

Graduation Plan

Master of Science Architecture, Urbanism & Building Sciences



Graduation Plan: All tracks

Submit your Graduation Plan to the Board of Examiners (Examencommissie-BK@tudelft.nl), Mentors and Delegate of the Board of Examiners one week before P2 at the latest.

The graduation plan consists of at least the following data/segments:

Personal information	
Name	Rik van den Bogaerdt
Student number	4707036

Studio		
Name / Theme	Management in the Built Environment Theme 5: Sustainability transitions and the transformation of (port) cities	
Main mentor	EWTM (Erwin) Heurkens	Urban Development Management
Second mentor	P.W. (Paul) Chan	Design and Construction Management
Argumentation of choice of the studio	During a previous internship at a building company, I discovered about shared mobility strategies within urban developments. This sparked my interest, as I have always had a strong interest in how mobility relates to the built environment. For this reason, I wanted to choose a thesis topic on the cutting edge of urban development and shared mobility. Theme 5 is interdisciplinary and is about transformation, the use of resources, and key actors in the built environment thinking and doing things differently. Therefore, I assumed the theme would be a great fit for this topic.	

Graduation project	
Title of the graduation project	Shared Mobility Hubs in Urban Developments <i>A qualitative research on how developers can steer on the integration of shared mobility hubs within urban development</i>
Goal	
Location:	Urban Development within the Dutch context
The posed problem,	In the problem statement, three motives are identified: <ul style="list-style-type: none"> • Unclear roles • Uncertainty related to shared mobility and mobility hubs • Knowledge gap about shared mobility and mobility hubs within urban developments

research questions and	<p>Main Question: How can developers steer on the integration of shared mobility hubs within urban developments?</p> <p>Sub Question 1: What is known about the integration of shared mobility hubs within urban development projects, and how can it be steered?</p> <p>Sub Question 2: What are the experiences of actors in collaborating on and steering upon the integration of shared mobility hubs in urban development?</p> <p>Sub Question 3: What can be learned from literature and empirical studies about the role of developers in the integration process of shared mobility hubs in urban development?</p>
design assignment in which these result.	A descriptive result (using a conceptual framework) on how developers can steer on the integration of shared mobility hubs within urban developments.
Process	
Method description	
<p>1. Theoretical Background: examination of theory to describe and conceptualize what is known about shared mobility, shared mobility hubs, and the management of urban development projects. This results in a conceptual framework that is used throughout the next parts of the study.</p> <p>2. Empirical studies: a cross-case analysis is carried out using three case studies that include a mobility hub plan within urban (re)developments. Documentation from these case studies is reviewed. Furthermore, semi-structured in-depth interviews are carried out with key actors within the case. This will be about their experiences with mobility hubs. Insights from the interviews are distilled, compared, and applied onto the conceptual framework.</p> <p>3. Synthesis: from insights from the theoretical background and empirical studies, lessons are drawn about the role of the developer in the integration process of shared mobility hubs within urban development.</p>	

- 4. Validation:** the lessons drawn from synthesis are validated and improved by an expert panel, consisting of professionals both from inside and outside of the graduation internship company (Heijmans).

Literature and general practical preference

Theoretical background is examined in order to gain a better knowledge on the concepts *shared mobility*, *(shared) mobility hubs*, and *management of urban development projects*. Furthermore, theoretical models are identified from literature and are used to conceptualize these topics and their interrelations. They serve to create and theoretically underpin the conceptual framework through which this research is approached. The distilled knowledge and conceptual framework are used within the empirical studies (analyses of cases).

Reflection

1. What is the relation between your graduation (project) topic, the studio topic (if applicable), your master track (A,U,BT,LA,MBE), and your master programme (MSc AUBS)?

This thesis is a MBE graduation project. The graduation project topic is related to Management in the Built Environment because it is about the management of urban developments. The research combines the management of urban developments with mobility. Mobility has not been a topic largely present within the master programme, but its presence within urban development does affect the sustainable built environment and the interests of end users and other stakeholders (which is the focus of the MBE track).

2. What is the relevance of your graduation work in the larger social, professional and scientific framework.

Societal Relevance:

On the scale level of urban development, this research generates enhanced insights into the way mobility hubs can be organized within urban developments. This is important as AEC stakeholders can use these insights to foster integrated mobility hubs within urban developments in the short and long run. The latter provides user-value to residents. On a larger scale, integration of shared mobility hubs within urban developments can foster sustainability in a broad sense (environmental, social, economical) throughout multiple scale levels, domains, and disciplines.

Scientific Relevance: although *shared mobility* is a topic largely present in scientific literature, a lack of knowledge has been identified when it comes to mobility hubs. Furthermore, shared mobility and mobility hubs have to a lesser extent been studied in combination with *urban development*. Additionally, the amount of publications on mobility hubs and shared mobility have been increasing over the last decades, implying a growing scientific relevance of this field of research.