Location Selection Roadbook

DELIVERABLE 2.3

July 2022
David Gordon, Nicolai Harnisch (Bayern Innovativ)

1. Summary sheet

Project Name	**eHUBS**
Title of the document	Location selection roadbook
Deliverable	D 2.3
Work Package	Long Term Effects
Programme	Interreg North-West Europe
Coordinator	City of Amsterdam
Website	http://www.nweurope.eu/projects/project-search/ehubs-smart-shared-green-mobility-hubs/
Author	David Gordon, Nicolai Harnisch
Status	Public
Dissemination level	Confidential, only for members of the consortium (including the Commission Services)
Reviewed by	
Submission date	08.07.2022
Starting date	January 2019
Number of months	58

2. Project partners

Organisation	Abbreviation	Country
Gemeente Amsterdam	AMS	The Netherlands
Promotion of Operation Links with Integrated Services aisbl (POLIS)	POLIS	Belgium
Taxistop asbl	Taxi	Belgium
Autodelen.net	Auton	Belgium
Bayern Innovativ GMbH	BI	Germany
Cargoroo	CA	The Netherlands
URBEE (E-bike network Amsterdam BV)	URBEE	The Netherlands
Gemeente Nijmegen	NIJ	The Netherlands
Transport for the Greater Manchester	TfGM	Great Britain
Stad Leuven	LEU	Belgium
TU Delft	TUD	The Netherlands
University of Newcastle upon Tyne	UN	Great Britain
Ville de Dreux	DR	France
Stadt Kempten (Allgäu)	Kemp	Germany
Universiteit Antwerpen	UAntwerp	Belgium
Mpact vzw	Taxi2	Belgium
Mobipunt vzw	Mobipunt	Belgium
Electricity Supply Board	ESB	Ireland
The Highlands and Islands Transport Partnership	HITRANS	Great Britain
Service Public de Wallonie Mobilité et Infrastructures, Autorité Organisatrice du Transport	SPW MI, AOT	Belgium

3. Document history

Version	Date	Organisation	Main area of changes	Comments
0.1	June 2022	Bayern Innovativ	First Draft	
1.0	July 2022	Bayern Innovativ	Final version	

4. Table of Contents

5. The location selection process for eHUBS

5.1. Introduction: eHUBs locations

The selection of the eHUBS locations is a very important step in the early stages of an eHUBS project. Here, the different perspectives from the municipalty, the mobility service providers and the local citizens come together. In most muncipalties that have to deal with traffic issues, there are already existing mobility plans that outline the next steps for a city to have less pollution caused by road traffic and more sustainable mobility options. The mobility planners then have to make sure the eHUBS fit well with this overall strategy. The mobility service providers know their product best and have data on the perfomance of their services in different surroundings and locations. The local citizens want to benefit from the new mobility modes provided by the eHUB and, of course they know their neighbourhood in and out. This applies as well to eHUBS in e.g. business centres or touristic areas and the local companies.

With these different perspectives and insights deciding on the best eHUBS locations for a project comes down to finding the right balance. In the Interreg NWE project eHUBS the location selection process was done by the pilot cities respectively with three different approaches (top-down, bottom-up, mixed). These approaches are explained below after some basics are brought up.

The ideal location for an eHUB will increase first the uptake by potential users, and then foster the contenious usage because the eHUB is easy to find and access and close to the starting point or destination of many users.

Because the local context plays that much of a role for the location selection and the success of eHUBS, it is not possible to provide clear and direct guidelines what to do and what to avoid if possible. Regarding that, this roadbook includes a basic concept of the location selection process for eHUBS including hints what should be kept in mind during the different steps.

5.2. Basics

Even though the approaches described below adiffer in their focus, some parameters should be defined right from the start of an eHUBS project. Most importantly, there should be a guiding number of eHUBS, that can be created within the respective project according to the budget and manpower. This number can definitely be an educated guess of the number of eHUBS that would suit the aim of the project. But it provides a focal point that everybody is working on.

Time is also a limiting factor. If the project plan requires some quick results, extensive stakeholder involvement could delay the project and eventually cause problems with the project supervisors in the municipality. A solution for that can be to have one "pilot eHUB". With this one eHUB, quick results can be presented, but as well the project team will have the first learnings, that can be directly implemented in the ongoing process.

Not only should the eHUBS locations be evaluated, but also the chosen approach for the location selection. With either approach, there is always the possibility to include other methods if the project group is noticing that changes are needed or possible (time running out for a milestone, additional budget was acquired). For that, evaluation dates should be defined at the start, where the processes themselves are revised. That could be every half a year for example.

5.3.   The three different approaches

The eHUBS in the Interreg NWE project were created by the pilot cities using either a bottom-up, top-down, or mixed approach. The approaches come with different advantages that are explained in the following but come also with certain requirements. The table, that you can find at the beginning of each sub-chapter for the approaches gives you a quick idea of the key features of each approach. However it should be kept in mind that this is a generalization that can have a different impact on a specific eHUB project.

5.3.1.   Bottom-up

Item:	Estimation:
Citizen Involvement	🟩🟩🟩
Budget and Manpower	🟧🟧🟧
Length (time)	🟧🟧🟧
User-orientated	🟩🟩🟩
Fit into the local mobility concept	🟩

The bottom-up process for the eHUBS location selection is based on the extensive involvement of the local citizens. The idea is that the people who work and live in the area, know best, what problems in their local mobility infrastructure could be solved by an eHUB and with that, where the best place to put one might be. If the bottom-up approach is chosen, the local authority functions as an intermediary. The impulse for possible locations comes from the citizens but the location selection lies in the hands of the project group. In order to do so, the group has to evaluate the proposed locations and moderate between the locals and the other stakeholders involved (the municipality, the service providers etc.)

If the bottom-up approach is executed strictly, the bigger picture regarding the mobility system of an urban area is put in the background. The focus lies instead on creating eHUBS, where the potential users themselves expect to really need them with the mobility options they would use. The managers of an eHUB project then must be careful not to lose sight of what the city's plans look like regarding shared mobility, but also not to raise too high hopes amongst citizens with the participation process that eventually may not be fulfilled .

The bottom-up approach is the method of choice if getting the citizens involved in reshaping the public space in their community and engaging them to work together is a high valued objective. Even if this will potentially delay the progress of an eHUB project and raise the complexity of a project in its whole.

It should definitely be considered before starting a bottom-up approach that intensive stakeholder involvement draws on the resources (manpower, time, project costs) of the municipality. If the respective resources are provided, the bottom-up approach has the benefit of "naturally" creating interest and involvement for alternative mobility modes other than privately owned cars and getting the locals on board. At the same time, offer and demand are regulated by the actual context in the urban areas.

A way to include the bigger picture, e.g. the urban mobility plan, into the bottom-up approach could be to launch proposals in areas where eHUBS could be important in the future, according to the mobility concept. In this case, for example, interest groups could be addressed directly to hand in a proposal. A way to guarantee a match between the mobility concept of a municipality and the stakeholder perspective of the citizens is the mixed approach, explained later in this section.

The City of Amsterdam chose a bottom-up process with extensive involvement of the locals for their eHUBS version, the "buurthubs". They created a toolbox for citizens, that guides them through the different steps from start to finish with getting a buurthub in their neighbourhood. The toolbox can be found online on the website of the city of Amsterdam.

The steps for a bottom-up process could look like this:

1. Getting the numbers clear (budget, time)
2. Coordination with the other stakeholders (mobility service providers, public energy provider, municipality, other companies involved, etc.)
3. Defining the participation process for citizens
4. Communicating the project and process publicly
5. Evaluating the proposed locations
6. Selecting feasible locations
7. Coordination with the other stakeholders on the chosen locations

8. Defining a time schedule for the roll-out with all partners involved

As the bottom-up process draws from the participation of the locals, keeping them informed about the progress of "their" eHUB is most important during the whole time.

5.3.2.   Top-Down

Item:	Estimation:
Citizen Involvement	
Budget and Manpower	■
Length (time)	■
User-orientated	■ (■)
Fit into the local mobility concept	■ ■ ■

With a top-down approach, the team of an eHUBS-project has the possibility to directly identify possible locations based on statistical data analysis in a relatively short amount of time, compared to the bottom-op approach. Also, the fit of the eHUBS into the local mobility concept is guaranteed with the top-down approach. Because this approach can be performed with less stakeholder involvement in a generally rather lean process, it is especially suitable for smaller municipalities because less manpower is needed. The project team can directly address the mobility issues of a certain area by placing an eHUB. That can be e.g., a lack of parking space in a neighbourhood or a need for alternative transport modes to a touristic point of interest.

For the top-down approach, some basic knowledge about mobility and infrastructure planning should be either given or obtained by the project group. Also, if there is already a future plan for the local mobility system, the location selection should be checked with the framework this plan gives over the whole eHUBS process. This is essential for going into the data analysis and the location selection. Additionally, these questions should be answered:

- How many eHUBS can and are supposed to be installed? (here, an exact number must be defined)
- What kind of mobility modes are supposed to be provided?
- Are there already some identified locations with a need for an eHUB that are important for the mobility concept?

In the realization of such a project, at this phase, there will mostly be a general idea about the number of eHUBs that should be installed within the working group. As well as a collection of possible locations that must be assessed further.

To get an idea of the potential for shared mobility modes in a specific area, demographic, economic data, and data about the traffic infrastructure can be analysed and processed in a heat map. The TU Delft developed such a method for the Interreg NWE eHUBS project. With the heat

map, the project team can select areas in the municipality, that have a high potential for shared mobility usage. That can then be matched with the analysis of the spatial factors as displayed below.

For the location selection process different spatial indicators can be assessed. The graphic below displays one way to go through the search for suitable eHUB locations:
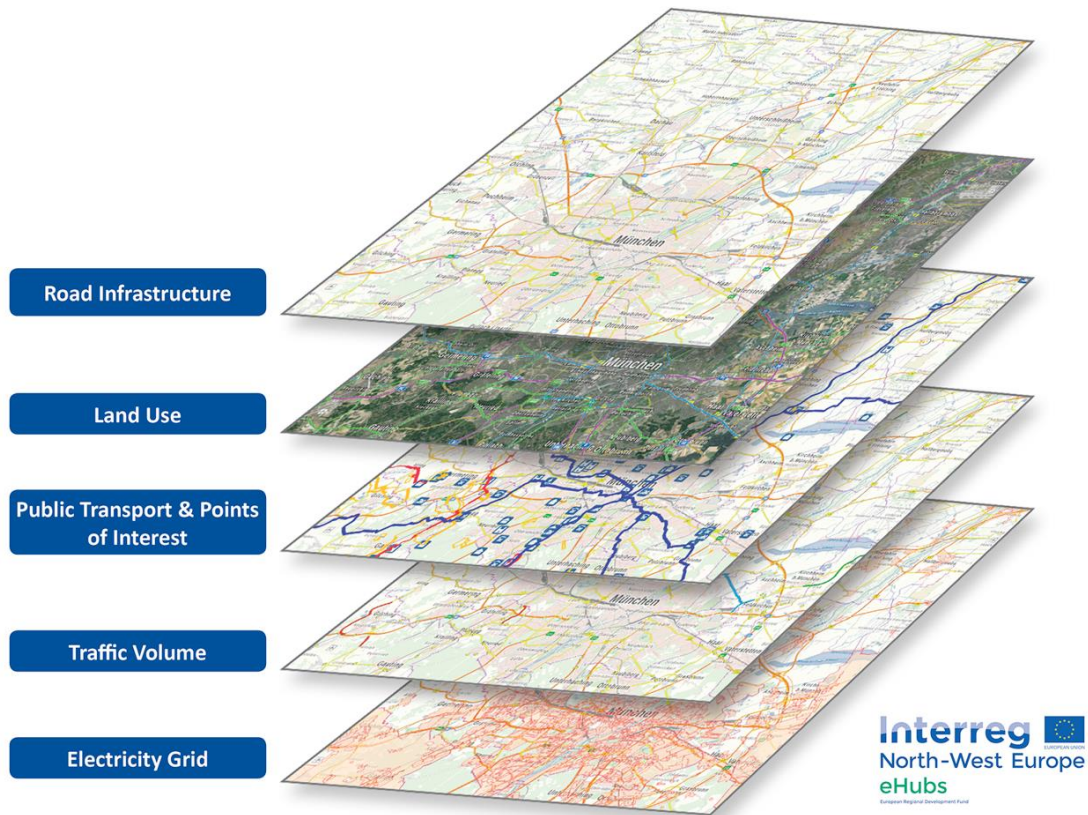

Figure. 1: The data layers that can be analyzed during the top-down process for an eHUBS location selection

A top-down approach for eHubs makes it possible for local authorities to strategically roll out their vision for the city's future mobility through shared mobility with limited budget and manpower.

There are limitations to the top-down process. First, a lot of implications must be made for the data-based location selection, which can eventually be misleading. As with every data analysis, the worth of the results depends on the quality of the data. Including a local scientific partner in the project group will make the process more accurate.

As the local citizens are not involved in the location selection process, getting them on board, when it comes to using the eHUBS could be more challenging. It is important to mention that not

including them in the location selection, does not mean that the locals shouldn't be informed about the project itself and the plans that are in the making. Constant communication with the public is key as they are the ones that are supposed to change their mobility behaviour in the end.

A way to solve these limitations, again, is to have a "pilot" eHUB, with which you can test the validity of your location selection method as well as having something to "touch and feel" that makes it easier to get the locals on board.

A possible top-down process could look like this.

1. Getting the numbers clear (budget, time, number of eHUBS)
2. Analysing the shared mobility potential with a heat map
3. Agreeing on a selection method and the referring data items (spatial factors)
4. Matching the heat map and selection method
5. Getting info from service providers (mobility, power etc.) about their requirements.
6. Selecting locations with the data analysis
7. Checking up on the locations with the stakeholders (municipality, service providers, scientific partners)
8. Communicating the chosen locations to the public ,e.g. with a launch event
9. Defining a time schedule for the role-out with all partners involved

5.3.3. Mixed

The bottom-up and top-down approaches are two methods that put focus on either the practical knowledge of the locals and their acceptance of the eHUBS or the fit of the eHUBS into the local mobility concept and an optimized use of the given project ressources. Between them, there is a lot of space for mixed methods that combine the strengths and/or validate the results created with one of the methods. Ways to use a mixed approach for the selection of eHUBS locations are for example:

- Validate the top-down selected locations by presenting them to potential users in the neighbourhoods or in general in the target groups and revise the locations with their feedback
- Define some 'must be' locations that are important for the overall mobility concept and complement them by locations chosen by e.g., interest groups
- Choose from bottom-up proposed locations by selecting them with top-down theory and methodology

Though using a mixed approach brings, in the best case, the advantages of the two other approaches to the planning of an eHUB project, one should always keep in mind that compromises will be made and mixed methods can be complex as well. Part of the budget will, for example, be used for eHUBs that may not at all be in line with a municipal mobility concept and there will be discussions about which number of eHUBS locations was chosen by locals and how many were placed top-down.

Using a mixed approach for eHUBS locations might suit best for a municipality that already decided on shared mobility hubs as a key feature of their local future mobility plan in the long term. With that, both perspectives, the one from the locals and their vision for their neighbourhoods as well as the mobility vision of the municipality come together in a sufficient way and are taken into account. Finally, this could ensure the uptake by the potential eHUB users as well as a functioning eHUBS network plannend on a data-based approach.

A way to apply a mixed approach could then be to select first a number of top-down locations that already provide a sufficient network and after that start a participation process with the locals with all the learnings from the first project phase brought into the second step. A possible mixed approach could look like this:

1. Define numbers for the two project phases (budget, number of hubs, time schedule)
2. Proceed with the steps for a top-down approach
3. Evaluate the first project phase with all stakeholders involved
4. Revise the numbers especially the remaining budget
5. Define key learnings from the first project phase
6. Start the bottom-up process as described above

6. Remarks

As mentioned before, this document does not provide a detailed step-by-step guide for the eHUBS location selection, as this process is highly tied to the local context and the framework of a specific eHUB project. In addition, there are other documents that were created within the Interreg NEW eHUBS project, that contain information about the location selection as well. As projects on shared mobility hubs are in general complex due to the variety of stakeholders that are involved, this also reflects on the location selection. Because of that, getting a clear idea of what can and can't be done in a specific project regarding the given budget is important. The location selection will probably not be flawless from the start because of the lack of experience. There are eHUBS designs that rely on modules that can be easily placed in a different location. More information on that can be found on the project's website.

7. The eHUBS Consortium

The consortium of eHUBS consists of 20 partners with multidisciplinary and complementary competencies. This includes European cities, leading universities, networks and electric and shared mobility providers.

@eHUBS_NWE
#eHUBS

https://www.linkedin.com/groups/13711468/

For further information please visit http://www.nweurope.eu/ehubs