Problem analysis

"Developers finish where facility managers start!

- The vacancy rate of office buildings lead to a misbalance between supply and demand, as developers continue to create buildings which do not match user demands.
- An important aspect leading to this misbalance can be seen as the missing link between project development and facility management.
- Lean models process optimization and can therefore play an important role in analyzing the process between developer and facility management.
- There is a grey area in relation to this specific research field

Theoretical problem statement
"There is no specific lean theory focusing on the relation between facility management and project development, creating a knowledge gap"

Practical problem statement
"There is no clear link between developers and facility managers, creating a gap for developers on user flexibility standards, resulting into a misbalance between office supply and demand"

Research questions

- How can Lean, when using its main principles in an early stage interaction, starting from the initial phase till the final phase of construction projects, between developer and facility managers lead to an effective real estate project cycle and also result in an office building which fulfills the current demand of flexibility?

- Value: What are the value and responsibilities of the facility manager and the developer in the real estate project cycle and which processes between these two stakeholders create value and which do not create value?

- Flow: What is the interaction between the developer and facility manager in the concept phase and which barriers need to be eliminated in order to create continuous flow?

- Pull: How are the facility managers' influences on the schedule and in what way can the processes between facility manager and developer be made fully pull, leading to pull planning?

- How could continuous improvement be established and what does this mean for the relation between developer and facility manager?

Results cross case analysis

- Value: Frequent interaction by means of weekly meetings and dialogue sessions
- Flow: BIM and FMIS of great importance
- Pull: No pull planning facility manager due to competency and lack of experience
- Integrate FM needs in PD and FD
- Weekly progress meetings Start dialogue
- Digital tools such as BIM and FMIS
- Frequent interaction by means of weekly meetings and dialogue sessions
- Dialogue FMIS
- DBFMO and life cycle focus of great added value, however communication barriers
- Integration of FM needs in PD and FD
- Weekly progress meetings Start dialogue

Recommendations