

# 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](mailto: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	Cenk Batuhan Özaltun
Student number	4713095

Studio		
Name / Theme	MBE	
Main mentor	Prof.dr. P.W. Chan	Design and Construction Management
Second mentor	Dr. K.B.J. Van den Berghe	Spatial Planning and Urban Development
Argumentation of choice of the studio	The combination of the disciplines provides the opportunity to view the problems related to CE from multiple perspectives, which provides more depth in the research process.	

Graduation project	
Title of the graduation project	Inter-firm networks and glocalization in realizing a circular economy in the construction sector.

Goal	
Location:	TU Delft
The posed problem,	A shift to a local approach is needed as well as a shift to a supra-national approach to facilitate the CE in the construction sector. Although this may seem paradoxical at first, this process is also known in the literature as 'glocalization'. Much research has been done on CE on multiple scales, however there is insufficient knowledge about the various components addressed by the concept of 'glocalization', especially on inter-firm networks and how they deal with glocalization in order to facilitate a CE in the construction sector.
research questions and	Main research question: <i>"How do inter-firm networks deal with glocalization in realizing a circular economy in the construction sector?"</i>

	<p>Sub-questions:</p> <ol style="list-style-type: none"> <li>1. <i>What is glocalization and how does glocalization relate to the circular economy?</i></li> <li>2. <i>What are inter-firm networks in the circular economy?</i></li> <li>3. <i>What are the prospects and problems of glocalization in realizing a circular economy in the construction sector?</i></li> <li>4. <i>How do inter-firm networks exploit the opportunities and address the problems of glocalization?</i></li> <li>5. <i>What are the practical implications for inter-firm networks of a glocalised circular economy?</i></li> </ol>
<p>design assignment in which these result.</p>	<p>These research questions will be examined by means of literature review and expert interviews. Please see the method summary table.</p>
<p><b>Process</b></p>	
<p><b>Method description</b></p> <p>The research will be done through literature research, which will provide qualitative and quantitative data, and case studies, which will provide qualitative data. The case studies will be examined through interviews, after which they will be analyzed using coding tools. The expected deliverables that follow from this are literature analyses, interview reports and analyzes thereof. (See following table)</p>	

Table 1. Summary of the research methods. (Please rotate 90° clockwise)

Research questions	Method	On what/with whom	Qualitative/ Quantitative	Goal	Google Scholar Search Terms	Other Search Terms (will be used in combinations)
Main	Comparative analysis based on information of sub-questions		Qualitative	Shed light on how inter-firm networks deal with 'globalization'.	("globalisation" OR "globalization") AND ("process")	globalization // globalization
S1	Literature review	Concept of globalization	Qualitative	Adopt a definition for globalization	"circular economy" AND ("localisation" OR "localization") // "circular economy" AND ("globalisation" OR "globalization") AND ("circular supply chain management" OR "CSCM")	shifts // circular economy // legislation // institutional arrangements // regulatory activities
	Explorative literature review	What are the shifts upwards and downwards, related to circular economy	Qualitative	Help relate globalization to circular economy		vertical company relations // horizontal company relations // interfirm networks // construction sector
	Explorative literature review	How do inter-firm networks look like in the construction sector	Qualitative	Extract a set of possible types of inter-firm networks	("inter-firm" OR "interfirm") AND ("networks" OR "relations") AND ("built environment" OR "construction sector") AND "circular economy"	markanalyse // bouwsector Zuid-Holland // SBI-codes // CBS
	Explorative literature review	Which companies in the region are active in the field of circular economy in the construction sector	Quantitative	Obtain context about the market in the case region	("Zuid-Holland" OR "south Holland") AND ("bouwsector" OR "construction sector" OR "gebouwdomeing" OR "built environment") AND ("bedrijven" OR "companies")	
S2		How do their networks look like		To be able to relate sub-questions 3, 4 and 5 to the inter-firm networks		
		In which stage of the industry life cycle is the company overall		To compare the cases		
	Mapping	What is their circularity focus (use 6R model)	Quantitative	To compare the cases		
		Which stage of the industry life cycle are they regarding their circularity products/services		To compare the cases		
S3	Expert interviews	Company 1	Qualitative	Find out which prospects and problems companies recognize		
	Expert interviews	Company 2	Qualitative	Find out how companies act based on answers of sub-question 3		
S4	Expert interviews	Company 1	Qualitative	Find out what implications companies recognize for their inter-firm network		
	Expert interviews	Company 2	Qualitative			
S5	Expert interviews	Company 1	Qualitative			
	Expert interviews	Company 2	Qualitative			

### **Literature and general practical preference**

Academic literature on inter-firm networks in the construction sector, glocalization, circular economy, institutional and regulatory arrangement and economic activities in relation to circular economy will be used. In addition, other sources will also have to be consulted, such as reports from (local) governments, statistics from CBS and company documents during the case studies.

### **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 thesis is in line with the themes within MBE, because the main focus is inter-firm networks in the construction sector. Put simply, it examines how these networks deal with changes regarding legislation, regulations and economic activities in CE. Taken together, this has several connections with stakeholder analyses, law in the built environment, CE concepts and change management. In addition, this subject is in line with the master's program in general, because the thesis is limited to CE in the construction sector, to which attention is paid in many tracks.

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

The social relevance of this thesis is mainly due to the decision to take a closer look in a process regarding the realization of CE in the construction sector. This sector is responsible for a large share of waste and use of raw materials, which entails various environmental and geopolitical side effects. In addition, the thesis is relevant for professionals in the construction sector and policy makers related to CE at different administrative levels. The scientific relevance mainly has to do with the fact that this subject has not yet been examined in sufficient detail.