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	Isis Eva Sophia Bourgonjen
Student number	5106613

Studio		
Name / Theme	Game Changers – Graduation Lab	
Main mentor	Erwin Heurkens	Urban Development Management
Second mentor	Paul Chan	Design and Construction Management
Argumentation of choice of the studio	MBE, so not applicable	

Graduation project	
Title of the graduation project	Realising Environmental Sustainability Ambitions in Building Projects
Goal	
Location:	Case: Nice Developers BV
The posed problem,	While sustainability ambitions are frequently set in early project phases, they often fail to translate into measurable results during realisation. This disconnect is particularly challenging for progressive developers operating in a conservative construction environment. The research investigates how communication can serve as actionable strategies to align ambitions and outcomes. It aims to design a framework that helps niche developers engage conservative stakeholders, ensuring that sustainability goals are effectively realised on both project and organisational levels.
research questions and	"How can communication steer the realisation of sustainability ambitions?" The sub questions, which support the main question, will each uncover a part

	of this aimed research goal. They are formulated as: 1. What does existing theory reveal about how communication influences the realisation of sustainability ambitions on project- and organisation level? 2. How has communication been applied in the selected projects to shape the realisation of sustainability ambitions? 3. Why did certain communication strategies succeed or fail in realising measurable sustainability ambitions? 4. How can communication strategies be designed to engage conservative stakeholders and operationalise sustainable ambitions?
design assignment in which these result.	Design of a communication strategy tailored for progressive developers to maintain sustainability ambitions throughout the realisation phase.

Process

Method description

This research employs a qualitative, exploratory approach using a single case study to investigate the role of communication in realizing sustainability ambitions during the realization phase of built environment projects. The study is conducted in collaboration with Nice Developers, a progressive real estate firm. A socio-technical perspective is adopted, combining the technical aspects of project management with the social dynamics of stakeholder interaction.

Data is collected through semi-structured interviews with internal stakeholders from Nice Developers and external conservative stakeholders, such as investors and contractors, involved in selected projects. A total of 10-15 interviews are planned to ensure a comprehensive view of project dynamics. Additional data includes project documents, reports, and process analyses to contextualize the findings. Data is analyzed using Atlas.ti, with both deductive codes based on the literature and inductive codes emerging during analysis. Key themes include stakeholder alignment, goal clarity, and the perceived value of sustainability.

The research follows the Design Science Research framework, integrating theoretical rigor and practical relevance. The outcome is a communication framework validated by an expert panel, providing actionable strategies to bridge the gap between sustainability ambitions and measurable outcomes, ensuring long-term environmental impact at both project and organizational levels.

Literature and general practical references

Most important sources:

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Van Den Dobbelsteen, A., Keeffe, G., Tillie, N., & Roggema, R. (2012). Cities as Organisms. In R. Roggema (Ed.), Swarming Landscapes (Vol. 48, pp. 195–206). Springer Netherlands. https://doi.org/10.1007/978-94-007-4378-6_9

Minhas, F. (2024). Water en bodem: Sturend, niet dwingend | NEPROM. https://www.neprom.nl/artikel/water-en-bodem-sturend-niet-dwingend/2560

Feige, A., Wallbaum, H., & Krank, S. (2011). Harnessing stakeholder motivation: Towards a Swiss sustainable building sector. Building Research & Information, 39(5), 504–517. https://doi.org/10.1080/09613218.2011.589788

Herazo, B., & Lizzaralde, G. (2016). Understanding stakeholders' approaches to sustainability in building projects—ScienceDirect. https://www.sciencedirect.com/science/article/pii/S2210670716301068#fig0025

Lizarralde, G., Bourgault, M., Drouin, N., & Viel, L. (2014). Stakeholder Integration Champions and Innovation in the Built Environment. In F. Orstavik, A. Dainty, & C. Abbott (Eds.), Construction Innovation (1st ed., pp. 47–63). Wiley. https://doi.org/10.1002/9781118655689.ch4

Papagiannakis, G. (2014). The Road to Sustainability: Exploring the Process of Corporate Environmental Strategy Over Time—Papagiannakis—2014—Business Strategy and the Environment—Wiley Online Library. https://onlinelibrary.wiley.com/doi/10.1002/bse.1781

Van Uden, M. (2023, February). Patronen doorbreken voor circulaire bouw. TU Delft. https://www.tudelft.nl/stories/articles/patronen-doorbreken-voor-circulaire-bouw

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)?

My graduation project focuses on maintaining sustainability ambitions, specifically exploring the role of progressive, niche developers in enforcing long-term environmental goals. This aligns closely with the Management in the Built Environment (MBE) track, which emphasizes sustainable strategies and the management of complex processes within the built environment. The project bridges academic theory and practical application, integrating theory and a new designed communication strategy. In the context of the MSc Architecture, Urbanism, and Building Sciences (AUBS), my research reflects the program's focus on addressing global challenges in the built environment by proposing innovative and actionable strategies.

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

Socially, the project contributes to addressing the pressing challenge of climate change by promoting sustainable urban development practices. It provides insights into achieving long-

term sustainability goals in construction, benefiting communities by supporting ecological resilience. It also dives into the social side of communication by offering a designed strategy to incorporate these concepts in realising environmental sustainability ambitions.

Professionally, it delivers practical tools for progressive developers to overcome challenges in implementing sustainability ambitions, benefiting both innovative firms like Nice Developers and larger, more traditional companies. By offering strategies, frameworks, and indicators, it equips professionals to integrate and maintain sustainability effectively. A challenge that becomes relevant for more and more organisations every day.

Scientifically, the research addresses a gap in existing literature, focusing on the realization phase of sustainability in projects—an area often overshadowed by design and policy studies. By combining qualitative methods and theoretical insights, the project aims to propose a framework that advances both academic understanding and practical implementation of sustainability in project management.