most frequently selected destinations. The preferred travel time to access these places remains under 15 minutes, indicating a preference for local and easily reachable facilities.

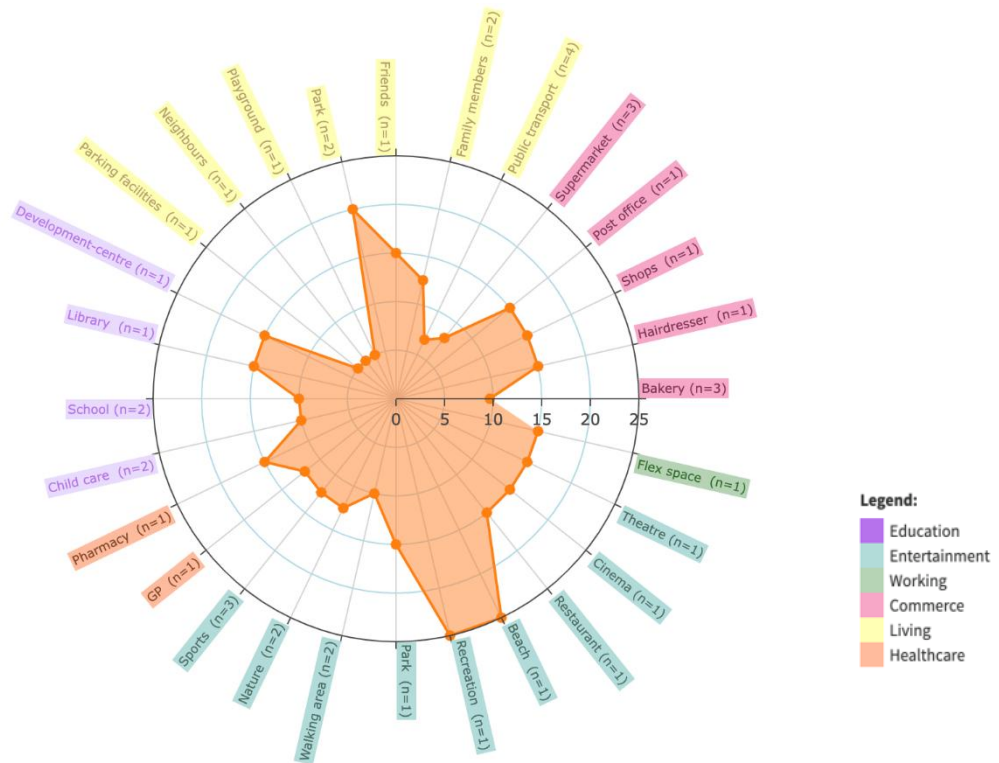


Figure 19. Zwaanshoek walking radar chart: Overview of individual places selected. Source: own elaboration.

Similar to the findings in Beinsdorp, participants in Zwaanshoek prefer using the bike to access a broader range of places. The preferred travel time remains approximately 15 minutes. As illustrated in *Figure 20*, cycling expands the number and variety of places, particularly in relation to education and healthcare facilities, as well as commercial and leisure activities.

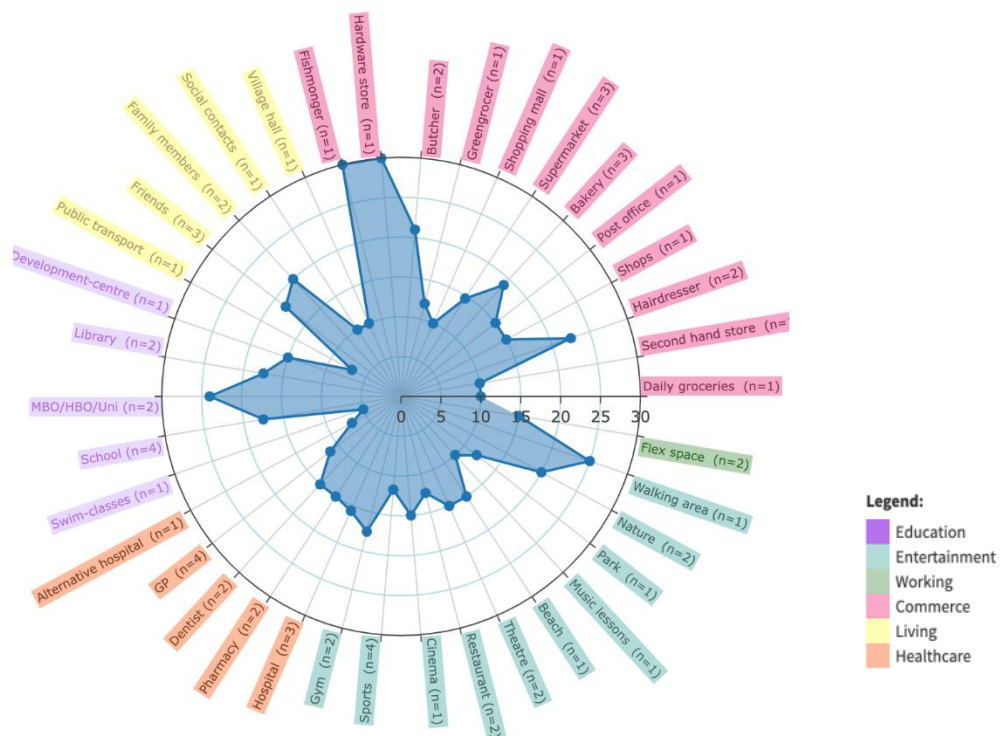


Figure 20. Zwaanshoek cycling radar chart: Overview of individual places selected. Source: own elaboration.

4.2.2.3 Accessibility Framework Beinsdorp and Zwaanshoek

Thematic analysis for both villages was conducted jointly to identify patterns and more comprehensive results. As illustrated in the radar charts (*Figures 19 & 20 for Beinsdorp and Figures 19 & 20 for Zwaanshoek*), participants strongly preferred travel times of no more than 15 minutes by walking or cycling. Their primary accessibility needs centered around amenities that support family life, including schools, playgrounds, walking areas, and access to nature. Additionally, essential services such as healthcare and shops were highlighted as important.

As illustrated in *Figure 21*, the **individual component** is highlighted as the most prominent category. Within this, the accessibility to safe and caring spaces for children was identified as a key driver of decision-making. These family-oriented spaces also serve as a social function, acting as informal meeting points that foster the quality of life and local livability. As two participants noted:

"Parks are important with two kids, fast and safely accessible"

"Schools keep social life intact, increasing the connection among residents."

As part of their overall quality of life, participants emphasized the importance of proximity to healthcare facilities and places that promote well-being. This is closely linked to the **land use component**, where participants prioritized access to nature, sports facilities, and walking areas, particularly spaces suitable for walking with dogs.

"We need for our health access to nature and quick healthcare."

"It is important to me that I have nature nearby where I can walk the dog."

The importance of caring places also extends to future generations. Participants emphasized that primary schools, which are significant for young children who rely on their parents for transportation, should be within walking distance to ensure safe and easy access.

"In the future, I might have children, and I want to be able to be there on foot"

Participants' responses suggest that walking is not only their preferred mode of travel but is also perceived as a meaningful spatial experience. This indicates that walking is valued not merely as a means of reaching a destination but as an integral part of the journey itself, with the trajectory holding significance in terms of physical space and daily well-being.

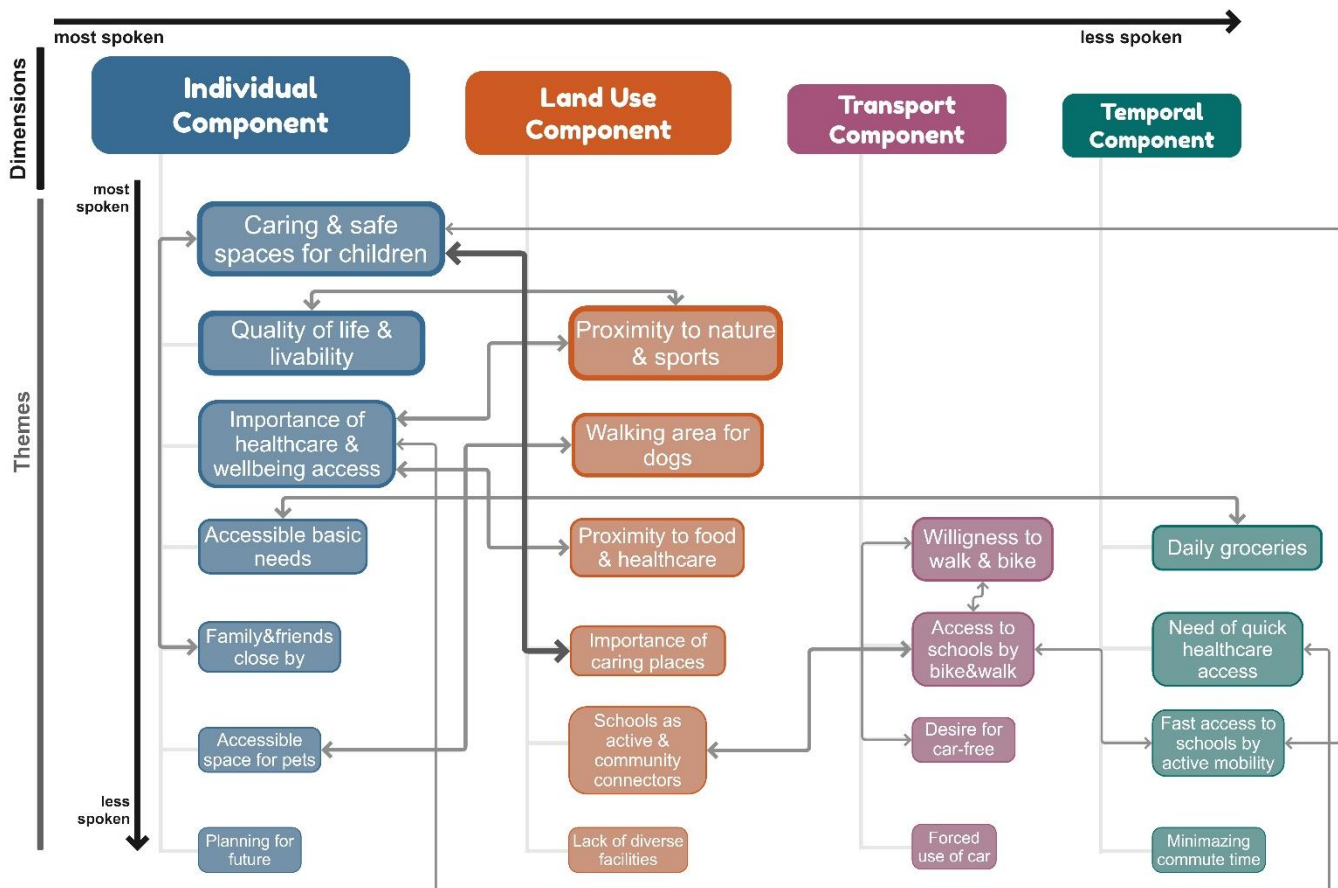


Figure 21. Thematic analysis and themes connection from the individual exercise for both villages.
Source: own elaboration.

The strongest relationship observed is between the individual and the land use components. Caring spaces supporting family life and community interaction play a significant role in distributing land use. These preferences reflect a strong desire to have such facilities nearby. Besides, well-being is frequently associated with access to nature, essential services, and the ability to reach them quickly.

"It would be nice if I could cycle to work. Especially in combination with the school to drop my children."

"Being able to reach the GP quickly makes us feel safe."

Furthermore, participants were willing to walk or cycle, particularly for school and work trips. A shared aspiration for car-free environments underpins this.

4.2.3 Results of group exercise in Beinsdorp and Zwaanshoek

The selection of the top five places in both villages followed a consistent pattern. The key places identified during the individual exercises were reaffirmed in the group discussions. As shown in Figure 22, nature, primary schools, public transport, supermarkets, and healthcare facilities are the most important amenities for both communities. The only notable difference

lies in the preferred travel time. In Beinsdorp (left), where the village is smaller, participants indicated a maximum travel time of 10 minutes. In contrast, participants in Zwaanshoek decided on travel times of up to 15 minutes. Despite this variation, the importance of proximity remains a common theme across both villages.

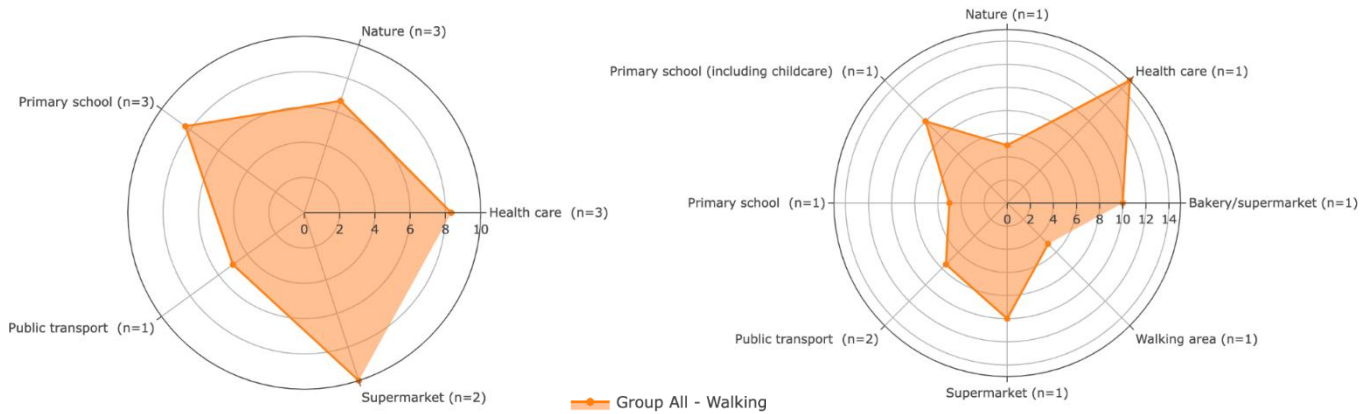


Figure 22. Overview of group-selected most important places accessible by walking in Beinsdorp (left) and Zwaanshoek (right). Source: own elaboration.

In the case of cycling, the results were not significant due to limited input from the groups. The data collected for the cycling radar chart was insufficient to draw meaningful conclusions or identify consistent patterns across the groups.

4.2.3.1 Group dynamics

Following the meaningful discussions, participants identified the main **selection factors** that influenced their decisions. Results indicate that walkable access to daily needs is the most important aspect, as one participant highlighted:

"It would be nice to be able to do the daily shopping walking and not always have to go by car."

As illustrated in Figure 23, walkable accessibility is closely linked to proximity to nature, with green spaces regarded as essential places. However, despite the decision to live in areas surrounded by greenery, participants noted a lack of continuous and accessible walking routes starting from their homes. Despite some places being technically within walking distance, participants expressed concerns about traffic safety, particularly for children.

"Nature is the reason people come or stay here in the area"

"It is also very important that it is a safe route to go to school"

In the case of both villages, participants appeared to experience minimal challenges during group discussions and decision-making processes. Additionally, no specific or non-negotiable accessibility needs were mentioned, suggesting a general alignment in priorities and perspectives among the group members.

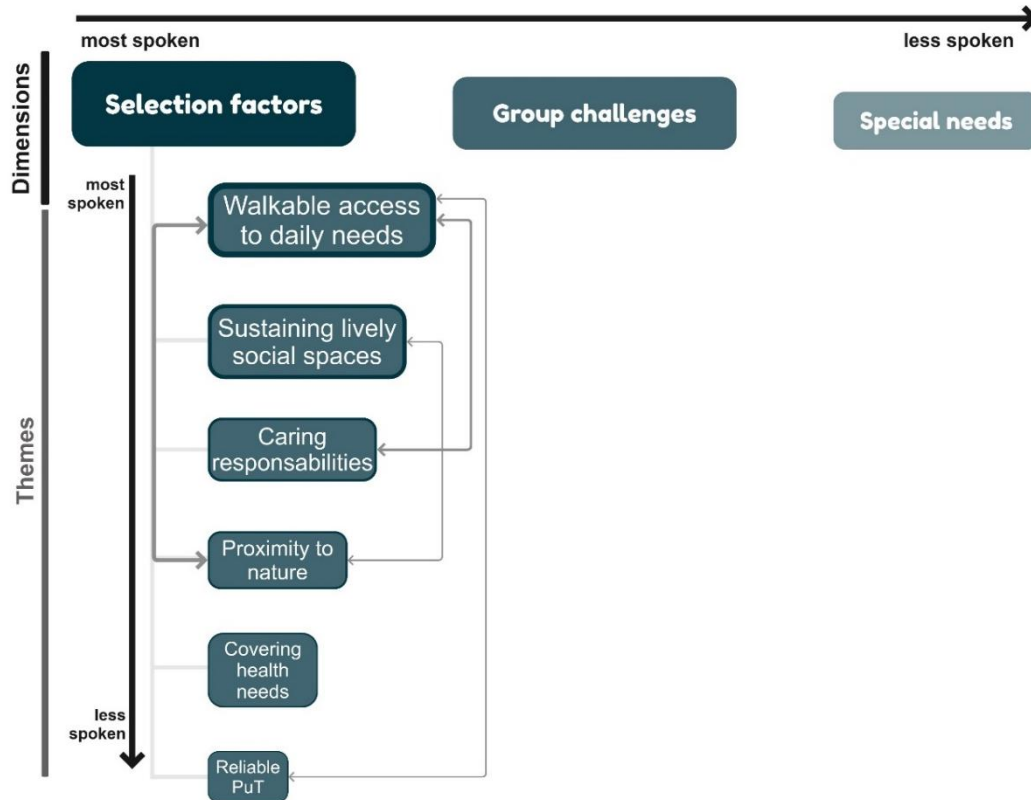


Figure 23. Thematic analysis and themes connection from group exercises for both villages. Source: own elaboration.

4.2.4 Insights of the Beinsdorp and Zwaanshoek Community Flower

The workshop revealed a community deeply attuned to both collective and practical needs. Participants consistently prioritized essential amenities such as the local primary school, small shops, and a multi-purpose healthcare center while valuing green spaces, nature, and public transport despite mainly relying on cars. Walking was preferred over cycling, reflecting a desire for inclusive, accessible mobility, especially for children. However, concerns about traffic safety and disconnected walking routes limit the use of these modes. The poor quality of public transport further reinforces car dependency. While some participants doubted whether their concerns would lead to change, the workshop successfully laid the groundwork for a participatory planning process that could support more community-responsive mobility solutions.

4.3 Ugnano & Cologno al Serio – Province of Bergamo

Ugnano and Cologno al Serio are municipalities located in the south of Bergamo, the capital of the province of Bergamo. Both are connected to Bergamo Central Station by bus for approximately 20 and 30 minutes, respectively. Ugnano has a population of around 10,000 residents within an area of 14 km², while Cologno del Serio is a bit bigger, with approximately 11,100 inhabitants spread across 18.50 km².



Figure 24. Geographical location of Ugnano and Cologno al Serio in comparison to Bergamo. Source: background image from Google Earth - own elaboration.

These municipalities were selected because they exemplify medium-to-low-density peri-urban centers in the intermediate zone between major cities, such as Milan, Bergamo, and Brescia. The area is characterized by a dispersed pattern of industrial settlements and a high dependence on private vehicles for daily commuting, reflecting broader challenges associated with mobility and accessibility in peri-urban contexts.

4.3.1 FoP Workshop implementation: Participants' recruitment method in Ugnano and Cologno al Serio

In both municipalities, participant engagement was facilitated through official institutional communication channels and informal methods such as word of mouth. In Cologno al Serio,

following recommendations from the municipal administration, two specific interest groups were targeted:

- Parents of local schoolchildren, who discussed the opportunities and challenges associated with enabling safe and active routes to school; and
- High school and university students highlighted the burdens of long daily commutes to access educational institutions.

In contrast, Ugnano's call for participation was extended to the broader population without targeting specific groups. This inclusive approach allowed for a more general representation of community voices and enabled the two Field of Places (FoP) workshops to follow distinct methodologies. Despite these differences in recruitment strategies, both workshops successfully captured a range of shared needs and context-specific opportunities, offering valuable insights into the everyday mobility and accessibility challenges of their respective communities.

4.3.2 Overview of the participants

4.3.2.1 Ugnano participants

The participant group was entirely Italian, predominantly men (75%), and mostly middle-aged, with an average age of 48. Half were employed full-time, and half had completed high school. The remaining participants were employed full-time, with an equal split between part-time workers and retirees. Most participants lived in Ugnano (87%), and just one person reported mobility impairment. These characteristics suggest a relatively homogeneous group regarding nationality and residential location, but with variation in age, education, and employment status.



Figure 25. FoP Workshop in Ugnano.

Variable	Categories	N (%)	Mean (SD)
Age			48 (45, 61)
	18-24	0 (0%)	
	25-45	2 (25%)	
	46-64	4 (50%)	
	65+	2 (25%)	
Gender	Men	6 (75%)	
	Women	2 (25%)	
Nationality(ies)	Italian	8 (100%)	
Education	High school	4 (50%)	
	Middle school	1 (13%)	
	University	3 (37%)	
Job-status	Full-time	4 (50%)	
	Part-time	2 (25%)	
	Retired	2 (25%)	
Mobility impairment	No	7 (87%)	
	Yes (severe mobility impairment)	1 (13%)	
Neighborhoods	Urgnano	7 (87%)	
	Zanica	1 (13%)	

Table 6. Socio-demographics of the sample in Urgnano (n=8).

4.3.2.2 Cologno al Serio participants

Compared to the previous group, the Cologno al Serio group was younger (average age 39) and predominantly female (75%), contrasting with the older, male-dominated profile of the previous group. All participants were Italian and residents. This group had higher educational attainment (50% university graduates) and more diverse employment, including 25% students. Mobility levels were similar, with 87% reporting no impairments. This group stood out for its younger age profile, higher female participation, and greater educational diversity.



Figure 26. FoP Workshop in Cologno al Serio.

Variable	Categories	N (%)	Mean (SD)
Age			39 (32, 45)
	18-24	2 (25%)	
	25-45	5 (63%)	
	46-64	1 (13%)	
	65+	0 (0%)	
Gender	Men	2 (25%)	
	Women	6 (75%)	
Nationality(ies)	Italian	8 (100%)	
Education	High school	2 (25%)	
	Middle school	1 (13%)	
	Professional school	1 (13%)	
	University	4 (50%)	
Job-status	Full-time	3 (37.5%)	
	Part-time	3 (37.5%)	
	Student job	2 (25%)	
Mobility impairment	No	7 (87%)	
	Yes	1 (13%)	
Neighborhoods	Cologno al Serio	8 (100%)	

Table 7. Socio-demographics of the sample in Cologno al Serio (n=8).

4.3.3 Results of individual exercise in Urgnano and Cologno al Serio

4.3.3.1 Individual Flower Creation in Urgnano

In the case of Urgnano, participants identified a wide range of destinations they would like to be accessible by walking in contrast to the fewer amenities in relation to cycling. Both modes shared a strong focus on education, healthcare facilities, and cultural and recreational amenities such as cinemas, theaters, and sports venues.

Besides, places that foster social interaction, such as restaurants, bars, and informal meeting points, were also considered important for both modes. As shown in *Figure 27*, the preferred walking time was approximately 10 minutes, while *Figure 28* indicates that the preferred cycling time extended to around 15 minutes.

The findings suggest that the types of places considered important by participants remain consistent regardless of the travel mode. What varies logically, however, is the willingness to travel time associated with each mode. Participants adjust their expectations based on whether they are walking or cycling.

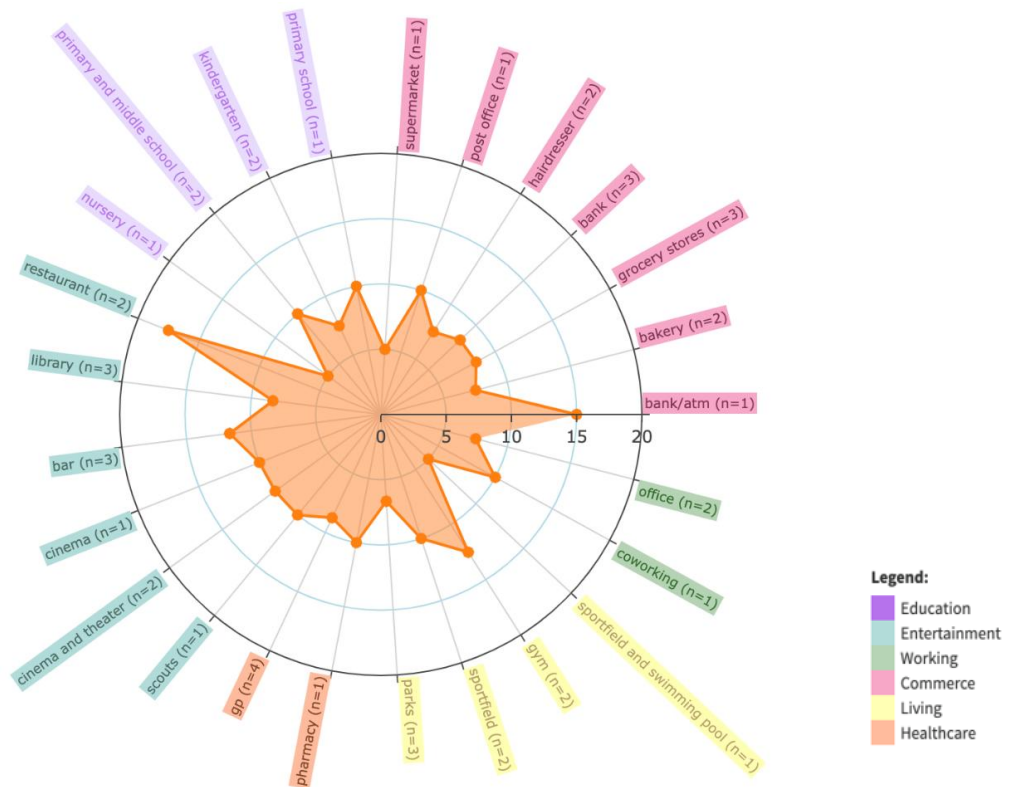


Figure 27. Urgnano walking radar chart: Overview of individual places selected. Source: own elaboration.

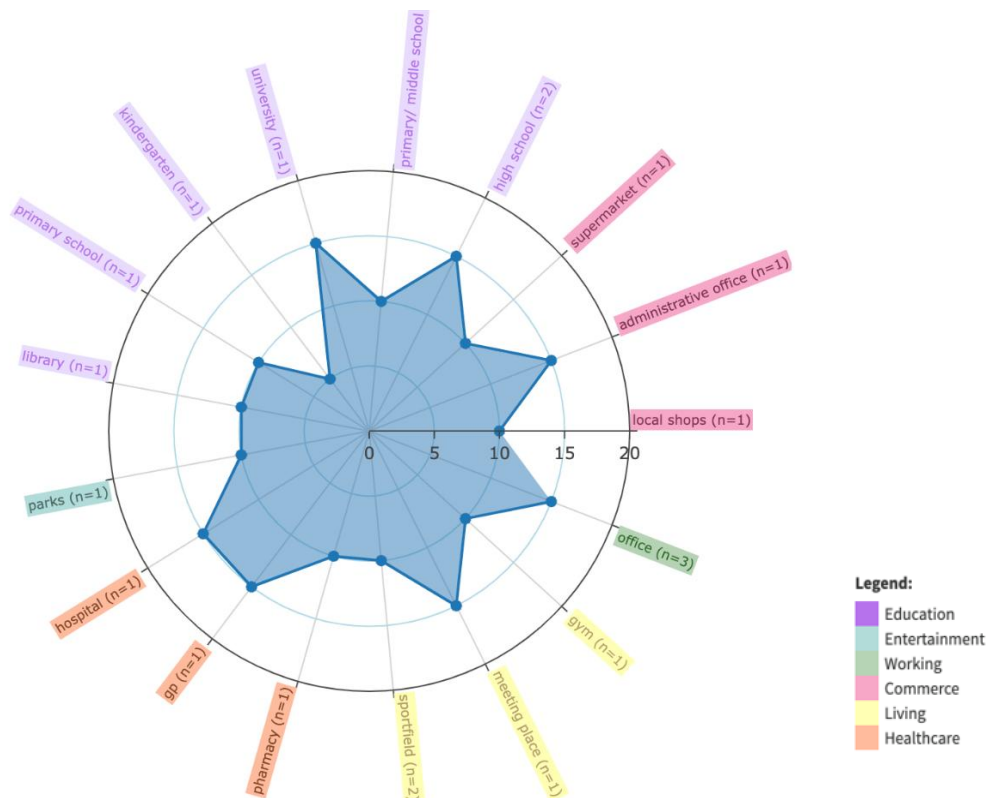


Figure 28. Urgnano cycling radar chart: Overview of individual places selected. Source: own elaboration.

4.3.3.2 Individual Flower Creation in Cologno al Serio

Similarly, participants in Cologno al Serio identified a diverse set of destinations they would like to have accessible by walking. *Figure 29* illustrates a consistent pattern of interest in key amenities such as healthcare facilities, educational institutions, sports centers, and recreational spaces. However, a notable distinction in the case of Cologno al Serio is the participants' greater willingness to walk longer compared to those in Urgnano. On average, the preferred walking time was approximately 15 minutes, suggesting a higher tolerance for distance time in exchange for access to their needs.

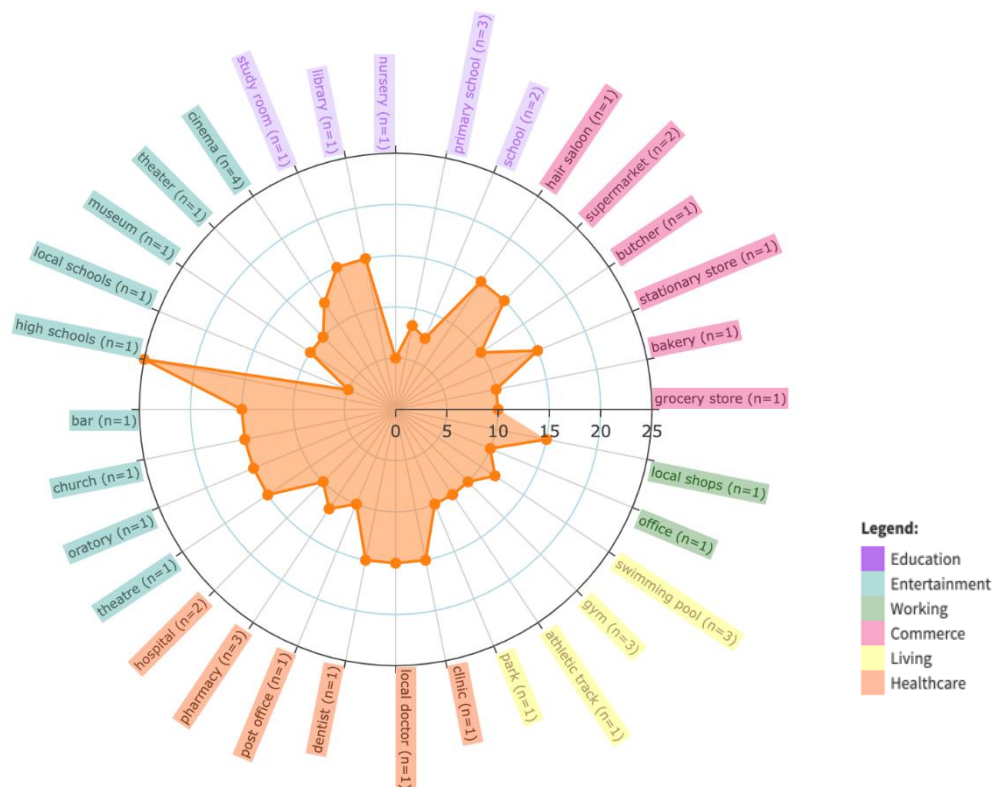


Figure 29. Cologno al Serio walking radar chart: Overview of individual places selected. Source: own elaboration.

In contrast to Urgnano, participants in Cologno al Serio identified a broader range of amenities they would like to access by cycling. As shown in *Figure 30*, there is an increase in places related to sports, outdoor activities, shopping, and leisure. The preferred travel time to these locations generally falls between 10 and 15 minutes, consistent with the walking threshold. However, participants are willing to travel more than 15 minutes by bike for a few amenities, such as universities and high schools.

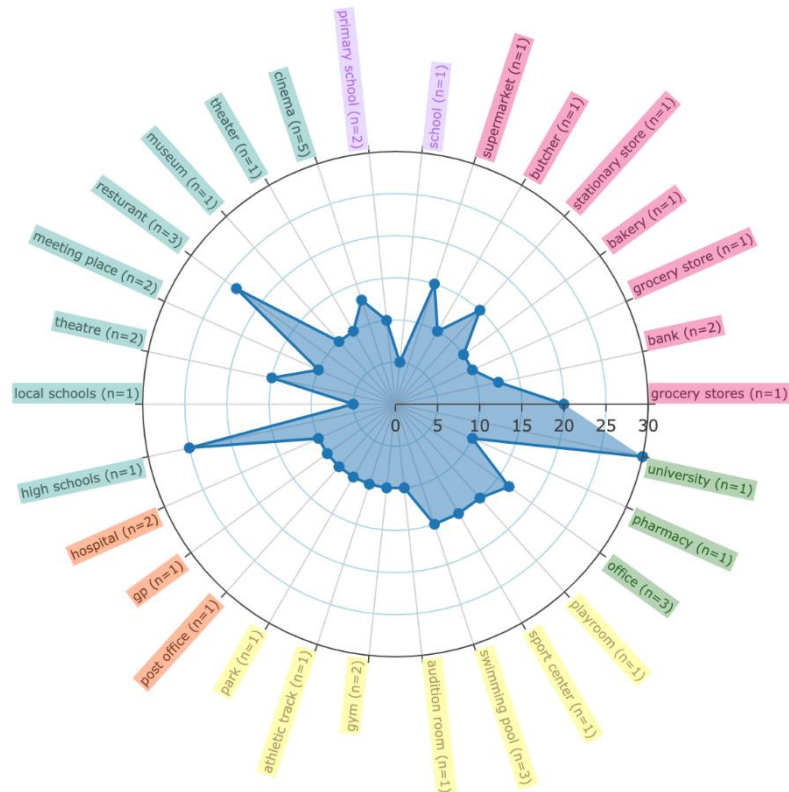


Figure 30. Cologno al Serio cycling radar chart: Overview of individual places selected. Source: own elaboration.

4.3.3.3 Specific mobility needs across different transport modes

When considering other transport modes, Ugnano and Cologno al Serio participants consistently identified the car as a necessary means of travel, as illustrated in *Figure 31*. This preference is particularly pronounced for accessing healthcare facilities. Participants emphasized that, for many basic needs, alternative transport modes require excessive travel time, making the car the most practical option. Nevertheless, albeit less frequently, public transport was also mentioned as a viable means of reaching educational institutions, particularly those outside the immediate vicinity.

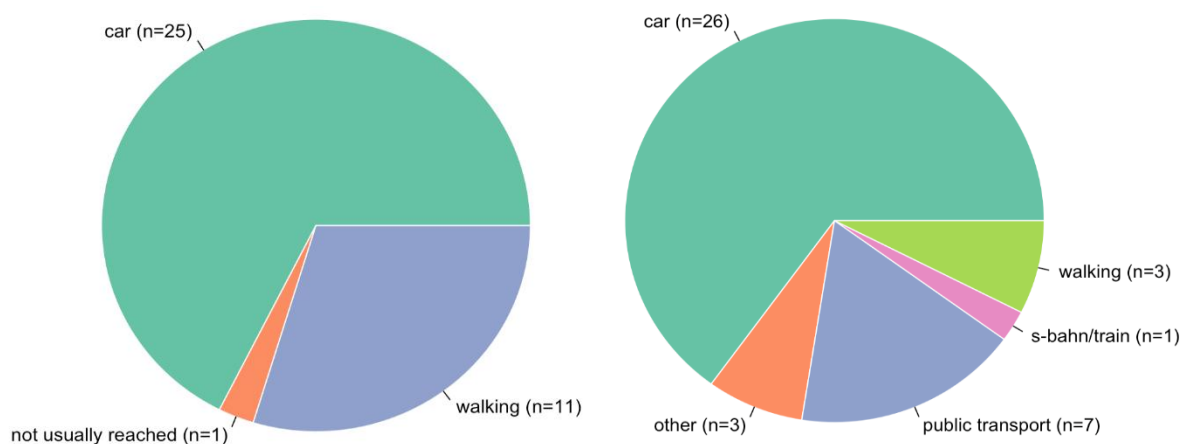


Figure 31. Distribution of transport modes of Ugnano (left) and Cologno al Serio (right). Source: own elaboration.

4.3.3.4 Accessibility Framework Urgnano and Cologno al Serio

Given the similarities observed, the thematic analysis was conducted jointly for both municipalities to identify patterns for the Italian context. As noted in the previous section, participants strongly preferred travel times of 15 minutes by walking or cycling. Unlike Vaterstetten and the Amsterdam region, the **transport component** appeared to be the most influential factor in decision-making. As illustrated in *Figure 32*, the dominant theme was the perceived convenience of using a car, particularly regarding time efficiency and distance coverage. This preference is related to participants' daily responsibilities, especially in relation to caregiving trip chaining tasks. As some participants explained:

"Everything is too far! Other modes are too long compared to cars."

"Car as one step of a complex mobility chain."

In both municipalities, the car is perceived as a key mobility enabler. Participants emphasized its flexibility and comfort compared to public transport. Additionally, concerns about road safety, particularly when cycling, reinforced the preference for car use.

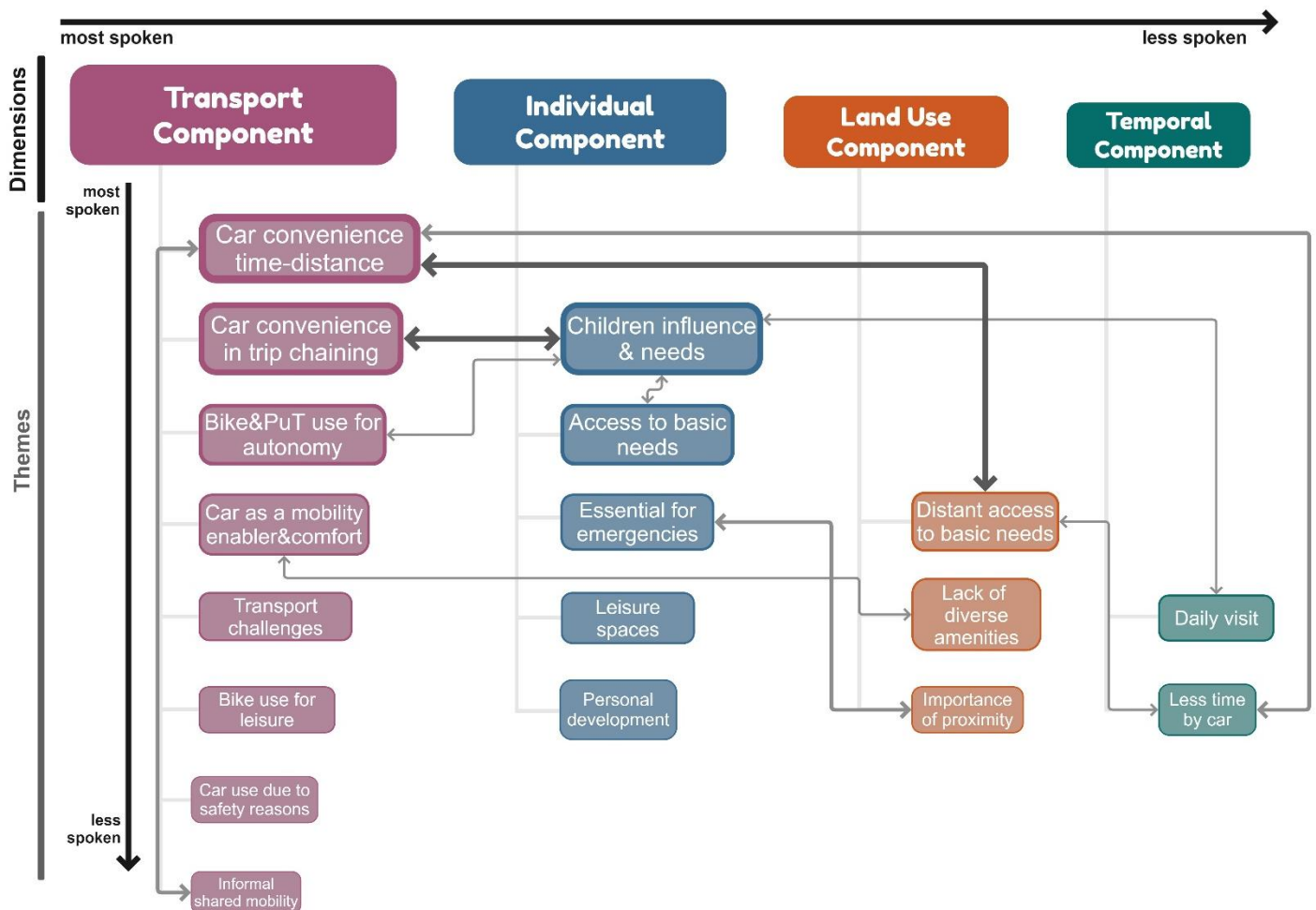


Figure 32. Thematic analysis and themes connections from the flower creation exercise in Urgnano and Cologno al Serio. Source: own elaboration.

Moreover, the lack of weekend availability of public transport at weekends becomes a significant challenge, often leaving parents with no alternative but to drive their children by car. This gap in connectivity places additional strain on families and highlights a barrier to independent mobility for young people. Additionally, limited access to leisure facilities, such as cinemas, theatres, and hospitals—further reinforces car dependency.

In relation to the **individual component**, children's needs appear to be a significant factor influencing the selection of essential places nearby and the choice of travel mode. Regarding access to schools, parents are forced to take the car due to unsafe connections for children to travel alone. This is closely linked to the **temporal component**, as many children's activities occur daily, resulting in a high frequency of travel. Nevertheless, participants noted they are generally more willing to cycle or use public transport when traveling alone. Currently, the logistics demand for transporting children makes the car the preferred and most practical option, as expressed by several participants:

"I travel frequently where my children do sports."

"We bring our children daily; it is the most important thing, and it should be safe"

On the other hand, and consistent with the findings from the other two testbeds, proximity to healthcare facilities is considered essential by participants, in the context of emergencies. However, during the discussions, participants expressed that the absence of a municipal center in the nearest municipality (Urgnano) makes them feel the necessity to have it in their own territory.

4.3.4 Results of group exercise in Urgnano and Cologno al Serio

4.3.4.1 Urgnano group results

The key places identified during the individual exercises were reaffirmed in the group discussions in the case of Urgnano. As shown in *Figure 33*, the top five most important places on foot (left radar chart) are education, healthcare and sports facilities, and shopping. However, one aspect that appeared here is the preference for local shops. The travel time is consistent within 15 minutes.

On the other hand, an interesting finding is that the average travel time for the top five places is lower by cycling (right) than by walking. In addition to previously mentioned amenities such as sports facilities, local shops, and educational institutions, new destinations, such as banks and work-related offices, emerged as priorities for cycling. Notably, healthcare facilities were less frequently identified as destinations accessed by bike.

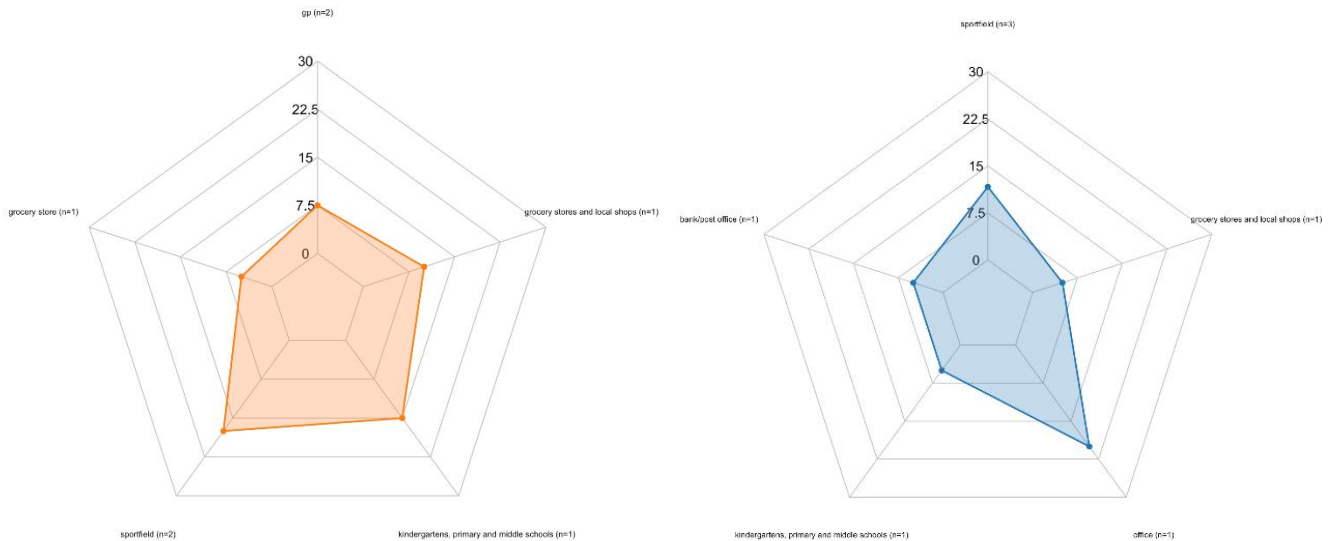


Figure 33. Ugnano: Overview of group-selected top five places by walking (left) and cycling (right).
Source: own elaboration.

In the Italian case, participants were also asked to identify the five most important places they would like to access using public transport. As illustrated in *Figure 34*, only three destinations were selected, and these overlap with those identified for cycling, namely work-related offices and banks. The key difference lies in the willing travel time, which increased to over 15 minutes for public transport, reflecting a higher tolerance for longer journeys when using this mode.

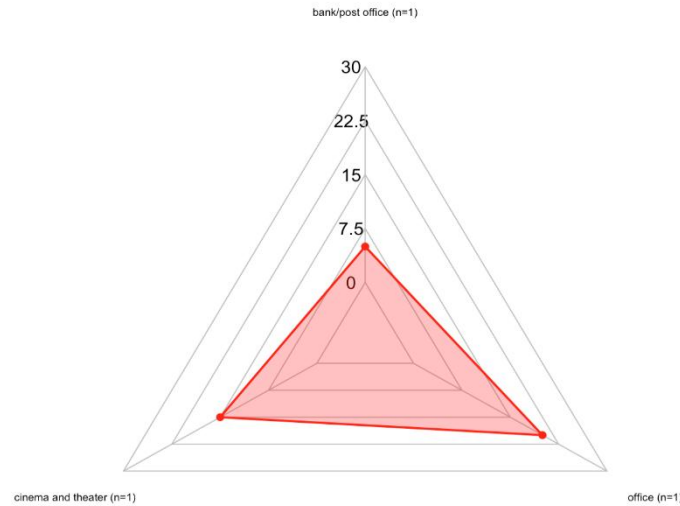


Figure 34. Ugnano: Overview of group-selected top five places by public transport. Source: own elaboration.

4.3.4.2 Cologno al Serio group results

Unlike Ugnano, participants in Cologno al Serio prioritized more places accessible by walking within the same 15-minute travel time, as illustrated in *Figure 35*. They emphasized places that foster social interaction, including restaurants, bars, and cinemas. Healthcare facilities also appeared as key destinations. Regarding cycling, preferences remain largely consistent. With

the addition of healthcare facilities, participants identified sports facilities, local shops, and educational institutions as important.

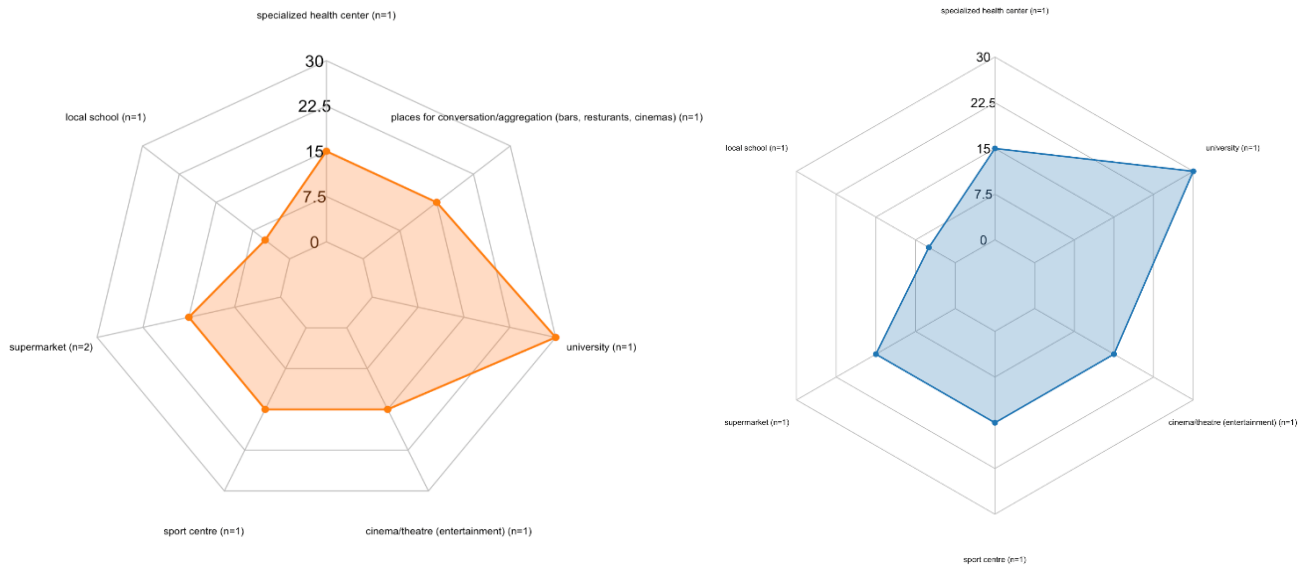


Figure 35. Cologno al Serio: Overview of group-selected top five places by walking (left) and cycling (right).
Source: own elaboration.

As illustrated in Figure 36, only three destinations were identified for Cologno al Serio's case. However, these differed from those selected in Urgnano. In this case, participants prioritized places for social interaction, gyms, and universities aligning with their cycling preferences. The willing travel time increased to over 20 minutes, indicating an even tolerance for longer journeys.

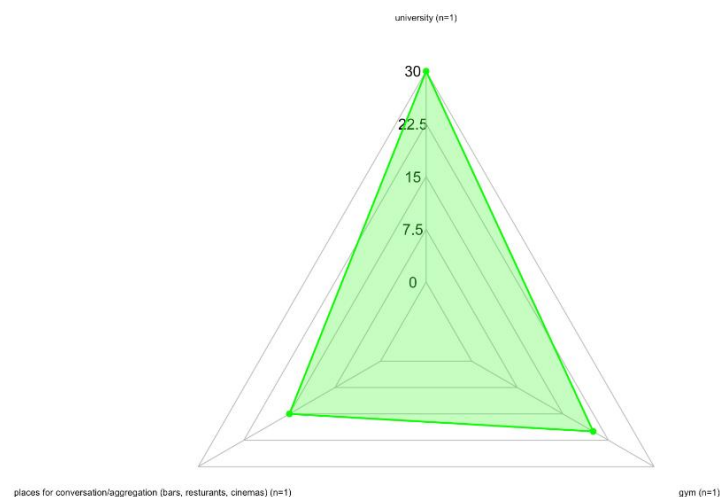


Figure 36. Cologno al Serio: Overview of group-selected top five places by public transport.
Source: own elaboration.

4.3.4.3 Group dynamics

Participants' daily activities are closely coordinated with their children's schedules for both municipalities. As illustrated in Figure 37, caring responsibilities are the primary factor

influencing place selection. As highlighted in the individual-level analysis, this is strongly related to the need for trip chaining to efficiently manage multiple daily tasks. As one participant noted:

“Schools play an important role in children's daily trips.”

“Travel chains with kids are complex, and many activities are carried out in sequence.”

Participants linked their daily activities with residential locations, which strongly influenced mobility needs and behavior. Those living outside town struggle to rely on active modes of public transport, especially when facing mobility impairments or complex trip chains, as mentioned before. In such cases, the private car remains the only viable option. Participants also emphasized the need to improve local bus services in terms of frequency and reliability.

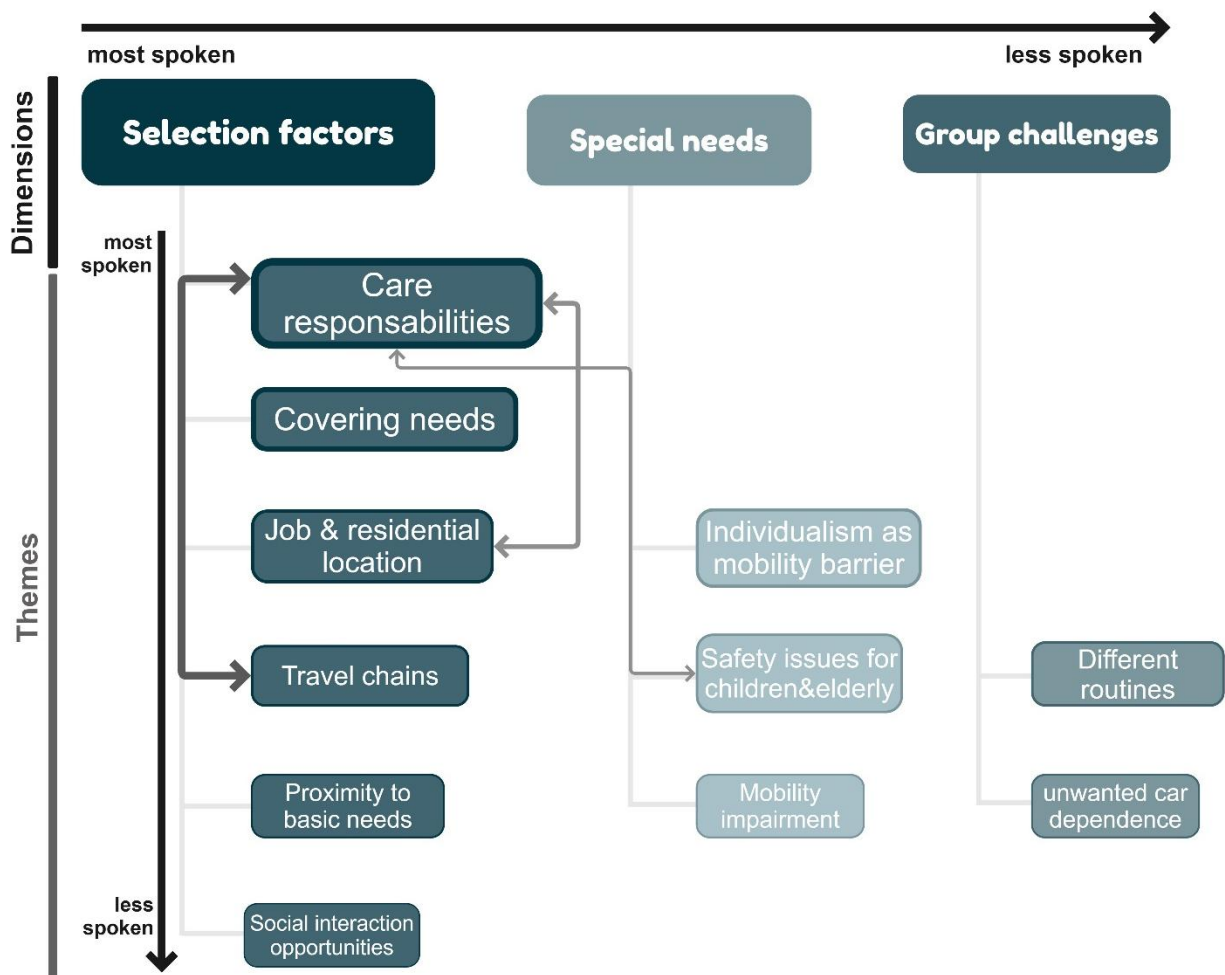


Figure 37. Thematic analysis and themes connection from group exercises for both municipalities. Source: own elaboration.

Caring responsibilities are further influenced by parents' residential and job locations, which can either facilitate or complicate the ability to manage daily trip chaining. A key barrier identified by participants is the lack of safe and accessible routes for children. Therefore,

children remain dependent on being accompanied by their parents, reinforcing the reliance on private vehicles, clearly identified in the two municipalities.

“Residential location plays a fundamental role in shaping needs.”

“Lack of safety on the home-school paths due to heavy vehicular traffic.”

On the other hand, participants also highlighted a special social concern. There is a prevailing sense of individualism within the community, which they believe hinders the active participation of young people in local community activities.

“We perceive a lack of willingness among young people to participate.”

Lastly, like the case of Vaterstetten, participants noted that one of the key challenges in collective decision-making was the diversity of daily routines and travel schedules, particularly for the coordination of children’s activities. These differences made it difficult to reach a consensus and think about shared mobility options.

4.3.5 Conclusions of the Community Flower in Urgnano and Cologno al Serio

In conclusion, the analysis confirms that many elements of the 15-minute city are already present in the studied contexts, with walking and cycling preferred for accessing everyday services such as grocery stores and sports facilities. However, the car remains necessary for reaching more distant amenities like cinemas, theatres, and universities. Participants identified a 5-minute threshold as ideal; a 15-minute travel time was generally acceptable for most services. However, the group discussions revealed several gaps, particularly in mobility for youth and the elderly, and in the integration of transport systems. Key needs include reactivating community-led initiatives, enhancing east-west public transport links to schools, improving access to leisure activities for teenagers, and making local public transport more inclusive. Infrastructure improvements, such as safer pedestrian environments, better cycling connectivity, and coordinated scheduling between schools and extracurricular activities, emerged as priorities. These insights underscore the importance of targeted interventions to support equitable, accessible, and sustainable local mobility systems.

4.4 Merelbeke-Melle – Province of Oost-Vlaanderen

Merelbeke-Melle is a municipality in the southwest of Ghent, nestled along the southern bank of the Scheldt River and the “ring channel” that links two branches of the river. The municipality is the result of a recent administrative merger between the former municipalities of Merelbeke and Melle, officially united in January 2025. The area had become a popular retreat for wealthy

residents of Ghent seeking a peaceful life outside the city. It has a population of approximately 37,000 residents and it is well connected by public transport, with two train stations in each town offering direct services to Ghent and Brussels.

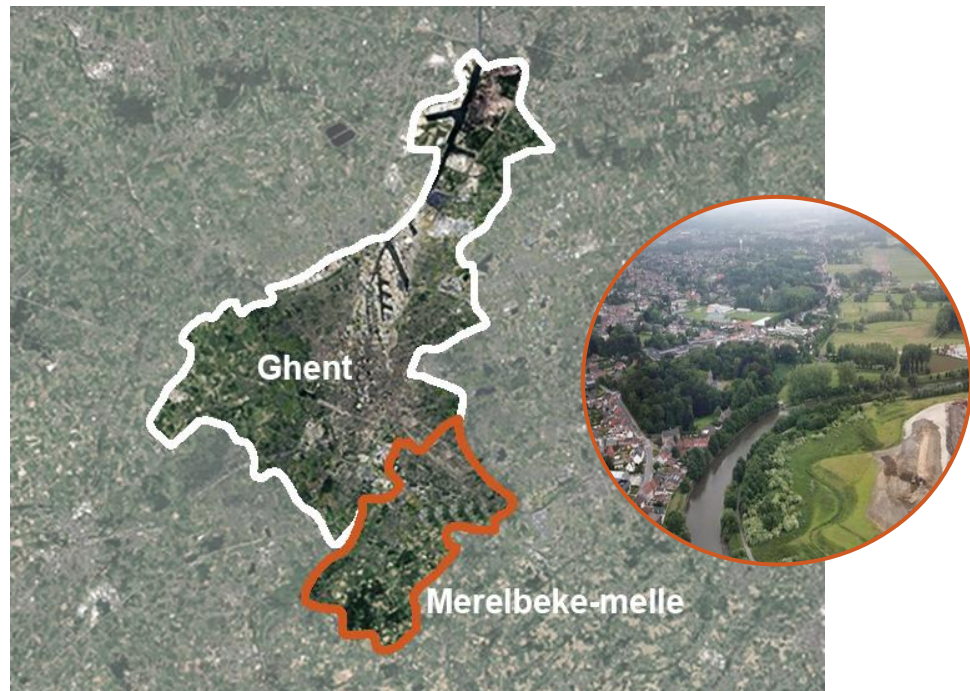


Figure 38. Geographical location of Merelbeke-Melle in comparison to Ghent. Source: background image from Google Earth - own elaboration.

Despite a nearby highway, most traffic between Ghent and southern East Flanders flows through two main local roads, which pass through the heart of the municipality. This leads to heavy traffic and frequent congestion, a major concern among residents. Traffic safety and mobility are often at the centre of local discussions. The municipality also has its so-called 'citizens platforms'. Partly supported by the local government, these are volunteer-led assemblies of engaged citizens that want to work on more liveable neighbourhoods. They do so through dialogue with citizens, local organisations, and the municipality, building bridges between different parts of society. Some of them support local commoning accessibility initiatives, such as Op Wielekes, a bicycle library for children. Other than the cycling library, other commoning initiatives can be found as well, such as P2P car sharing schemes (Dégage and Cozywheels), voluntary transport for less mobile people (the Mobitwin Centrale), and a repair café.

4.4.1 FoP Workshop implementation: Participants' recruitment method in Merelbeke-Melle

The target audience consisted of individuals involved in various forms of commoning accessibility. Four key initiatives were identified in the municipality:

- **Dégage** and **Cozywheels** are two peer-to-peer car-sharing schemes
- **Op Wielekes** is a bicycle library for children.
- **Mobitwin Centrale** is a voluntary transport service for people with reduced mobility.

Participant recruitment was conducted through local initiatives by contacting designated representatives, volunteers, a care facility staff member, a local government official, and a non-profit employee, who then emailed calls for participation and project information to their networks. Interested individuals registered via an external link and received a follow-up email with details and workshop confirmation, resulting in about 15 potential participants, though not all confirmed attendance. The workshop was also promoted in local Facebook groups to increase participation, attracting five additional registrants (three not previously involved in a commoning accessibility initiative). The registration form included a question about involvement in these initiatives to screen participants.

4.4.2 Overview of the participants in Merelbeke-Melle

The sample size of Merelbeke-Melle was the biggest across all testbeds. It was predominantly older, with a median age of 59, and 75% were aged over 45 years old. The gender distribution skewed men at 70% and women at 30%.



Figure 39. FoP Workshop in Merelbeke-Melle.

All participants were Belgian and mainly highly educated. In terms of employment, nearly half were working full-time, while 40% were retired. None of the participants reported any mobility impairments.

Variable	Categories	N (%)	Mean (SD)
Age			59 (46, 68)
	18-24	1 (5%)	
	25-45	4 (20%)	
	46-64	7 (35%)	

	65+	8 (40%)
Gender	Men	14 (70%)
	Women	6 (30%)
Nationality(ies)	Belgian	20 (100%)
Education	Secondary education	2 (10%)
	University	8 (40%)
	Higher education	10 (50%)
Job-status	Full-time	9 (45%)
	Part-time	3 (15%)
	Retired	8 (40%)
Mobility impairment	No	20 (100%)
Neighborhoods	Melle	1 (5%)
	Merelbeke	19 (95%)

Table 8. Socio-demographics of the sample in Merelbeke-Melle (n=20).

4.4.3 Results of individual exercise in Merelbeke-Melle

4.4.3.1 Individual Flower Creation in Merelbeke-Melle

The Merelbeke-Melle case summarized many key places identified as important in the previous three testbeds for walking accessibility. As illustrated in *Figure 40*, participants highlighted a wide range of healthcare facilities, especially general practitioners, as top priorities in closest proximity. In addition, access to nature and parks, related to sports and outdoor activities, was considered essential to have access by approximately 10 minutes. Like the first two testbeds, family and friends emerged as important factors. However, the travel time increases by double in comparison to other places. This is further complemented by the emphasis on access to educational facilities and playgrounds, reflecting a strong connection to childcare responsibilities, an aspect also prominently observed in the two Italian cases.

In the case of cycling, participants identified a greater number and broader variety of places compared to walking. As detailed in *Figure 41*, workplaces appeared to be the most important destinations, with participants expressing a willingness to travel up to 20 minutes by bike. Besides, the type of places also became more specific. For example, participants emphasized the importance of accessing organic and local shops in addition to standard supermarkets. Cultural venues, such as theaters and cinemas, and more recreational and social spaces, like pubs and cafés, were frequently mentioned. Meanwhile, healthcare facilities, schools, nature and parks, sports, and family and friends remained relevant. On average, the travel time by cycling increased to approximately 15 minutes, reflecting that the ones who do alone are more willing to cycle for specific destinations.

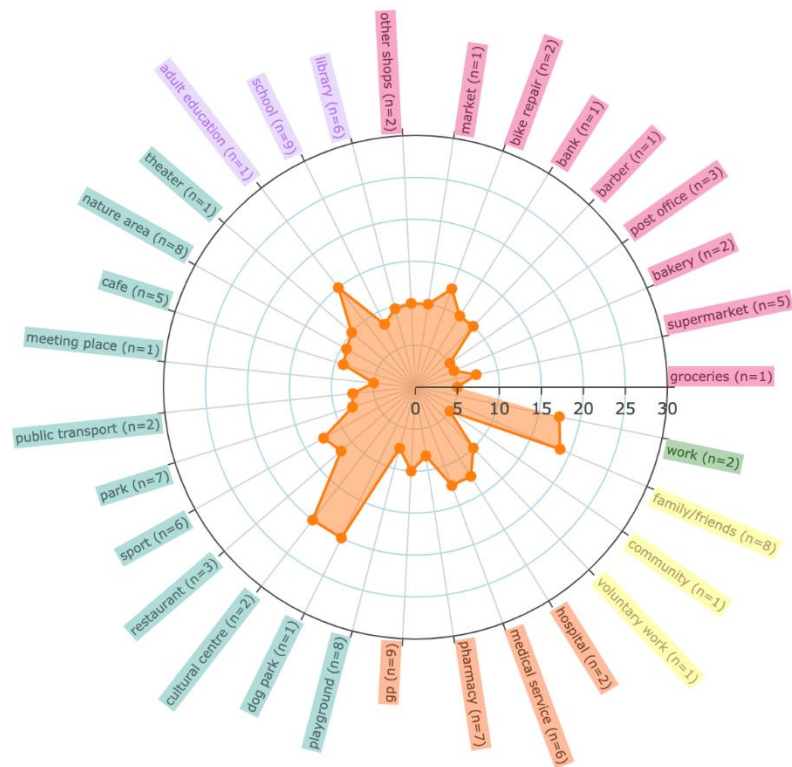


Figure 40. Merelbeke-Melle walking radar chart: Overview of individual places selected. Source: own elaboration.

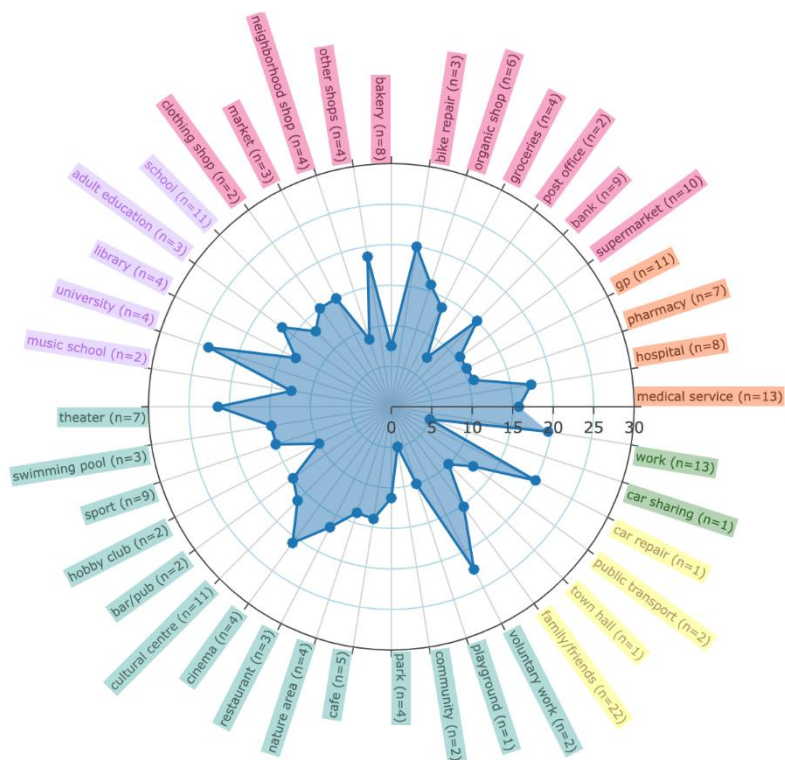


Figure 41. Merelbeke-Melle cycling radar chart: Overview of individual places selected. Source: own elaboration

4.4.3.2 Specific mobility needs across different transport modes

Unlike the other three testbed results, Marelbeke-Melle participants identified public transport as the option for accessing specific amenities that cannot be conveniently reached by walking or cycling, as illustrated in *Figure 42*. As also reflected in the cycling radar chart, participants demonstrated a willingness to travel longer for certain destinations. Notably, these destinations are consistent in both cycling and public transport modes, including visits to family and friends, despite the absence of specific amenities dedicated to them, as well as healthcare facilities and organic shops. Interestingly, these amenities were also mentioned as accessible via shared car services, highlighting a multimodal approach to accessing essential and socially meaningful places.

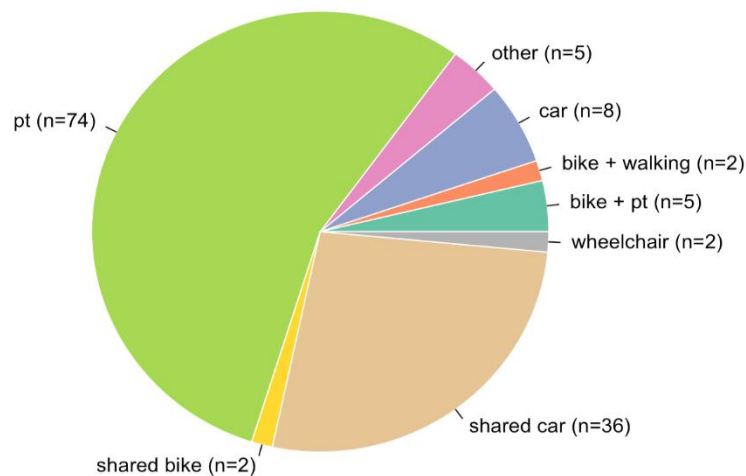


Figure 42. Distribution of transport modes of Merelbeke-Melle. Source: own elaboration.

4.3.3.3 Accessibility Framework Merelbeke-Melle

For participants in Merelbeke-Melle, the **individual component** was the most frequently mentioned dimension, as shown in *Figure 40*. As explained in the previous section, the key places included educational and healthcare facilities, natural areas in relation to sports activities, local shops, cultural venues, and family and friends. These spaces were valued for their practical functions and role in fostering social interaction. As some participants noted:

"Friends & family are essential to see the people that make our lives beautiful."

"Local shops are important to have in the vicinity, also for social contacts"

On the other hand, regarding the **transport component**, participants expressed a clear preference for activity mobility modes. This preference is linked to these modes' convenience for fulfilling daily needs and hobbies. Additionally, active modes were seen as beneficial for combining multiple activities and managing responsibilities related to children, as one participant explained:

"It is very pleasant and distressing for both parent and child to go to school walking."

The strongest connection found was the participant's willingness to commute by bike to their workplaces. This behavior is linked to the **temporal component** as participants, consistent with earlier findings, expressed a tolerance for longer travel times using bikes.

"Work is further away, and this is a moment of reflection and quietness on the bike."

"I can go to work in 25 minutes by bike"

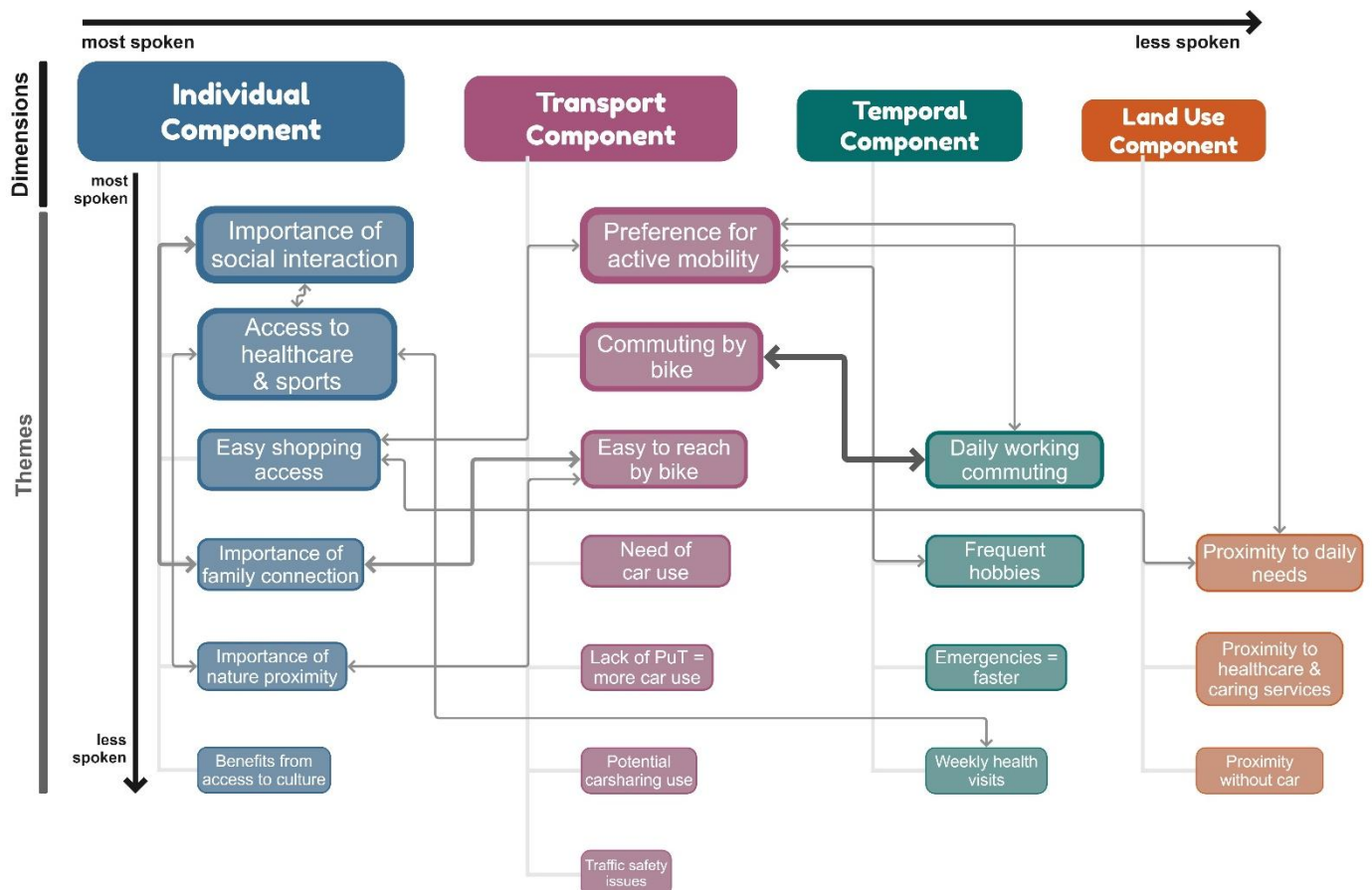


Figure 43. Thematic analysis and themes connections from the flower creation exercise in Merelbeke-Melle. Source: own elaboration.

4.3.4 Results of group exercise in Merelbeke-Melle

During the group activity in Merelbeke-Melle, the top five places selected individually largely carried over into the group discussion. As illustrated in Figure 44, across all three travel modes, walking (top-left), cycling (top-right), and public transport (bottom), participants consistently prioritized access to healthcare and education facilities, supermarkets, nature and sports, and family and friends. A notable addition to the cycling mode, not frequently mentioned in the individual exercises, was the prioritization of public transport stations and access to the city of Ghent, reflecting the importance of intermodality. Preferred travel remained consistent, with an average of around 10 minutes for walking and 15 to 20 minutes for cycling and public transport.



Figure 44. Merelbeke-Melle: Overview of group-selected top five places by walking (top-left), cycling (top-right), and public transport (bottom). Source: own elaboration.

4.3.4.1 Group dynamics

As previously noted, participants' daily activities were aligned with their children's schedules, making caregiving responsibilities the primary factor influencing place selection. However, unlike the other testbeds, the main group challenges in Merelbeke-Melle centered around the decision-making process. As illustrated in *Figure 45*, participants found it difficult to overlook individual needs, recognizing that what may seem minor to one person could be highly important to another. Additionally, groups struggled to balance practical needs with social needs. As one group mentioned:

“There was difficulty combining places of practical necessity and social importance.”

This challenge reflects a persistent desire among participants to enrich their social lives and maintain meaningful community connections.

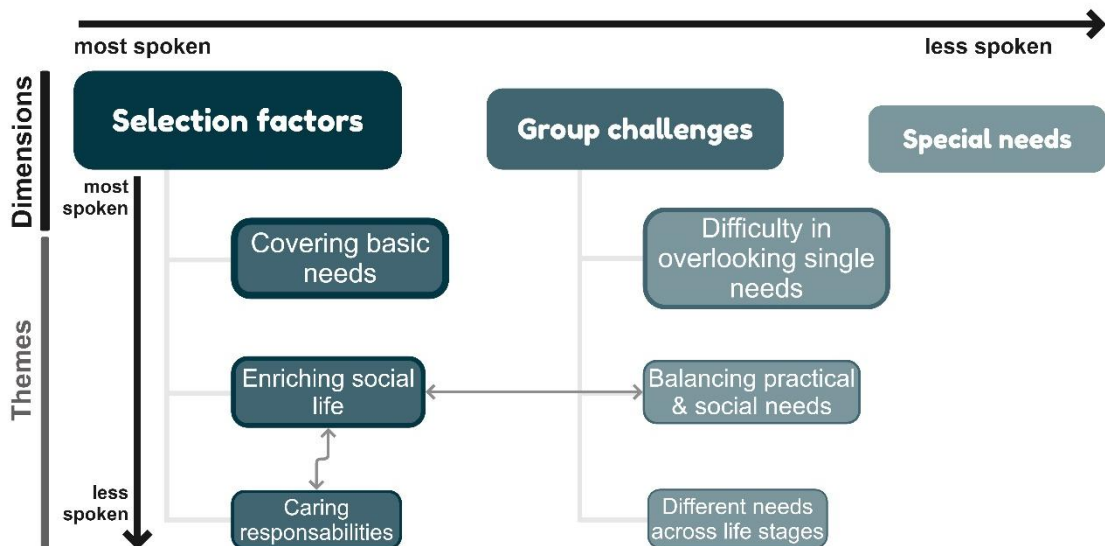


Figure 45. Thematic analysis and themes connection from group exercises for Merelbeke-Melle.
Source: own elaboration.

4.3.5 Conclusions of the Merelbeke-Melle Community Flower

The Merelbeke-Melle case offers a comprehensive reflection of accessibility, reinforcing many of the patterns observed in previous testbeds. Walking was predominantly associated with access to essential services such as healthcare, education, and green spaces, typically within a 10-minute range. Cycling broadened the variety and distance of destinations, with participants willing to travel for up to 20 minutes to specific places, including workplaces, organic shops, and cultural venues. Public transport was viewed as crucial for reaching amenities beyond the scope of active modes, underscoring a multimodal accessibility model anchored in context-specific needs.

Caregiving duties and social connection shaped most decisions, though group discussions revealed the challenge of balancing personal and collective needs. The findings point to the value of inclusive, people-centered planning that adapts to diverse lifestyles and mobility demands.

4.5 Littlemore & Wallingford – Oxfordshire County Council

In the context of Oxfordshire, the selected testbeds differ from the other cases in terms of administrative structure. Littlemore is a district and civil parish located in the southern part and within the borders of the city of Oxford, with a population of approximately 5,600 inhabitants. In contrast, Wallingford is a town and civil parish located about 19km south of Oxford, with an estimated population of approximately 11,600 residents. Both areas fall under the jurisdiction of Oxfordshire County Council.



Figure 46. Geographical location of Littlemore and Wallingford in comparison to Oxford. Source: background image from Google Earth - own elaboration.

Littlemore is characterized as a relatively low-income area with limited access to local facilities and services. Retail, leisure, and other essential amenities have historically been concentrated in more affluent areas of Oxford, particularly the city center, resulting in a service deficit within Littlemore. Although the district is situated just beyond the Oxford City Ring Road, where many commercial services are located, the ring road itself acts as a significant physical barrier, effectively disconnecting Littlemore's residential areas from the broader urban infrastructure. In response to these challenges, the local community, with support from Oxfordshire County Council, has developed an extensive neighborhood plan aimed at addressing locally identified needs. The community seeks to examine how community-led planning efforts in Littlemore can be effectively implemented, particularly through collaborative partnerships with commercial stakeholders and public authorities to address persistent accessibility issues.

In contrast, Wallingford is a relatively affluent parish currently experiencing rapid residential growth driven by ongoing housing developments. However, there is growing concern among local residents that this expansion is not being matched by adequate investment in supporting infrastructure and public services. Community members report that existing facilities are becoming increasingly strained, and local roads are facing rising levels of congestion. Civil society organizations and community groups have highlighted significant investment gaps in local amenities and sustainable transport infrastructure. This research aims to collaborate with

the local community to identify strategic opportunities for engagement with housing developers and the local council to promote more balanced investment in placemaking and transport connectivity to support inclusive and sustainable growth.

4.5.1 FoP Workshop implementation: Participants recruitment method in Littlemore and Wallingford

In Littlemore, the research team engaged with local community members who had been actively involved in developing a neighborhood plan. Initial contact was established with the plan's authors, who facilitated introductions to individuals within their broader community networks. Leveraging this network, the research team reached out to a diverse group of residents representing a wide range of interests and perspectives. These individuals were invited to participate in a workshop, which took place in early March 2025.

In the case of Wallingford, there were benefits from a strong presence of active community organizations. The research team collaborated with Living Streets, a national advocacy group focused on walking and sustainable mobility, whose local activists facilitated an initial meeting in late 2024 with residents engaged in neighborhood planning. This group included representatives from the town council as well as individuals involved in transport-related initiatives, such as efforts to enhance the local cycling network. Invitations were extended to a broader segment of the town's population using the contact networks of this core group. The resulting workshop was held in early March 2025.

4.5.2 Overview of the participants

Littlemore participants

In Littlemore, the participant group is predominantly older, with 70% aged 65 or above and half retired. Most participants are women (80%), and all participants are British. Most have high education levels, with 70% holding a university degree.



Figure 47. FoP Workshop in Littlemore.

Regarding employment status, most are retired or work part-time. Unlike the other testbeds, two participants reported mobility impairments, corresponding to 20% of the group, indicating that accessibility is a key concern for this group.

Variable	Categories	N (%)	Mean (SD)
Age			65 (31, 75)
	18-24	0 (0%)	
	25-45	2 (20%)	
	46-64	1 (10%)	
	65+	7 (70%)	
Gender	Men	2 (20%)	
	Women	8 (80%)	
Nationality(ies)	British	10 (100%)	
Education	Vocational education	1 (10%)	
	College	1 (10%)	
	Secondary School	1 (10%)	
	University	7 (70%)	
Job-status	Full-time	1 (10%)	
	Part-time	4 (40%)	
	Retired	5 (50%)	
Mobility impairment	Yes	2 (20%)	

Table 9. Socio-demographics of the sample in Littlemore (n=10).

Wallingford participants

As in Littlemore, participants in the Wallingford workshop were predominantly older, with over half aged above 65 years old. However, the group was smaller and more diverse, with a nearly balanced gender distribution and the inclusion of two participants with migration backgrounds, which was not observed in previous test beds.



Figure 48. FoP Workshop in Wallingford.

Educational attainment was notably high, and employment status varied, including full-time and part-time workers and one unemployed participant who reported mobility impairment. The group included a 90-year-old participant with mobility limitations, underscoring the importance of considering age-related accessibility needs in planning discussions.

Variable	Categories	N (%)	Mean (SD)
Age			65 (35, 75)
	18-24	0 (0%)	
	25-45	1 (14%)	
	46-64	2 (29%)	
	65+	4 (57%)	
Gender	Men	3 (43%)	
	Women	4 (57%)	
Nationality(ies)	British	5 (71%)	
Migration background	Canadian, Belarus	2 (29%)	
Education	College	1 (14%)	
	Secondary School	1 (14%)	
	University	5 (71%)	
Job-status	Full-time	1 (14%)	
	Part-time	1 (14%)	
	Retired	3 (43%)	
	No answer	1 (14%)	
	Unemployed	1 (14%)	
Mobility impairment	Yes	2 (29%)	

Table 10. Socio-demographics of the sample in Wallingford (n=7).

4.5.3 Results of individual exercise in Littlemore and Wallingford

4.5.3.1 Individual Flower Creation Littlemore

The workshop in Littlemore revealed patterns consistent with findings results from previous test beds. As illustrated in *Figure 49*, places such as healthcare facilities, schools, parks in relation to sports, banks, and supermarkets were identified as key amenities within approximately 15 minutes of walking distance. However, the strong emphasis on places that promote social interaction particularly stood out in this context. Pubs, cafes, community centers, social meeting spaces, and cinemas were among the most frequently mentioned places, underscoring the community's need for and valuing opportunities for social engagement. Additionally, some amenities not prominently highlighted in other testbeds, like post offices and hairdressers, appeared important in meeting daily needs. On the other hand, as shown in *Figure 50*, the number of amenities identified for cycling was notably lower compared to walking.

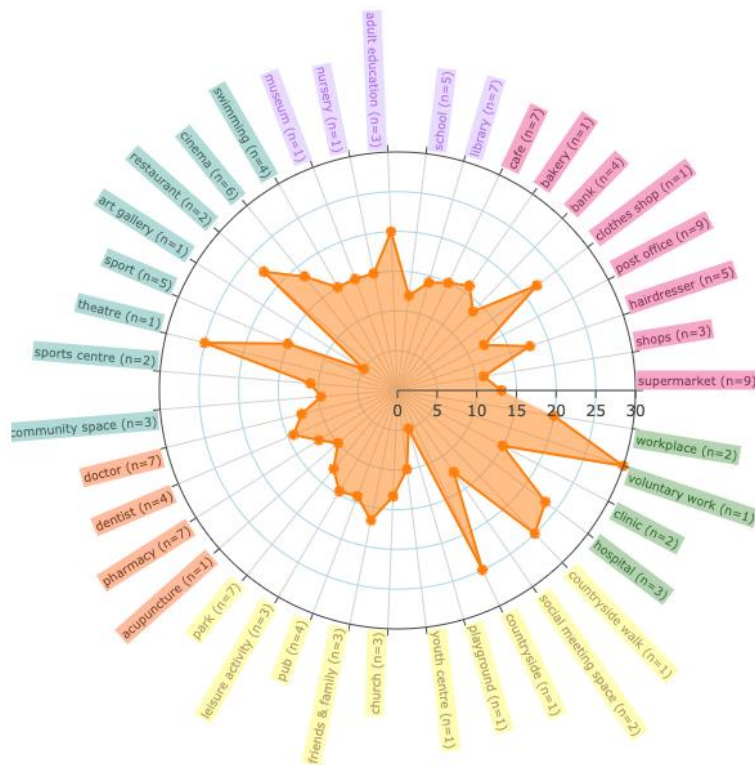


Figure 49. Littlemore walking radar chart: Overview of individual places selected. Source: own elaboration.

While no single amenity was particularly dominant, several places mentioned in the walking option, such as healthcare facilities, supermarkets, and leisure destinations, were also considered important for cycling. These places were generally regarded as acceptable within a travel time of 15 to 20 minutes, indicating a moderate willingness to cycle for essential and recreational needs.

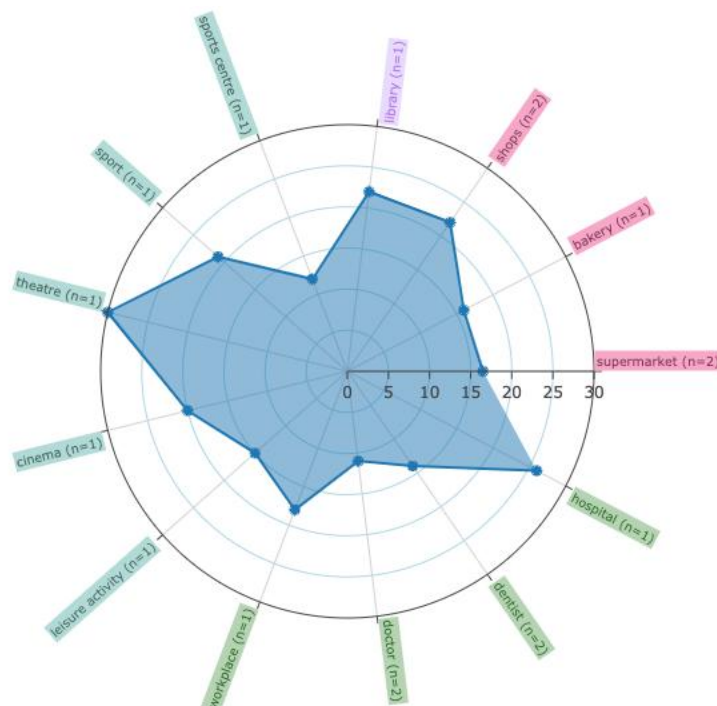


Figure 50. Littlemore cycling radar chart: Overview of individual places selected. Source: own elaboration.

4.5.3.2 Individual Flower Creation Wallingford

Participants in Wallingford prioritized similar places to those identified in Littlemore. As shown in *Figure 51*, healthcare facilities were considered the most important to have in proximity, ideally within a 10-minute walking distance. Additionally, participants highlighted the importance of access to shops, schools, pubs, cinemas, and parks. Interestingly, there was a strong interest in having adult education centers and community hubs around, highlighting a desire to strengthen community cohesion. In this case, preferred travel times varied significantly depending on the type of amenity, reflecting differing perceptions of accessibility.

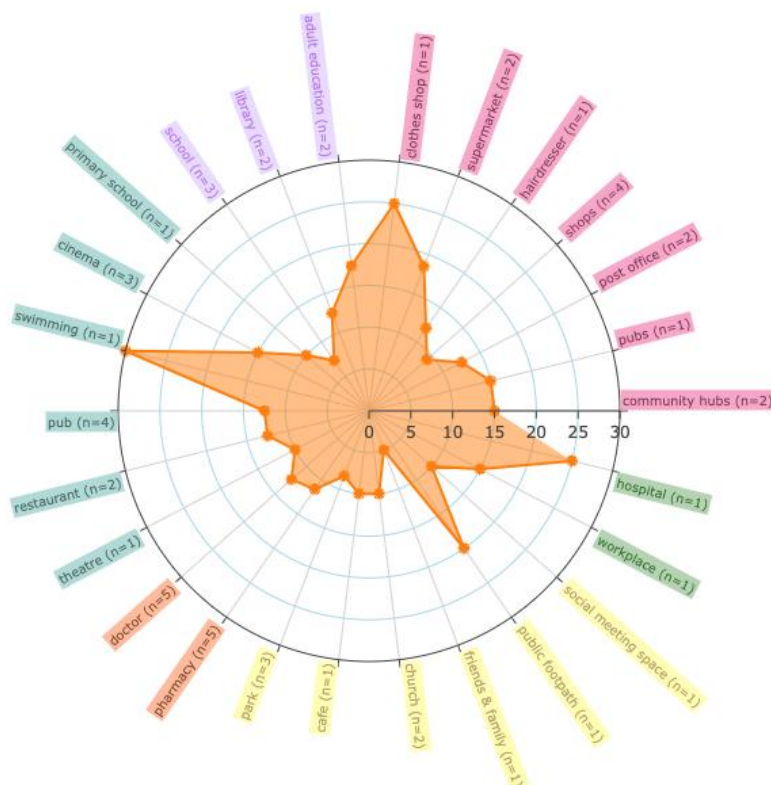


Figure 51. Wallingford walking radar chart: Overview of individual places selected. Source: own elaboration.

Although the group in Wallingford was smaller than in Littlemore, participants demonstrated a greater willingness to travel by bike, identifying a wider range of diverse amenities. Workplaces were mentioned for the first time in the UK context. In addition to daily needs, such as post offices and supermarkets, participants emphasized the importance of leisure-related destinations, including cafés and sports facilities. As illustrated in *Figure 47*, acceptable cycling travel times increased compared to walking, with participants indicating a willingness to cycle over 15 minutes and, in some cases, up to 30 minutes to reach specific amenities. This suggests a broader functional range for cycling in meeting both practical and recreational needs.

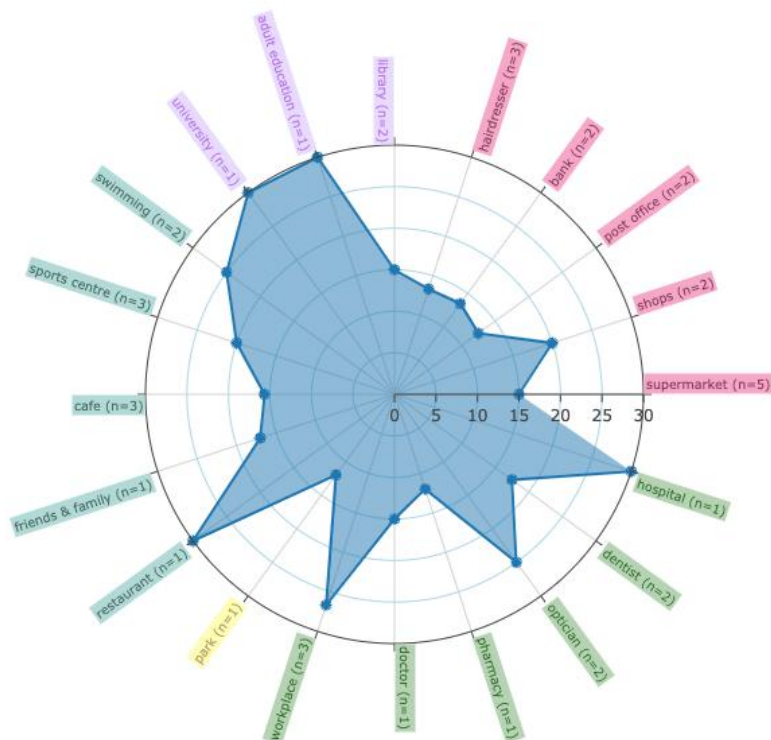


Figure 52. Wallingford cycling radar chart: Overview of individual places selected. Source: own elaboration.

4.5.3.3 Accessibility Framework Littlemore and Wallingford

As previously noted, participants in both Littlemore and Wallingford placed a high value on access to places that foster social interaction and community cohesion. This emphasis is clearly reflected in the thematic analysis, where the **individual component** was the most frequently mentioned, as illustrated in Figure 53. The desire for social interaction strongly influenced participants' place selection, highlighting the role of these amenities in presenting opportunities for community building. However, participants also identified a current lack of adequate social gathering spaces. In addition, this concern is connected to the importance of being near family and friends, a theme that, while not always explicitly mentioned, underpins social dynamics in the community. As some participants noted:

"A cafe would also help build community as people would have a central meeting place."

"Parks and playgrounds for families, leisure, greenery, meeting on benches and chatting"

On the other hand, participants highlighted a need for access to healthcare facilities, particularly when accompanied by family members or children. This need is complemented by the importance of having nearby natural and sports spaces for fostering healthy lifestyles within the community. However, one of the key challenges identified lies within the **land use component**, specifically, the lack of proximity to essential amenities and green spaces.

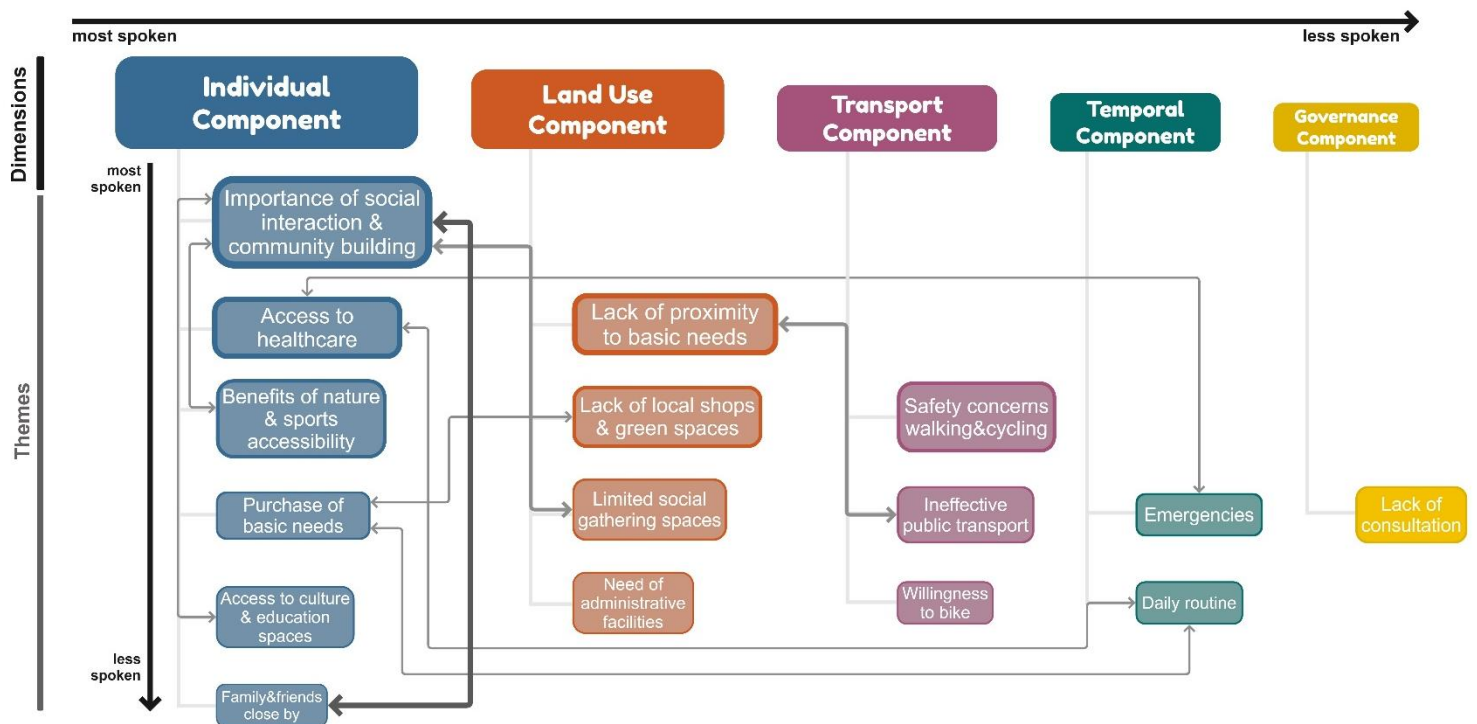


Figure 53. Thematic analysis and themes connections from the flower creation exercise in Littlemore and Wallingford. Source: own elaboration.

This spatial disconnect is further exacerbated by ineffective public transport options, limiting residents' ability to reach these important destinations efficiently.

"Having children means fairly regular trips to the GP."

"Many people have to travel further afield to visit a GP; there are no NHS places locally."

One key finding from the analysis is that a perceived lack of safety remains a significant barrier to active mobility. Concerns around traffic, infrastructure, and children's security were noted as limiting factors in the adoption of these modes.

"Unsafe environment for children to walk or cycle."

Different from other testbeds, participants in the two Oxfordshire cases also raised issues related to the **governance component**. Specifically, they expressed a sense of insufficient community participation in local decision-making processes and a lack of effective mechanisms to communicate their mobility and accessibility needs to relevant authorities.

"People aren't asked about what they want, they are told what they are going to get"

4.5.4 Results of group exercise in Littlemore and Wallingford

4.5.4.1 Littlemore group results

In the case of Littlemore, two participants reported having mobility impairments. To better understand their specific mobility and accessibility needs, a dedicated discussion was held, and the results are illustrated in *Figure 54*.

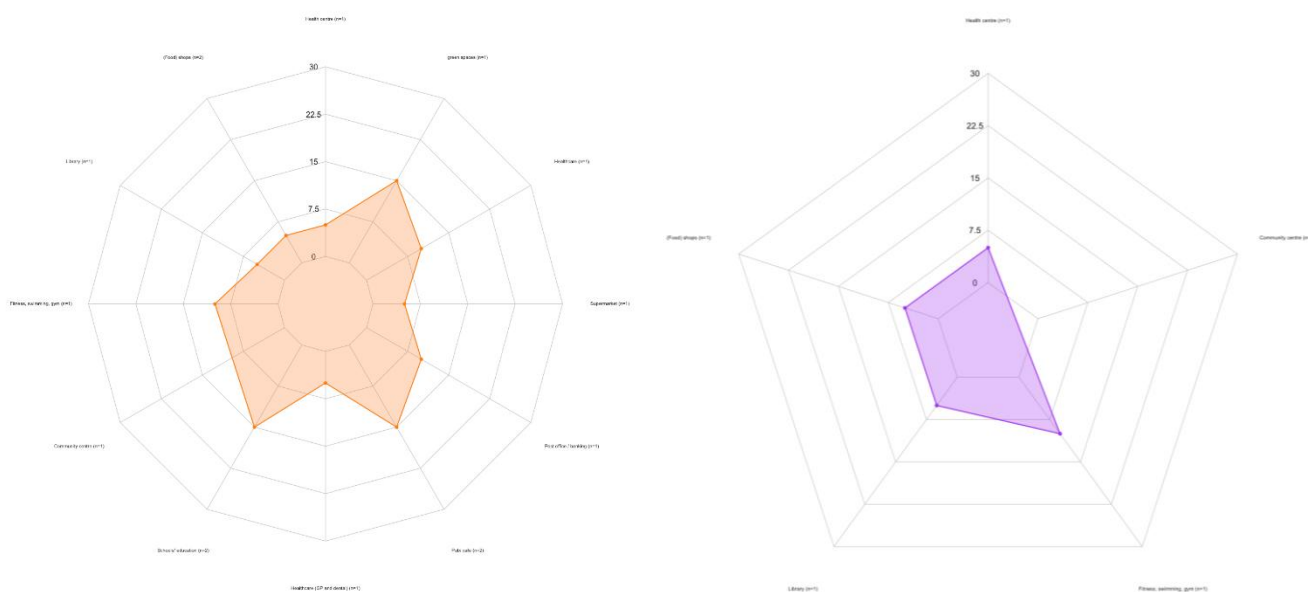


Figure 54. Littlemore: Overview of group-selected top five places by walking (left) and wheelchair (right). Source: own elaboration.

The results have shown an alignment between prioritized amenities in the individual walking exercises and those identified as important by participants with mobility impairments. Key places, such as healthcare facilities, community centers, post offices, and education centers, were consistently remarked. However, a notable difference lies in travel time preferences: participants using wheelchairs expressed a need for significantly shorter travel distances, indicating a preference for accessing essential services within a 10-minute range or less.

4.5.4.2 Wallingford group results

Participants in Wallingford identified the same places as important for walking and cycling, with their selection closely reflecting those made during the individual exercises. As illustrated in *Figure 55*, these places include workplaces, green spaces, educational and healthcare facilities, local shops, and, notably, pubs as important venues for social interaction. The primary difference between the two modes lies in travel time: participants expressed a greater willingness to cycle longer distances than walking to access the same amenities. On the other hand, participants noted that while some amenities are accessed through recreational cycling,

cycling is not yet widely embraced as a functional mode of transport. A key barrier identified was the lack of a strong cycling culture and tensions between cyclists and car drivers.

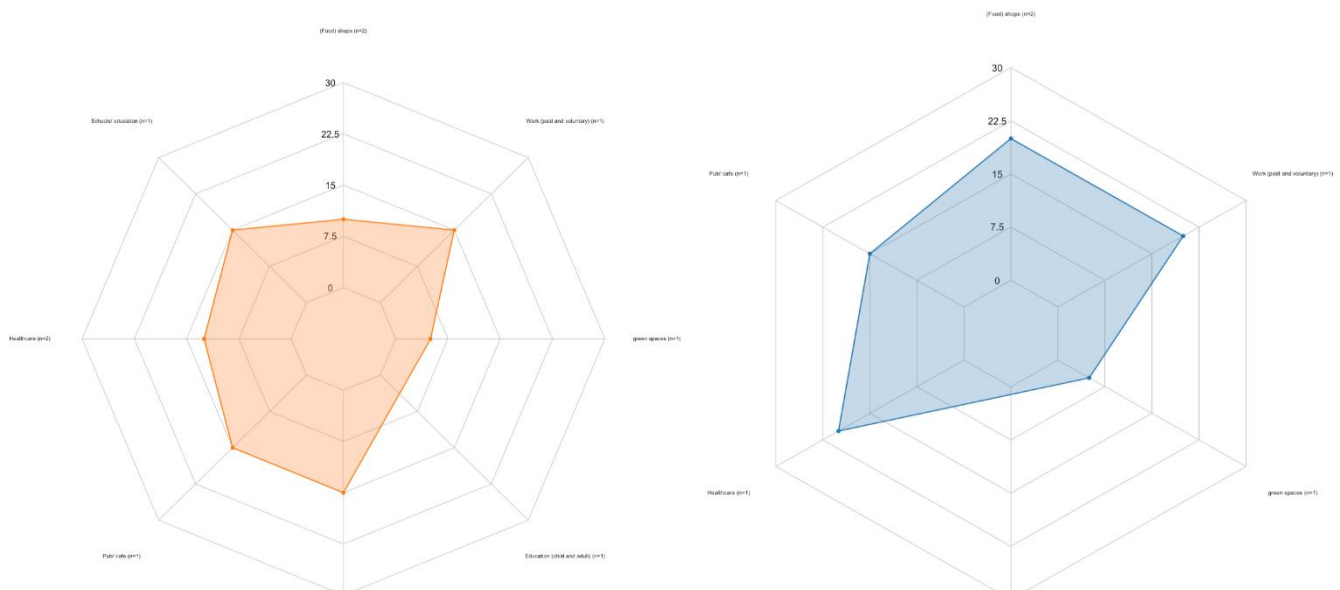


Figure 55. Wallingford: Overview of group-selected top five places by walking (left) and cycling (right).
Source: own elaboration.

4.5.4.3 Group dynamics

The most important selection factor aligns closely with the key priority previously identified by participants: the value of social spaces and opportunities for community building. As many participants mentioned:

“Prioritize social spaces that might build community.”

As shown in Figure 56, residents in both parishes also expressed concern for their community's overall health and well-being, which they linked to the unequal distribution of basic services:

“Concerns over the chronic health and social care issues in community”

“Facilities are not evenly distributed.”

On the other hand, one of the main challenges during the group discussions was the perceived lack of shared priorities. Participants noted a general disengagement from community processes, which they felt hampers the ability to collectively identify and prioritize important places:

“No sense of community ownership.”

“Specific individual needs that were less common.”

This perceived lack of participation was seen as a barrier to fostering stronger community dynamics and collaborative decision-making.

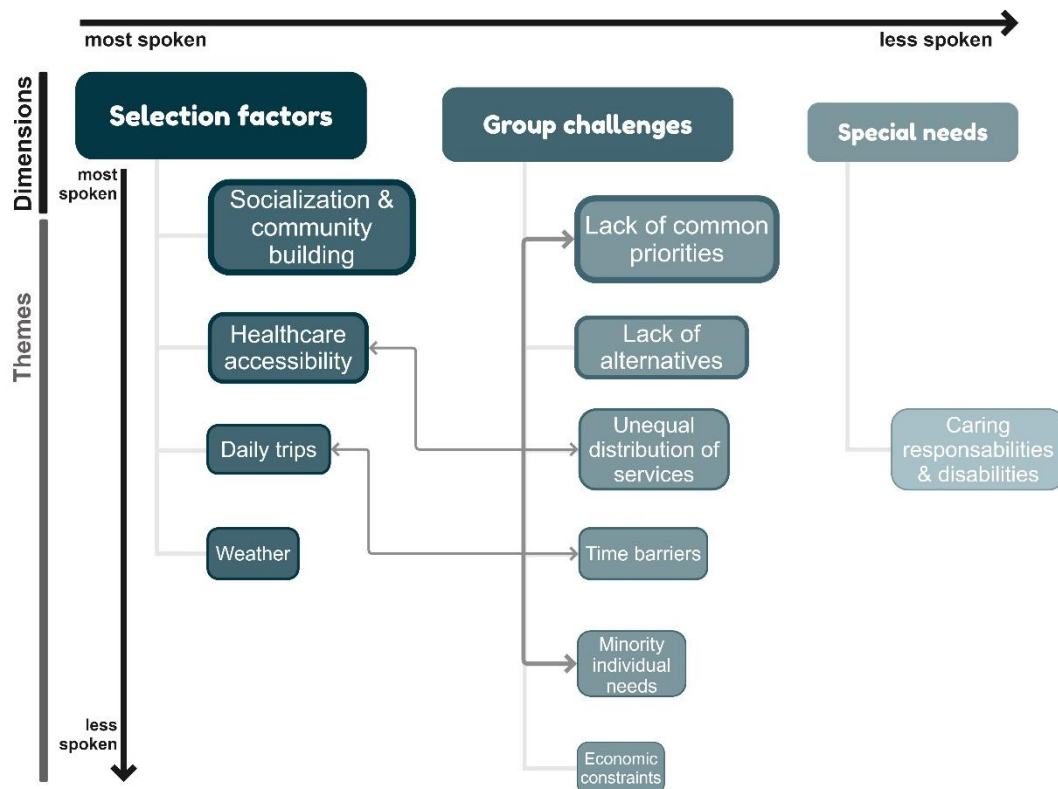


Figure 56. Thematic analysis and themes connection from group exercises for Littlemore and Wallingford. Source: own elaboration.

4.5.5 Conclusions of the Littlemore and Wallingford Community Flowers

The workshops in Littlemore and Wallingford revealed strong community values centered on social interaction, equitable access to essential services, and a clear desire to support active mobility. Participants prioritized healthcare, education, green spaces, and local shops within a 15-minute walking range, with cycling offering broader access to workplaces and post-pandemic leisure and health services. However, several challenges persist, including fragmented cycling infrastructure, traffic safety concerns, and inadequate public transport. Both communities also expressed frustration with limited participation in local decision-making and governance processes, often linked to infrastructure lagging housing growth and a perceived lack of local employment benefits.

In Littlemore, participants described a sense of disconnection and community fragmentation, driven by a more transient population and difficulties mobilizing collective action. Efforts to revive engagement through the neighborhood plan face obstacles rooted in low trust and limited consensus. These insights underscore the urgent need for people-centered, inclusive planning approaches that strengthen community ties, align infrastructure with local needs, and foster long-term civic participation.

5. Discussion

5.1 Discussion of the methodology applied

Based on the experience gathered throughout the implementation of the workshops across the five testbeds, two key insights emerged regarding the effectiveness and adaptability of the Flowers of Proximity (FoP) methodology.

5.1.1 From the current situation to “ideal” conditions

The Flowers of Proximity (FoP) methodology provided a flexible yet structured tool to explore local accessibility needs across diverse contexts. The workshop foregrounds perceptions and aspirations by emphasizing participants’ willingness rather than current conditions, which are essential for understanding the needs of residents. Moving from individual to group to community-level reflection offered rich insights into shared priorities and collective decision-making challenges. However, the method's emphasis on *proximity* and *participatory mapping* occasionally struggled with abstract or emotional dimensions of accessibility, especially when participants conflicted with ideal or acceptable conditions with current needs, reflecting the subjective nature of access in everyday life. In this respect, while the method may not always capture insights with complete precision, it proves effective in revealing not only spatial patterns but also emotional geographies and the social logic underlying place attachment.

5.1.2 Framing Proximity in the FoP Workshop

Depending on the context and the ongoing debates surrounding the 15-minute city concept, it is valuable that the FoP tool focuses on *proximity* rather than prescribing sustainable transport or specific modes of mobility. This approach allows the method to center on personal and basic needs, which are not always directly linked to a transport mode. In doing so, it emphasizes accessibility as a relational and contextual experience. However, if the research aims to explore active mobility specifically, the emphasis on walking and cycling can be framed as a practical proxy for proximity, reflecting how closely essential services and amenities are integrated into the everyday spatial environment.

5.2 Discussion of the results

5.2.1 Where is the potential of “commoning practices”?

Across all testbeds, participants consistently prioritized access to core amenities such as healthcare, education, green spaces, and local shops. However, not the physical presence of

these places alone mattered, but their relational value, which can be seen as an opportunity and potential to implement “commoning practices”:

- How they supported caregiving, social cohesion, and everyday well-being. This shift in emphasis from *places to feelings* aligns with the notion of “commoning accessibility,” wherein mobility is reimagined as a collective, co-produced right rather than an individual responsibility.
- The persistent gaps in public transport, especially in peri-urban and low-density areas, emerged as logistical shortcomings and missed opportunities for social innovation. Addressing these gaps through common practices could involve the creation of community-led mobility services such as shared school runs, volunteer-based elder transport, or flexible local shuttle systems coordinated by neighborhood associations.
- Initiatives like walking school buses or multifunctional community hubs, as seen in Merelbeke-Melle and Wallingford, illustrate how grassroots efforts can reclaim under-connected areas as spaces of interaction rather than isolation. Yet, these efforts often operate in the absence of formal institutional support, underscoring the need for a civic infrastructure that enables, scales, and sustains bottom-up mobility solutions rooted in care and community.

5.3 Significance and Limitations

The FoP workshops generated valuable qualitative insights into how residents perceive their accessibility in daily life. Rather than aiming for statistical representativeness, the methodology prioritized depth, subjectivity, and contextual relevance. This approach is particularly significant in highlighting relational dimensions of accessibility, such as caregiving, social cohesion, and personal well-being, which are often overlooked in conventional transport planning. However, this strength also reflects a key limitation: the data collected is not quantitatively generalizable. The findings cannot be interpreted as representative of broader populations, but rather as grounded snapshots shaped by the specific makeup of participants and the socio-spatial context of each workshop.

Furthermore, the highly contextual nature of responses means that results are often subjective and variable. What appears to be a minor issue to one participant may be a critical accessibility barrier to another, particularly in discussions influenced by age, ability, caregiving responsibilities, or employment status. This variability underscores the method’s sensitivity to local realities but also challenges efforts to draw universal conclusions. Despite these

limitations, the FoP workshops offer a powerful tool for surfacing local knowledge, voicing underrepresented needs, and fostering more inclusive, place-based mobility planning.

6. Conclusions

The co-creation workshops in five testbeds across Europe revealed the critical role of proximity, care, and social infrastructure in shaping accessibility needs. Walking and cycling were favored for essential services, while public transport and cars were needed for more distant destinations. Despite contextual differences, shared challenges emerged: unsafe active mobility routes, insufficient public transport, lack of mixed land use, the importance of social interaction, and limited opportunities for civic participation. Yet, the workshops also showcased the potential of commoning, through active citizen groups, shared planning efforts, and collective priorities, as a strategy to enhance accessibility in low-density, peri-urban contexts. The findings underline the value of people-centered, participatory planning to bridge mobility, governance, and social cohesion gaps, turning accessibility from a spatial constraint into a community-driven opportunity.

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