Investing in Circular Transformation

A shift in the role of investors in the circular construction industry

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Reflection

Point of Departure:
Since October 2018, I have been part of the MOR team. A Dream Team representing TU Delft at the Solar Decathlon competition in July 2019. The concept of the team is to create a circular, net positive, mixed function transformation of an underperforming office building. As part of my responsibility for heading the business plan committee, I conducted multiple readings to understand its implementation in the construction sector. Circularity as a concept got my attention from the rest. Studying the concept of circularity and convincing myself about its benefits took an extensive amount of research at first. This is because a lot of knowledge has been imparted on the topic of sustainability but circularity remains relatively unknown to the masses, also the literature available is rather vague and repetitive and lacks a clear direction to move ahead. I was convinced about using the concept to explore the opportunities in the built environment. I tried understanding how was this concept was being implemented and disturbingly I noticed only new construction were being addressed by the market in a circular way. The vision however, was to convert the entire built form that exists in the Netherlands into circular entities. This would mean either all the current real estate stock would have to be replaced by new circular stock, which would be a parody to the concept of circularity. All this made me question the vision from the current scenario and realised that the roadmap and the steps being followed are far from achieving the expected target. The existing built stock will account for around 70% of the building stock needed in 2050. Evidently, it needs more focus than new construction. The impact it would have would be much more extensive compare to new circular projects. I studied the existing development system within the Netherlands which threw light on the rigidity of the structure which made it difficult for investors to move in this direction. I was convinced that this was not the only reason they chose to stay away from incorporating circularity into the projects. The findings were astonishing, since the construction industry is extremely traditional in its approach and is too comfortable to experiment with any kind of new ventures. This made me realise that only profit and adding value along with other opportunities will convince investors to move in this direction. Thus, I decided to demonstrate the feasibility of investors conducting circular transformation to their existing assets and to develop a structure and roadmap for the system to function.

Research Challenges:
A topic with more talking than work done makes it extremely difficult to find the required information, especially about how would it function and what are the implications and its consequences. A whole lot of scientific research and reports published are paraphrasing the same information, not adding much value to the existing data. The literature made me confused which direction to head in since all the information available was vague and relatively incomplete. This increased my desperation to get some real usable information. Which took me to the next step of my research which was the expert interviews. These were extremely informative and the discussion lead to some concrete outcomes. The topic being relatively new, I also encounters a lot of conflicting ideas, but it’s broadened the discussions than bringing it to dead ends. Handpicked the outcome from the collected data was critical for the development of my research. This made me go back to the literature to check what could validate the data and could be used to further. The collected data served well for the development of the organization structure but proved insufficient for the business model. Collecting the data from the MOR partners took a great amount of time. Which made me realize not everything goes according to plan so flexibility is the key to such an iterative research process. The lacking information was collected from developers who are extremely busy and keeping true to your set agenda helps gaining the information in time. The main challenges were to identify the direction of the research since a lot has to be yet discovered in regards to this topic. In an explorative research, I realized a set plan does not work, it is a back and forth process which will help derive the most satisfying results.
The process:
During this long process my supervisors helped me steer the research topic, especially when I was at crossroads to make decisions. They supported me with discussions to define the pathway work and information when required. Also attending workshops related to circularity in general really helped broaden my vision which were being organized by one of my supervisors. The process was interesting since I was part of the MOR team through this entire journey and I was fortunate to have discussions with students resolving the technical side of this concept. This broadened the perspective on the topic. The partners of the MOR team helping with the business model the “Brink Groep” also played an important role through discussions about the working of this system. The process was extremely different from the one I was used to in my home country. The process was as exciting as challenging it has been and has definitely deepened my passion towards this topic.

The Findings:
The market is extremely interested in learning more about this topic. There is ongoing research but the complexities of the topic could be addressed with a different lens and the results will be affected majorly. A lot more attention must be given to this topic and the legislative system has a crucial role to play in determining the way ahead. The research results demonstrate that moving to a circular economy in the construction industry to be feasible for investors. I have faith that implementing circular economy will change the phase of the construction industry for the better. I am awaiting to execute this in practice to convince its feasibility to market players.