

STUDENT AWARDS



SHARED MOBILITY HUBS

Student information

Author: Rik van den Bogaerd

Institution: Delft University of Technology

Graduation year: 2023

Shared mobility has found its way into the urban landscape over the last decade. Studies increasingly point to mobility hubs as a means of providing shared mobility options, usually run by actors within the mobility sector. However, shared mobility hubs have not been extensively studied from an urban development perspective.

This research examines the integration of shared mobility hubs into urban developments, and assesses how developers can manage this integration in both the development and functional phases, with a focus on so-called neighbourhood hubs.

Desk research was conducted to gain insight into current thinking on mobility hubs. This revealed that mobility hubs often encompass more than just mobility. Characteristics of mobility hubs include:

- | connected to physical and digital networks;
- | embedded in the urban fabric;
- | focus on people and/or goods;
- | cluster of facilities and functions, including shared mobility.

The desk research was followed by three case studies. Each involved plans for mobility hubs in different contexts. The semi-structured interviews explored the experiences of stakeholders in collaborating and guiding the integration of shared mobility hubs into urban development.

For example, the city of Rotterdam, where one of the case studies was based, would like to see a citywide network of hubs. There would be some common services and other offerings depending on the location and size of the hub.

The key takeaways can be summarised under two subtopics:

- | **mobility hub concepts:** design and adaptability, digital integration and mobility as a service (MaaS), users and behaviour, including demand, transport modalities and operations, and energy;
- | **urban development organisations:** organisation and management, business case, business-to-customer (B2C), parking.

Municipalities and developers have different perspectives and different objectives for mobility hubs, which are clearly reflected in the level of initiative taken by each. Possible explanations for these differences could be related to the municipality's level of experience with mobility hubs, differences in the political approach to mobility, housing demand, the existing infrastructure and public transport, and the size of the development.

Developers need to be aware that there's no fixed blueprint for a mobility hub that can be implemented in the same way everywhere. Smart hubs include a range of services in addition to mobility. Recommendations for developers working on mobility hubs include:

- | guide the integration of shared mobility hubs into the urban environment by identifying the needs of the neighbourhood and the objectives of the developer;
- | clearly define the purpose of the mobility hub and the products and services it will offer to residents and visitors.

Management Guide

