

**Interreg
North Sea**



**Co-funded by
the European Union**

ShareDiMobiHub

**Selection of contractors for the pilot in
Rotterdam**

WORK PACKAGE 1 DELIVERABLE 3

**August 2024
(City of Rotterdam)**

Summary sheet

Project Name	ShareDiMobiHub
Title of the document	Selection of contractors for the pilot in Rotterdam
Deliverable	D 1.2
Work Package	1
Programme	Interreg NSR
Coordinator	Province of Utrecht
Website	https://www.interregnorthsea.eu/sharedimobihub
Author	Advisor of City of Rotterdam
Status	Public
Dissemination level	Public
Reviewed by	Smart Mobility and Transport Solutions, Mpact and city of Leuven
Submission date	
Starting date	September 2022
Number of months	36

Project partners

Organisation	Abbreviation	Country
Province of Utrecht	ProvU	Netherlands
Capital Region of Denmark	CRD	Denmark
Vestfold and Telemark County	VTFK	Norway
Subpartner: Statens vegvesen	SVV	Norway
Subpartner: Tønsberg kommune	TK	Norway
Subpartner: Porsgrunn municipality	PK	Norway
Subpartner: Skien municipality	SK	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
Transport Authority for the Amsterdam Region	VRA	Netherlands
Mpact	Mpact	Belgium
Autodelen.net	Auto	Belgium
City of Rotterdam	ROT	Netherlands
Hamburg University of Applied Sciences	HAW	Germany
University of Applied Sciences Utrecht	HU	Netherlands

Document history

Version	Date	Organisation	Main area of changes	Comments
0.1	11 July 2024	City of Rotterdam		
0.2	23 July 2024	City of Rotterdam		
1.0	26 August 2024	City of Rotterdam		

Table of Contents

Summary sheet	2
Project partners	3
Document history	4
1. Introduction	6
2. MaaS providers	6
2.1 (Inter)national MaaS providers.....	6
3. Level of integration	8
3.1 L2 Level integration.....	8
3.2 L5 Level integration.....	8
3.3 Mobility Card with Budget	9
4. Selection criteria	9
4.1 Functionalities.....	10
4.2 Accessibility:.....	10
4.3 Integration of services	11
4.4 Data and monitoring.....	11
4.5 Costs.....	11
5 Next steps	12
The ShareDiMobiHub Consortium	13

1. Introduction

The goal of this document is to provide insights in, among other things, the selection criteria and other insights relevant for other partners if they are going to select a MaaS provider. This document serves as a first preparation of the tender procedure for the Rotterdam pilot within ShareDiMobiHub and therefore complies with the specifications of deliverable 1.3.

First, an overview of MaaS providers and their characteristics will be presented. Second, different integration levels will be explored. Finally, we will conclude with the selection criteria (needs and wishes) for the MaaS provider in Rotterdam.

2. MaaS providers

Within MaaS it is valuable to distinguish the following two types of providers:

1. Individual Mobility Providers:

This includes providers of shared mopeds, public transport, shared bikes, shared cargo bikes and car-sharing solutions. These services are widely available in many locations across the Netherlands, often through apps activated via QR codes on the vehicles.

2. Platform Providers with Integrated Solutions:

These providers offer apps or mobility cards that integrate multiple mobility services, making it easier for users to access various transport options through a single platform. Such apps allow for integrated information, reservation, and payment for a wide range of services. Employers can link these apps to mobility budgets and management systems, gaining insights into trips, costs, and CO2 emissions. An additional feature could include working with a CO2 budget.

2.1 (Inter)national MaaS providers

In the Netherlands, there are several providers of Mobility as a Service (MaaS). These providers integrate various forms of transportation, such as public transport, car-sharing, bike-sharing, moped-sharing, and taxis, into one platform. Here is a list of some key MaaS providers in the Netherlands. These providers often collaborate with local governments, transport companies, and other mobility services to offer users a seamless and efficient mobility solution.

- **Tranzer**

Offers a platform for planning, booking, and paying for trips using various transportation modes, such as public transport, taxis, and bike-sharing.

- **Gaiyo**

An app that combines different transport options, including public transport, car-sharing, taxis, and bike-sharing. Users can plan, book, and pay for their trips within one app.

- **Mobian**

Focuses on combining various transport services such as public transport, parking, bike-sharing, and car-sharing. Mobian also offers parking solutions at stations and airports.

- **Sixt Share**
Part of Sixt, a global car rental company. Sixt Share allows users to rent cars on a minute or hour basis and combines this with other transport options such as taxis and bike-sharing.
- **Radiuz**
Provides a platform that integrates different transport modes and offers business mobility solutions. Radiuz focuses on facilitating commuting for companies.
- **GoAbout**
A MaaS platform that focuses on offering various transport modes such as public transport, bikes, car-sharing, and taxis. GoAbout primarily targets students and employees.
- **Greenwheels**
Offers car-sharing at various locations in the Netherlands and integrates this with other transport modes via a MaaS platform.
- **Hely**
A platform that offers various shared transport modes such as bikes, mopeds, and cars through one app. Hely collaborates with different providers to offer a wide range of transport options.
- **Felyx**
A moped-sharing company that combines its services with other transport options in MaaS platforms.
- **Amaz**
Provides a MaaS platform that integrates different mobility options, allowing users to plan, book, and pay for their trips using various transport modes.
- **Umob**
Offers a MaaS solution that integrates multiple forms of transport, providing users with a seamless way to plan, book, and pay for their journeys across different mobility services.
- **Figo**
Delivers a MaaS platform that integrates various transport services, allowing users to efficiently plan, book, and pay for their travels using different modes of transportation.

3. Level of integration

For most Mobility as a Service (MaaS) providers, the functionality and degree of integration with other services can vary, indicated by levels such as L2 and L5. Below is an explanation of what these levels entail and which parties they may be associated with. The connection between the L2/L5 terminology and the TOMP-API lies in the standardization and interoperability of Mobility as a Service (MaaS) solutions.

TOMP-API (Transport Operator to Mobility Provider API) is a standardized interface that enables communication between various mobility services and MaaS platforms. The API facilitates the exchange of information such as availability, bookings, payments, and more between transport operators and MaaS providers.

3.1 L2 Level integration

At the L2 level, it means that a MaaS app, such as the NS app (public transport app in The Netherlands), provides a link to another app (for example, the Check app for mopeds) to use a specific transport service. This is often referred to as a "deep link-integration".

Suppose you see a moped in the NS app, and you want to book it. When you select the moped, the NS app automatically opens the Check app, where you can then complete the ride, such as unlocking the moped and making the payment.

The handling of the ride and all further interaction takes place in the external app (in this case, the Check app). The MaaS app acts merely as a conduit to direct you to the right place, but not for the complete handling.

3.2 L5 Level integration

At the L5 level, the integration between different transport services and the MaaS app is so complete that you don't need to open or even install the external app (such as Check) to book or handle a ride. Compared to the L2 level it is a full integration.

Everything happens within the MaaS app itself. For example, you see a moped in the NS app, and you can book, unlock, use, and pay for the moped directly from the NS app, without ever needing to open the Check app.

This level of integration is technically challenging because it requires all transport providers to fully integrate their services and keep them continuously updated within the MaaS app. This means that all necessary functionalities, such as payments, verifications, and ride management, are accessible within a single app without reliance on the original provider's app.

Some MaaS providers in The Netherlands with advanced L5 integrations include companies like Figo, Gaiyo, and Umob. However, they do not always have all the service providers that are active in Rotterdam connected, which makes their use less appealing.

So, with the L2 level the user uses the MaaS app to find a ride but switch to another app to manage the ride. In the L5 level you use a single app (the MaaS app) to find, book, and manage the ride without needing to switch to another app.

3.3 Mobility Card with Budget

A mobility card with budget provides users with access to various transportation services through a single card or app, using a pre-set budget to pay for several types of rides. Instead of full integration as in L5, there is partial integration of services, placing this variant between L2 and L5. An intermediate variant.

Functionality of the Mobility card:

- Budget Management: The user is allocated a certain budget on the mobility card, which can be used for different transport services such as public transport, car-sharing, mopeds, bikes, etc.
- Ease of Use: Like L5, the user can navigate between different transport options within one platform (the MaaS app). However, instead of managing the entire ride within a single app, the card or app serves as a central payment method used across multiple services.
- Partially Integrated: While selecting and paying for rides can often be done directly within the MaaS app, the actual execution of the service (such as starting a ride or unlocking a vehicle) may still require the user to switch to a specific provider's app, like L2. Therefore, the integration is not complete but is deeper than in L2.

Example: A user selects a car-sharing service via the MaaS app and pays for the ride with the budget loaded on the mobility card. The user then unlocks the shared car using an external app (such as the car-sharing provider's app). This combines the simplicity of L5's payment integration with the functional switching required in L2.

Benefits:

- Flexibility: Users have access to multiple transport options without the need to manage multiple accounts or payment methods.
- Cost Control: By using a budget, the mobility card can help manage and limit expenses, which can be useful for individuals and businesses.
- Partial Integration: It offers a balance between integration and functionality, providing users with a streamlined experience without requiring full integration.

The mobility card with budget serves as an intermediate solution that offers some of the advantages of full L5 integration, such as simplicity in payments and access to multiple transport services, while retaining some elements of L2, like the use of specific apps for certain functions. This makes it a practical solution for improving user-friendliness in a MaaS ecosystem, while full technical integration (as required for L5) is not yet feasible or desired.

4. Selection criteria

Based on the exploration above, the municipality of Rotterdam defined selection criteria that will apply to the tender in Rotterdam. We describe these below. Certain criteria are challenging to implement, such as providing alternatives to credit cards and making MaaS platforms accessible to people without smartphones. Since most MaaS providers are primarily app-based, alternative solutions like callcenters seem less practical and appealing. These criteria are indeed difficult to achieve and primarily serve as a test to assess whether the market is willing to make MaaS more inclusive.

4.1 Functionalities

The goal of the municipality is to offer easy people access to shared mobility through a MaaS platform and provide them with a mobility budget to use the shared mobility. To do so, we foresee the following functionalities:

- The municipality can make travel budget (exact quantity still unknown, this can be done in consultation with the MaaS provider) available via the app for participants.
- The possibility to use a discount offered by the municipality of Rotterdam.
- Participants can plan, book, and pay via the app, so everything is managed in one app.
- Possibility to book a part of your chain journey and not all steps at once.
- The possibility for users to top up their own budget.
- The possibility of a notification when a participant is about to exceed their budget.
- The possibility to book multiple means of transport simultaneously on one account. So, for example, unlocking bikes at the same time to travel together.
- A 24/7 service/information point (online and/or offline) both at the shared mobility providers and the platform.

4.2 Accessibility:

The municipality strives to have a solution that is accessible to a wide variety of potential users. To ensure this, we will ask the potential providers to give insight in the following:

- User friendliness of the application. The application should be user friendly and intuitive. We want the users to have a pleasant user experience, such as driverless onboarding possible.
- Accessibility of the platform or alternative solution for people without a driver's license (when using only (cargo) bikes and public transport).
- Accessibility of the platform or alternative solution for people without a credit card (for handling payments).
- Accessibility of the platform or alternative solution for people without a smartphone (for accessing the app).
- Level of support for people who are not very digitally skilled (but do have a smartphone).

4.3 Integration of services

A MaaS offer is very much dependent on the mobility services that can be accessed through the platform. The goal of Rotterdam is to have an easily accessible and complete transport offer, both in terms of types of vehicles as in the availability of vehicles/trips in the pilot areas. We will ask the potential providers to give insight in:

- The integrated transport modes: what providers and transport modes will be available through the application?
- Level of integration (for various transport providers/means of transport). To be defined what our wishes/conditions are in this sense.
- The entry of new providers (who are not yet integrated). If a certain provider is not integrated, we would like to know what the possibilities, lead time, and integration costs are.

4.4 Data and monitoring

To get insights in the effects of the pilot and to inform and improve future actions and policies, the municipality aims to do a thorough evaluation. For the provider, this would mean:

- Sharing data on the use of shared transport for monitoring purposes. We would like to know to what extent (and in which format and frequency) information will be shared on the use of both the application and the transport services. The requirements still need to be defined (including standards to comply with etc).
- Enabling us to do surveys among users of the application. The frequency and form of this still need to be defined.
- The PowerBI dashboard, created by the city of Rotterdam, can be used to monitor the hubs and the usage.

4.5 Costs

The municipality is aiming for a cost-effective pilot and have defined a maximum budget for this pilot. Therefore, we will ask potential providers to give insight in amongst others:

- Fixed costs: Project costs (project support from the MaaS app provider).
- Variable costs (depended on amount us users and their use of the application): Are there any costs associated with participants topping up their own budget? Are there any costs associated with the monthly allocation of a transport budget?

5 Next steps

Above mentioned criteria will be further elaborated into tendering documents. After that, we foresee the following steps:

1. We are approaching three to five providers of MaaS with the applicable conditions whether they can meet them. Here we describe the current situation, where we want to work towards and whether the providers can help with this and the applicable conditions.
2. Beforehand, we determine the assessment method and the assessment criteria.
3. The tenders we receive will be evaluated according to the selection criteria.
4. The contract is awarded to the party with the most points.

In this process, we are in close contact with our colleagues from procurement.

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.

<p>Regional authorities and cities</p>	<p>Universities</p>
<p>Transport authorities</p>	<p>Network organisations</p>

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

The sole responsibility for the content of this document lies with the authors. It does not necessarily reflect the opinion of the European Union. Neither Interreg Northsearegion nor the European Commission are responsible for any use that may be made of the information contained therein.