Deliverable D5.7

APPLICATION OF THE SMARTHUBS APPRAISAL TOOL

A participatory assessment of mobility hub alternatives with stakeholders

INTRODUCTION

The main objective of this deliverable was to identify to what extent can a stakeholder assessment tool support the co-creation process of a mobility hub. For this, the SmartHubs Appraisal tool has been applied in the context of the SmartHubs project. This tool facilitates the co-creation process of a smart mobility hub by allowing the identification of the most relevant option(s) for each stakeholder among a range of alternatives. In this regard, stakeholders are considered "any group of people, organised or unorganised, who share a common interest or stake in a particular issue or system; they can be at any level or position in society, from global, national and regional concerns down to the level of household or intra-household, and be groups of any size or aggregation."

The SmartHubs Appraisal Tool can be applied by using two different methods: the Multi-actor Multi-Criteria Analysis (MAMCA)[1] and the Stakeholder-based Impact Scoring (SIS)[2]. Although both methods focus on identifying what are the relevant criteria for stakeholders concerning the mobility hub(s) as well as how important each criterion is, they slightly vary. The choice of the method to apply depends on the type of project or element being evaluated, as well as on the decision-making approach. Thus, the MAMCA is applied when aiming at identifying the best alternative between at least three options. The SIS when identifying negative and positive impacts is the goal, with a minimum of two alternatives.

METHODOLOGY

This deliverable shows the results of the four applications of the SmartHubs Appraisal tool. The latter took place in the four different living labs of the project: Anderlecht (Brussels), Munich, Rotterdam-The Hague and Eastern Austria (Vienna). The application of the tool was conducted through a process in which different involvement of the stakeholders is required. For this, on-site and online meetings were organised on different occasions, depending on the local context and the availability of the stakeholders. During these interactions, which sometimes took the form of a collaborative workshop, data for and about the application of the tool was collected through questionnaire surveys, focus groups and participant observations. To answer the main research question several elements of the four applications are investigated: the aim and benefits of applying the tool, the stage in which it should be applied, relevant stakeholders to be involved in the process and their preferred criteria, the alignment of the criteria with the SmartHubs KPIs (Deliverable 2.2), and the possible improvements of the tool and its application process.

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[1] Macharis, C., de Witte, A., & Ampe, J. (2009). The multi-actor, multi-criteria analysis methodology (MAMCA) for the evaluation of transport projects: Theory and practice. Journal of Advanced Transportation, 43(2), 183–202. https://doi.org/10.1002/atr.5670430206

[2] te Boveldt, G., Keseru, I., & Macharis, C. (2022). When monetarisation and ranking are not appropriate. A novel stakeholder-based appraisal method. Transportation Research Part A: Policy and Practice, 156, 192–205. https://doi.org/10.1016/j.tra.2021.12.004

FINDINGS

The SmartHubs Appraisal Tool, employed both before and after implementation, serves as a decisive factor in determining the nature and viability of mobility hubs. Although the methodologies employed varied based on participant availability and were instrumental in identifying and weighting criteria, collaborative workshops are considered to be the most adequate method.

Engaging a diverse spectrum of stakeholders, ranging from local residents to local or regional governments, public transport operators, and shared mobility operators, is central to ensuring inclusivity, sustainability, and community responsiveness. In the context of mobility hubs, the criteria that stakeholders universally consider more important are the safety and security of users, availability of services and (sustainable) modes, visibility of the infrastructure, reliability of the services and vehicles, accessibility and proximity offered by the hub, signage and communication, inclusive design, pricing and ticketing, and alignment with local needs. When comparing these findings with the KPIs identified in the SmartHubs Deliverable 2.2 (Pappers et al., 2022) we can see that although most criteria are related to several KPIs, the accessibility and proximity provided by the hub and the visibility of the infrastructure are not considered in the KPIs. Likewise, the KPIs for democratic integration cannot be found in the criteria given by the stakeholders, showing that this form of integration is less relevant for the stakeholders.

CONCLUSIONS

These four applications of the SmartHubs Appraisal tool demonstrate its relevance in reflecting stakeholders' preferences and identifying crucial criteria for mobility hub design and implementation. Nevertheless, the findings underscore the importance of enhancing the tool's usability, understanding, and alignment with stakeholders' (hidden) criteria. The need for flexible and inclusive approaches tailored to unique contextual challenges and that allow to decrease the time required to apply the tool are highlighted. For this, the provision of tailored facilitator training is recommended, as well as an exhaustive predefined list of criteria to simplify the criteria identification stage.

The main limitations of this study are related to the differences among the contexts in which the tool was applied, and the fact that it was applied by different facilitators. The latter required the establishment of a common framework for reporting about the tool, although a certain type of data was not collected in the four living labs, limiting the scope of the analysis. For this, the analysis of the four cases is based on the information that is available and comparable, as a means to ensure the validity of the results. As this is, to our knowledge, the first experience in which a stakeholder assessment tool is applied in the context of mobility hubs, further research could apply the findings and recommendations contained in this deliverable to refine the methodology. Moreover, the development of effective training for the facilitators of the process could also be a subject of further research.

POLICY IMPLICATIONS

The SmartHubs Appraisal Tool is a relevant supporting tool for local and regional governments interested in implementing mobility hubs. By engaging a diverse range of stakeholders in the process, including residents, government agencies, public transport operators, and shared mobility providers, governments can ensure that mobility hubs are designed and implemented in a way that is inclusive, sustainable, and responsive to community needs. The tool helps to identify and prioritize crucial criteria for mobility hub design and implementation while structuring the assessment process at every step. Moreover, it provides software to measure the performance of each alternative as well as to visualise the results. The findings of these four applications of the tool described in this deliverable highlight the importance of tailoring the assessment process to unique contextual challenges and streamlining the application of the tool through facilitator training and a predefined list of criteria.

COLOPHON

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FULL DELIVERABLE:
This text describes the Application of the SmartHubs Appraisal Tool, the SmartHubs Deliverable D 5.7. For the full deliverable D5.7, please refer to:

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SmartHubs

URBAN EUROPE

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