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ShareDiMobiHub

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Summary sheet

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Subpartner: Tønsberg kommune	TK	Norway
Promotion of Operation Links with Integrated Services	POLIS	Belgium
City of Amsterdam	AMS	Netherlands
City of Leuven	LEU	Belgium
University of Antwerp	UAntw	Belgium
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1. Introduction

Rotterdam offers a broad and diverse range of shared transport services. These include shared bicycles, mopeds, cargo bikes and cars, provided by a variety of private operators across the city. Shared transport offers opportunities to reduce the impact of mobility on public spaces and to enhance transport options for Rotterdam's residents.

However, the availability of these services is particularly strong in central areas, where infrastructure and demand are concentrated. Usage is highest among so-called early adopters: typically younger, higher-educated and wealthier residents who are already familiar with shared transport systems.

Outside the city center, the use of shared mobility remains limited. In these neighborhoods, fewer people are familiar with the concept, and the physical availability of services is more restricted. This results in both spatial and social disparities in access to mobility.

In the ShareDiMobiHub project, Rotterdam aims to address these disparities. By removing financial, informational and practical barriers, the municipality wants to make shared transport accessible to new user groups, particularly in areas where uptake has been low. The pilot described in this report is part of this ambition. It explores how shared mobility can be introduced and supported in neighborhoods with lower current usage, thereby improving transport options, reducing car dependency and using public space more efficiently.

This pilot is part of the Interreg North Sea Region Programme project ShareDiMobiHub. The findings from this pilot contribute to shared learning between partners and to local policy development in Rotterdam.

This effort is in line with, and contribute to, the municipal shared mobility policy. For a more comprehensive overview of the municipal shared mobility policy, see report 2.14 (Upscaling Strategy).

2. Pilot scope

Rotterdam boasts a very broad and diverse array of shared transport options. These services are mainly concentrated in inner-city locations and are used by early adopters, meaning groups that are already conscious and adept in using shared transport. Typical users of shared mobility are highly educated, often young, below the age of 65, earning above-average incomes, more often male than female, and usually living in areas that CBS classifies as very strongly urbanised[1]. We know this is also the case in Rotterdam (hubs survey 2023). There is no insight into the potential use of shared transport among groups that are less familiar with these services and who reside more in the urban districts or suburbs of Rotterdam.

The pilot aims to explore how shared mobility can be presented in such a way that more Rotterdammers see it and begin using it as an enhancement to their own transport. It focuses on areas where shared mobility is not yet frequently used, both because of the characteristics of the people and of the neighborhoods themselves.

The selected pilot areas are Oud-Mathenesse, het Witte Dorp, Oosterflank and Lage Land. These neighborhoods are part of the Rotterdamse Wijkaanpak Mobiliteit[2]. Because of that, the municipality had access to local networks, data and context-specific knowledge. Oud-Mathenesse and Het Witte Dorp (± 7.500 inhabitants) are located near the harbor, include many port workers and face socio-economic challenges, with relatively low-educated residents, residents of diverse backgrounds, and foreign workers. Oosterflank and Lage Land (± 22.000 inhabitants) lie outside the city center and represent a different urban typology. These neighborhoods are designed for cars with free parking, has a relatively high proportion of older residents, and many families.

The main objective is to gain insights into the effects of interventions on attitudes towards and usage of shared mobility by various target groups, and the evolving transport choices and travel patterns. The pilot aims to remove barriers and provide action perspectives by addressing three phases: awareness, consideration and trial.

The pilot is guided by the following research questions:

Main question: To what extent can our specific set of interventions, aimed at specific target groups, impact the use of mobility hubs amongst these target groups and lead to changed behavior and a modal shift in the long term?

This research question is supported by the following sub-questions:

1. To what extent can our measures increase awareness of the various forms and services of shared transportation among target groups?
2. To what extent can our package of measures encourage people to try (and thus experience) shared transportation?
3. To what extent is shared transportation beneficial for various target groups and travel motivations?

[1] Sources: Rapportage Landelijk Gebruikersonderzoek Deelmobiliteit 2024 & Staat van de deelmobiliteit 2024

[2] Wijkaanpak Mobiliteit: A local mobility strategy that focus on specific neighborhoods where residents face mobility challenges and are also less likely to use or have access to multiple mobility options.

4. How sustainable and effective are intervention methods and to what extent do they influence their attitudes towards shared transportation?
5. To what extent can we promote the use of shared mobility as an alternative or supplement to using one's own car, or as an addition to personal mobility options to enhance people's accessibility?

3. Approach

To answer the research questions and achieve the stated objectives, the pilot was designed around five main components:

3.1. Availability of vehicles and hubs

Shared electric bicycles, electric cargo bikes and mopeds were made available at multiple fixed locations in the pilot areas. This included both new and existing mobility hubs in Oud-Mathenesse and Het Witte Dorp, and in Oosterflank and Lage Land. The goal was to ensure that shared mobility options were visibly and reliably present from the start of the pilot.

3.2. Mobility budget

Participants received free access to shared mobility for two months, with a maximum value of €50 per month. In the following two months, participants continued to receive 50% discount. The budget was distributed via a MaaS (Mobility as a Service) app. Participants could download the app, receive their budget and directly book the available shared vehicles. The app served as a practical implementation tool, not as a goal on its own.

3.3. Communication

All residents in the pilot areas received a letter with information about the initiative. In each neighborhood, a public street event was held to introduce the pilot. Billboards were placed throughout the areas and social media campaigns were launched to raise awareness. The MaaS provider Umob also contributed to communication efforts.

Umob is a start-up MaaS (Mobility as a Service) application that integrates, among others, all shared mobility providers operating in Rotterdam. The platform is selected through a public tender process.

3.4. Mobility Coaches

Dedicated Mobility Coaches were present in the neighborhoods to assist residents. They helped with practical questions such as installing the app or understanding how to use the vehicles. Residents approached the coaches directly, particularly in the early weeks of the pilot, to get support in using the system.

3.5. Monitoring and evaluation

The pilot was evaluated using several methods. All residents in the research area received a baseline and follow-up survey by post. Active users were invited to complete in-app surveys after one and four months. Additional interviews were conducted with users, non-users and local professionals such as Mobility Coaches and neighborhood coordinators. Usage data as supplied by Umob, which was already organized and agreed to within the tender process. The evaluation was developed in cooperation with the University of Antwerp.

4. Lessons learned

To what extent can our specific set of interventions, aimed at specific target groups, impact the use of mobility hubs amongst these target groups and lead to changed behavior and a modal shift in the long term?

In this chapter, we reflect on the outcomes of the pilot by addressing this main research question. We do so by systematically answering the five sub-questions that underpin this central question. Each section highlights key observations and emerging insights based on survey results, user data, interviews and experiences from the team.

4.1. To what extent can our measures increase awareness of the various forms and services of shared transportation among target groups?

During the pilot period, awareness about transport hubs increased significantly. The survey shows that awareness of shared mobility hubs was already quite high at 73%, but it rose to 83%, an increase of 10 percentage points.

Residents received a letter from the municipality with information about the pilot, including instructions on how to use the shared mobility budget via the MaaS app. Additionally, we organized events (one per neighborhood), handed out flyers, created a webpage, communicated through social media and provided access to a 'mobility coach': a person who people could contact one-on-one for help with getting started with using shared mobility. Based on the outcome of the survey and the monitoring of new sign-ups; the letter turned out to be the most effective means of communication, followed by word of mouth and social media. Events and the availability of mobility coaches were helpful as they ensured more high-quality interaction, however the amount of people reached this way is limited.

Overall awareness has significantly increased. The effects of the communication methods used vary in both impact and quality.

4.2. To what extent can our package of measures encourage people to try (and thus experience) shared transportation?

In total, 845 people made use of the offer during the pilot period in the two neighborhoods. This corresponds to around 3% of the population of those neighborhoods making trips with the budget. Usage data shows that people often made multiple trips and that shared e-bikes were used most frequently, followed by mopeds. 70% of users indicate that they tried shared mobility thanks to the pilot.

The percentage of people in the neighborhoods who used mobility hubs rose from 26% to 34%. This represents a statistically significant increase. Compared to national shared mobility data, it stands out that many of the users had below-average incomes.

There are several practical limitations that should be addressed in a follow-up. For example, a commonly used payment method, iDEAL, was not available. Another issue was that the information letter was only available in Dutch, while many residents have a migration background. In addition, the availability of

vehicles, particularly cargo bikes, was not always sufficient, and cars were not included in the offer, which also played a role.

In summary, it can be said that through a package of measures, including the free budget and targeted communication, a group of people has successfully been encouraged to try shared mobility, enabling them to successfully become acquainted with shared mobility. At the same time, several practical challenges for potential follow-up actions were identified.

4.3. To what extent is shared transportation beneficial for various target groups and travel motivations?

Most users considered shared mobility to be of added value. According to the survey, 75% of participants indicated that they found it useful.

Shared mobility was used for a variety of purposes, particularly for visiting friends and family, going out, leisure activities, and commuting to work or study. It was also often chosen for destinations that are difficult to reach by public transport. Usage data shows that trips were relatively long, which can likely be explained by the fact that costs were covered during the pilot and the location of the neighborhoods compared to where the center of Rotterdam is.

To answer the question “To what extent is shared transportation beneficial for various target groups and travel motivations?”, the pilot demonstrates that shared transportation was broadly beneficial. It supported diverse travel purposes, from social visits and leisure activities to commuting and accessing destinations poorly served by public transport. This shows that shared mobility effectively meets the needs of multiple groups and travel motivations, adding tangible value to their mobility options.

4.4. How sustainable and effective are intervention methods and to what extent do they influence their attitudes towards shared transportation?

Overall, people are predominantly positive about shared mobility. Sixty percent indicate a positive view, twenty percent were neutral or neither positive nor negative, and twenty percent were negative. There is an indication that the overall perception became slightly more positive after the intervention (2-5%).

A clear difference can be observed between users and non-users. Among users of shared mobility, 87% expressed a positive attitude, compared to 46% among non-users. People who had used shared mobility for a longer period were not necessarily more or less positive than newer users.

As mentioned earlier, the use of mobility hubs increased during the pilot period. Most users of shared mobility from the two neighbourhoods pay per ride and use it incidentally.

Thanks to the free budget, participants were able to make substantial use of shared mobility and typically undertook many trips during this period. The majority indicated they are likely to keep using shared mobility, also when they have to pay for it themselves again, although use might be less frequent.

These findings suggest that the interventions were effective in motivating people to try shared mobility and in strengthening positive attitudes toward it. Although usage is expected to decrease without financial support, the overall perception has clearly improved, showing that the methods had a meaningful impact across different target groups.

4.5. To what extent can we promote the use of shared mobility as an alternative or supplement to using one's own car, or as an addition to personal mobility options to enhance people's accessibility?

When examining which trips were replaced by shared mobility, we see that around 20% substituted a car trip, while many others replaced trips by bike and public transport. Overall, most participants regarded shared mobility as a valuable addition to their range of mobility options. They did not necessarily make new trips because of it, but it clearly enriched their existing travel choices.

People will not use shared mobility for most of their travel purposes, mainly because this is not the most cost beneficial choice. However, by incidentally using it and having gained experience with it, they now know how to use it and have the option available whenever they choose. This incidental use can help avoid the need for a car and support more sustainable travel choices in the long term. For example, one resident explained that if a cargo bike is available for her to use, it delays or even removes the necessity of buying a car.

The pilot shows that shared mobility can be effectively promoted as both an alternative and a supplement to using one's own car, as well as an addition to personal mobility options that enhances accessibility. By removing the cost barrier and making the free budget available through the app, participants had easy access to the full range of shared mobility options. This was reinforced by extensive communication efforts and the active support of neighborhood coaches, which together ensured that people were well informed and confident in trying shared mobility. These combined measures made it possible for participants to experience shared mobility in practice, thereby demonstrating its potential to improve accessibility and reduce dependence on private cars.

5. Best practices

The main question that is answered during the research and pilot:

To what extent can our specific set of interventions, aimed at specific target groups, impact the use of mobility hubs amongst these target groups and lead to changed behavior and a modal shift in the long term?

The pilot demonstrates that a targeted set of interventions has significantly increased both awareness and use of mobility hubs in the neighborhoods of Oud Mathenesse, het Witte Dorp, Oosterflank and Het Lage Land. During the pilot period, awareness and usage rose noticeably, and many residents who had not previously used shared mobility became tried it for the first time. This shows that such interventions can bring about increased use and behavioral change, provided that several key conditions are met:

- **Removing cost barriers:** Many participants indicate that cost is a major obstacle to using shared mobility. By temporarily removing this barrier with a free budget, we made it easier for people to try shared mobility and build experience with it.
- **Ensuring sufficient availability of vehicles:** Access to a wide range of vehicles in the neighborhoods proved critical. Where availability was limited, for example with cargo bikes, usage was affected. For the future, it would be valuable to consider including shared cars in the offer, as this could further strengthen the role of mobility hubs.
- **Effective and targeted communication:** Shared mobility is not top of mind for most people, which makes communication crucial. In this pilot, a letter from the municipality proved to be a highly effective tool. For future actions, communication should be even more tailored to the target groups and ideally offered in multiple languages to better reach residents with a migration background.
- **User-friendliness of the entire process:** A smooth experience is essential, starting from registration and onboarding to finding, renting, and returning vehicles. In this pilot, practical issues such as the lack of iDEAL as a payment method, difficulties with onboarding, and challenges in vehicle availability and return processes showed where improvements are needed.
- **Benefits of tendering:** The budget was allocated through the use of a MaaS app, which proved to be a positive experience. All different shared two-wheelers were accessible via Umob's MaaS app. In addition, we were able to receive data from all trips and ask users questions through the app. This arrangement was laid down in a tender procedure at the start of the project. Three companies were invited to tender, with Umob ultimately winning the contract. The requirements included provisions such as offering access to all shared two-wheelers in the city and sharing data. This has resulted in significant convenience.

Overall, the pilot resulted in a working toolkit that successfully encouraged new users to try shared mobility and demonstrated clear potential for behavioral change. A large share of participants is expected to continue using shared mobility, albeit mostly incidentally. The trips made with shared mobility would otherwise have been made mainly by public transport, bicycle, or car. By carefully considering the future design of such an offer, there may be even more opportunities to guide this shift, particularly by making the purchase of a private car less necessary or delaying it altogether.

6. Next steps

Building on the lessons learned from the pilot, the shared mobility initiative in Rotterdam has been extended to additional neighbourhoods. This expansion aims to further test the approach in diverse urban contexts and to reach a broader group of residents across the city.

In parallel, the policy for shared mobility and hubs has been formally established in early 2024. The lessons from this pilot have contributed to an update to this policy made in 2025 (see report 2.14 – Upscaling Strategy Rotterdam). Key elements of this policy update include:

- Managing scarce space (neighbourhood mobility hubs / private hubs)
- Safe and attractive public space (local mobility hubs and enforcement)
- Accessibility for everyone (car sharing, shared two-wheelers)
- Shared two-wheelers
- Car sharing
- Cooperation and monitoring
- Neighbourhood-based approach

After the project ends, key learnings from the pilot will be used to make political decisions about:

- Future collaboration with MaaS providers
- The role of shared mobility during major infrastructure works (e.g. compensating residents with travel budget)
- Overall, the pilot contributes to a better understanding of the role and value of shared mobility in outer neighborhoods and among underrepresented user groups.

The outcomes of this pilot will guide future steps in making shared mobility a more inclusive, accessible, and widely adopted solution within the city of Rotterdam.

7. The ShareDiMobiHub Consortium

The consortium of ShareDiMobiHub consists of 13 partners and 4 subpartners with multidisciplinary and complementary competencies. This includes European cities and regions, universities, network partners and transport operators.

For further information please visit https://www.interregnorthsea.eu/sharedimobihub