

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	Dennis Lagendijk
Student number	4587693

Studio		
Name / Theme	MSc Graduation Laboratory Management in the Built Environment	
Main mentor	Daniel Hall	Design & Construction Management (DCM)
Second mentor	Angela Greco	Real Estate Management (REM)
Argumentation of choice of the studio	n.a.	

Graduation project	
Title of the graduation project	<p>Managing strategies for circular buildings</p> <p>For buildings constructed by means of industrialised construction methods</p>

Goal	
Location:	Netherlands
The posed problem, research questions and design assignment in which these result.	<p>Housing shortage in the Netherlands</p> <p>How do clients strategize for circular buildings constructed through industrialised construction methods?</p> <p>Strategies for business cases</p>

Currently the Netherlands is faced with a housing shortage. Resulting in the need for nearly 1 million additional homes by the end of 2030, of which two-thirds needs to be affordable housing. Additionally the construction industry is transitioning towards a circular economy in order to reduce the *co2*-emission of the built environment. Both challenges can't be overcome without the help of industrialised construction methods

Process

Method description

A comparative case study approach. In which interviews will be held with the three to four case companies. Approx. 7 or 8 interviews per company are going to be necessary.

Literature and general practical preference

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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)?

The Netherlands is faced with a housing shortage crisis and in the meantime the construction industry is transitioning towards a circular economy. The housing shortage won't be solved without the help of industrialised construction. Therefore identifying real estate management strategies for circular buildings developed by the means of industrialised construction is necessary for the business active in the industry.

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

Although many barriers are identified in the application of industrialised construction and enough strategies are devised to mitigate these strategies. No research has been done in order to assess if these strategies can be combined in business cases. These strategies have not been reviewed by academics in real life business cases in the Netherlands.