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ShareDiMobiHub

Action plan: How to upscale mobility hubs and shared mobility solutions in Leuven by 2025?

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Summary sheet

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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
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Document history

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Table of Contents

Inhoud

1	Introduction and context	6
2	Objectives.....	6
3	Actions	8
3.1	Action 1: Expansion of supply.....	8
3.1.1	Deployment of more hubs	8
3.1.2	Expansion of number of shared modes	9
3.2	Action 2: Expansion of use.....	9
3.2.1	Continued attention for communication actions in regular city channels	9
3.2.2	Development of additional communication actions.....	9
3.2.3	Nudging actions for disadvantaged groups.....	9
4	Our approach	10
4.1	Location determination of hubs	10
4.1.1	Hoppin hubs	10
4.1.2	Hubs for shared cars	11
4.1.3	Hubs for shared bikes.....	11
4.2	Steps to prepare and install hubs.....	12
4.2.1	From idea to installation of new share bikes or car.....	13
4.2.2	From hubs to Hoppin hubs.....	13
4.3	Cooperation with shared mobility providers	14
4.3.1	In general.....	14
4.3.2	Providers of shared cars.....	14
4.3.3	Providers of shared cargo bikes	14
4.3.4	Providers of shared bikes	14
4.4	Integration with public transport	14
4.5	Integration with MaaS.....	15
4.6	Stakeholder management	16
4.7	Daily management and maintenance.....	16
4.8	Monitoring and evaluation.....	16
5	The ShareDiMobiHub Consortium	17

1 Introduction and context

This plan starts from the starting situation at startup of this ShareDiMobiHub project, which is September 2022.

There are 4 themes highlighted in the 2020-2025 multi-year plan¹:

1. Leuven, social and inclusive: connected city for all
2. Leuven, sustainable, mobile and livable
3. Leuven, stimulator of talent and bustling knowledge city with jobs for all
4. Leuven, vibrant city with something for everyone

Within the second theme, the objective related to mobility is formulated, namely **Leuven: accessible, reachable, traffic-safe and accessible city**.

There are 2 action clusters provided:

1. Invest in an accessible, walkable bicycle city with smooth and efficient public transport.
2. Working towards a car-free, traffic-safe and accessible city with an innovative mobility policy.

The concrete action on which this action plan mainly focuses falls within this second cluster, namely Activity 56: Stimulating combi and shared mobility by providing infrastructure and increasing support.

2 Objectives

Two upscaling objectives are central to the period January 2023 to September 2025 (end of ShareDiMobiHub); these objectives focus exclusively on commercial supply:

1) an increase in supply

- a. the number of active Hoppin hubs in Leuven increases by 10% annually
- b. the number of shared cars in Leuven increases by 20% annually
- c. the number of hubs (stands) with shared cars in Leuven increases annually by 10%
- d. the number of shared bicycles in Leuven will increase annually by 25%.
- e. the number of hubs (stands) with shared bicycles in Leuven increases by 30% annually

2) an increase in use

- a. the number of users of shared cars in Leuven increases annually by 15%
- b. the number of users of shared bikes (members, subscribers, people with an account, not necessarily residents of Leuven) increases annually by 10%
- c. the number of rides with shared bicycles increases annually by 20%
- d. the average number of rides/day/shared bike increases by 10% annually

¹ See <https://leuven.be/mobiliteitsvisie>

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Hereby an overview of the baseline and ambitions:

	#	Description of the indicator	Expected annual growth	Expected growth-effect	Baseline 31/12/2022	Target
Supply	1	number of active Hoppin hubs	10%	28%	41	52
	2	number of shared cars	20%	55%	157	243
	3	number of hubs with shared car	10%	28%	54	69
	4	number of shared bikes	25%	69%	186	314
	5	number of hubs with shared bikes	30%	83%	30	55
Use	6	number of active shared car users (with address in Leuven)	15%	41%	4.471	6.315
	7	number of shared bike users (not necessarily inhabitants of Leuven)	10%	28%	7.336	9.353
	8	number of trips with shared bike	20%	55%	36915	57.218
	9	average number of trips/day/shared bike	10%	28%	0,50	0,64

Table 1: Upscaling targets for Leuven (horizon 2025)

3 Actions

For the specific goals, please refer to the table above.

3.1 Action 1: Expansion of supply

3.1.1 Deployment of more hubs

The city council is committed to further expanding shared and combined mobility solutions in Leuven in an orderly manner. The aim is to expand both hubs with a Hoppin branding and hubs without a Hoppin branding, as locations for shared cars or bikes. These hubs without Hoppin branding can then receive a Hoppin branding at a later date, if they meet the conditions listed in the Design Guide of the Flemish label Hoppin.

Thus, preference is given to reserved stands for shared vehicles. Regarding shared vehicles, the city council is open to piloting free-floating vehicles. As for micromobility, the city council does not allow scooters. The coordinated police regulation were amended in 2020. Since then, no shared mobility provider can offer vehicles in the public space of Leuven without an official permit, award or concession.

3.1.2 Expansion of number of shared modes

In order to achieve the desired modal shift, the city council is willing to support providers of shared vehicles to help realize the growth of the fleet of shared cars and bikes. In an initial phase, a financial intervention to the shared mobility provider will be set up. The basic principle is that it provides an income guarantee to the provider, thus reducing financial risk. The aid is linked to the number of vehicles used. In addition, the subsidy is limited in time and does not apply to the entire fleet. It is therefore in the interest of both parties, the city and the operator, to introduce measures to encourage use.

Several “subsidy projects” are being set up from the city of Leuven to accelerate this expansion of the fleet:

- For more shared cars in the city outskirts of Leuven
- For combined use of shared e-cars by city services and citizens
- For shared cargo bikes in strategic locations
- For more shared bikes in station surroundings
- For an expansion with shared e-bikes in station surroundings and beyond.

3.2 Action 2: Expansion of use

It seems to us a shared responsibility between city and shared mobility provider to inform users about the alternatives and encourage their use. The city is careful to ensure that communication about the range of providers is balanced. These are communication actions, which will also be reported in WP2, D7. These 3 actions are envisaged:

3.2.1 Continued attention for communication actions in regular city channels

There will be close coordination with colleagues from the communications department in order to optimally cover the topic of shared mobility in e.g. LVN (= monthly magazine to all Leuven residents) and the e-newsletter. Additions will also be made to the website and residents' letters will be prepared and distributed in due course.

3.2.2 Development of additional communication actions

A tender will be organized to elaborate a series of communication actions commissioned by the city (see communication plan).

3.2.3 Nudging actions for disadvantaged groups.

Consideration is being given to setting up cycling classes because cycling skills are not evident for every Leuven citizen. We see this offer as an extra on top of the regular offer within the cooperation of the City of Leuven with the Cycling School Leuven.

In addition, we are also considering a pilot project with financial incentive for the use of the shared cargo bicycle based on a third-party payment scheme. This test would be linked to the existing UITPAS² with a specific discount fee.

² See <https://leuven.be/uitpas#uitpas-met-kansentarief>

4 Our approach

4.1 Location determination of hubs

4.1.1 Hoppin hubs

4.1.1.1 Baseline

By the end of 2022, there were 41 active Hoppin points (green) in Leuven.

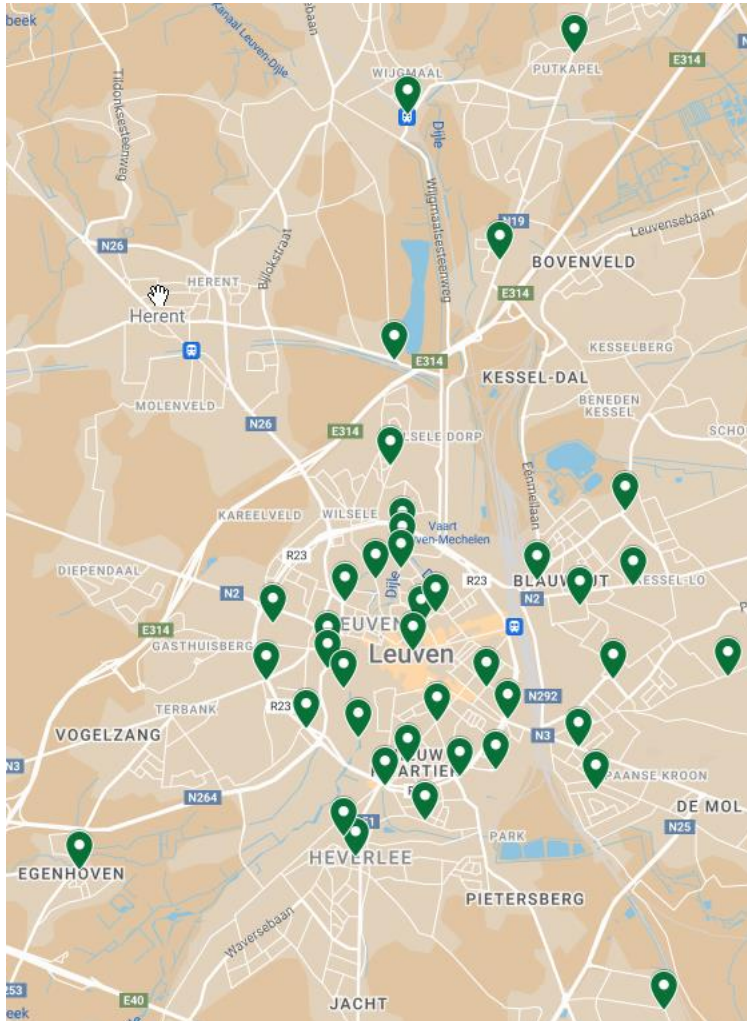


Figure 1: Map with Hoppin hubs in Leuven (end of 2022)

4.1.1.2 Location determination criterion

The key criterion for upscaling the number of Hoppin hubs is the level of use of the shared vehicles on offer. In other words, we are talking about locations, where there has been an offer of shared mobility for a while, and where it appears to be catching on; this could be a shared cargo bike or a shared car (or several) or a combination of both.

These are both neighborhood and local Hoppin hubs, with the important difference being that at local Hoppin hubs there is also an offer of public transport (read: bus). Hoppin regulations state that the locations for neighbourhood Hoppin hubs can be determined by the municipality; for local, regional and interregional hubs, the final decision is made at the level of the transport region.

4.1.2 Hubs for shared cars

In order to obtain a greater spread and better coverage of the territory, some 15 new sites for shared cars will be sought. An annual action plan for expansion will be drawn up with the “regular” providers.

New providers are welcome in Leuven; they must submit an application for approval. This is a fairly simple application. A recommendation is then given from the administration to have the new provider officially recognized by the city council.

4.1.2.1 Baseline

Partago and Cambio are the approved shared car providers in Leuven, both station-based, together accounting for 54 hubs in Leuven at the beginning of 2023.

4.1.2.2 Criteria for location determination

The following criteria for location determination of a new stand location are important:

- Parking pressure
- Traffic safety
- Distance from other hub for shared cars
- Type of parking spaces: longitudinal versus transverse parking
- Availability of charging point or availability of 400V power grid
- Room for expansion (up to min. 2 shared cars)
- Population density
- Points of Interest
- Estimation of user profiles
- Parking space for private car
- Opportunities for expansion with other services

4.1.3 Hubs for shared bikes

Blue-bike and Cargoroo are active in Leuven in early 2023, together accounting for 31 hubs, some of which offer a combination of shared bicycles and shared cargo bikes.

4.1.3.1 Shared cargo bikes

4.1.3.1.1 Baseline

In Leuven, there is one concessionaire for shared cargo bikes, namely Cargoroo. They started in early 2023 with 30 Cargoroos at 30 different locations, almost all of them Hoppin hubs.

The first 30 locations were chosen by the city of Leuven. They are Hoppin hubs where Leuven already had test experience with the Cargoroos within the context of the eHUBS project and where we believed in its potential. There are also Hoppin hubs that came about bottom-up, and where citizens themselves asked for a cargo bike.

4.1.3.1.2 Criteria for location determination

The main criteria for determining location of a cargo bike are:

- Parking pressure
- Traffic safety
- Distance from other hub for shared cargo bike
- Population density

D2.7 Action plan: How to upscale mobility hubs and shared mobility solutions in Leuven by 2025?

- Estimation of user profiles
- Parking space for private car
- Are other mobility services already available or are there opportunities for expansion with other services?

These criteria take the “proximity logic” into account, in other words a shared cargo bike is more likely to be used from home, from nearby, and not so much within a multimodal journey. Since this is a back_2-One system, proximity to the departure location (home) is guiding. Hence, neighborhoods with many young families with children are especially considered, as that is the main use case of the shared cargo bike.

4.1.3.2 Shared bikes

4.1.3.2.1 Baseline

In Leuven in early 2023, there is one provider of shared bikes, namely Blue-bike.

They offer shared bicycles in station areas on the one hand. There is a cooperation agreement with the city of Leuven to make good agreements on the number, service and pricing. From the city of Leuven there is a third-party payment scheme, so that the end user pays a lower cost of use. In early 2023 there were 3 locations: 2 at Leuven station (front and back) and Heverlee station.

4.1.3.2.2 Criteria for location determination

The main criteria for determining location of a shared bike are:

- Fast and convenient link as a first and last mile mode
- Traffic safety
- Distance from other hub for shared bike
- Estimation of user profiles
- Are other mobility services already available or are there opportunities for expansion with other services

These criteria take into account the “network logic”, in other words the bicycle sharing service is more likely to be used within a multimodal journey. A smooth transfer to and from public transport or parking for a private car is the guiding principle. Whereas with shared cargo bicycles the focus was mainly on Leuven residents, it is now more on visitors and commuters. For the shared e-bikes, together with the companies, we looked at (1) the public transport stations or parking lots at the city margins where people arrive and want to transfer; (2) neighborhoods where there is a lot of employment, and (3) Points of Interest (e.g., center of Leuven).

4.2 Steps to prepare and install hubs

In the years 2020 to 2022, based on a combined approach, namely bottom-up and top-down, a network of about 40 Hoppin hubs is installed in Leuven, pioneering in Flanders. The supply of shared vehicles will be fitted as well as possible within this network of Hoppin hubs. At the end of 2022, there were still hubs of shared cars that were not yet equipped according to the Hoppin brand, and thus were not yet Hoppin hubs.

Three scenarios of scaling up are envisioned:

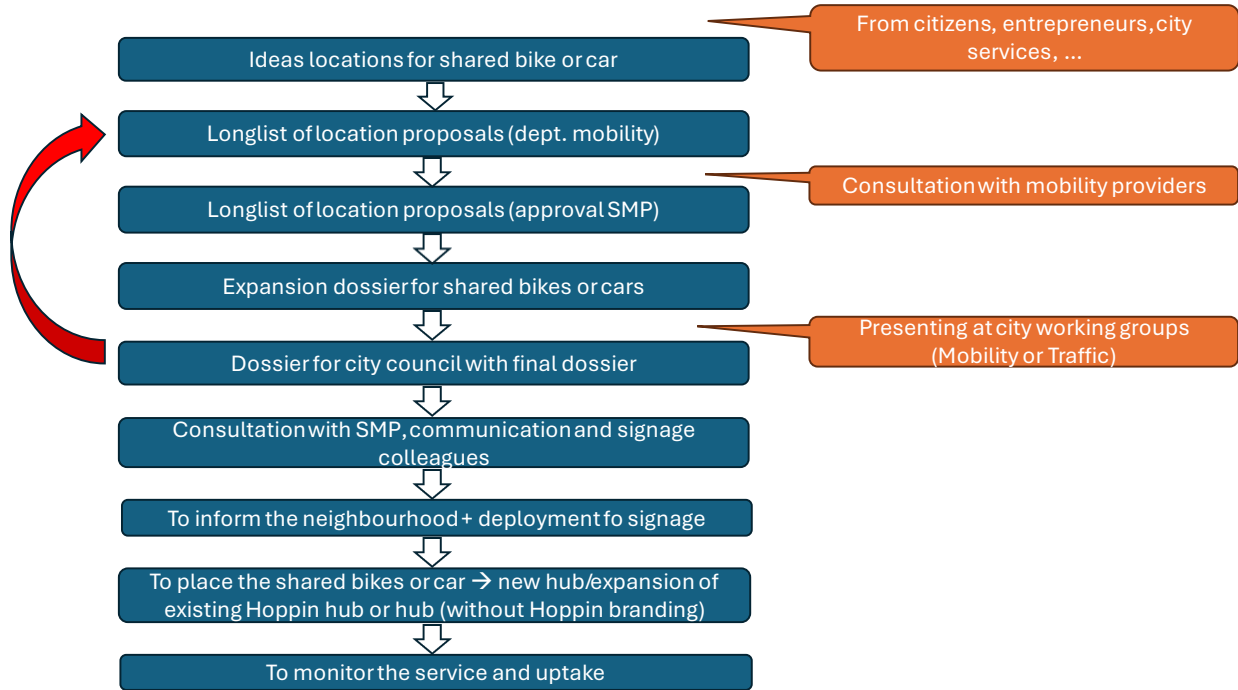
- 1) Further expand existing Hoppin hubs with additional shared vehicles.

D2.7 Action plan: How to upscale mobility hubs and shared mobility solutions in Leuven by 2025?

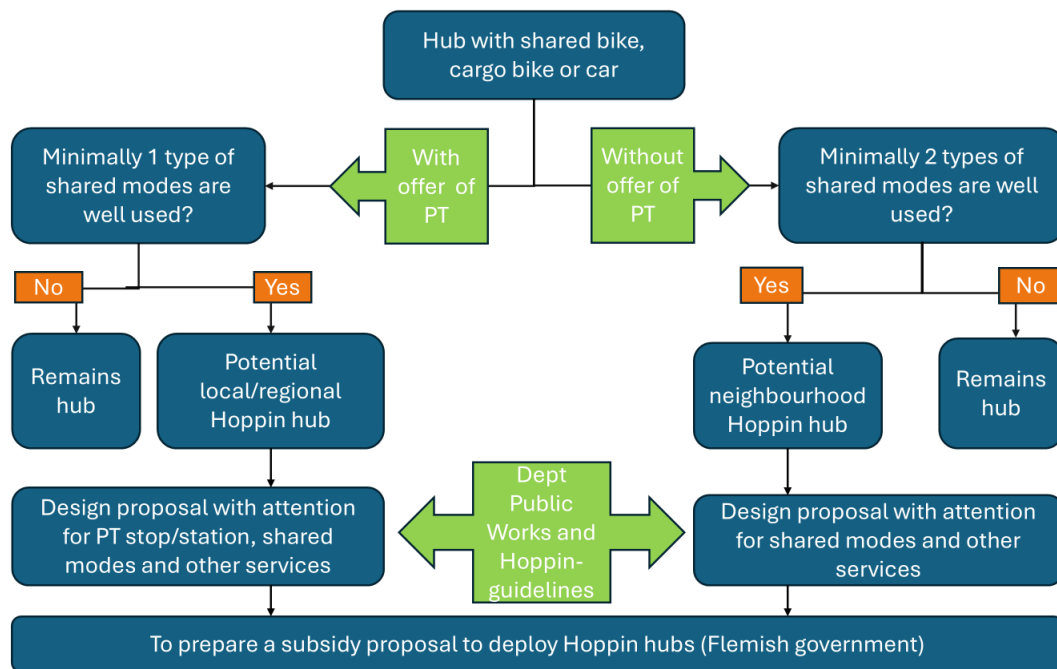
- 2) Further expand existing hubs without a Hoppin brand with additional shared vehicles
- 3) Equip well-run hubs according to Hoppin brand □Hoppin hubs

The steps for these scale-up scenarios are diagrammed in the following processes.

4.2.1 From idea to installation of new share bikes or car



4.2.2 From hubs to Hoppin hubs



4.3 Cooperation with shared mobility providers

4.3.1 In general

A good relationship between the city and providers is an important key to success. We try to have contact on a regular basis and strive for optimal transparency. Contact is by phone, email, digital or physical consultation. Networking moments often also provide interesting opportunities for exchange.

In the expansion process of a type of shared mobility, coordinating with the provider also comes on top of the agenda, as explained above.

4.3.2 Providers of shared cars

As for Cambio, it works well that there is a single point of contact for Leuven. There is little or no direct contact between the city and the fleet managers.

Extensive consultation is organized several times within the process of the annual expansion dossier.

It is also the intention to organize a live consultation once a year (preferably at the beginning of the year) with “looking back and looking forward” on the agenda. Every 2 years, the content of this consultation will be expanded after a user survey that is organised by the provider, and it is also desirable to involve the alderman for mobility.

Within the Leuven climate contract, we have a commitment statement from Cambio for the breakthrough project of “shared mobility for all”³ which also requires follow-up.

4.3.3 Providers of shared cargo bikes

It is agreed with Cargoroo to arrange a follow-up meeting on a monthly basis with the SPOC, who then takes matters further with “marketing” or “operations.”

A more extensive consultation is planned every six months to evaluate the individual sites, and possibly make adjustments. For underused sites, the process of relocation is then undertaken.

Additional projects are also followed up during monthly meetings and in the interim by e-mail.

4.3.4 Providers of shared bikes

From Blue-bike we receive the set of usage data at the beginning of each calendar year. In the fall, the forecasts for year n+1 are mutually discussed and estimated. If there is need for additional extensions during the year, they are submitted ad hoc.

4.4 Integration with public transport

Depending on the approach or logic, there is more or less integration with public transportation. We consider these 2 approaches or logics:

From the resident's point of view: **proximity logic**

- To optimize spatial planning, we look for places in the public domain to cluster different mobility services
- Sometimes at these hubs there is no public transport offer; one or more shared mobility solutions are provided, which may be clustered in a neighborhood Hoppin hub

³ <https://www.leuven2030.be/doorbraakproject/deelmobiliteit-voor-iedereen>

D2.7 Action plan: How to upscale mobility hubs and shared mobility solutions in Leuven by 2025?

- Often the resident starts and ends the trip there and it involves longer trips
 - Hubs with one or more shared car(s)/a shared cargo bike
 - Preference for fixed station
 - B20 Sharing systems

From the visitor/commuter's point of view: **network logic**

- These are transfer hubs, where the aim is to have a smooth connection between different services.
- At these hubs it is necessary to integrate a public transport offer; one or more shared mobility solutions are also provided, possibly clustered in a Hoppin hub (local, regional and interregional Hoppin hubs). In Flanders, there are 4 types of Hoppin hubs distinguished⁴.
- You can look at the expansion of such a hub and then further organize it from 2 starting points:
 - a. Either we start at a stop of public transport (bus, train)
We then try to complement with shared modes (e.g. offering Blue-bikes at Wijgmaal station)
 - b. Either we start with an offer of shared vehicles
We then give preference to a stop of public transport (bus) in the desired neighborhood (eg Research Park Haasrode - companies, training centers, college, ... – shared e-bikes at the bus stop there)
- Often it is about short trips with a shared mode (first or last mile)
 - Hubs with bus/train and shared bikes
 - B2M sharing system of shared e-bikes with a short duration fare
 - B20 sharing system of shared bikes with a cheap long-duration fare

4.5 Integration with MaaS

Leuven as a city is far too small to develop its own MaaS app.

For public transport, travelers use the app of De Lijn (bus) and NMBS (train) to view their itinerary and buy their ticket, if they don't have a subscription.

The Olympus Mobility app is a MaaS app intended for businesses and free lancers. Already a number of Leuven employers are using it. Through this app, users can book and pay for most of the available mobility services (public transport and shared transport), with the exception of shared bicycles.

The KBC Mobile app is there for customers of the bank KBC. KBC customers can use this app to book and pay for most of the available mobility services (public transport and shared transport), with the exception of shared bicycles.

Besides the follow-up of the apps mentioned above, supplemented with possible new apps, we will also follow up on what is being delivered from the Flemish Government within Hoppin.

⁴ <https://www.vlaanderen.be/basisbereikbaarheid/combimobiliteit/hoppinpunten/types-hoppinpunten>

4.6 Stakeholder management

Depending on the step of the hub installation process described in 4.2.1, different stakeholders will be involved.

Since the start of the rollout of the mobility hubs, we have pursued coordination from the mobility department with other relevant services within the administration, namely with the departments of area-based operation, accessibility, public works, signage, green and sustainability. The police were also involved in determining the location and design of the hubs.

Once there was positive advice from these services, we ask for approval from the city council.

Once the decision is taken regarding launching or upscaling specific hubs, we plan the desired communication actions with our colleagues from the communications department.

It is a challenge to have all stakeholders on board to achieve a streamlined rollout.

4.7 Daily management and maintenance

The initial situation is that the existing Hoppin hubs are maintained for a period of 4 years after installation by the supplier that placed them. Their office is not based in Leuven, so the efficiency of this management is not great.

At the beginning of 2023, only Cambio is active as a shared car provider. The daily management is done by a fleet manager who works reasonably locally, which is possible because the fleet in Leuven is already sufficiently large.

For the shared bicycles in Leuven, Blue Mobility has set up a partnership with Velo, a local social economy player, whose core-business is “cycling”; so that's already pretty good.

When the concession was awarded to Cargoroo, Cargoroo signed a contract with social economy organisation Velo for the daily management of the bikes (battery swap and daily maintenance). As part of eHUBS, there had also been cooperation between Cargoroo and Velo in this regard since 2020.

In the period 2023-2025, the number of stakeholders is likely to increase, and it seems important to look for efficiency gains in terms of daily management and maintenance of the hubs and the services provided.

4.8 Monitoring and evaluation

Regarding the targets on increase in supply and use, the KPIs listed under Chapter 2 will be followed. These will also be included in detail in WP2, D10.

A report will also be drawn up in which the implementation and results of the actions will be discussed, taking into account the best practices, and in which conclusions and recommendations based on the experience will be formulated (see WP2, D6).

5 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>

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