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	**Soufiane Atif**
Student number	5092477

Studio		
Name / Theme	Theme 7A Valuation and Value	
Main mentor	Dr. Michael Peeters	[Academic field involved]
Second mentor	Dr. Zac Taylor	[Academic field involved]
Argumentation of choice of the studio	As collaboration and enhancement of said collaboration, between real estate investors and developers, increases the eventual value and valuation of the built environment, this theme is most suitable. Using Data to drive said enhancement of collaboration causes the data to be used in a more efficient way. The ability to turn raw data to useful information is believed to be the key difference in profit and loss of real estate development.	

Graduation project	
Title of the graduation project	Bridging risks, uniting visions; Enhancing investor-developer collaborations.
Goal	
Location:	Delft
The posed problem,	Real estate development projects often involve collaboration between multiple stakeholders. A common collaboration within the sector, is between institutional investors, also functioning as operators, and developers. For both parties, it is of utmost importance to make a development as profitable as possible, while maintaining other value creation goals. Many believe that, specifically within real estate, the ability to turn raw data into useful information, often makes the difference between profit and loss (Miles et al.,2015).

	This would mean that the shared interest of making profit, can be greatly improved by sharing knowledge, and therefore data to improve decision making. The problem with sharing data is that these two parties bring distinct and sometimes conflicting perspectives to the table. Developers focus on operational risks such as construction timelines, quality control, and regulatory compliance, aiming to deliver a functional and compliant asset. On the other hand, institutional investors prioritize financial risks, including long-term returns, cash flow stability, and alignment with broader market and portfolio strategies. This divergence in priorities can lead to misalignment, complicating decision-making processes and project execution as well as different focus area's in data. While developers prioritize efficient project completion and profitability in the short to medium term, investors focus on long-term returns and risk mitigation, creating the **conflicting objectives/perspectives**. This divergence can result in incomplete or selective data sharing, limiting both parties' ability to make informed decisions. **Proprietary or competitive concerns** can demotivate stakeholders from sharing sensitive data, as they can fear exposing vulnerabilities or losing their competitive edge.

	Developers and investors rely on **varying performance metrics**. Developers typically assess project success using construction-specific metrics, such as cost per square foot or occupancy rates. Investors, however, evaluate financial metrics like net present value (NPV), internal rate of return (IRR), and capitalization rates. This inconsistency in data interpretation can cause misunderstandings/expectations and inefficiencies, particularly during the critical pre-development (deal-making fase) and construction phases. The lack of a structured and integrated data-sharing framework further increases these challenges. Currently, data-sharing practices are often ad hoc and fragmented, hindered by concerns over transparency, confidentiality, and proprietary information. Developers may feel overwhelmed by the demands of multiple stakeholders **(input stress)**, while investors may find it difficult to obtain timely and accurate data that aligns with their decision-making processes. This fragmentation can lead to project delays, increased costs, and missed opportunities for value creation. The **absence of standardized data formats** and metrics adds on to the already existing problem, creating inefficiencies and increasing the chance of misinterpretation. Developers and investors also operate in an environment of **information asymmetry**, where developers often possess more granular (detailed), project-specific data,

	while investors rely on macro/meso-level insights, further decreasing transparency and alignment. Both developers and investors may have a **reluctance to share negative data**, fearing reputational damage or funding delays. This lack of openness can turn minor risks into significant issues. On top of this potential escalation, **misaligned incentives** create further friction, as developers aim to maximize project profitability, while investors prioritize stability and long-term gains. Sharing data is also hindered by its sheer **complexity and volume**, as real estate projects generate large amounts of technical and financial information that can be challenging to distill and interpret, especially with large-scale/complex projects. Additionally, **legal and privacy concerns**, such as confidentiality agreements and data protection regulations, can restrict the flow of critical information. Regulatory complexities and market volatility add external uncertainty to the relationship between developers and investors. Navigating zoning laws, environmental standards, and building codes requires meticulous planning and coordination. Market fluctuations and evolving sustainability expectations further obstruct the ability of both parties to align their strategies effectively.

	Lastly, **cultural and communication barriers** and a **lack of trust** (e.g. prisoners' dilemma) between developers and investors magnify the challenges. Differences in organizational cultures and historical experiences of unmet expectations can cause skepticism and reduce the willingness to collaborate openly, and therefore can decrease the willingness to share data.
research questions and	*How can data-sharing during the deal-making/permit acquiring phase improve collaboration between real estate developers and institutional investors, aligning their operational, market and financial risk perspectives on the shared risk?* **1 Exploring Collaboration and Information Exchange in the Deal-Making and Permit-Acquiring Phase of Real Estate Development** *What are the key stages, information exchange points, and collaborative dynamics between institutional investors (also functioning as operators) and developers during the deal-making and permit-acquiring phase?* **2 Defining Risk (Management) and Divergence in Risk Perspectives** *How are the divergent risk perspectives and management between the stakeholders characterized within real estate projects, and how does that impact the dealmaking phase?* **3 Evaluating Current Collaboration Practices** *How do developers and investors currently manage risk divergence during the deal-making process, and what platforms or frameworks are currently used for data sharing?*
design assignment in which these result.	[Design Assignment]

A framework that would serve as a membrane to enhance collaboration between investors and developers.

Process

Method description

This research aims to identify the requirements of a framework that facilitates the need for, and exchange of data sharing during the deal-making process between institutional investors and developers, taking into account the divergence of risk perspectives and mitigation, as it is inextricably bound to the enhancement of collaboration and (shared) profitability. To be able to operationalize this research, there are multiple data sources needed to assess the limitations and practical applications of data-sharing. The methodology includes:

- **Case Studies**: Reviewing real estate projects where developers and investors had conflicting timelines and objectives to understand existing alignment challenges.
- **Interviews and Surveys**: Gathering insights from real estate professionals on the feasibility and limitations of current data-sharing practices.

To ensure feasibility of this research, two plans data management are formed of which the second plan is to an extent a contingency plan.

In the following the two ways of retrieving the required data will be assessed, from now on referred to as Plan A (PA) and Plan B (PB). To easily connect the retrieving of needed data to the concerning research questions, and create a better overview of the data management for this research, the research questions will be named SQ1 – 3 in the following.

Plan A

Both PA & PB are ought to incorporate a literature review, as well as interviews. While the literature reviews would overlap, for PB there needs to be an extended version of the similar review, as well as potentially extra sources. The key difference between PA & PB will be the acquisition of a graduation internship at a company (preferably an institutional investor). Both plans rely more on the interviews then the case studies, because the data retrieved from the case studies can also be found within literature. The interviews would provide insights on the actual collaboration dynamics.

Literature

➔ Journals

Peer reviewed articles and case studies (elaborated later on) that are academically backed can form the foundation of a better understanding of the development process in practice and actual collaborations, extending further then theory, and therefore create a basis and starting point to answer all relevant questions. Relevant journals that are academically backed consist out of, but are not limited to:

- Journal of Real Estate Research (JRER)
- Urban Studies
- Real Estate Economics
- Journal of Property Investment and Finance

➔ Academic research

Using academic search engines such as scope and google scholar, as well as consensus ai will be the main source of finding theoretical foundation for assumptions and hypotheses throughout the research. These will be tested in e.g. interviews and research on case studies. Together with the TU Delft repository and library, the needed starting point and therefore the preliminary literature review will be conducted to retrieve information on all SQ's. This aims to create a better understanding of risk mitigation/hedging in theory and its macroeconomic impact, further elaborating on the investor perspective.

Case Studies

➔ Company data

As previously mentioned, the execution of PA is dependent on the acquisition of a graduation internship position at a company, to gain access to data concerning (recent) real estate development projects. This would be to get insights on SQ1 and 3.

A checklist for suiting case studies would namely consist out of, not limited to:

- At least 1 case study, preferably 2.
- The collaboration between an institutional investor (also functioning as operator) and developer
- Start point of collaboration being at the end of feasibility phase/start deal-making phase
- 'Experienced' developer
- Large-scale/complex development project
- At least 1 case study of an already finished development

- (potential) second case study on project that is yet to be realized, to speculate and anticipate the impact on the data framework
- Available documentation from end feasibility phase (metrics need to be assessed that have impact on later development process)
- Within BENELUX context (regulation wise)
- Commercial and/or housing

Interviews

Semi-structured interviews lasting 45 to 60 minutes will be conducted with a selected group of investors, developers and a projects manager representing all present stakeholders concerning the real estate development process. These interviews should aid getting a better understanding of specific challenges, risk perspectives decision-making processes per stakeholder. Topics will include:

- The specific challenges faced during collaboration and decision-making
- Perceptions of risk unique to their position
- Recommendations for enhancement of collaboration

Even though the case studies can create valuable insights, the data that is needed to execute this research is not specifically dependent on case studies from company data. The interviews provide the insights from the stakeholders' points of view. This means that this research to be executed, relies on the insights from the interviews with professionals, providing a better understanding of the dynamics between the stakeholders, and available literature.

The need for in practice insights to be able to test the theory found in literature, entails the need for interviews with both parties. These interviews should be focused on getting a better understanding of SQ2 and 3.

➔ Institutional investor

Both perspectives need to be assessed to understand not only the needs, but also a better understanding of the decision-making process. For the investor side this translates into interviews with multiple individuals that have (recently) been/still are active as an institutional investor or within an institutional investment company. At least **two** are ought to be interviewed to get an objective understanding of the investment side.

- ➔ Developer

  The second perspective is from the developer, to understand the input stress as mentioned earlier. At least **two** are ought to be interviewed to get an objective understanding of the developers' side. The focus within these interviews should be on their view on collaboration with institutional investors.

- ➔ Project manager

  Another perspective on collaboration is that of a project manager. An interview with a project manager would help getting insights on how a third party involved in the development process assesses the collaboration between developers and institutional investors.

<u>Plan B</u>

This research to an extent needs data on case studies to analyze in practice collaboration practices and insights in collaboration metrics. While PA can also profit from the following sources to use as reference material, it is essential for PB to find relevant case studies from alternative sources. These sources can be:

- ➔ In practice documentation
  - ULI (Urban Land Institution)
    For publications and case studies of collaboration

  - RICS (Royal Institution of Chartered Surveyors)
    For documentation of risk management and existing frameworks

  - NAIOP (Commercial Real Estate Development Association)
    For documentation on resources on development and investment practices

  - Whitepapers from consultants (e.g. Mckinsey, JLL, PWC, Deloitte)
    For documentation on collaborations, risk management, and technological innovations (as technological innovations add complexity to real estate development)

  - ARES (American Real Estate Society (***Poses limitation due to north American context***))
    For peer reviewed journals

  - Corenet Global
    For industry publications

- Public documentation
    - Government (national)
    - Municipality (regional)
    - Annual reports from institutional investors (e.g. from public traded REITs)
    - Annual reports from developers (e.g. from public traded REITs)
    - Housing association reports
    - Regulations public private collaborations (PPP's)

Analysis existing collaboration tools

Tools that are currently being used should be analyzed such as:

- Procore (project management and data sharing)
- Argus enterprise (real estate financial modeling & risk analysis)

Literature and general practical references

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Reflection

1. Some believe that turning raw data to usable information is the difference between profit and loss in real estate. Using data sharing as a vehicle to enhance developer investor collaboration links to the increase of usable information and transparency, therefore enhancing project profitability. This changes the way we value real estate and shapes a new era in real estate.
2. The collaboration between investors and developers is hard to define due to its everchanging nature. Project specifics heavily influence the dynamic between both parties, as well as the specific definition of both parties. To make this research feasible, I narrowed down the scope to institutional investors functioning as operators, and real estate developers, focusing on risk, as risk and the precautions bound to it, are phenomena impacting any endeavor. If we broaden the scope to my personal interest, I want to understand from an

academic perspective, what kind of impact change has on the development of real estate, for as I believe that a true real estate expert, and for that matter any expert, is not someone that knows a lot about a subject, but is someone that knows how to adapt and adopt information to current, changing situations. This changes the narrative and gives a concrete skillset needed to analyze and understand how something works, in this case real estate. This research will aid in getting a better understanding of the impact of data and transparency on the collaboration between investors and developers, changing the narrative for real estate developments in the future.