

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	Ioannis Mexis
Student number	4600924
Telephone number	
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Studio		
Name / Theme	Managament in the Built Env. – Real Estate Management	
Main mentor	Hilde Remøy	Real estate management
Second mentor	Philip Koppels	Economics – Real estate man.
Argumentation of choice of the studio	<p>Being an architect my aim was to compliment and enhance the knowledge I already have on the built environment, gaining knowledge on a more top-down/ managerial approach of the built environment.</p> <p>In addition, the choice of the specific studio was due to the relation between real estate management and architecture, which is really significant for me.</p> <p>My ambition when selecting the specific studio- theme was to be able to develop a strategy for the solution of a real-life challenge, that could be applicable not only in the Netherlands, but on an international level.</p>	

Graduation project	
Title of the graduation project	Addressing the mismatch: A strategy for creating adaptable office buildings and the added value for corporations.
Goal	
Location:	N/A
The posed problem,	<p>Location has been one of the main factors of organization's competitive advantage in the market. Therefore, there is a large demand for central locations from a large number of corporations (Current Demand). Amsterdam, whose vacancy rate is lower than 7%, constitutes an example of such areas. Similar to Amsterdam, in other central locations too, there is lack in the supply of large office buildings (Current Supply). In addition, corporations as well as investors are looking for flexible buildings that will not become obsolete for the next 15 years (Current Demand).</p>

	<p>The need for flexible buildings stems from emerging trends causing societal, environmental, technological and economic changes (Future Demand). The impact that these trends have to the market can be understood by comparing the present need for large office buildings to ten years ago, where such buildings had the highest vacancy rate in the Netherlands. Such changes, as explained earlier, have an impact on the way people live and work, constantly altering the users' and organisations' demands for working styles and consequently in the real estate environment (Future Demand). In contrary, the majority of buildings are static and were developed considering only the short term benefits, making it hard or even impossible for them to follow the users' needs, resulting in obsolete buildings (Current Supply). Therefore, even if buildings constitute a best match between demand and supply in the present, it does not entail that this match will also apply in the future. In addition, the static character of buildings is contrasting sustainability goals imposed by government and the European Union.</p> <p>According to this, one can understand the creation of a gap created between the future demands and the current supply and the negative impact that it can have for different actors and the society. Such problems result in the urgent need for sustainable strategies that can address the constant mismatch (Determine Future Match) between static office stock and the dynamic changes of employees' and organisations' demands.</p>
research questions and	<p>How can adaptability strategies be applied in the development of new office buildings to add value for corporations and address the mismatch between buildings and users' demands?</p> <p>Sub questions (per section of the thesis):</p> <p>-Literature review - Part 1:</p> <p>What is adaptability?</p> <p>What is flexibility?</p> <p>Why is the demand for adaptable real estate increasing?</p> <p>What is the impact of adaptable building for their users and the environment?</p> <p>-Literature review - Part 2:</p> <p>What strategies are currently used to create adaptable buildings?</p> <p>What strategies have been used in transformation projects?</p> <p>How can these provide input for strategies on new adaptable buildings?</p>

	<p>-Literature review - Part 3: What is added value? How do buildings add value to corporations? What forms of added value can be delivered to corporations through real estate strategies?</p> <p>-Synthesis: How do adaptable solution add value for the organisation? How do adaptable buildings benefit the organisation and the users of the building? Are there any risks?</p> <p>-Operational research: What are the benefits and risks of adaptability? What adaptability strategies are applied in practice? How do adaptable buildings impact corporations and their users? What is the added value of adaptable buildings for corporations and their users?</p>
design assignment in which these result.	<p>The development of a strategy for creating adaptable office buildings, highlighting the relation between the actions proposed and the value they can deliver for the corporations that implement them.</p> <p>The end product will be a strategy that can be applied by corporations, developers, architects, investors or anyone who wants to create adaptable office buildings.</p>
Process	
<p>Method description</p> <p>The research method that will be used in this paper can be classified as qualitative research. As this research aims at addressing an unexplored topic in literature, the selection of a qualitative approach is more applicable in order to gain a deeper understanding from practice about the topic. In addition, as explained in literature, qualitative approaches can be used for the following purposes: the simplification of complex problems, to facilitate discussions by the relationships between topics being investigated, to explain behaviours by generate insights, to help in the identification of the wider context of a modelling task and finally to provide a basis for quantitative modelling.</p> <p>Implementing an empirical method in this research. This will allow the author undertake an in-depth investigation of a contemporary phenomenon and within its real-life context. A multi-method approach was exploited in this study, through two phases. The first phase entail a literature review which will focus on exploring the state of the art research on the field of adaptability and added value. The second phase consists of case studies through documentary data analysis and interviews. Following this method will allow the creation of a concrete strategy, using as a base the findings of the literature review (first phase) and enriching them with the insights gained from the case studies (second phase). This method was utilized to generate new knowledge on the fields of adaptability and added value, by analysing theoretical insights into a real-life context with empirical verification.</p>	

The two phases were selected as they enable the triangulation, of different data collection methods. Triangulation is a technique used for assessing the credibility of findings in qualitative research. In addition, it constitutes an effective technique of gaining insights and results assisting in the development of conclusions. Triangulation is considered in general as a validity procedure, allowing the cross check of different sources, in-depth evaluation, strengthening the outcome of the research.

Phase 1: Create a preliminary strategy for the development of adaptable office buildings and identifying their added value for corporations.

Phase 2: Validate the preliminary strategy in practice.

Literature and general practical preference

This thesis mainly concentrates on two topics, adaptability (primary) and added value (secondary). Therefore, a large literature review was conducted, studying and analyzing different authors in order to develop a thorough and concrete background on the topics. In addition, different subtopics were studied to gain broader knowledge, such as workplace design and user preferences, trends, and costs.

Some of the main authors that were studied per theme are:

Adaptability: Geraedts, R. P.; Remøy, H.; Van der Voordt, D.J.M.; Schmidt III, R.; Wilkinson, S. J.; Nakib, F.; Blakstad, S. H.

Added value: Jylhä, T.; Lindholm, A.; Gibler, K.M.; Leväinen, K.; Jensen, P. A.; Nase, I.; Koppels, P.; De Jonge, H.; Gibson, V.

Workplace & user preferences: Gibson, V.; Janses, I.; Harris, R.; Gibson, 2003

General- Trends – Costs: Deloitte; PWC; Bouwinvest; Haynes, B.P. ; Geraedts, R.P.

After studying existing literature, real life projects will be analyzed in order to gain more insights and deeper knowledge about the researched topics, allowing me to develop a more thorough and realistic strategy.

Reflection

1. Relation with master program

The goal of this thesis is the creation of a strategy for the development of adaptable office buildings. It therefore concentrates on the field of corporate real estate management which is strongly related to the real estate management course of the MBE track. Specifically, the main focus is implementing adaptability as a method to address the mismatch between the demand (users- owners) and supply side (buildings), which can result in obsolete buildings.

The strategy developed in the paper, provides a supporting decision making tool for corporations on how to develop and manage their real estate. In addition the strategy can be implemented by more actors of the built environment, such as architect, engineers, developers and investors.

2. Relevance

This thesis addresses the shortage of future proof real estate, by creating a comprehensive strategy for developing adaptable buildings, something that according to many authors is still lacking. Real estate constitutes a significant component of corporations. Despite this, combining strategies of adaptability, with the corporate real estate management view and models of added value comprises an unexplored field in scientific research.

The strategy developed through this research can assist, real estate managers in the creation of adaptable office buildings based on the core business and objectives of their organisation, developers and investors whose goal is to construct adaptable projects – as adaptable real estate has a higher financial value and the demand for such spaces is constantly increasing and finally by architects and engineers of the construction industry, in order to create more adaptable buildings for their clients. The strategy provides the implementer the potential of tailoring it in order to fit their needs and objectives.

Planning

The following figure presents the graduation plan from P2 until P4. Although the dates for P3 and P4 are not fixed yet, the following plan provides an overview of the tasks that need to be completed and an estimation of the time they might require.

During the upcoming period the main focus will be on completing the empirical research and evaluating the preliminary strategy. Empirical findings will be collected through analyzing existing documents and conducting interviews. As in interviews one is dependent on the availability of the interviewees, a slack time of 2 weeks has been incorporated in the schedule, to ensure that there is enough time to complete the thesis.

