7 Reflection

7.1 Topic of research

We, as a society, are not perfect, nor is the municipality. However, there is a growing need for sustainable measurements. Whether you like it or not, an energy transition needs to be made, and this is how my thesis topic came to mind. The Barometer of Veuger & van den Beemt-Tjeerdsma (2017) indicated that there is a lack of sustainability measurements taken into the municipal building portfolio and that municipalities are getting behind. New policies that were being made during the time of this thesis created more needed actions at municipalities in the short term. As mentioned before, REM is not the core responsibility for a municipality, but the new regulations made the municipalities almost feel obliged to set the example for society. Therefore, I chose to focus this thesis on sustainability in municipal real estate.

7.1.1 Graduation topic in relation to MSc AUBS, MBE, and REM

Looking at this graduation topic, it is quite in line with (public) real estate management (REM). The combination of aligning business goals (public goals) with the accommodating real estate is the core job of a portfolio manager. Therefore, this thesis is also looking at one portfolio and researched how sustainable measures were implemented in this portfolio strategy. When looking at the master track Management in the Built Environment (MBE) sustainability and portfolio management are integrated into the master program. The study MBE makes you look at the big picture. Looking at the whole master program (MSc AUBS), the sustainability part of this thesis is almost always a topic that is part of a design or research in all master tracks of AUBS.

7.2 Research process

7.2.1 Exploration

Starting with my graduation, I had looked at the main topics before the summer holiday break. I always knew I wanted to do something with popular subjects that play an essential role in today’s life. I had in mind to look at the impact of the Dutch housing market when Brexit was announced. I knew that my interest was more into the macroeconomics and not solely on building level. In the end, I chose a popular subject somewhere in the middle grounds, namely on a portfolio level. I found in public real estate the part of REM what I liked, looking a building from more a process way and not having to define the added value in terms of money and m², but also look at real estate in terms of current public and societal goals like sustainability.

7.2.2 Moving to P2

Working towards the P2 had some up and downs, looking at the process, there was not a continuity because there were more courses that needed to be completed simultaneously. This also had my interest because I wanted to finish these courses as efficient as possible. In the meantime, the graduation topic was going more towards sustainability and looking at PREM on a municipal level.

7.2.3 Moving to P3

After the P2 I reflected where I was and where I wanted to go. From this point, I incorporated the feedback I got in my report. This was mainly about the way some topics were discussed and trying to create nuances in my story. I also started my internship at
Twynstra Gudde. I think this was a good move to keep pace in my graduation. Besides this, I became more familiar to life after graduation and what it is like to be in a work environment. Twynstra Gudde also helped me a lot to get in touch with my case studies. However, it took a bit longer to set out the case study than expected. Municipalities are, what I can see, busy with managing what they need to do. Therefore it took longer to plan the interviews with the needed persons.

7.2.4 Moving to P4

From this point on, I had good rhythm and structure where I wanted to go with my research conclusions. However, making the conclusions was the most challenging task of this phase. The feedback I got helped me to structure the report more in the DAS-Framework. Making the cross-case analysis was more difficult because the theoretical framework was more explorative of nature. Here the DAS-Framework was also used to structure this aspect. Also, small alterations were made to the sub-questions because my feeling was that the conclusions were stronger. Therefore, it became a bit more an iterative process.

7.2.5 Moving to P5

After the P4, the last part of the research is conducted. This is an addition to the work. At a workshop event, portfolio managers and technical managers will come and listen to examples regarding sustainability and maintenance of public buildings. Here the findings of my thesis are tested, strengthened, and deepened. Most information was not new information. However, it did give more perspective on some strategies that where not used in the two big cases. Therefore, in contradiction to the feedback I had gotten in P4 I still placed this data moment as not new data in chapter three, but more as validation and as a reflection moment of the findings I had made in chapter four. The data was not big enough to make new cross case analysis from with the other two bigger cases. After this, the roadmap was strengthened. The first map that was made, didn’t explained the choices that well, but when I wanted to be more detailed, the focus and overview disappeared. Therefore, in the P5 period my main purpose was to strengthen this picture more.

7.3 Research methods

This part of the reflection elaborates on the research method and approach about the graduation studio methodical line of inquiry, reflecting thereby upon the scientific relevance of the work.

7.3.1 Choice of methods

The choice of literature research combined with a case study and small validation moment arises from the level of my expertise. The basis of the thesis came from reading and finding information in the literature and the internet, building this knowledge was needed to create the research theme and the research question. So, doing literature research came as first nature when starting with the thesis.

Secondly, the choice of qualitative research emerged because when looking at the sustainability question at municipalities, it identified for me as a technical and organizational problem. The choice of conducting case studies arises from this fundamental aspect.

Favorable, the case study would be a longitude case study. However, due to the nature of a thesis, this is not possible. Therefore, my recommendation for further research would
consequently also be to deepen this thesis with more longitudinal case studies to fully grasp the strategies and strategy making in time.

7.3.2 Literature research

During the literature research, the desktop application Mendeley is used to organize and analyse the literature and other sources of interest. Most documentation was found online when searching for relevant keywords. However, the university library, and to a lesser extent, google scholar, was also handy for the more scientific literature.

7.3.3 Case study and interviews

The basis of the case study and interview protocol came from the course “Case study methods” from the TU Delft. Another source of setting up the case study was Bryman (2015). The analysis of the data was done through Atlas.ti

7.3.4 Ethical dilemmas

When looking at the ethical considerations, the data that will be used will not be used for other purposes than educational purpose. Data that is private will be made anonymous if the user of the data wishes this. I have experienced that municipalities were enthusiastic about the research, but that they were less willing to share than expected. One data collection moment was cancelled due to unknown reasons. Because of this, I made clear that if the municipalities do not want to be mentioned by name, I could make them anonymous. This was later communicated, now, with a retro perspective on this item, I should have made this known upfront with the municipalities because they probably were more willing to share.

7.4 Dissemination

This paragraph elaborates on the relationship between this thesis and the broader social, professional, and scientific framework where we touch upon the transferability of the project results.

7.4.1 Research position

Identifying strategies and looking at the performances of these strategies can benefit, in the long term, the energy expenses of the government. It provides an example for society showing that renovation towards being energy neutral is possible and can be an incentive for other private building owners to start transforming their homes and change their energy consumption. Besides this, having energy neutral public real estate is also beneficial for the people that use them. In many cases, energy neutral will also be accomplished through a renovation that creates better-isolated buildings, a better indoor climate. Therefore, it increases the comfort level of the people that use them.

Scientifically, there will be new research and insight into the change in the decision-making process of municipalities. This can be extended to have more knowledge about the decision-making processes for public real estate on a municipal level with emerged strategies. However, this research is in its current paradigm. The future can entail a paradigm shift where the energy transition can be seen in a different context.

7.4.2 Transferability

The data is analysed according to parts of the fair guiding principles of Wilkinson (2016). Using the guiding principles is done to ensure people that the data can easily be accessed. To make the generated (meta)data findable, accessible, interoperable, and
reusable, researchers can contact me to access the coded transcriptions. The coding is done through the steps from the DAS-Framework to connect with previous work in this field of research and to give the possibility to reuse the interview protocols.

7.4.3 Dissemination and audience

The thesis will be publicly published in the Delft university repository. People that have an affinity in the topic sustainability and public real estate, so municipalities and other public organizations, can be an audience for this thesis. It can also help a future researcher in topics that involve MREM and sustainability strategies.

7.2 Reference

